



Evaluation study to support the evaluation of the Zoos Directive (Council Directive 1999/22/EC)

*Final Report
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LIST OF ABBREVIATIONS

ABICS	Approved Bodies, Institutes and Centres
AIZA	Asociación Ibérica de Zoos y Acuarios (Spanish Zoo Federation)
APZA	Associação Portuguesa de Zoos e Aquaria (Portuguese Zoo Federation)
BAU	Business as usual
BIAZA	British and Irish Association of Zoos and Aquariums
CA	Competent Authority
CBD	Convention on Biological Diversity
CBSG	Conservation Breeding Specialist Group (IUCN)
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CJEU	Court of Justice of the European Union
CMS	Convention on Migratory Species
DAZA	Danish Association of Zoos and Aquaria
DG ENV	Environment Directorate-General European Commission
DG SANTE	Directorate-General for Health and Food Safety European Commission
EAAM	European Association for Aquatic Mammals
EAZA	European Association of Zoos and Aquaria
EEP	European Endangered Species Programme (EAZA)
EQ	Evaluation Question
ESB	European Stud Books
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FTE	Full Time Equivalent
IAS	Invasive Alien Species
ISMZP	Irish Standards of Modern Zoo Practice
IUCN	International Union for the Conservation of Nature
JZAR	Journal of Zoo and Aquarium Research
MDG	Millennium Sustainable Development Goals
MEA	Multilateral Environmental Agreement
MoU	Memorandum of Understanding
MS	Member States of the European Union
MSCA	Member State Competent Authorities
NGO	Non-Governmental Organisation
NIMs	National Implementation Measures
NVD	Nederlandse Vereniging van Dierentuinen (Dutch Zoo Federation)
REFIT	Commission's Regulatory Fitness Check and Performance
SDG	Sustainable Development Goals
SSC	Species Survival Commission (IUCN)
UIZA	Unione Italiana Giardini Zoologici e Acquari (Italian Zoo Federation)
UK	United Kingdom
UN	United Nations
VdZ	Verband der Zoologischen Gärten (German Zoo Federation)
WAZA	World Association of Zoos and Aquariums
WWF	World Wildlife Fund
WZACS	World Zoo and Aquarium Conservation Strategy
Zoos Directive	Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos

ABSTRACT

This evaluation study supports the evaluation of Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos ('Zoos Directive') as part of the Commission's Regulatory Fitness Check and Performance (REFIT) programme. The REFIT programme assesses European Union ('EU') law to ensure it is 'fit for purpose'. This assessment is based on five evaluation criteria: effectiveness, efficiency, relevance, coherence and EU added value. The evidence for this exercise is partly gathered through the present study, based on desk research and several stakeholders' consultations.

The Zoos Directive was adopted in 1999 and is force since 2002. Its main aim is to fulfil the obligations deriving from the Convention on Biological Diversity to adopt measures for ex situ conservation 'by providing for the adoption of measures by Member States for the licensing and inspection of zoos in the EU'. The setting up of adequate licensing and inspection systems by the national authorities and the implementation of conservation measures by zoos are expected to result in a strengthened role for zoos in biodiversity conservation, increased knowledge and public awareness in relation to the conservation of biodiversity and, ultimately, in the protection of wild species and prevention of biodiversity loss.

RÉSUMÉ

Cette étude d'évaluation soutient l'évaluation de la directive 1999/22/CE du 29 mars 1999 relative à la détention d'animaux sauvages dans un environnement zoologique ('Directive Zoos') dans le cadre du programme de la Commission pour une réglementation affûtée et performante (REFIT). Le programme REFIT évalue le droit de l'Union Européenne (UE) pour s'assurer que celui-ci réponde à ses besoins. Cette évaluation est basée sur cinq critères d'évaluation : l'efficacité, l'efficacité, la pertinence, la cohérence et la valeur ajoutée de la directive. La base factuelle pour cet exercice est fournie en partie par la présente étude, sur base d'une analyse bibliographique et de plusieurs consultations de parties prenantes.

La Directive Zoos fut adoptée en 1999 et est en vigueur depuis 2002. Son but premier est de satisfaire aux obligations dérivant de la Convention sur la Diversité Biologique d'adopter des mesures de conservation ex-situ 'en prévoyant l'adoption par les États membres de mesures d'octroi de licences et d'inspection des jardins zoologiques'. L'instauration de systèmes adéquats d'octroi de permis et d'inspection par les autorités nationales ainsi que la mise en œuvre des mesures de conservation par les zoos doivent résulter dans un rôle renforcé des zoos dans la conservation de la biodiversité, une plus grande connaissance et conscience du public en la matière et, enfin, dans la protection des espèces sauvages et la prévention du déclin de la diversité biologique.

EXECUTIVE SUMMARY

The Supporting Study

The purpose of the supporting study is to support the evaluation of Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos ('Zoos Directive') as part of the Commission's Regulatory Fitness Check and Performance (REFIT) programme. With REFIT, the Commission is acting to make European Union (EU) law 'fit for purpose', i.e. to simplify and reduce regulatory costs while maintaining benefits.

Milieu Ltd. and VetEffect were awarded in June 2016 the contract to carry out the supporting study to support the Commission in their evaluation of the Zoos Directive. Based on the Commission Evaluation Roadmap, setting out the scope and terms of reference of the Zoos Directive evaluation, the purpose of this study was to assess the Directive based on the five criteria of relevance, effectiveness, efficiency, coherence and EU added value of the Directive, together with 16 related 'evaluation questions'. The study provides an evidence-based judgement to support the REFIT evaluation carried out by the Commission to inform future decisions relating to EU biodiversity policy and *ex situ* conservation.

The Zoos Directive

The Zoos Directive was adopted on 29 March 1999 and came into force in 2002. It was adopted against the backdrop of an increasing interest in conservation and protection of biodiversity, which was reflected during the Earth Summit of 1992 and in the adoption of the 1992 Convention on Biological Diversity (CBD). During the same period, the 1993 World Strategy for Conservation in Zoos and Aquaria reflected the evolution of zoos from their role as living museums to one of modern conservation centres, where education, research, and captive breeding and reintroduction programmes are undertaken, over and above purely recreational activities. At European level, at the time, a comprehensive and consistent approach to *ex situ* conservation was generally missing. Notable gaps were the lack of a widely used definition of 'zoo', limited information on the number of zoos in existence, few zoos meeting the standards required by international guidelines in the areas of animal husbandry, species conservation and public education, and a considerable number of zoos not meeting any acceptable standards. Equally, there was little consideration of the conservation activities or potential of zoos. Only five of the 12 Member States (i.e. Belgium, Denmark, France, Spain, and the UK) had relevant legislation on the subject.

In July 1991, the European Commission adopted a draft Directive, laying down minimum standards for the keeping of animals in zoos. The stated objective of this proposal was to ensure that minimum harmonised standards for the keeping of wild animals would be observed by all zoos in the Community. Such harmonisation was deemed necessary to facilitate the application of Community nature conservation laws and to protect the public.

The Directive was finally adopted on 29 March 1999 with the main aim of fulfilling the obligations deriving from the CBD to adopt measures for *ex situ* conservation. The objectives of the Directive are to protect wild fauna and to conserve biodiversity by providing for the adoption of measures by Member States for the licensing and inspection of zoos in the EU. In order to achieve these objectives, while simultaneously recognising that zoos are not a homogeneous set of establishments all with the same purpose, the Directive focuses on the role of Member States' authorities in putting in place systems for inspection and licensing of zoos to ensure that zoos implement the conservation measures listed in Article 3. The setting up of adequate licensing and inspection systems and the implementation of conservation measures by zoos are expected to strengthen the role of zoos in biodiversity conservation, increase knowledge and public awareness of biodiversity conservation, and, ultimately, help to protect wild species and prevent biodiversity loss.

Methodology and challenges

The study gathered all available evidence to answer 16 evaluation questions. To this end, it included a literature review, targeted surveys aimed at key stakeholder groups (i.e. Member States competent authorities (MSCAs), zoo operators, NGOs and zoos' federations), in-depth interviews and a public consultation. The targeted surveys and interviews, as well as part of the literature review, focused on the 14 Member States selected as representative case studies (Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, France, Ireland, Italy, Germany, Lithuania, the Netherlands, Poland, Portugal and Spain). This in-depth research on the 14 Member States was complemented by the public consultation and a general literature review, in order to broaden the scope and geographical coverage of the supporting study to all Member States¹. Finally, a workshop was held with key stakeholders from all EU Member States to validate the findings of the study.

Several challenges were encountered in relation to: (i) the availability and quality of information and data; (ii) the limited possibility, in some cases, for triangulating sources and opinions, and; (iii) the quality of stakeholder input. Member States are not required to report on the implementation of the Zoos Directive and no mechanisms exist at EU level for the systematic monitoring of its implementation. The information available at the beginning of the study was thus limited, and considerable effort was required to collect basic elements of information. The information used for the study was mainly gathered through desk research in each of the 14 Member States and through answers to the questionnaires addressed to MSCAs and other stakeholders (zoos' federations, NGOs, experts and zoos). However, in many cases, it was not possible to obtain reliable and/or comparable data. This affected the triangulation of data, particularly for: (i) contextual elements on zoos and performance of the national licensing and inspection systems; (ii) research projects and other conservation measures implemented by zoos; and (iii) costs and benefits triggered by the Zoos Directive. Two main groups of stakeholders closely followed the supporting study, zoos' federations (such as the European Association of Zoos and Aquaria) and NGOs involved in animal welfare (such as Born Free). The influence of these interest groups was visible in the results of the consultations launched as part of the supporting study. These challenges were addressed –to the extent possible – by gathering an extensive collection of primary data, including literature review, targeted questionnaires addressed to different stakeholder categories, and additional interviews.

Effectiveness

This criterion analyses the extent to which the Directive's general objective (to protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity) and specific objectives (to ensure that zoos implement Article 3 conservation measures and that closures of zoos are appropriately handled) have been achieved.

Compared to the baseline situation (when only five out of 12 Member States had a legislation in place, and conservation activities received little consideration among zoos), the Zoos Directive represented an important instrument, which prompted the establishment of legislative frameworks and licencing and inspection systems in all Member States. Despite initial delays and issues in the transposition and implementation of the EU legislation, progress has been made towards achieving the specific objectives of the Zoos Directive: Member States have set up the legislative and practical conditions (including adequate licensing and inspection systems) to ensure that zoos implement conservation measures and that cases of non-compliance are handled; in parallel, data collected among a sample of 70 zoos, although not representative, suggests that many zoos are engaged in conservation activities (as defined in Article 3 of the Zoos Directive), at different degrees and in accordance with their capacity. Different

¹ Targeted surveys received answers from the CAs of the 14 selected Member States, 13 NGOs, 13 zoos' federations, 70 zoos and one expert. In-depth interviews were carried out with 44 stakeholders (13 MSCAs, eight zoos' federations, six NGOs, nine zoo operators and eight EU and international stakeholders). The public consultation received 2,297 answers (1,944 from individuals, 148 from zoo operators, 21 from business or business representatives, seven from public authorities, 38 from NGOs, 34 from other associations and 105 'other').

factors have been reported during consultation with stakeholders, as having contributed to this positive evolution, including actions undertaken by:

- The European Commission, through the launch of several infringements procedures, the publication of the Good Practices Document and the availability of funding opportunities for zoos (e.g. LIFE and ERASMUS).
- Member States, by providing additional requirements in their transposing legislation, issuing guidance documents and organising training and workshops.
- International, EU and national zoos' and aquarium federations, which are very active in supporting the implementation of the Zoos Directive, through their membership requirements, standards, training, breeding programmes, workshops and conferences and public awareness-raising activities.
- NGOs, who play an important role in monitoring the implementation of the Directive's requirements and alerting authorities to issues, informing the public and raising awareness.
- Zoos, which put into place the changes observed and pay increasing attention to conservation of biodiversity.
- Other actors, such as academics and veterinarians (with e.g. research relying on *ex situ* management), or the media (through public awareness activities).

However, important implementation and enforcement issues remain and hinder the full achievement of the objectives and expected results of the Zoos Directive. The main issues identified include:

- Inconsistent application of the requirements on conservation measures, due to the differences in the national licensing and inspection systems, and the criteria applied to assess zoos' compliance with requirements.
- Lack of resources and capacity for inspections by MSCAs: zoo inspectors are often responsible for a range of different duties (e.g. animals used for scientific purposes, compliance with other legislation dealing with invasive alien species and CITES). Their skills are usually broad and not necessarily focused on wild fauna and species-specific issues.
- Unlicensed zoos, or zoos that do not meet the requirements yet continue to operate, on which stakeholders have raised concerns.

These issues limit the effectiveness of the licensing and inspection systems across the EU and raise concerns about the proper enforcement of the legislation at national level and the consistent implementation of conservation measures across all EU zoos.

Finally, the overall impact of the Directive on the protection of wild fauna and conservation of biodiversity (i.e. the achievement of the general objective) is difficult to assess. For example, the overall contribution of zoos to biodiversity conservation through research, training, captive breeding or reintroductions cannot be measured precisely. This issue is debated within the scientific community. Existing evidence is not conclusive. By contrast, the Zoos Directive clearly represents an essential condition for the achievement of the general objectives set at European and global level (particularly the CBD) in relation to the protection of wild fauna and conservation of biodiversity.

Efficiency

Efficiency compares the inputs of a certain activity with the outputs and results produced. This criterion addresses the range of regulatory costs implied by the implementation of the Directive and assesses whether these costs are reasonable and proportionate to the benefits. It also identifies the factors driving costs and examines if unnecessary burdens result from the Directive's implementation.

The lack of literature and of independent assessments on the topic, as well as the paucity of information provided by stakeholders did not allow to carry out a quantitative assessment. It also resulted in difficulties attributing costs and benefits directly to the Zoos Directive (rather than to other factors). Despite these limitations, evidence suggests that, by introducing a licensing and inspection system, the Zoos Directive has resulted in an increase in costs for both MSCAs and zoos, for the enforcement of

the legislation and the application of the requirements related to conservation measures, respectively. The extent of increased costs appears limited.

For Member State authorities, new or additional costs (compared to the situation before the entry into force of the Zoos Directive) are borne in relation to the treatment of licence applications, and for the preparation, execution and follow-up of inspections. The magnitude of these costs varies widely across Member States depending on the organisation of the licensing and inspection system (frequency of the inspections, number of inspectors involved in each on-site visit, existence of a pre-inspection phase). Resources allocated to the implementation of the Directive are difficult to quantify, in view of the broader range of responsibilities of zoo inspectors (i.e. the enforcement of other legislative acts). Where estimates have been provided, the resources fully dedicated to the enforcement of the Zoos Directive appear limited. While MSCAs agreed that the increase in costs was directly related to the performance of the inspections, only half reported an increase in training costs. These data support the issues raised by stakeholders, including MSCAs, about the lack of appropriate knowledge of zoo inspectors and the need for better, targeted training activities.

For zoos, the information collected through the targeted consultation is extremely fragmented. A significant number of zoos in the sample (between 20 and 31 zoos out of 70) reported an increase in recurring expenditures related to Article 3 conservation measures and investment across different fields: renovation of the enclosures; provision of information on exhibited animals; improved standards of animal husbandry and enclosures; systems to prevent escape and record-keeping/animal identification systems. When estimates are provided, the amount spent can be significant (ranging from hundreds to millions of Euro), especially where investments related to the renovation of enclosures. However, only a minority of zoos stated that they considered these costs as (fully or partly) attributable to the Directive. The same pattern appears for recurring expenditure, where some zoos report a wide range of expenses (from tens to hundreds of thousands of Euro) but do not see these as attributable to the Directive. In general terms, zoos reported a difficulty in disentangling the costs borne as a direct consequence of the Directive from those expenses that would have occurred anyway, i.e. in the absence of the Directive and as part of the evolution of their role towards that of 'modern zoos'. Overall evidence suggests that the Zoos Directive has triggered only part of the increase in costs recorded.

In relation to the administrative burden, efforts of zoos in relation to licensing and inspection procedures have increased (i.e. preparing an application for the licence, preparatory work for the inspection, sending documents to authorities, completing pre-inspection questionnaires, taking part in the visit of the MSCAs, providing answers to the inspection report). Administrative costs appear to be strictly related to the requirements for obtaining the licence, and are only considered by zoos as unnecessary or disproportionate to the benefits in very few cases.

According to all categories of consulted stakeholders, the Zoos Directive has brought benefits by contributing to: public education and knowledge on biodiversity; improved accommodation of animals and standards for animal husbandry; efforts for *ex situ* conservation; and higher engagement of the public and stakeholders in biodiversity protection. It remains difficult to establish the extent to which these benefits can be attributed directly to the implementation of the Zoos Directive, and the extent to which other factors (the evolution of zoos as institutions, and the change in expectations of the general public) have played a role.

Overall, costs were considered proportionate and necessary for MSCAs and zoos, despite the uncertainty about the extent of costs and benefits that can be attributed to the Directive. No significant differences emerged between zoos of different sizes, without strong evidence that smaller zoos have faced higher difficulties in adapting to the legislation.

The qualitative information gathered suggests that the issues hindering the proper and efficient functioning of the licensing and inspection system are mainly associated with the resources and capacity of national inspectorates, rather than with specific requirements of the national legislation (such as the frequency of inspections). Possibilities thus exist to enhance the efficiency of the Zoos Directive, such

as improved guidance, involvement of external experts in the inspection process, and removal of possible duplication of controls carried out under different legislative acts (i.e. under Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, and Directive 92/65/EEC on animal health requirements for trade in and imports into the EU).

Relevance

The relevance analysis relies on a comparison of the current needs and objectives with those defined at the time of adoption of the Directive. The Zoos Directive was adopted in 1999 and has been in force since 2002 without further amendments. The purpose of the analysis was to identify any disparity between the objectives of the Directive and the current (legal, policy and scientific) situation.

Scientific evidence shows that the status of conservation (both in terms of species and habitats) has deteriorated over the last two decades. At the same time, understanding of the importance of the protection of threatened species and public awareness of biodiversity conservation has improved. Concretely, the need to protect biodiversity is significantly greater now than at the time of the adoption of the Directive. This evolution is reflected in the changes in policy objectives at EU and international level (e.g. Aichi targets under the CBD, UN Sustainable Development Goals). In light of these changes, the view that the Directive's objectives remain relevant is supported by all groups of stakeholders surveyed (authorities, zoos and federations/NGOs). However, the evolution of international instruments from general aspirations to focused targets has resulted in more specific objectives for the conservation of biodiversity, to which *ex situ* management can contribute. While these more specific objectives and indicators underline the importance of the implementation of the Zoos Directive's provisions, they also illustrate a general need to be more explicit about where *ex situ* management is most needed and could have the biggest impact in achieving conservation objectives.

There has been a wide range of scientific and technical developments in the field of biodiversity conservation since 1999, in particular in terms of population management, identification of species in need of conservation action, and identification of the actions needed for threatened species. More specifically, considerable progress has been made since the adoption of the Directive in relation to the interaction between *in situ* and *ex situ* conservation. Due to its broad scope and formulation, the Directive does not contain any outdated requirements in relation to these developments. The results of stakeholders' consultations support this conclusion. The vast majority of stakeholders responding to the targeted surveys (82%) considered the Directive appropriate in light of subsequent technical and scientific developments. The stakeholders consulted nevertheless also indicated that the interaction between *in situ* and *ex situ* conservation could be significantly enhanced.

Coherence

Evaluating the coherence of an EU act involves looking at the wider policy and legal framework in relation to a policy field. It evaluates how well the different interventions work together, by providing evidence of synergies and complementarities that could reinforce the achievement of common objectives, while also analysing inconsistencies and overlapping obligations that could lead to inefficiencies. The interactions of the Zoos Directive with other acts in the areas of biodiversity conservation and animal health have been analysed in this context. The evaluation of coherence also sought to examine the extent to which the Directive has supported the EU internal market and the creation of a level playing field for zoos across the EU.

The primary objective of the Directive is the conservation of biodiversity through establishing the conservation role of zoos. The Zoos Directive thus fits within a wide net of laws and policies at EU and national level aimed at the conservation of biodiversity. The legal analysis revealed no inconsistencies between the Zoos Directive and other relevant instruments. On the contrary, there are examples of positive interactions that strengthen the achievement of common objectives. Biodiversity conservation is not only the primary objective of the Zoos Directive, but also of the Nature Directives, the EU Wildlife Trade Regulation and Regulation (EU) 1143/2014 on invasive alien species (IAS Regula-

tion). Taken together, these instruments establish a comprehensive system for biodiversity conservation in the EU, and contribute to the compliance of the Union with its obligations under the CBD. At the same time, there is scope for further synergies to reinforce the effectiveness of the legal framework applicable to zoos and their contribution to biodiversity conservation, for instance, through reintroduction programmes for native species or the organisation of joint inspection procedures.

Certain stakeholders pointed to inconsistencies between the Zoos Directive and Regulation (EC) No. 1739/2005 on the movement of circus animals (Circus Regulation), as well as with the IAS Regulation. However, the legal analysis found no coherence issues. With respect to the Circus Regulation, there is no interaction between the two acts, given the clear exclusion of circuses from the scope of the Zoos Directive. For the IAS Regulation, even though zoos are required to ban the keeping and breeding of IAS, this is fully in line with the biodiversity conservation objectives embodied in the Zoos Directive and the IAS Regulation, in view of the particularly negative impact that a spread of invasive alien species may have on local biodiversity. While it is acknowledged that zoos are not the main pathways for invasive alien species, there is evidence that they can still function as such, thereby justifying the strict approach taken by the IAS Regulation.

Finally, the information gathered indicates that the Zoos Directive has made a positive contribution to the establishment of a level playing field for zoos across the EU. Prior to its adoption, there was no regulation for zoos in some Member States, yet all zoos must now comply with the minimum requirements imposed by the Directive. However, evidence suggests that there are significant discrepancies in the obligations imposed on zoos, as well as in the enforcement of the Directive, in the different Member States. This suggests that a true level playing field has not yet been achieved.

EU Added Value

The criterion of EU Added Value examines, from a qualitative perspective, the extent to which the Zoos Directive has contributed to strengthening the role of zoos and promoting the adoption of conservation measures in a way that could not have been achieved by Member States on their own and/or by other stakeholders. It also assesses if there is a need for continued EU action.

The Zoos Directive has played an important role in placing binding rules on all European zoos and, as such, it prompted the adoption of conservation measures through the compulsory requirements of licensing. Without an EU Directive, this overall result would probably not have been achieved under national legislation, through participation in international agreements or the membership requirements of zoos' federations. As already indicated, before the adoption of the Zoos Directive, national legislation regulating zoo affairs was absent in most Member States. Where national rules were in place, they included requirements for licensing and inspection, but mainly in relation to conditions for animal accommodation and animal welfare, excluding objectives on biodiversity conservation. Standards and guidelines were provided by zoos' federations (such as EAZA) prior to the adoption of the Directive, but these had a limited impact due to their coverage (17% of licensed zoos are members of EAZA), scope (before the adoption of the Directive, EAZA standards covered exclusively accommodation and care of animals) and non-binding nature. The Zoos Directive and external factors (e.g., work done by zoos' federations, individual ambitions of zoo owners, general change of attitude towards biodiversity conservation and protection) exerted a mutually reinforcing effect on strengthening the role of all zoos in the conservation of biodiversity. According to a majority of MSCAs, NGOs and zoos, the Directive prompted more efficient and faster implementation of conservation measures, especially in zoos that are not members of a federation.

All stakeholders recognised a continuing need for EU intervention. As previously mentioned, important differences still exist across Member States in terms of implementation and enforcement, which have led to discrepancies in the obligations applying to zoos. This affects the level playing field between zoo operators in the different Member States and impairs the proper protection of biodiversity sought by the Directive. In parallel, whereas existing international conventions (CBD and CITES) and non-legislative instruments (standards and guidelines of zoos' federations) enhance the role of zoos in

conservation, they do not enable the full achievement of the objectives set in the Zoos Directive. Firstly, the Zoos Directive is instrumental in the practical implementation of the CBD and CITES, and in particular to fulfill the EU's obligation as a party to the CBD. Secondly, standards and guidelines defined by zoos' federations can contribute only to a limited extent to the protection of biodiversity by EU zoos. These instruments lack one of the key features of the Zoos Directive: a legally binding value that enables enforcement across all EU zoos. As such, the Directive remains important for ensuring the implementation of conservation measures by zoos.

The need for continued EU action in the field of *ex situ* management is deemed important by more than 80% of the respondents to the public consultation. While zoos and public authorities agreed that most of the activities currently promoted by zoos would continue in the absence of the Directive, other stakeholder categories, including individuals and NGOs, were less assertive. On average, less than half of the respondents believe that all activities would be continued. Concerns were raised by NGOs on the political message of abandoning EU legislation on zoos. One of the key concerns was that an absence of EU legislation on zoos would trigger repeals of national legislation and budget cuts for enforcement.

NOTE DE SYNTHÈSE

L'étude de soutien

Dans le cadre du programme pour une réglementation affûtée et performante (REFIT) de la Commission, l'étude de soutien a pour objectif d'assister l'évaluation de la directive 1999/22/CE du 29 mars 1999 relative à la détention d'animaux sauvages dans un environnement zoologique (ci-après la 'Directive Zoos'). Avec le REFIT, la Commission veille à ce que le droit de l'Union Européenne (UE) réponde à ses besoins, à simplifier et à réduire les charges réglementaires tout en maintenant les bénéfices.

Le contrat pour effectuer l'étude de soutien a été attribué à Milieu Ltd et VetEffect en juin 2016. Fondé sur la feuille de route d'évaluation de la Commission fixant la portée et les termes de références de l'évaluation de la Directive Zoos, l'objectif de cette étude est d'évaluer la pertinence, l'efficacité, l'efficience, la cohérence et la valeur ajoutée de la directive autour de ces cinq 'critères d'évaluation' ainsi que seize 'questions d'évaluation'. Elle fournit une base factuelle pour assister la Commission dans l'évaluation REFIT qui guidera, parmi d'autres, la politique future de l'UE en matière de biodiversité et de conservation ex-situ.

La Directive Zoos

La Directive Zoos, adoptée le 29 mars 1999, est entrée en vigueur en 2002. Elle fut adoptée sur fond d'un intérêt croissant pour la conservation et la protection de la biodiversité, reflété durant le Sommet de la Terre de 1992 et par l'adoption de la Convention de 1992 sur la Diversité Biologique (CDB). À la même période, la Stratégie Mondiale pour la Conservation dans les Zoos et Aquariums de 1993 illustre l'évolution des zoos depuis leur rôle de musées vivants vers celui de centres modernes de conservation, dédiés, au-delà d'activités purement récréatives, à l'éducation, la recherche, l'élevage en captivité et les programmes de réintroduction sont entrepris. Au niveau européen, à l'époque, une approche complète et cohérente de la conservation ex situ était généralement absente. Des manquements, tels l'absence d'une définition commune du terme 'zoo', l'information limitée sur le nombre de zoos, le nombre restreint de zoos satisfaisant les normes exigées par les lignes directrices internationales en matière de conditions d'élevage, de conservation des espèces et d'éducation du public, ainsi que le nombre considérable de zoos ne respectant aucune norme acceptable, étaient également visibles. Par ailleurs, peu d'attention était portée aux activités et au potentiel de conservation des zoos. Seuls cinq sur douze Etats membres (i.e. Belgique, Danemark, France, Espagne et Royaume-Uni) disposaient de législation pertinente en la matière.

En juillet 1991, la Commission Européenne adopta un projet de directive, établissant les normes minimales pour la détention d'animaux dans les zoos. L'objectif explicite de cette proposition était de garantir que des standards harmonisés minimaux soient respectés par tous les zoos de la Communauté pour la détention d'animaux sauvages. Une telle harmonisation était considérée nécessaire afin de faciliter l'application de la législation communautaire en matière de conservation de la nature et pour protéger le public.

La directive fut finalement adoptée le 29 mars 1999 avec l'objectif principal de remplir les obligations dérivant de la CDB d'adopter des mesures pour la conservation ex situ. Les objectifs de la directive sont donc 'de protéger la faune sauvage et de préserver la biodiversité en prévoyant l'adoption par les Etats membres de mesures d'octroi de licences et d'inspection des jardins zoologiques' de l'Union Européenne. Pour atteindre ces objectifs, tout en reconnaissant que les zoos ont différents buts et ne sont pas un ensemble homogène d'établissements, la directive se concentre sur le rôle des autorités des Etats membres pour instaurer des systèmes d'octroi des permis et d'inspection des zoos afin d'assurer que ceux-ci mettent en œuvre les mesures de conservation prévues à l'article 3. L'instauration de systèmes adéquats d'octroi de permis et d'inspection ainsi que la mise en œuvre des mesures de conservation par les zoos doivent résulter dans un rôle renforcé des zoos dans la conservation de la biodiversité,

une plus grande connaissance et conscience du public en la matière et, enfin, dans la protection des espèces sauvages et la prévention du déclin de la diversité biologique.

Méthodologie et défis

L'étude rassemble les informations disponibles pour répondre aux seize questions. Elle inclut une analyse bibliographique, des enquêtes ciblées envers certains groupes de parties prenantes (autorités compétentes des Etats membres, exploitants de zoo, ONG et fédérations de zoos), des entretiens approfondis et une enquête publique. Les enquêtes ciblées et les entretiens, ainsi qu'une partie de l'analyse bibliographique, se sont concentrés sur 14 Etats membres (Allemagne, Belgique, Bulgarie, Chypre, Danemark, Espagne, France, Irlande, Italie, Lituanie, Pays-Bas, Pologne, Portugal et République Tchèque). Afin d'élargir le champ et la portée géographique de l'étude à tous les Etats membres, cette recherche approfondie a été complétée par une consultation publique et une analyse bibliographique générale².

Plusieurs défis, liés à : (i) la disponibilité et la qualité des données ; (ii) la possibilité, parfois limitée, de trianguler les différentes sources et opinions, et ; (iii) la qualité des informations fournies par les parties prenantes, ont émaillé le projet. En particulier, les Etats membres n'ont pas d'obligation de rendre compte de la mise en œuvre de la Directive Zoos et aucun mécanisme pour la surveillance systématique de sa mise en œuvre n'existe au niveau européen. L'information disponible en début d'étude était, par conséquent, limitée. Des efforts importants ont été nécessaires pour réunir des informations élémentaires. Les informations utilisées pour cette étude ont principalement été collectées via une recherche documentaire dans les 14 Etats membres et via les réponses aux questionnaires adressés aux autorités et autres parties prenantes (fédérations de zoos, ONG, experts et zoos). Cependant, dans de nombreux cas, il n'a pas été possible d'obtenir des données fiables et/ou comparables, et donc de trianguler les données, en particulier sur : (i) les éléments contextuels sur les zoos et la performance des systèmes nationaux d'octroi de permis et d'inspection ; (ii) les projets de recherche et autres mesures de conservation mises en œuvre par les zoos ; et (iii) les coûts et bénéfices induits par la directive. Par ailleurs, deux groupes d'intérêt ont prêté une attention particulière à l'étude : d'une part, les fédérations de zoos (telle que l'European Association of Zoos and Aquaria) et, d'autre part, les ONG actives en matière de bien-être animal (telle que Born Free). L'influence de ces groupes d'intérêts s'est reflétée dans les résultats des consultations effectuées dans le cadre de l'étude. Ces limitations ont été compensées autant que possible par l'obtention de données brutes, par l'analyse bibliographique, et par les enquêtes ciblées adressées aux différentes parties prenantes et autres entretiens supplémentaires. En outre, un séminaire, auquel ont participé les parties prenantes de tous les Etats-Membres, a permis de valider les résultats de l'étude.

Efficacité

Ce critère analyse la mesure dans laquelle l'objectif général de la directive - de protéger la faune sauvage et de conserver la biodiversité par le renforcement du rôle des zoos dans la conservation de la biodiversité - et ses objectifs spécifiques - de garantir que les zoos mettent en œuvre les mesures de conservation prévues à l'article 3 et que les fermetures des zoos soient gérées de façon appropriée - ont été atteints.

Dans ce contexte où seuls cinq sur douze Etats membres avaient une législation en place, et où les activités de conservation recevaient peu d'attention au niveau des zoos, la Directive Zoos constitue un instrument important, qui déclencha la mise en place de cadres législatifs ainsi que des systèmes d'octroi de licences et d'inspections dans tous les Etats membres.

² Les enquêtes ciblées reçurent des réponses des autorités compétentes des 14 Etats membres sélectionnés, 13 ONG, 13 fédérations de zoos, 70 zoos et un expert. Des entretiens approfondis furent conduits avec 44 parties (13 MSCAs, 8 fédérations de zoos, 6 ONG, 9 exploitants de zoos ainsi que 8 parties au niveaux EU et international). La consultation publique reçut 2297 réponses (1944 réponses de citoyens, 148 d'exploitants de zoos, 21 d'entreprises ou représentants d'entreprises, 7 d'autorités publiques, 38 d'ONG, 34 d'autres associations et 105 « autres »).

Malgré des retards initiaux et des problèmes dans la transposition et la mise en œuvre de la législation européenne au niveau national, des progrès ont été fait vers l'atteinte des objectifs spécifiques de la Directive Zoos : les Etats membres ont mis en place les conditions juridiques et pratiques (y compris des systèmes adéquats d'octroi de permis et d'inspection, pour garantir que les zoos adoptent des mesures de conservation et que les cas de non-conformité soient traités ; en parallèle, les données collectées au sein d'un échantillon de 70 zoos, bien que non représentatif, suggère que de nombreux zoos sont engagés dans des activités de conservation (telles que définies dans l'article 3), à différents degrés et selon leurs capacités.

Différents facteurs ont été décrits durant les consultations avec les parties prenantes comme ayant contribué à cette évolution positive, y compris les actions menées par :

- La Commission Européenne, via l'introduction de plusieurs procédures en manquement, la publication d'un 'Good Practices Document' et les opportunités de financement des zoos (ex. LIFE et ERASMUS) ;
- Les Etats membres, par l'adoption d'exigences supplémentaires dans leurs législations nationales, la publication de lignes directrices ainsi que l'organisation de formations et autres évènements ;
- Les fédérations internationales, européennes et nationales de zoos et d'aquariums, très actives dans le soutien de la mise en œuvre de la Directive Zoo, par le biais de leurs conditions d'affiliation, leurs normes, leurs formations, leurs programmes d'élevage, leurs évènements et conférences ainsi que leurs activités de sensibilisation du public ;
- Les ONG, qui jouent un rôle important dans la surveillance de la mise en œuvre de la directive, pour alerter les autorités de manquements éventuels, ainsi que dans l'information et la sensibilisation du public ;
- Les zoos, qui mettent en place les ajustements nécessaires et portent une attention croissante à la conservation de la biodiversité dans leur démarche ;
- D'autres acteurs, tels qu'universitaires et vétérinaires (pour, par exemple, la recherche et les activités *ex situ*), ou les médias (via des activités d'information du public).

Des problèmes importants de mise en œuvre et d'exécution subsistent cependant et freinent l'accomplissement des objectifs et résultats attendus par la Directive. Les problèmes principaux incluent :

- L'application incohérente des mesures de conservation, due en partie aux différences entre les systèmes nationaux d'octroi de permis et d'inspection, et les critères appliqués pour évaluer la conformité des zoos.
- Le manque de ressources et de capacité des autorités pour mener les inspections. Les inspecteurs en charge des zoos sont souvent également responsables du contrôle dans le cadre d'autres législations (p.ex. sur les animaux utilisés à des fins scientifiques, sur les espèces invasives et CITES). Leurs compétences sont généralement étendues et non concentrées sur la faune sauvage et les questions propres à ces espèces.
- Des zoos non agréés, ou des zoos qui ne répondent pas aux exigences légales mais qui continuent d'opérer, régulièrement mis en évidence par les divers acteurs sociaux.

Ces problèmes limitent l'efficacité des systèmes d'octroi de permis et d'inspection à travers l'UE et soulèvent des questions quant à l'exécution appropriée de la législation au niveau national et la mise en œuvre cohérente de mesures de conservation parmi tous les zoos de l'UE.

Au final, l'impact de la directive sur la protection de la faune sauvage et la conservation de la biodiversité (càd l'objectif général de la directive) est difficile à évaluer. La contribution générale des zoos à la conservation de la biodiversité au travers de la recherche, de la formation, des programmes d'élevage ou de réintroduction, ne peut, par exemple, pas être mesurée précisément. La question est débattue au sein de la communauté scientifique, mais les preuves existantes ne sont pas concluantes. En revanche, la Directive Zoos représente clairement une condition essentielle pour l'atteinte des ob-

jectifs fixés aux niveaux européen et mondial (en particulier la CDB) de protection de la faune sauvage et de conservation de la biodiversité.

Efficiéce

L'efficiéce compare les ressources mises à disposition pour une certaine activité liée à une directive avec ses résultats. Ce critère prend en compte les charges réglementaires induites par la mise en œuvre de la directive et détermine si ces coûts sont raisonnables et proportionnés par rapport aux bénéfices. Les origines de ces coûts, ainsi que les charges accrues inutilement, si elles existent, sont également examinées.

L'absence de littérature et d'évaluations indépendantes sur le sujet, de même que le peu d'informations fournies par les parties prenantes n'ont pas permis de réaliser une évaluation quantitative. Cela a également résulté dans des difficultés pour attribuer les coûts et bénéfices directement à la Directive Zoos (et pas à d'autres facteurs).

Malgré ces limitations, il semblerait que, en introduisant un système d'octroi de licences et d'inspection, la Directive Zoos a mené à une augmentation des coûts pour les autorités (mise en œuvre de la législation) et pour les zoos (mesures de conservation). L'augmentation des coûts semble malgré tout limitée.

Pour les autorités, des coûts nouveaux ou additionnels, comparés à la situation antérieure à l'entrée en vigueur de la Directive Zoos, sont dus aux traitements des demandes de permis, ainsi qu'à la préparation, l'exécution et le suivi des inspections. L'ampleur de ces coûts varie substantiellement entre les différents Etats membres en fonction de l'organisation de leurs systèmes d'octroi de permis et d'inspection (fréquence d'inspection, nombre d'inspecteur par visite, existence d'une phase de pré-inspection). Les ressources allouées à la mise en œuvre de la directive sont difficiles à quantifier, étant donné le nombre important d'autres responsabilités des personnes en charge de l'inspection des zoos (c'est-à-dire l'exécution d'autres législations). Quand des estimations ont été fournies, les ressources entièrement dédiées à la mise en œuvre de la Directive Zoos semblent limitées. Quand bien même les autorités reconnaissent que l'augmentation des coûts est directement liée à la performance des inspections, seulement la moitié d'entre elles mentionnent une augmentation des coûts de formation. Ces données renforcent les doutes levés par les parties prenantes, y compris les autorités, quant à l'absence de connaissances appropriées des inspecteurs de zoos, et le besoin de formations de meilleure qualité et plus ciblées.

Pour les zoos, les opinions collectées via la consultation ciblée sont extrêmement partagées. Un nombre important de zoos de l'échantillon (entre 20 et 31 zoos sur 70) déclare une augmentation des dépenses courantes liées aux mesures de conservation de l'article 3 et aux investissements dans différents domaines : la rénovation des enclos ; l'exposition d'information sur les espèces exhibées ; les normes plus élevées d'élevage et d'hébergement des animaux ; les systèmes instaurés pour éviter que les animaux ne s'échappent ; et ceux pour la tenue des registres/d'identification des animaux. Quand des estimations ont été fournies, les sommes investies peuvent être considérables (entre des centaines et des millions d'Euros), spécialement lorsque ceux-ci sont liés à la rénovation des enclos. Cependant, seule une minorité de zoos exprima qu'ils considèrent ces coûts comme (pleinement ou partiellement) attribuable à la directive. La même logique apparaît pour les dépenses courantes : si des zoos ont déclaré une série importante de dépenses (entre des centaines et des milliers d'Euros), ils ne les attribuent pas à la directive. Dans l'ensemble, les zoos ont exprimé des difficultés à distinguer les coûts supportés comme conséquence directe de la directive de ceux qui seraient survenus indépendamment de l'existence de celle-ci, c'est-à-dire dans le cadre de l'évolution de leur rôle vers celui de 'zoos modernes'. De façon générale, il semblerait que la Directive Zoos n'a causé qu'une partie de l'augmentation enregistrée des coûts.

En ce qui concerne la charge administrative, les efforts des zoos liés à l'octroi de permis et les inspec-

tions (la préparation de la demande de permis, le travail préparatoire pour l'inspection, l'envoi des documents aux autorités, la complétion des questionnaires pré-inspection, la participation à la visite des MSCAs, les réponses aux rapports d'inspection) ont augmenté. Les coûts administratifs apparaissent strictement liés aux exigences d'obtention du permis et sont considérés par une faible minorité de zoos comme inutiles ou disproportionnés par rapport aux bénéfices.

Selon les parties prenantes consultées, toutes catégories confondues, la Directive Zoos a engendré des bénéfices par sa contribution à l'éducation et l'information du public sur la biodiversité, à l'amélioration des conditions des animaux et des normes d'élevage, aux efforts en conservation *ex situ*, et dans l'engagement plus élevé du public et des acteurs sociaux dans la protection de la biodiversité. Il reste difficile d'établir dans quelle mesure ces bénéfices peuvent être directement attribués à la mise en œuvre de la Directive Zoos, et non à d'autres facteurs, comme l'évolution globale des zoos en tant qu'institutions de conservation ou l'évolution des attentes du public.

Dans l'ensemble, les coûts sont considérés par les autorités et les zoos comme étant nécessaires et proportionnés, malgré l'incertitude liée à l'attribution des coûts et bénéfices à la directive. Aucune différence significative n'émerge entre les zoos de différentes tailles, et il n'y a pas de preuve solide que les zoos plus petits feraient face à des difficultés plus importantes pour s'adapter à la législation.

L'information collectée suggère que les obstacles au fonctionnement efficace des systèmes d'octroi de permis et d'inspection sont surtout liés aux ressources et capacités des inspectorats nationaux, plutôt qu'aux exigences spécifiques de la législation nationale – tel que la fréquence des inspections. Des possibilités existent donc pour améliorer l'efficacité de la Directive Zoos, comme l'amélioration des directives données pour les inspections, l'implication d'experts externes dans les inspections et l'élimination des duplications potentielles avec les contrôles effectués sous d'autres législations – comme le Règlement (CE) 338/97 relatif à la protection des espèces de faune et flore sauvages par le contrôle de leur commerce, et la Directive 92/65/CEE sur les conditions de police sanitaire régissant les échanges et les importations d'animaux au sein de l'UE.

Pertinence

L'analyse de la pertinence repose sur une comparaison des besoins et objectifs actuels avec ceux définis lors de l'adoption de la directive. La Directive Zoos fut adoptée en 1999 et est en vigueur depuis 2002, et n'a pas subi de modifications. L'objectif de cette analyse était donc d'identifier toute disparité entre les objectifs définis dans la directive et la situation actuelle sur le plan juridique, politique et scientifique.

L'analyse bibliographique démontre que le statut de conservation des espèces et habitats s'est détérioré au cours des deux dernières décennies. En parallèle, l'importance de la protection des espèces menacées est devenue de plus en plus évidente, y compris aux yeux du public. Concrètement, le besoin de protéger la biodiversité est substantiellement plus important maintenant qu'au moment de l'adoption de la directive. Cette évolution est reflétée dans les objectifs politiques aux niveaux européen et international, par exemple les objectifs d'Aichi pour la CDB et les objectifs de l'ONU pour le développement durable. À la lumière de ces changements, tous les acteurs sociaux consultés (autorités, zoos, fédérations et ONG) soutiennent l'opinion selon laquelle les objectifs de la directive restent pertinents. L'évolution des instruments internationaux, d'aspirations générales à des objectifs précis, a induit la mise en place d'objectifs plus spécifiques pour la conservation de la biodiversité à laquelle la conservation *ex situ* peut contribuer. Alors que ces objectifs (et indicateurs) plus spécifiques soulignent l'importance de la mise en œuvre de la Directive Zoos, ils mettent également en lumière le besoin d'explicitement les domaines dans lesquels la conservation *ex situ* est la plus nécessaire et pourrait avoir le plus grand impact pour atteindre les objectifs de conservation fixés au niveau global.

Depuis 1999, de nombreux développements scientifiques et techniques ont eu lieu dans le domaine de la conservation de la biodiversité, en particulier en termes de gestion des populations, d'identification des espèces menacées, et d'identification des actions nécessaires pour ces espèces. Plus spécifique-

ment, des progrès considérables ont été faits depuis l'adoption de la directive quant aux interactions entre la conservation *in situ* et *ex situ*. De par son champ d'application et sa formulation larges, la directive ne contient pas de conditions obsolètes au vu de ces développements. Les résultats des consultations des parties prenantes confirment ce point. La vaste majorité (82%) des participants aux enquêtes ciblées considère la directive adaptée aux développements techniques et scientifiques. Ils indiquent néanmoins que les interactions entre la conservation *ex situ* et *in situ* pourraient être significativement améliorées.

Cohérence

Evaluer la cohérence d'un acte législatif européen implique d'examiner le cadre politique et législatif général. Il s'agit d'évaluer comment différentes interventions réglementaires interagissent, en fournissant des preuves de synergies et de complémentarité qui pourraient renforcer l'atteinte d'objectifs communs, tout en analysant les éventuelles incohérences et superpositions qui peuvent nuire à son efficacité. Les interactions de la directive avec d'autres actes dans les domaines de la conservation de la biodiversité et de la santé animale ont été analysées dans ce contexte. L'évaluation de la cohérence examine aussi la mesure dans laquelle la directive soutient le marché interne et la création de conditions de concurrence équitables dans l'UE.

L'objectif premier de la directive est la conservation de la biodiversité à travers la promotion d'un rôle renforcé de conservation des zoos. La Directive Zoos appartient donc à un ensemble de lois et politiques aux niveaux européen et national visant la conservation de la biodiversité. L'analyse juridique n'a révélé aucune incohérence entre la directive et les autres actes pertinents. Au contraire, des exemples d'interactions positives, qui renforcent l'atteinte d'objectifs communs, existent. La conservation de la biodiversité est l'objectif principal non seulement de la Directive Zoos, mais également des Directives Nature, du Règlement relatif à la protection des espèces de faune et flore sauvages par le contrôle de leur commerce et du Règlement (UE) 1143/2014 relatif aux espèces exotiques envahissantes (Règlement EEE). Ensemble, ces instruments œuvrent à un système complet pour la conservation de la biodiversité dans l'UE, et contribuent à la conformité de l'Union avec ses obligations sous la CDB. En même temps, de plus amples synergies sont possibles pour renforcer l'efficacité du cadre juridique applicable aux zoos et leur contribution à la conservation de la biodiversité, par exemple, via des programmes de réintroduction d'espèces indigènes ou l'organisation de procédures d'inspection conjointes.

Certains acteurs sociaux soulignent des incohérences entre la Directive Zoos et le Règlement (CE) 1739/2005 sur le mouvement des animaux de cirque (Règlement Cirque), ainsi qu'avec le Règlement EEE. L'analyse juridique n'a toutefois pas identifié d'incohérence. En ce qui concerne le Règlement Cirque, les deux actes n'interagissent pas : les cirques sont explicitement exclus du champ d'application de la Directive Zoos. Quant au Règlement EEE, même si les zoos doivent bannir la captivité et l'élevage d'EEE, cela est tout à fait en accord avec les objectifs de conservation de la biodiversité des deux actes, eu égard à l'impact particulièrement négatif qu'une EEE pourrait avoir sur la biodiversité locale. Même s'il est vrai que les zoos ne sont pas un vecteur majeur d'introduction d'EEE, des cas existent, et justifient l'approche stricte prise par le règlement EEE.

Finalement, l'information collectée indique que la Directive Zoos a contribué positivement à l'établissement de conditions de concurrence équitable pour les zoos dans l'UE. Avant son adoption, certains Etats membres n'avaient pas de législation sur les zoos. Désormais, tous les zoos doivent respecter les conditions minimales imposées par la directive. Des différences majeures subsistent toutefois quant aux obligations imposées aux zoos, ainsi que dans l'exécution de la directive dans les Etats membres. Ceci suggère que des conditions de concurrence réellement équitables ne sont pas encore atteintes.

Valeur ajoutée de l'UE

Le critère de la valeur ajoutée de l'UE pousse à examiner, d'un point de vue qualitatif, la mesure dans laquelle la Directive Zoos a contribué au renforcement du rôle des zoos et à la promotion de l'adoption de mesures de conservation d'une façon qui n'aurait pas pu être atteinte par l'action seule des Etats membres et/ou d'autres acteurs sociaux. Il comprend également une analyse du besoin de la continuité d'une action au niveau de l'UE.

La Directive Zoos a joué un rôle important dans l'établissement de règles contraignantes pour tous les zoos européens, et en tant que telle, a poussé à l'adoption de mesures de conservation à travers les exigences liées à l'octroi de permis. En l'absence d'une directive, ce résultat général n'aurait probablement pas été atteint par les législations nationales, par la participation dans des accords internationaux ou par les exigences d'affiliation des fédérations de zoos. Comme indiqué précédemment, avant l'adoption de la Directive Zoos, la plupart des Etats membres n'avaient pas de législation sur les activités des zoos. Quand des dispositions nationales existaient, celles-ci incluaient des exigences pour les permis et les inspections, principalement en termes de condition d'hébergement des animaux et de bien-être animal, et non des mesures de conservation. Des normes et lignes directrices furent proposées par des fédérations de zoos (comme EAZA) avant l'adoption de la directive, celles-ci avaient toutefois un impact limité de par leur champ d'application (17% des zoos agréés sont membres d'EAZA), leur nature (avant l'adoption de la directive, les normes EAZA couvraient exclusivement l'hébergement et le soin des animaux) et leur caractère non contraignant. La Directive Zoos et d'autres facteurs (p.ex. le travail des fédérations de zoos, les ambitions individuelles des gérants des zoos, le changement général d'attitude à l'égard de la conservation et protection de la biodiversité) ont réciproquement renforcé le rôle de tous les zoos dans la conservation de la biodiversité. Selon une majorité d'autorités compétentes, d'ONG et de zoos, la Directive a déclenché une mise en œuvre plus efficace et plus rapide des mesures de conservation, en particulier parmi les zoos qui ne sont pas membres d'une fédération.

Tous les acteurs sociaux reconnaissent le besoin persistant d'une intervention de l'UE. Comme mentionné précédemment, d'importantes différences subsistent entre les Etats membres en termes de mise en œuvre de la directive. Celles-ci mènent à des divergences dans les obligations applicables aux zoos qui affectent la création de conditions de concurrence équitable entre les exploitants de zoos de différents Etats membres et limitent la protection de la biodiversité recherchée par la directive. En parallèle, tandis que des conventions internationales (CDB et CITES) et des instruments non juridiques (normes et lignes directrices de fédérations) promeuvent le rôle des zoos dans la conservation, elles n'assurent pas l'atteinte complète des objectifs de la directive. Premièrement, la Directive Zoos est indispensable à la mise en œuvre pratique de la CDB et de CITES, en particulier pour remplir les obligations de l'UE en tant que partie à la CDB. Deuxièmement, les normes et lignes directrices définies par les fédérations ne peuvent contribuer que de façon limitée à la protection de la biodiversité par les zoos européens. Ces instruments ne disposent pas d'une des caractéristiques clefs de la directive : une valeur juridiquement contraignante qui permet une application à tous les zoos européens. Par conséquent, la directive reste importante pour assurer la mise en œuvre de mesure de conservation par les zoos.

Le besoin continu d'une action de l'UE dans le domaine de la gestion *ex situ* est considéré important par plus de 80% des participants à la consultation publique. Tandis que les zoos et les autorités publiques considèrent que la plupart des activités actuellement conduites par les zoos continueraient en l'absence d'une directive, les autres catégories de participants, y compris les individus et les ONG, sont moins catégoriques : en moyenne, moins de la moitié considère que toutes les activités continueraient sans la directive. Les ONG émettent également des doutes quant au message politique envoyé si une législation européenne sur les zoos était abandonnée. Une des inquiétudes les plus prégnantes est que l'absence de législation européenne engendrerait un abandon progressif des législations nationales et des coupes budgétaires affectant les inspections et autres mesures de contrôle.

1 INTRODUCTION

1.1 PURPOSE AND SCOPE OF THE STUDY

The purpose of this study is to support the evaluation of Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos ('Zoos Directive') as part of the Commission's Regulatory Fitness Check and Performance (REFIT) programme. As per the Technical Specifications, the study aims to 'assist the European Commission in the evaluation of the Zoos Directive. This entails compiling, assessing and synthesising evidence for the evaluation'.

With REFIT, the Commission is taking action to make European Union (EU) law 'fit for purpose', i.e. to simplify and reduce regulatory costs while maintaining benefits. It ensures that EU legislation is of the highest quality and delivers its benefits with the least burden, through a system of impact assessments, retrospective evaluations and stakeholder consultations. The ultimate objective of such an exercise is to promote better legislation which is more responsive to existing and future challenges, as well as to improve its implementation.

As a rule, evaluation is defined as an evidence-based judgement of the extent to which an intervention has been:

- effective and efficient,
- relevant given the needs and its objectives,
- coherent both internally and with other EU policy interventions and
- and has achieved EU added value.

Accordingly, the present supporting study assesses the effectiveness, efficiency, coherence, relevance and added value of the Zoos Directive.

It provides evidence-based critical analysis of the Directive's performance, particularly in relation to the implementation of Article 3 on conservation measures. It maps the differences in the level of implementation across Member States, and identifies good practices and issues at national level. The study also measures – to the extent possible – the magnitude of costs, in particular in terms of administrative burden, and the benefits of having a EU Directive on zoos.

The assessment worked in collaboration with zoos that are registered or officially recognised as zoos according to the definition of the Competent Authorities (CAs). As agreed with the Commission, the analysis of implementation at national level focused on 14 selected Member States (Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, France, Germany, Italy, Ireland, Lithuania, the Netherlands, Poland, Portugal and Spain)³.

1.2 CONTENT OF THIS REPORT

This draft final report is structured as follows:

- **Section 1** is an **introduction** to the main purpose and context of the report.
- **Section 2** provides the **background** to the Directive, with information on the baseline of the Directive (i.e. the context of its adoption), and its functioning.
- **Section 3** gives an overview of the **methodology** used for the analysis, including the evaluation logic and framework, data collection tools and analytical methods. This section also provides a summary of the challenges encountered in the implementation of the project, and the mitigation measures applied.
- **Section 4** presents the current **state of play of implementation**, at both national and EU level.

³ See Section 3.3.2.1 for information on the selection process.

- **Section 5** details the **results** of the analysis by evaluation criterion and evaluation question. It compiles, assesses and synthesises the evidence gathered for the study.
- **Section 6** provides a set of overall conclusions on the effectiveness, efficiency, relevance, coherence and EU added value of the Directive by identifying weaknesses and strengths in relation to each of these criteria.

2 BACKGROUND TO THE DIRECTIVE

2.1 BASELINE: THE CONTEXT OF THE ZOOS DIRECTIVE

The EU Zoos Directive came into force on 29 March 1999. Set against a background of EU Directives concerned with nature conservation and the 1992 global Convention on Biological Diversity (CBD), it was intended to encourage zoos to provide stronger support for biodiversity conservation. Zoos are not a homogeneous set of establishments, all with the same purpose; they may seek to attract visitors, to provide entertainment, to serve conservation interests, or some combination of these. In other words, not all zoos have the same priorities.

Understanding the impact of the Directive in the 17 years since it came into force requires consideration of the context within which it was adopted. This section establishes that context by:

- Briefly outlining the history of zoos;
- Presenting the adoption process of the Zoos Directive.

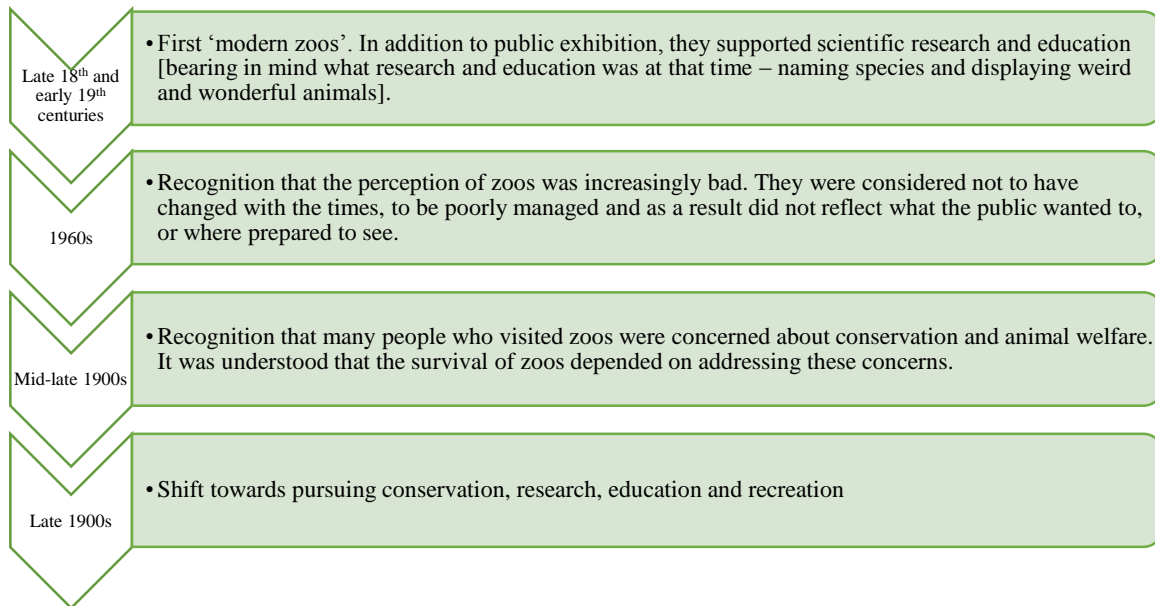
The elements presented below in particular provide some key points of information to help measuring the progress made since the adoption of the Directive:

- The 20th century saw an important evolution in the perception of the role of zoos. The Directive was adopted in a context where more progressive zoos aimed at pursuing conservation, research and education.
- At international level, this evolution was reflected in the adoption in 1993 of the World Strategy for Conservation in Zoos and Aquaria.
- At European level, the European Survey of Zoological Collections carried out by Zoo Check in 1988 remains the primary source of information on the state and status of zoos across the EU prior to the adoption of the Directive. The Survey found that there was no widely used definition of zoo and that the information on the number of zoos was limited (1012 were inventoried during the Survey). It also found that a few zoos broadly met ‘the standards required by international guidelines of modern zoo practice in the areas of animal husbandry, species conservation and public education’, but that a considerable number did not meet any acceptable standards.
- At national level, prior to the adoption of the Directive, five out of the then 12 Member States (Belgium, Denmark, France, Spain and the United Kingdom) had adopted legislation on zoos. The other seven countries had no legislation specifically targeting zoos, although a general regulatory framework on animal welfare or imports of animals could regulate their activities.

2.1.1 Brief history of zoos

In their history of zoos, Tribe and Booth (2003) consider zoos to be the oldest form of wildlife tourism. Ancient Egyptian, Greek, Roman and Chinese societies are known to have kept animals for enjoyment or as a form of status symbol. What sets zoos apart from such personal collections is that they are open to the public for at least part of the year to display some of the individuals in their collections. The first ‘modern zoos’ are considered to have started some 200 years ago when they were first opened to the public (IUCN/CBSG 1993).

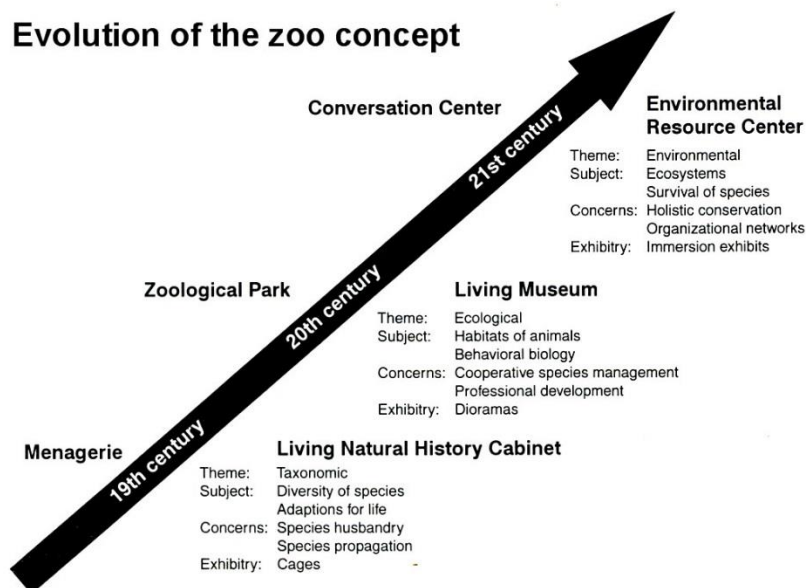
Figure 1: Brief history of the evolution of the zoo



Source: Adapted from Tribe and Booth 2003

The closing decades of the 20th century saw the development of a philosophy that shaped the more progressive zoos⁴, namely the pursuit of conservation, research and education. This was reflected in the fact that *ex situ* breeding programmes began around 1995. Clearly, however, zoos must still raise sufficient finance to be viable, and must remain attractive to visitors who would pay entrance fees. Recreation was therefore acknowledged as the fourth aim of enlightened zoos. The Wildfowl and Wetlands Trust, for example, added recreation to its aims in 1982, alongside the conservation, research and education aims defined by Sir Peter Scott when the trust was established as the Severn Wildfowl Trust in 1946 (Kear 1990).

Figure 2: Evolution of the zoo concept



Source: IUDZG/CBSG (IUCN/SSC) 1993, © Chicago Zoological Society

At the same time, attitudes towards the exhibition of animals have also changed and these have led to what have been called first, second and third generation exhibits (Moss, Esson and Francis 2010),

⁴ See also the concept of EU ‘progressive zoos’ used in the EU and Europe’s Zoos (John Reagan Associates Ltd 2007).

defined as follows:

- **First generation** exhibits, in which animals usually kept singly: bare, featureless and either barred completely or using deep pits for animal containment.
- **Second generation** exhibits may still be fairly austere, with modest attempts to include ‘cage’ furniture. They are typically constructed of inorganic materials such as concrete and are often surrounded by a water-filled moat. They are designed, at least in part, with the welfare of the animal in mind.
- **Third generation** exhibits, in which animals are kept in species-appropriate group numbers and in areas planted and themed to resemble their native ecosystem. The barriers between visitors and animals are normally concealed. Often, the term ‘immersive’ or ‘immersion’ is used to describe such third generation exhibits.

2.1.2 Context of adoption of the Zoos Directive

2.1.2.1 International context

The changes in attitudes towards conservation and the protection of biodiversity gave rise to the 1992 Earth Summit. In 1993, the International Union of Directors of Zoological Gardens (now the World Association of Zoos and Aquariums, WAZA), together with the International Union for the Conservation of Nature (IUCN), including its Conservation Breeding Specialist Group (CBSG), and WWF published its ‘**World Strategy for Conservation in Zoos and Aquaria**’ (WSCZA) which outlined the common conservation objectives and practices that zoos should follow. It noted the evolution of zoos from their role as living museums to one of modern conservation centres, where education, research, and captive breeding and reintroduction programmes are undertaken, over and above purely recreational activities.

2.1.2.2 European context

One of the other key drivers behind the adoption of the Zoos Directive was the then progressive legislative framework applicable in the UK. The UK Zoo Licensing Act of 1981 laid down minimum requirements for zoos, including licensing requirements. It stimulated the interest of a non-profit organisation, UK Charity Zoo Check (which later became the Born Free Foundation), to investigate the protection of wild animals in European zoos compared to the protection guaranteed under the British legislation⁵. The European Commission co-funded the **European Survey of Zoological Collections** (‘Survey of Zoological Collections’) (Travers and Straton 1988) carried out by Zoo Check five years prior to the 1992 Earth Summit. This work took place during a 12-month period, with the final report submitted to the Commission in August 1988. This remains the primary source of information on the state and status of zoos across the EU (which then comprised 12 Member States⁶), prior to the adoption of the Directive. The science of conservation biology was very new at that time, having only emerged in the mid-1980s (see Section 5.3.3.1), and there were as yet very few scientific papers that considered the conservation performance and potential of zoos. The same applies to analyses of other issues related to zoos, such as education, awareness-raising and animal husbandry. No information was provided on these issues in a systematic manner across Europe.

In the absence of a systematic understanding of zoos in the EU, the Survey of Zoological Collections sought to: a) provide a definition of zoos; b) assess how many existed; and c) comment on the legislation in force in Member States. There was no widely used **definition of a zoo** and the Survey listed the variety of different collections of animals that were open to the public. These included zoological gardens or parks, menageries, wildlife parks, and safari parks, as well as more specialised exhibits such as monkey sanctuaries, deer parks, sealaria, aviaries, bird gardens, hawk conservancies, wildfowl reserves, vivaria, crocodile farms, aquariums and butterfly houses. The report provides a description of each of these and other ‘types’ of collections.

⁵ Interview with NGO.

⁶ Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the UK.

There was similarly limited information on the **number of zoos** in existence. The Survey of Zoological Collections reported that the 1987 issue of the International Zoo Yearbook, published by the Zoological Society of London, listed 218 zoos, whereas they themselves identified 1,012, including some that had closed during their survey. The report then went on to make brief comments on **conditions** in the zoos that they visited, highlighting enclosure size, design, furnishings and facilities, social requirements and environmental suitability⁷. Overall, the Survey of Zoological Collections found that a few zoos broadly met ‘the standards required by international guidelines of modern zoo practice in the areas of animal husbandry, species conservation and public education’, but that a considerable number did not meet any acceptable standards (Travers and Straton 1988).

The Survey of Zoological Collections report compiled information on zoos in 12 European countries for the first time and provided an assessment of husbandry standards⁸. There was little significant consideration of the **conservation activities** or potential of zoos. The receipt of this report by the Commission stimulated the drafting of a Directive concerned with minimum standards of animal husbandry in zoos (Johnson 2015).

Over time, the Commission welcomed the **support of EAZA** in developing both the husbandry and the conservation elements of the Directive. A key driver for the mainstream zoological establishments was the diversity of establishments that kept animals and exhibited them to the public, including those for whom such activities were incidental to their main business (e.g. restaurants and petrol stations). EAZA was understandably keen to end poor practices and improve the standards of weaker zoos⁹.

2.1.2.3 The Directive

In July 1991, the European Commission adopted a draft Directive laying down minimum standards for the keeping of animals in zoos. The stated objective of this proposal was to ensure that minimum harmonised standards for the keeping of wild animals would be observed by all zoos in the Community. Such harmonisation was deemed necessary to facilitate the application of Community nature conservation laws and to protect the public.

This proposal recognised a threefold role for zoos in society:

- Contributing to efforts to conserve threatened or endangered species.
- Carrying out scientific research on species that are difficult to observe and study in their natural habitat.
- Educating the public on the environment and ecology.

After some debate on the nature of Community intervention in that area, in particular the added value and efficiency of a Directive (European Council 1992), the European Parliament examined the situation of zoos and their regulation across the European Community (European Parliament 1993). At the time, five out of the 12 Member States had relevant legislation on the subject (see Table 1 below).

Table 1: Legislation prior to the adoption of the Directive

Country	1993 Legislation	Main provisions
Belgium	Law of 14 August 1986 on the protection and well-being of animals	Belgian legislation requires licences for zoos, animal parks and private collections. It outlines conditions for the accommodation of wild animals.
Denmark	Act on Animal Welfare (1967);	Danish legislation requires zoos to hold authorisations issued by the police authority on the basis of information

⁷ The report gives different figures of the number of zoos visited (232 stated in the Foreword, 217 given in the Section 1 summary).

⁸ Interview with expert.

⁹ Interview with expert.

	Act on State subsidies to zoological gardens (1977, amended in 1980, 1983, 1985)	(submitted by the applicant) on the conditions of animal accommodation and inspections.
France	Law of 10 July 1976 on the protection of nature	Zoos are regulated under the general legislation on nature protection, complemented by 10 regulations concerning the conditions for keeping wild animals, the licensing system and inspection of zoos.
Spain	Decree 1119/1975 of 24 April 1975 on the authorisation and registration of zoological centres, establishments to practice horse-riding, centres for the enhancement and care of companion animals and other similar centres	Zoological collections must be authorised and registered by the Provinces
UK	Zoo Licensing Act (1981)	British legislation established a comprehensive licensing and inspection system for zoos. The government produced a list of authorised inspectors and detailed guidelines for the accommodation and care of animals in zoos.

Source: (European Parliament 1993)

The other seven countries had no legislation specifically targeting zoos, although a general regulatory framework on animal welfare or imports of animals could regulate their activities. The 1993 European Parliament report stated that the frameworks summarised in Table 2 below were in place in those seven countries.

Table 2: General regulatory framework prior to the adoption of the Directive

Country	1993 National regulatory frameworks
Germany	Legislation on animal welfare, conservation of nature, protection of species and veterinary imports, as well as CITES. Guidelines for granting subsidies to zoos.
Greece	Animal welfare and import laws. Zoos are generally under the control of the local mayor and nearly all are financed by the municipality.
Ireland	Animal welfare and import licensing.
Italy	None.
Luxembourg	None (No zoos).
Netherlands	General legislation on animal welfare, veterinary inspection and imports.
Portugal	Animal welfare and imports laws.

Source: (European Parliament 1993)

The 1991 Proposal was withdrawn and replaced in 1995 by a draft Recommendation (European Commission 1995) which included detailed guidelines for the accommodation and care of animals in zoos.

The Commission's Economic and Social Committee's opinion of July 1996 on the Proposal recommended adopting a Directive instead of a Recommendation, stating that action would only be effective if legislation was adopted at Community level. Finally, the current Zoos Directive was adopted after a long process on 29 March 1999.

2.2 FUNCTIONING OF THE ZOOS DIRECTIVE

The review, assessment and evaluation of the Zoos Directive should correspond directly to the objectives, inputs and outputs required to implement the legislation. This '**intervention logic**' guided the

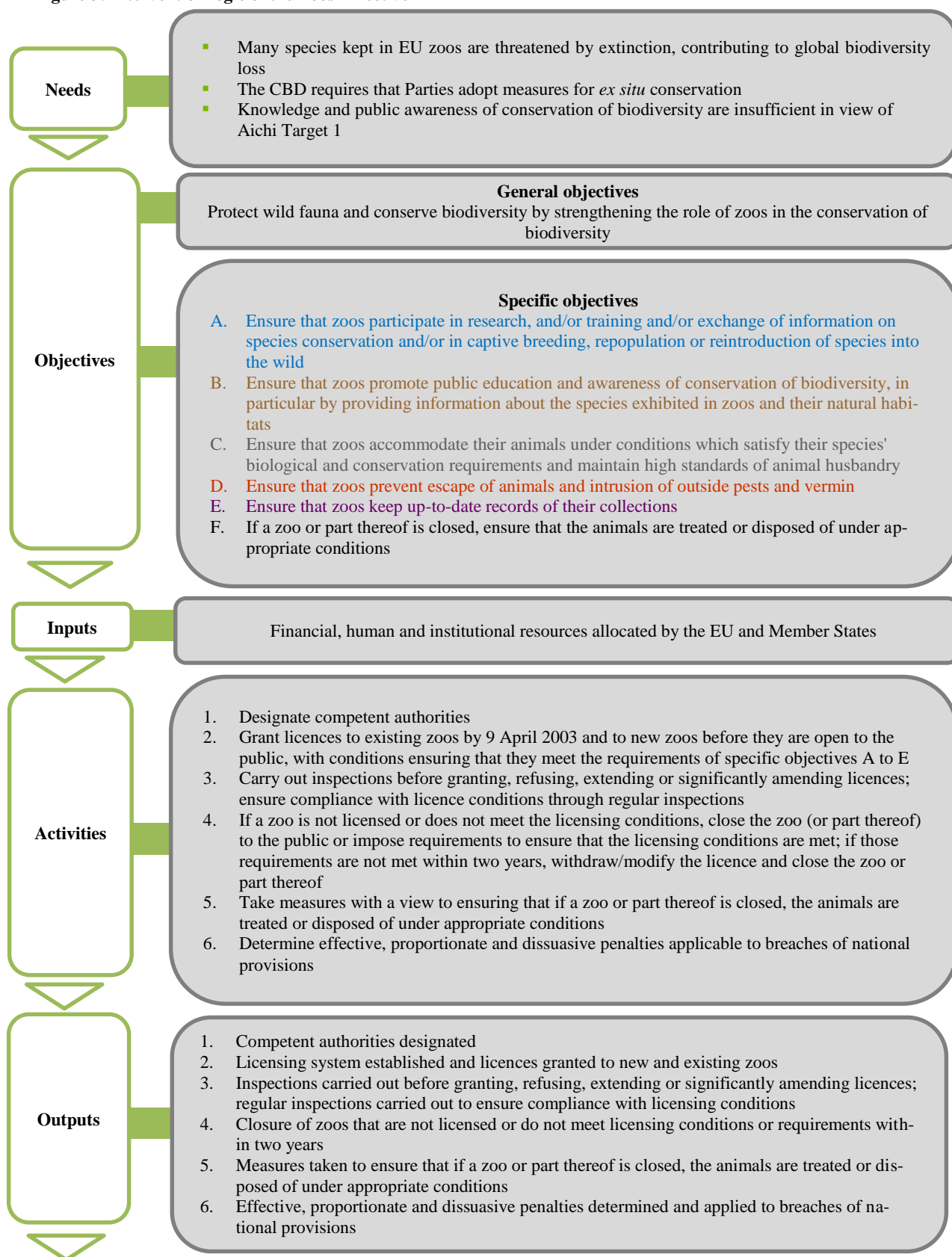
evaluation methodology and process and is illustrated in the following figure (Figure 3).

The Directive's overall aim is to fulfil the obligations deriving from the 1992 CBD to adopt measures for *ex situ* conservation. The Directive thus seeks 'to protect wild fauna and to conserve biodiversity by providing for the adoption of measures by Member States for the licensing and inspection of zoos' in the EU.

Activities and inputs designed to achieve the objectives focus on the role of Member States' authorities, which are responsible for implementing the Directive at national level through the setting up of systems for inspection and licensing of zoos.

Outputs are the measures and services that immediately result from the activities undertaken (i.e. the measures adopted for licensing and inspections of zoos, and closure and penalties for breaches of the legislation). These outputs should achieve certain results (increased participation of zoos in measures to conserve biodiversity), and contribute to longer-term impacts at the EU level, towards the ultimate goal of protecting wild fauna and preserving biodiversity.

Figure 3: Intervention logic of the Zoos Directive



Results

- A. Zoos take part in research and/or training and/or exchange of information and/or captive breeding, repopulation, reintroduction of species into the wild
- B. Zoos promote public awareness of biodiversity conservation, in particular by providing information about the species of wild fauna exhibited and their natural habitats
- C. Zoos accommodate their animals under conditions which satisfy their species' biological and conservation requirements and maintain high standards of animal husbandry
- D. Zoos prevent escape of animals and intrusion of outside pests and vermin
- E. Zoos keep up-to-date records of their collections
- F. If a zoo or part thereof is closed, the animals are treated or disposed of under appropriate conditions to breaches of national provisions

Impacts

- Zoos play an increased role in biodiversity conservation
- Knowledge and public awareness of conservation of biodiversity are improved
- Species of wild fauna are protected and biodiversity loss is averted

3 METHODOLOGY

This section sets out the overarching framework that guided the design and practical implementation of the study. It provides the **evaluation questions** (EQ) and the **evaluation logic** model (Section 3.1), and presents the **evaluation framework** (Section 3.2) that guided the **data collection**, including the consultation strategy (Section 3.3). It also provides an explanation of the **data analysis methods** used (Section 3.4), as well as a summary of the **challenges** experienced in carrying out the study and the **mitigation measures** used or proposed to overcome these difficulties (Section 3.5).

3.1 EVALUATION QUESTIONS AND CRITERIA

This section categorises the evaluation questions according to the five evaluation criteria, to demonstrate the rationale behind the questions. It also indicates the main issues to be addressed under each criterion. Table 3 below provides an overview of the criteria and corresponding questions.

Table 3 Overview of evaluation criteria and questions

Effectiveness	
EQ 1	What progress has been made over time towards achieving the objectives set out in the Directive? To what extent is this progress in line with initial expectations? In particular, what progress has been made to achieve the conservation measures set out in Article 3? To what extent have adequate licensing and inspection systems been put in place?
EQ 2	What is the contribution of the Directive towards ensuring the protection of wild fauna and the conservation of biodiversity in the EU and globally (including its contribution to implementing the EU Biodiversity Strategy and EU commitments under international conventions such as the Convention on Biological Diversity)?
EQ 3	Which main factors (e.g. implementation by Member States, action by stakeholders) have contributed to, or stood in the way of, achieving these objectives?
EQ 4	Beyond these objectives, what, if any, other significant changes both positive and negative can be linked to the Directive?
Efficiency	
EQ 5	What are the costs and benefits (monetary and non-monetary) associated with the implementation of the Directive for the different stakeholders, at local, national and EU level? Where possible, an estimate of costs broken down by size of enterprises (micro/small/medium-sized enterprises) should be provided
EQ 6	To what extent are the costs associated with the Directive proportionate to the benefits that it has brought?
EQ 7	What factors influenced the efficiency with which the achievements observed were obtained? In particular, what, if any, good or bad practices can be identified? If there are significant cost/benefit differences between Member States, what is causing them?
EQ 8	Taking account of the objectives and benefits of the Directive, what evidence is there that it has caused unnecessary regulatory burden or complexity? What factors identify this burden or complexity as unnecessary or excessive?
Relevance	
EQ 9	How well do the (original) objectives (still) correspond to the needs within the EU and globally?
EQ 10	How relevant is the Directive to achieving legal and policy biodiversity objectives at EU and global levels?
EQ 11	How well adapted is the Directive to (subsequent) technical and scientific progress?
Coherence	
EQ 12	To what extent does the Zoos Directive complement or interact with other EU sectoral policies affecting biodiversity conservation and relevant animal welfare issues at Member State and EU levels, in particular as regards wild animals kept in captivity for commercial reasons (notably circuses) and how do these policies affect – positively or negatively – the implementation of the Zoos Directive?
EQ 13	To what extent does the Directive support the EU internal market and the creation of a level playing field for economic operators, especially SMEs?
EU Added Value	
EQ 14	What has been the EU added value of the Zoos Directive compared to what could be

	achieved by Member States at national and/or regional levels?
EQ 15	To what extent do the issues addressed by the Directive continue to require action at EU level?
EQ 16	What would be the consequences of not having the Directive?

3.1.1 Effectiveness

Effectiveness is intended as the assessment of the extent to which a certain legal provision, act or set of acts has **achieved the objectives** it was intended to achieve.

This question represents a crucial component of the supporting study. The answer to this question builds on the assessment of the implementation of the Zoos Directive (i.e. the state of play), and it focuses on: the progress made towards the general and operational objectives set out in the Directive; possible additional/unforeseen effects; and the contribution to efforts towards biodiversity conservation.

The analysis is guided by the intervention logic presented above, and the evaluation framework presented in the next section. It investigates the actions taken by the Member States to ensure **implementation** of the different conservation measures foreseen by the Directive across European zoos, the extent of the **progress achieved** and the **factors** that have influenced the results.

3.1.2 Efficiency

The analysis of efficiency examines the range of regulatory costs implied by the implementation of the Directive across the 14 selected EU Member States, and assesses whether these are proportionate to the benefits delivered. It requires a structured and comprehensive assessment of the range of costs incurred in implementing the Directive, as well as the benefits achieved.

The analysis also aims to identify the main elements behind the stated costs and benefits, and those which affect the efficiency of the implementation, looking at both the systems set up in Member States and the contextual factors.

Compliance costs are mainly borne by **zoos** (the target group for the Zoos Directive), and consist of:

- One-off compliance costs (non-business-as-usual (BAU) costs, except charges and administrative costs arising from information/reporting obligations) related to Article 3 measures (such as investments) and/or recurring costs related to the implementation of conservation measures.
- Administrative burdens (administrative costs to meet information obligations caused solely by the legislation, excluding BAU administrative costs) arising from licensing and inspection procedures (i.e. labour costs for completing the licence application, preparing for the inspection necessary for granting of the licence, sending documents to authorities, completing pre-inspection questionnaires, etc.).
- Other costs and charges, i.e. licence fees.

Member State authorities incur administrative burdens that include but are not restricted to the following: labour costs for processing treating licence applications; monitoring of compliance, exchange of information. Member States' enforcement costs relate to compliance monitoring, e.g., preparing for inspection prior to granting of the licence, evaluating pre-inspection questionnaires, onsite inspections, compiling inspection reports, and cost of training inspectorate staff.

In parallel, the main expected **benefits** correspond to the intended and unintended positive impacts of the Directive.

3.1.3 Relevance

The analysis of relevance takes into account current EU **needs** and the legal and policy **objectives** in biodiversity, at both EU and global level, and sets these against the original objectives of the Zoos

Directive.

As a first step, the objectives pursued by the Directive are framed in the context of **current and emerging issues**, in order to assess the role played by the Directive in the area of conservation of biodiversity. To this end, the developments that shape the biodiversity agenda at the EU and global level (such as the Aichi Biodiversity Targets – part of the CBD, the United Nations (UN) Sustainable Development Goals (SDGs), the objectives of the IUCN, etc.) are considered, together with the relevance of EU legislation against international conventions and the roles played by other bodies.

The analysis addresses the **technical and scientific progress** achieved during the implementation period of the Directive, in order to assess the extent to which the conservation actions and the licensing and inspection systems set up by the Member States have kept pace with the latest developments.

3.1.4 Coherence

This evaluation question looks at the Directive in the context of the EU **policy and legal framework** in relation to biodiversity conservation and animal welfare. Indeed, the Zoos Directive fits within a wide net of laws and policies at EU and national level aimed at the conservation of biodiversity and animal welfare. In addition to the EU Biodiversity Strategy, the following EU legal instruments are in particular relevant:

- Directive 2009/147/EC on the conservation of wild birds (Birds Directive) and Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) (together, the Nature Directives).
- Regulation (EC) No 338/07 on the protection of species of wild fauna and flora by regulating trade therein (EU Wildlife Regulation).
- Regulation (EU) 1143/2014 on invasive alien species.
- Directive 92/65/EEC laying down animal health requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to other specific rules.
- Regulation (EC) 1739/2005 laying down animal health requirements for the movement of circus animals between Member States.

Other EU actions The analysis also addresses the contribution of the Directive to the creation of a **level playing field** among economic operators.

Overall, the objectives of the analysis of coherence are to:

- Assess the extent to which the Zoos Directive complements or interacts with other EU and international policies and legislation affecting biodiversity conservation;
- Identify possible overlaps, or conflicting objectives and requirements;
- Assess achievements in terms of harmonisation among Member States, and their contribution to the creation of comparable conditions for economic operators across the EU (with specific reference to SMEs).

3.1.5 EU Added Value

The assessment of EU added value brings together the findings reached under several of the evaluation questions. It draws conclusions about how effectively and efficiently the Directive has achieved its stated objectives and contributed to the overarching EU objectives of biodiversity conservation, and whether or not the action promoted remains relevant in the light of developments during the intervening period. The analysis consolidates this evidence and goes a step further, analysing the added value resulting from the Directive compared to what could be achieved by Member States at national and/or regional levels, and the extent to which the Directive has contributed to the uniform implementation of biodiversity conservation measures across the EU.

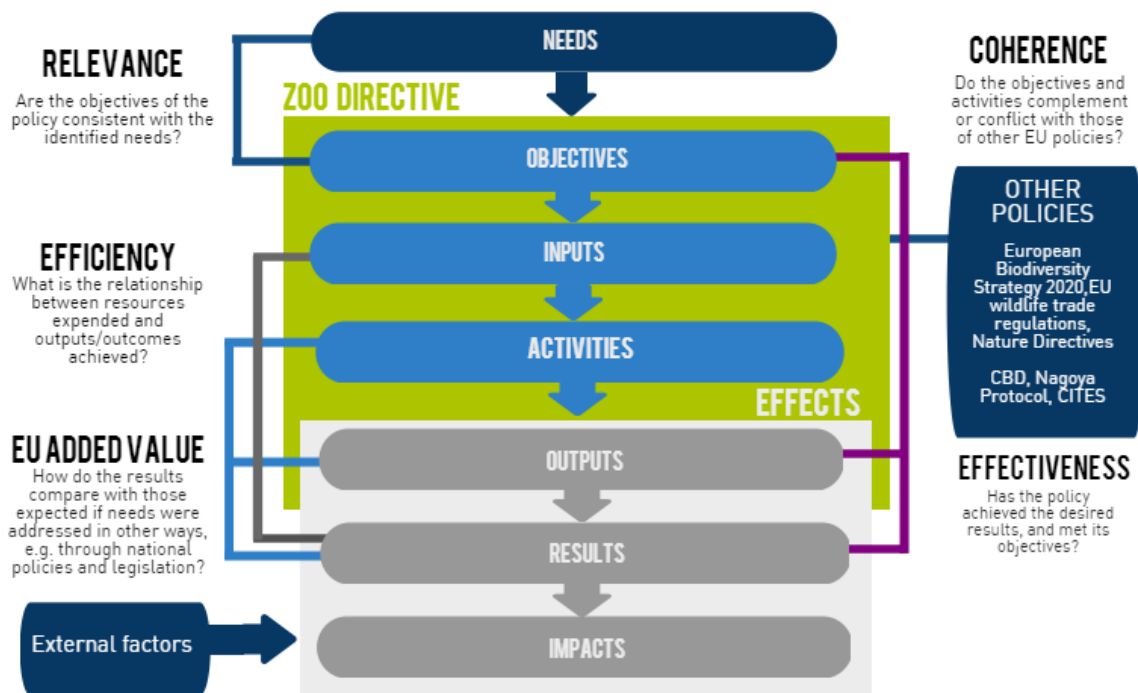
The analysis of EU added value is chiefly a qualitative assessment, built on the following elements:

- The **results achieved** and the extent to which these can be attributed to the Zoos Directive or to other factors, including the action of stakeholders active in the field of *ex situ* conservation.
- The review of the range of **relevant legislation (at EU and national level), strategies, international conventions and other instruments** that promote *ex situ* conservation measures (e.g. including recommendations, guidelines, membership conditions set by zoos' federations, World Zoo Conservation Strategy, National Species Action Plans including *ex situ* measures, WAZA global species management plans, IUCN technical guidelines for the management of *ex situ* populations for conservation, requiring members to take action for the conservation of wild fauna, etc.). The investigation of these factors will also provide indications of scenarios in which the Zoos Directive did not exist, i.e. whether action at EU level would be maintained with other instruments, existing (EU biodiversity strategy) or new (recommendation, guidelines), and whether regulation of the issue would depend on the initiatives taken at national level.
- The assessment of the **degree of harmonisation** between Member States brought by the Directive, the extent to which the issues addressed have an EU dimension, and whether or not the continuation of EU intervention is justified.

3.2 EVALUATION FRAMEWORK AND ITS LINKS TO THE INTERVENTION LOGIC

Each of the evaluation criteria summarised above is analysed in relation to specific elements of intervention presented in the intervention logic. These interactions are summarised in Figure 4 below.

Figure 4: Evaluation logic of the Zoos Directive.



Source: Present study

On the basis of the evaluation logic and the evaluation questions agreed, the study team drafted an evaluation framework that links together:

- The evaluation questions;
- The evaluation sub-questions;
- Indicators;
- Success criteria;
- Sources of information used;
- Comments from the study team;
- Links with data gathered under the consultation process (see Section 3.3).

This evaluation framework (or ‘correspondence matrix’) is presented in Annex I.

This matrix was critical in guiding the data collection and the subsequent use of data for the analysis. It ensured that all aspects of the evaluation questions were answered systematically and in a traceable manner, on the basis of relevant indicators and success criteria, and supported by all available evidence identified during the study. It was drafted in close cooperation with the European Commission from the inception phase of the study, with regular revisions to ensure appropriate links to the new sources of information identified.

3.3 DATA COLLECTION

3.3.1 Literature review and country fiches

Literature review

Desk research was carried out from the beginning of the project, with a range of documents and reported reviewed in order to:

- Develop a clear overview of the state-of-play and determine where research and expert opinion stand in respect of each of the issues under investigation.
- Collect information to support the development of reporting and data collection templates and guidance documents.
- Identify further relevant documents for the Member State level desk research.
- Collect information to add to the reference database of the project.
- Gather evidence to support the overall analysis.

Many different information sources were used for the general literature review, i.e. Google, Google Scholar, PubMed, Open Grey, websites of identified stakeholder groups, etc. Priority was given to the most recent publications and reports, with older information included when relevant.

The following categories of information were identified and analysed: scientific literature, legally binding documents, media sources, and studies and reports from stakeholders and authorities active at EU, national and international levels.

All sources identified were added to and described in the reference database, which was configured as an online tool, in order to allow clear and simultaneous listing of the sources reviewed by the different members of the study team (see Annex IVa).

Country fiches

As part of the literature review, national experts compiled background information on the transposition of the Directive in the 14 selected Member States, the number of licensed zoos, the CAs, and active national stakeholders, as well as key issues faced in the implementation (including infringement procedures at national and EU level). This initial desk research led to the drafting of the country fiches, which were then updated to incorporate information from the questionnaires and interviews (See Annex II for these country fiches). To support the next stage of the study, this initial desk research was used to:

- Gather national literature.
- Identify relevant stakeholders.
- Gain a preliminary understanding of the transposition and implementation of the Directive at national level.

3.3.2 Consultation strategy

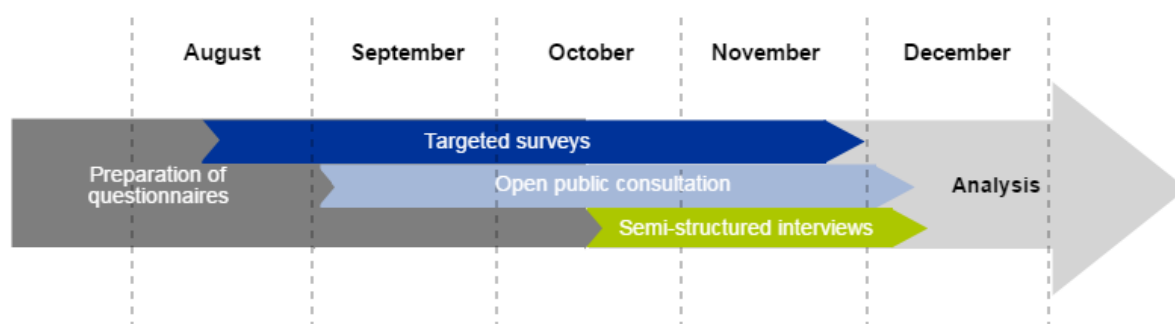
The consultation strategy was discussed during a Steering Group Meeting on 5 July 2016.

The following sub-sections outline the key elements of the consultation strategy, presenting the objectives and scope of the consultation, the stakeholder groups identified, and the consultation methods and tools used for the study. Figure 5 below presents the overall timeframe for the different consultation processes. There were three forms of consultation:

- Targeted surveys for CAs, zoos' federations, Non-Governmental Organisations (NGOs) and zoo operators from the 14 selected Member States (17 August – 28 November 2016).
- Open public consultation (15 September – 8 December 2016).
- In-depth interviews with CAs, zoos' federations, NGOs and zoo operators from the 14 selected Member States (18 October – 12 December 2016).

Each of these consultation processes are further developed in the following sub-sections.

Figure 5: Timeframe for the consultation processes



Source: Present study

3.3.2.1 Objectives and scope of the consultation

The consultation strategy played a key role in this supporting study, representing an important instrument in ensuring robustness of the analyses, transparency and legitimacy of the process.

The objective of the consultation was twofold:

- **Gather information and data** that cannot be found through desk research and additional sources, thus triangulating the data and providing solid and evidence-based answers to the evaluation questions. This data-gathering exercise focused on the 14 selected Member States and extended to EU and international stakeholders in order to gain an EU wide perspective and build a complete picture.
- **Inform and enable feedback**, allowing a **broader range of stakeholders** to provide views, feedback and perceptions of the concrete implementation and performance of the Directive in achieving its goals and contributing to biodiversity conservation, the issues at stake and the elements to be improved. The consultation strategy ensured that the findings and conclusions were shared with and validated by stakeholders.

The consultation covered the **five evaluation criteria**, translating the broad evaluation questions into specific (more detailed and targeted) consultation questions. Correspondence between the main evaluation questions outlined in Table 1, their sub-questions, and the consultation questions is detailed in the evaluation framework in Annex I. This allowed for information, data and views to be collected in a way that clearly linked to the five analysis criteria.

At **geographical level**, the consultation focused on the 14 Member States selected as representative case studies. This sample covered half of the EU Member States, and was defined with the aim of satisfying the following criteria:

- A mix of both smaller and larger (or densely populated) Member States, with a significant number of zoos.
- Geographical coverage of the EU (balancing North/South, West/East) and of different administrative models (e.g. federal and centralised states, etc.).
- A combination of older and newer EU Member States¹⁰, in order to assess different implementation periods.
- General availability of information and different progress on implementation of the Zoos Directive, including Member States where issues related to the implementation of the EU legislation have been raised¹¹.

The 14 selected Member States were: Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, France, Ireland, Italy, Germany, Lithuania, the Netherlands, Poland, Portugal and Spain. The selection ensured that the countries covered were **representative** of all EU Member States. In particular, all Member States with the highest number of zoos were included in the selection so that countries with significant experience of implementing the Directive were covered. The information gathered in these 14 Member States was thus deemed representative of the situation across the EU-28. Information from these case studies was complemented by other tools, giving full geographical coverage of the EU (e.g., literature review and public consultation, and evidence provided by stakeholders operating at EU level).

3.3.2.2 Stakeholder mapping

Based on the intervention logic of the Directive, the evaluation framework and information needs, stakeholders were selected who are directly involved in the implementation of the Zoos Directive, are impacted by the EU legislation, or have knowledge and/or interest in the topics concerned.

The following stakeholder groups were directly targeted by the consultation process:

- **Competent authorities (CAs)**, including enforcement authorities responsible for the implementation and enforcement of the Zoos Directive in the 14 Member States selected as case studies.
- **Zoos** (including public, private, charity-supported and mixed entities) in the 14 selected Member States. Based on the information provided by the CAs and other stakeholders (such as zoos' federations and NGOs), a mix of different types of zoos were included: membership/non-membership to the European Association of Zoos and Aquaria (EAZA), large and small operators, single/multiple operator, aquariums, animal parks, safari parks, collections of birds, reptiles, etc.).
- **Zoos associations/representative organisations**, acting at international, EU and national level (for the 14 selected Member States), including federations and unions of zoo operators and, where relevant, unions of zoo and wild animals' veterinarians, keepers and/or trainers.
- **NGOs** focused on biodiversity conservation in general and/or on *ex situ* conservation, and on animal welfare, at international, EU and national level (for the 14 Member States).
- **Experts/academics** with expertise in the areas of biodiversity conservation, *ex situ* conservation, wild fauna, etc.

A broad range of stakeholders (including **national stakeholders of the 14 Member States not in-**

¹⁰ Member States accessing the EU in 2004 and 2007 are considered new.

¹¹ More specifically, the following criteria were applied: estimated number of zoos; size of the country and presence of wild fauna; country localisation (North/South, West/East) and administrative structure; older and newer EU Member States; general availability of information. Based on the preliminary information available and on the exploratory interviews carried out during the inception phase, the sample included Member States where issues have been raised in relation to the implementation of the Directive.

involved in the case studies) and civil society at large, including individual citizens, were informed and reached through the public consultation and the dedicated webpage set up by Environment Directorate-General European Commission (DG ENV) for the project¹².

3.3.2.3 Exploratory interviews

During the inception phase of this study, exploratory interviews were carried out in order to gain an initial understanding of the interests and challenges faced by the two main groups of EU stakeholders in the implementation of the Zoos Directive: zoos' federations and NGOs active in animal welfare.

Both EAZA, the Eurogroup for Animals, and Born Free were interviewed using the same set of questions, based on the evaluation questions and sub-questions contained in the evaluation roadmap.

Those exploratory interviews contributed to designing the evaluation framework, in particular the identification of the types of sources of information available, indicators and success criteria.

3.3.2.4 Targeted questionnaires

The targeted online questionnaires aimed to collect detailed, quantitative and qualitative information to support the answers to the evaluation questions. The questionnaires focused on the collection of detailed information and data, especially on the implementation of the Directive (the conservation measures undertaken by the zoos and actions taken by the CAs and enforcement authorities), and the costs and benefits associated with the Directive.

The questionnaires were discussed during a Steering Group Meeting on 5 July 2016 and revised according to the members' comments.

The following paragraphs present information on:

- The stakeholders targeted and mapped and the reach out strategy.
- The questionnaires.
- Information on respondents.
- Publication of answers.

Targeted stakeholders

The questionnaires targeted all stakeholder categories with a high and medium interest according to the stakeholder analysis matrix, as well as those with a low interest but high influence in the 14 selected Member States and at EU level:

1. Member States Competent Authorities (MSCAs);
2. NGOs, zoos' federations, and experts at national and EU level¹³;
3. Zoo operators.

Identification of stakeholders

Stakeholders to be contacted for the survey were identified via different methods:

- **Zoos:** mainly through desk research by the national experts drafting the country fiches.
- **MSCAs, NGOs, federations and scientific experts:** through desk research, but also with input from EU level stakeholders (EAZA and Born Free¹⁴) and from the Commission.

¹² http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

¹³ The questionnaire targeting these stakeholders is referred to as the 'high level questionnaire'.

¹⁴ An initial list of relevant stakeholders identified through desk research was communicated to the two organisations for completion.

Questionnaires

The questionnaires were structured around the evaluation questions and sub-questions according to the evaluation framework (see Annex I). The links between questions and evaluation criteria were guided by, and then illustrated in, the evaluation framework in order to:

- Guarantee the added value of each question to the supporting study.
- Facilitate the comparison of results.
- Ensure the usability of collected data.

A major focus was placed on those evaluation questions for which the information was likely to be particularly scarce (such as state of play, effectiveness, efficiency and EU added value). The questionnaire for the targeted survey included closed questions to facilitate comparability and quantification, and semi-open questions to allow for explanations and qualitative information. The questionnaires were also tailored to each type of respondents, e.g., while MSCAs were asked to provide information on the transposing legislation, zoos were asked questions in relation to their activities, in order to measure the level of implementation of the Article 3 conservation measures.

The EU survey online service was used and the three different questionnaires are included in the Targeted Surveys Report (Annex VI).

Dissemination

Stakeholders were informed about the scope and indicative timeline of all consultation activities, including public consultation, at the end of June 2016, six weeks before the first targeted questionnaire was sent out.

Following approval by the Commission, the survey was launched by email on **11 August 2016**, including an introduction to the survey, a guidance document on the functioning of the survey system, and specific links to the relevant surveys for each stakeholder type (MSCAs, zoo operators or NGOs and zoos' federations).

In order to reach a large panel of zoo operators, the questionnaire addressed to zoos was translated into the national languages of the 14 selected Member States. Federations and NGOs were encouraged to extend the invitation to participate in the survey to all of their members and other interested stakeholders. The list of contacted stakeholders is presented in the Targeted Surveys Report (Annex VI).

Follow-up took place through emails and phone calls, particularly with:

- Non-EAZA zoos to ensure a more balanced representation of zoo members and not members of the association (see below); and all zoos in countries where the response rate was particularly low (e.g. France and Spain).
- Stakeholders selected for the interviews, in order to encourage the completion of the survey before the interview.

In view of the limited availability of stakeholders during the summer period and the slow response rate of institutional stakeholders such MSCAs, the initial deadline of the survey (**12 September 2016**) was extended several times between September and November. The surveys were closed for zoos and federations/NGOs/experts on 14 November, and for MSCAs on **28 November**, on submission of the final outstanding contributions from national authorities.

Information on respondents

The CAs of the 14 selected Member States responded to the survey. Obtaining answers from some of these authorities required close follow-up and, in some cases, the assistance of the European Commission.

Table 4: Overview of MSCAs responding to the questionnaire

Member States	Stakeholder type	Organisation
BE	CA	Animal Welfare - Walloon region and Flanders
BG	CA	Ministry of Environment and Water; National Nature Protection Service Directorate
CY	CA	Ministry of Agriculture, Natural Resources and Environment, Animal Health & Welfare Division
CZ	CA	Ministry of the Environment
DK	CA	Ministry of Environment and Food; Danish Veterinary and Food Administration
FR	CA	Ministry of Environment, Energy and Sea; Sub- Directorate for the Protection and promotion of species and their environment
IT	CA	Ministry of Environment, Land and Sea Protection
LT	CA	Ministry of Environment of the Republic of Lithuania
DE	CA	Federal Ministry of Environment, Nature Protection and Nuclear Safety, Protection of Species, Dept. NI3
IE	CA	National Parks and Wildlife Service, Department of Arts, Heritage & the Gaeltacht
NL	CA	Ministry of Economic Affairs, Directie Dierlijke Agroketens en Dierenwelzijn
PL	CA	Ministry of Environmental Protection
PT	CA	Ministry of Agriculture, General Directorate for Food and Veterinary services
ES	CA	Ministry of Agriculture

Source: Targeted Surveys Report (see Annex VI)

Of the survey addressed to zoos' federations and NGOs, 26 stakeholders replied, categorised as follows:

Table 5: Overview of types of respondents to the high-level questionnaire

Level	Federations			NGOs			Authorities and experts ¹⁵		
	Contacted	Responded	Response rate (%)	Contacted	Responded	Response rate (%)	Contacted	Responded	Response rate (%)
EU	4	2	50%	3	3	100%	5	0	0%
International	3	1	33%	1	0	0%	3	0	0%
National	15	10	67%	35	10	29%	2	1	50%

Source: Targeted Surveys Report (see Annex VI)

At national level, zoos' federations and NGOs were from the following countries:

Table 6: Geographical distribution of federations and NGOs responding to the questionnaire

	BE	CY	DE	DK	ES	FR	IT	NL	PT
Federations	-	-	2	1	1	1	-	2	1
NGOs	1	1	2	-	2	1	1	-	-

Source: Targeted Surveys Report (see Annex VI)

Organisations active in the field of biodiversity conservation (IUCN, CITES, CBD) expressed a lim-

¹⁵ CBD and CITES Secretariats were considered as 'Authorities' and are included in the 'Authorities and experts' category.

ited interest in contributing to the study. While the CITES and CBD Secretariats considered that they could not usefully contribute to the study, the IUCN estimated that they were not in a position to contribute as an entity to the study, instead proposing an interview with one member of a specialist group (see Section 3.3.2.5 below).

In order to maximise the outreach to zoos, a large number of zoo operators were contacted directly (514 zoos, representing around 25%¹⁶ of the total registered or recognised zoos in the 14 Member States), based on the information gathered during the inception phase (desk research and lists from CAs¹⁷). The goal response rate of between 15% and 20% of all contacted zoos was achieved. Seventy zoos from the 14 selected Member States replied to the survey, with 12 additional zoos responding by direct email, giving a total response rate of 16%¹⁸.

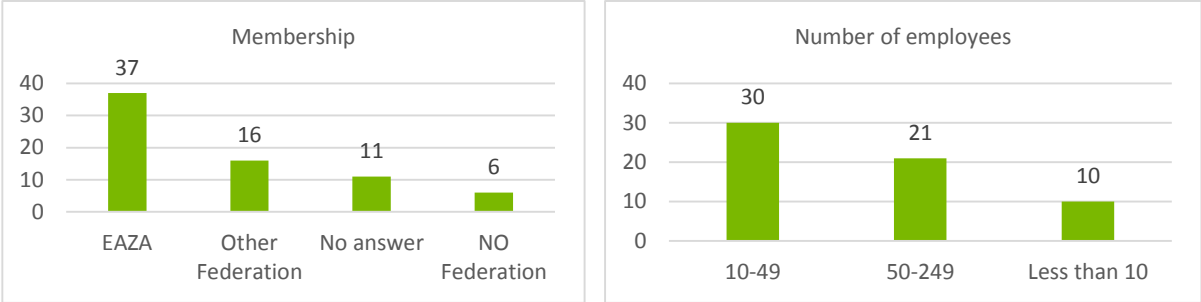
Most of the zoos that responded were part of EAZA or other national federations, meaning that EAZA zoos are over-represented in the survey responses (EAZA zoos represent nearly 20% of the total number of licensed zoos¹⁹ in the 14 selected Member States, and 52% of the respondents). The difficulties relating to representativeness are discussed in Section 3.5.1.2 below.

However, the survey also captured the points of view of zoos affiliated to national federations, as well as zoos with no membership (six respondents indicated no membership, while 11 did not answer the question). Similarly, the replies represent zoos of different sizes, especially small establishments (between 10 and 49 employees), and include a number of very small zoos, with fewer than 10 employees (Figure 6). The presence of small zoos in the sample is particularly important, since one of the objectives of the evaluation mandate is assessing whether small zoos face more difficulties in complying with the requirements of the Zoos Directive. It was for this reason that the questionnaire was translated into each of the relevant national languages, a strategy that proved successful in increasing the outreach of the survey and enhancing the participation of smaller operators.

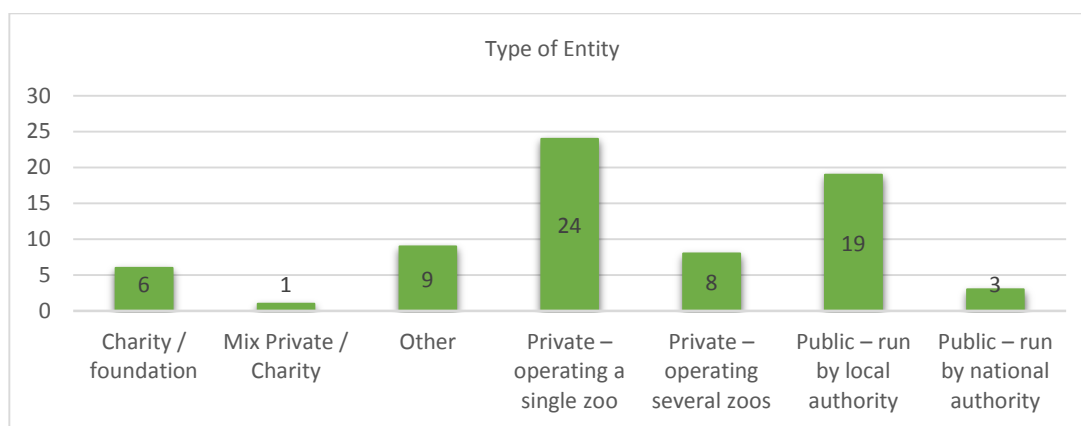
Finally, the respondents to the survey represent private and public establishments, as well as entities with mixed ownership.

The charts below present the main features of the zoos that responded to the survey.

Figure 6: Distribution of survey responses by membership, number of employees and type of entity, in absolute numbers



¹⁶ An approximation, given the lack of precise information on the number of zoos in each Member State.
¹⁷ MSCAs were asked to provide information and contact details of the zoos, possibly recorded by the licensing system. In parallel, the mapping was conducted through desk research and with the input of other stakeholders.
¹⁸ Those zoos did not reply through the survey but highlighted their interest or lack of interest on the Directive by emails. They were therefore not represented in the statistical analysis survey responses but were taken into account as equivalent to position papers.
¹⁹ As reported by MSCAs in the survey: 195 EAZA members of 1,006 zoos.



Source: Targeted Surveys Report (see Annex VI)

The geographical distribution of responding zoos is illustrated below (together with the number of zoos contacted and the related response rate).

Table 7: Geographical representation of zoos responding to the survey

Countries	BE	BG	CY	CZ	DE	DK	ES	FR	IE	IT	LT	NL	PL	PT
Number of zoos contacted	29	7	6	19	82	26	20	100	17	67	8	30	21	22
Number of zoos responding	7	2	1	6	17	0 ²⁰	7	10	4	4	1	2	1	8
Response rate (%)	24%	29%	17%	35%	21%	0%	35%	10%	23%	6%	12%	7%	5%	36%

Source: Targeted Surveys Report (see Annex VI)

Publication of responses

The responses of all of those who did not require total anonymity (option provided in the survey) were published by the European Commission on its webpage dedicated to the evaluation.

3.3.2.5 In-depth interviews

Defining the scope and objectives of the interviews

The aim of the interviews was to obtain an in-depth view of the relevant issues in each of the selected countries, together with an overview of the situation at EU and international level. Where appropriate, the interviewees were asked to provide written supporting evidence (e.g. for issues that require quantitative assessments, such as costs).

The interview questions ensured full coverage of the evaluation questions, tailored to the different stakeholder groups identified (see previous Section 3.3.2.4). The links between the evaluation questions and interview questions were added to the evaluation framework (see Section 3.2). A semi-flexible approach was adopted, meaning that while the same topics were covered in all interviews, each interview took into account the specific context and issues raised by the stakeholder in the targeted survey.

The interview questions were drafted in collaboration with the European Commission. The interview questions, as well as the targeted stakeholders and the general approach, were discussed during a Steering Group Meeting on 6 October 2016.

²⁰ Danish zoos did not reply individually to the survey, as they mandated their national zoo association (DAZA) to reply on their behalf.

The interviews were organised with:

- **National stakeholders:** within each of the 14 Member States, depending on the number of relevant stakeholders acting at national level, between **two and four interviews** were held. These included at least one interview with the CA. The remaining interviews were carried out with a different type of stakeholder, preferably the main national zoo federation or an NGO involved in *ex situ* conservation or having zoos in their field of activity. While not initially foreseen, where possible, one zoo was also interviewed in order to gather additional information for the efficiency analysis.
- **EU and international stakeholders:** in addition to the stakeholders within the 14 Member States, the data collection team performed eight additional interviews with stakeholders from the EU and international level. In total, 44 stakeholders were interviewed: 13 MSCAs, eight zoo federations, six NGOs, nine zoo operators and eight EU and international stakeholders (See Table 9). This is higher than the target initially provided in the consultation strategy²¹.

Table 8: Overview of stakeholders interviewed

Number	Country	Stakeholder type	Organisation
1	BE	MSCA	Walloon and Flemish Public Service for Animal Welfare
2	BE	NGO	GAIA
3	BE	Zoo	BE Zoo (anonymity requested)
4	BG	NGO	Four Paws
5	BG	Zoos	Sofia Zoo
6	CY	MSCA	Veterinary Services
7	CY	NGO	ARC Cyprus
8	CY	Zoo	Pafos Zoo
9	CZ	MSCA	Ministry of the Environment of the Czech Republic
10	DE	MSCA	Regional Department for Health and Food Safety; Regional Institute for Animal Health, Bavaria
11	DE	MSCA	Federal Ministry for the Environment, Nature Conservation
12	DE	Zoos Federation	Verband der Zoologischen Gärten – VdZ
13	DK	MSCA	Ministry of Environment and Food; Danish Veterinary and Food Administration
14	DK	Zoos Federation	Danish Association of Zoos and Aquaria - DAZA
15	ES	MSCA	Ministry of Agriculture, Food and Environment, General directorate for environmental quality and evaluation, General sub-directorate for natural environment
16	ES	Zoo	Zoobotanico Jerez
17	ES	NGO	Infozoos
18	ES	Zoos Federation	Asociación Ibérica de Zoos y Acuarios - AIZA
19	FR	NGO	Code Animal
20	FR	Zoo	FR Zoo (anonymity requested)
21	FR	MSCA	Ministry of Environment
22	IE	MSCA	Ministry of the Environment
23	IE	Zoos Federation	British and Irish Association of Zoos and Aquariums - BIAZA
24	IE	Zoo	Fota Wildlife Park
25	IT	MSCA	Ministry of Environment, Land and Sea Protection; Nature and Sea Protection Directorate; CITES Management Authority
26	IT	Zoos Federation	Italian zoos federation
27	IT	Zoo	IT zoo
28	IT	NGO	Animalisti Italiani
29	LT	MSCA	Ministry of Environment; Nature Protection Department, Biodiversity Division;
30	LT	Zoo	Lithuanian Zoological Gardens
31	NL	MSCA	Ministry of Economic Affairs

²¹ Minimum 28 and maximum 42 interviews at national level, plus up to eight interviews at EU/international level.

Number	Country	Stakeholder type	Organisation
32	PL	Zoo	Wroclaw Zoo
33	PL	Zoos Federation	Board of Directors of Polish Zoological Gardens and Aquaria
34	PT	Zoo	Jardim zoologico e de aclimação em Portugal
35	PT	Zoos Federation	Associação Portuguesa de Zoos e Aquaria - APZA
36	PT	MSCA	Division of Animal Welfare - DGAV-DSPA
37	EU	EU and international	Eurogroup for Animals
38	EU	EU and international	EAZA
39	EU	EU and international	BornFree
40	EU	EU and international	EAAM
41	EU	EU and international	European Commission, DG Environment, Unit D.2 (Biodiversity)
42	EU	EU and international	IUCN SSC Commission expert/Vice-Director of Copenhagen Zoo
43	EU	EU and international	Expert in biodiversity conservation
44	EU	EU and international	Expert in biodiversity conservation

Source: Interviews Report (see Annex VII)

Some stakeholders were difficult to reach, slow to respond, non-responsive or declined to reply. Most international stakeholders contacted declined an interview (WAZA, CITES Secretariat and CBD Secretariat).

While an expert of the SSC Commission of IUCN was interviewed, no formal contribution was provided from IUCN as an organisation.

Interview guidelines

The project management team developed interview guidelines, with the guidance document subject to approval by DG ENV, and afterwards circulated among the study team. The guidance document included information on:

- Purpose of the interviews.
- Stakeholders targeted.
- Instructions for contacting stakeholders, preparing (and/or tailoring) the questions and conducting the interviews.
- Interview questions, including:
 - Background information on the context of certain questions (brief overview of the main findings from questionnaires which triggered specific interview questions, if relevant);
 - Links to the questions for each targeted questionnaire. To prepare the interviews, the interviewer was asked to check the answers provided by the interviewee to these specific questions.

In addition to this guidance document, the interviewers received:

- Online survey questionnaires completed by the interviewees.
- All answers from the other stakeholders from the relevant Member State.
- An Excel matrix ('general transcript') to report the information gathered during the interviews.
- List of questions to send to the interviewee ahead of the interview. Four different lists were

prepared, one for each stakeholder type²². For additional information, please see the Interviews Report provided in Annex VII.

Carrying out the interviews

To ensure effective interviews, interviewers sent the list of questions to the interviewee in advance, allowing awareness or preparation of the topics to be discussed.

Results of the interviews were validated by cross-checking information, such as asking the same question of different stakeholders, and verifying statements by evidence as far as possible (legislation, publications, etc.).

Finally, the interviews took place in the national language of the interviewee where an interview in English was not possible.

Transcripts of interviews

Transcripts of interviews were requested for each interview. Once drafted, the transcripts were sent to the interviewee for approval and additional input. Transcripts were then fed into a general transcript in an Excel document (in English) in order to allow the study team to compare and collect the relevant information for answering the evaluation questions. The Interviews Report summarising the results of the interviews is provided in Annex VII.

3.3.2.6 Public consultation

The public consultation aimed to invite the views and perceptions of a wide set of stakeholders on the contribution of the Directive to strengthening the role of zoos and enhancing biodiversity conservation. It was intended to enlarge the scope of the consultation beyond those stakeholders consulted in the 14 selected Member States, and to give stakeholders from other countries and private citizens the opportunity to express their opinions.

Study support for the public consultation was threefold: firstly, the development of the questionnaire, in cooperation with the European Commission; secondly, supporting the set-up and dissemination of the public consultation; and, finally, the drafting of a report (**Public Consultation Report**) outlining the number of responses, problems encountered, lessons learned, and summarising the results of the consultation per criterion and per question. The Public Consultation Report is provided in Annex VIII to this Report.

Defining the questionnaire for the consultation

The questionnaire closely followed the logic of the REFIT exercise, seeking to obtain feedback on the five evaluation criteria. The questions aimed to collect opinions and input on the different evaluation questions, in order to easily evaluate the outcome of the public consultation and strengthen the evidence base.

The public consultation focused on 10 key questions. These were closed questions, in order to ensure the comparability of data and to facilitate their analysis (there was some possibility to provide limited input, i.e. limited number of words to complement closed questions; for multiple choice questions 'other, please specify'). The links between the questions in the public consultation and the evaluation questions are included in the evaluation framework in Annex I).

²² MSCAs, federations and NGOs, zoos, EU stakeholders.

The public consultation was intended as a complementary tool to supplement the information gathered through the other tools (in particular the targeted questionnaires and interviews). Questions were drafted in a way that ensured the manageability and usefulness of the answers, and related to the awareness of citizens and their perceptions of the implementation of the Directive.

The questions were drafted in close cooperation with the European Commission, both within DG ENV and with the Secretariat General, following a Steering Group meeting held on 5 July 2016.
Supporting the setting up and dissemination of the public consultation

Once the questionnaire was approved, it was translated by the services of the European Commission into the national languages of the 28 Member States. The online consultation was then set up on the EU Survey tool and published via the Internet portal 'Your voice in Europe'. The survey was advertised on the DG ENV website.

The project team supported the dissemination of the public consultation by reaching out to the main stakeholders involved in the study and to additional relevant stakeholders. European organisations, such as Eurogroup for Animals, EAZA and Born Free, were encouraged to further reach out to a wider audience.

The public consultation was open for 12 weeks, between 15 September 2016 and 8 December 2016. The online consultation questionnaire was accompanied by general information for the public, which included the following:

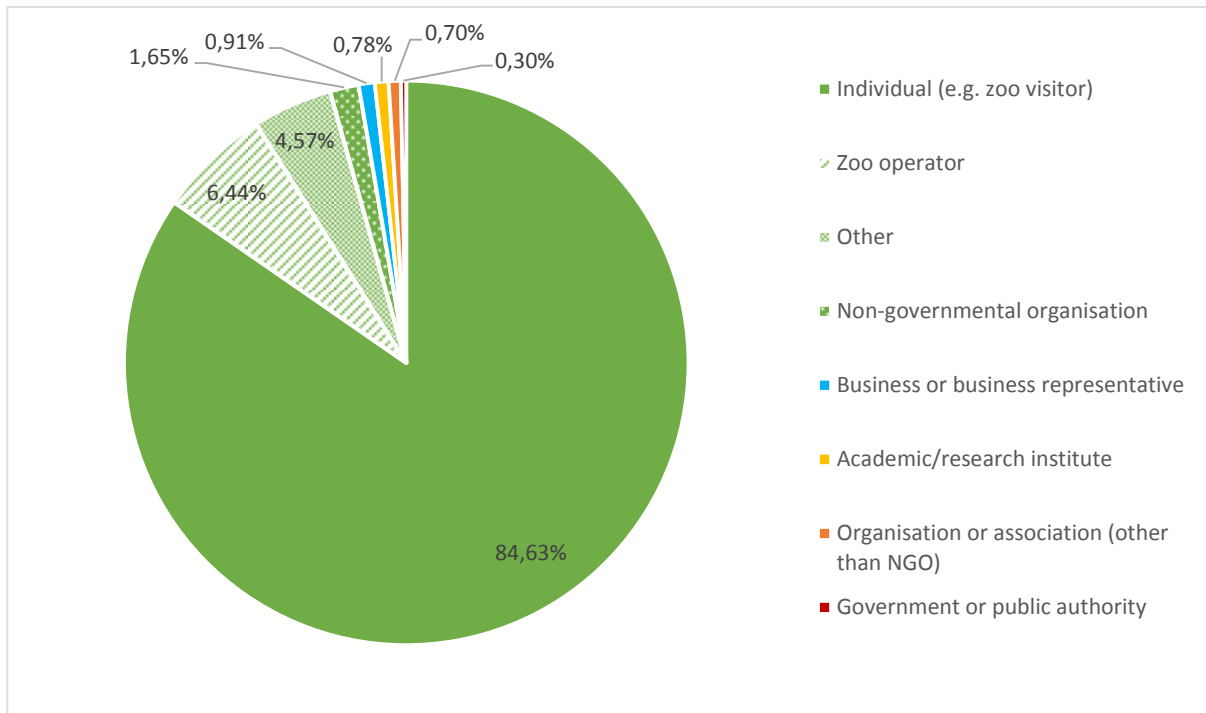
- A summary of the context, scope and objectives of the consultation.
- Contact details and deadlines.
- Information on the target group.
- Information on how to contribute.
- Reference to background documents.
- Explanation of the Commission's processes for dealing with contributions, the feedback to expect, and details of the next stages of the REFIT exercise.

Consultation report

In total, 2,297 responses to the public consultation were received. The two main categories of respondents were individuals (e.g. zoo visitors) with 1,944 answers, and zoo operators, with 148 answers. An overview of the type of respondents is presented in Figure 7 below.

A Public Consultation Report was drafted to set out the results of the overall process and methodology. In addition to the elements described here, the Report is provided in Annex VIII.

Figure 7: Types of respondents



Source: Public Consultation Report (see Annex VIII)

In the Public Consultation Report (Annex VIII), answers to closed questions are given, with frequencies, measures of central tendency and dispersion presented to show the distribution of respondents across the different question and answer categories. The report gives an overview of the extent of certain opinions and possible problems. Break-down analyses to compare opinions of different types of stakeholders are also provided.

In analysing the text to complement closed questions (i.e. the limited number of words allowed), common or similar arguments and issues raised were aggregated to the extent possible, and then added to the quantitative analysis.

Finally, the analysis of semi-open fields allowed certain patterns to be identified, including campaigns of influence. Given the limited influence of such campaigns, these were flagged and analysed separately where necessary (see Section 3.5.1.3).

This report will be made available on the Commission’s website to ensure transparency of the process. The results of the public consultation are also incorporated into the analysis of answers to the different evaluation questions, as part of the evidence pool.

3.4 DATA ANALYSIS METHODS

The evaluation framework guided the data collection and formed the basis for the detailed review of evidence and analysis of each evaluation question. The evaluation framework (Annex I) maps the links between the evaluation questions and the questions posed by the different surveys (targeted and public) in the study.

The main analytical method used was content analysis, based on the aggregation and analysis of information collected through the literature review, desk research, interviews, targeted questionnaires (open-ended answers) and public consultation. Replies to closed questions were analysed using descriptive statistics.

In order to conduct a structured analysis, the available evidence was organised in Excel ‘databases’,

which linked the data and information collected with the relevant evaluation questions.

The replies to the targeted questionnaires were organised according to the relevant evaluation questions (on the basis of the correspondence matrix) and, for each survey, replies were analysed in order to establish and compare the opinions of different types of stakeholder. Zoo replies were investigated according to sub-groups, i.e. membership of a national, European or international federation, and number of employees²³. Replies to the questionnaire addressed to federations, NGOs and experts were disaggregated according to the category of stakeholder, and to level of action (EU, national, international or mixed). Open-ended replies were also screened and represented an important means of gaining deeper insights and better understanding of the reasons behind the answers provided, with examples integrated into the analysis for illustrative purposes.

The country fiches for the 14 selected Member States (Annex II) each included an overview of the national system, with particular attention paid to the legislation at national level, potential additional sources of information, and review of the main achievement and challenges experienced in implementation at national level.

Data were aggregated and analysed according to the principles of triangulation of evidence from different perspectives (stakeholder categories) and different sources.

Finally, the reliability of information was assessed according to the following criteria:

- Internal validity of the evidence (i.e. is the evidence precise and reliable?): less weight was given to opinions, compared to studies with well-described methodologies and references to sources of information, and/or to official statistics. However, greater weight was accorded where a number of similar opinions were expressed by different stakeholders.
- Sample size and representativeness (i.e. is the evidence based on an adequate number of cases/representative of the overall population?): here, evidence is presented as illustrative when it does not represent several consistent cases or where it does not cover the overall population.
- Temporal relevance and geographical relevance: the analysis takes into account the extent to which the evidence is up to date (or refers to a time period relevant to the evaluation), and refers to the geographical area in the scope of analysis.

When the reliability of sources and the possibility for triangulation were inadequate, the limitations have been described.

3.5 CHALLENGES, MITIGATION MEASURES AND ROBUSTNESS OF THE FINDINGS

3.5.1 Main challenges

A number of challenges were encountered during the implementation of the first phase of this study in relation to the availability and quality of information and data, the quality of stakeholder input and, in some cases, the limited possibility for triangulating sources and opinions. The main issues can be summarised as follows:

3.5.1.1 Lack of reporting obligations and consolidated data on the implementation of the Zoos Directive

Member States are not required to report on the implementation of the Zoos Directive and no mechanisms for the systematic monitoring of its implementation exist at EU level. The information available at the beginning of the study was limited to infringement procedures launched by the European Commission against the Member States (mainly because of late transposition), pilot cases preceding in-

²³ Another possibly relevant breakdown could have been related to the type of entity, i.e. public, private or mixed. However, the results disaggregated according to the type of entity did not show major differentiations.

fringements, and stakeholder reports²⁴.

As a result, considerable effort was required to collect basic elements of information essential for the supporting study, such as the designated CAs and features of the licensing and inspection systems in the 14 selected Member States, data on the number of zoos falling under the definition of the Directive, and number of closures of zoos or breaches of the legislation detected at national level.

This information was mainly gathered through desk research in each of the 14 Member States and through answers to the questionnaires addressed to MSCAs and other stakeholders (Zoo federations, NGOs, experts and zoos). However, in many cases, it was not possible to obtain reliable and/or comparable data.

The availability of consolidated and complete data on the total number of zoos subject to the Zoos Directive, licensing procedures completed and ongoing, breaches of the legislation, closures of zoos and sanctions imposed during the implementation period is a particular issue. The data provided by MSCAs appear in many cases to contain solely the number of licensed zoos, are not comparable and are limited to the most recent years of implementation.

3.5.1.2 Limited evidence/available information supporting the analysis of the evaluation questions

Gaps did not relate solely to the information available on the implementation of the Zoos Directive and the licensing and inspection systems set up. Limitations of information/data availability also affected the other general and specific aspects addressed by the evaluation questions.

Several evaluation issues lacked extensive documented and/or independent research, and it was possible to fill the gaps through primary data collection only to a limited extent.

Firstly, there is a general **lack of information on contextual elements** that would have allowed the study to better frame the implementation of the Zoos Directive and investigate long-term trends. The gap concerns the baseline²⁵, as well as consolidated data at EU and national level on the distribution of zoos by number of employees or type of entity (public, private, mixed, etc.), size and composition of the animal collections, number of visitors, revenues, or expenses in research. Data exist mainly in relation to zoos which are members of European or international zoo federations (EAZA and WAZA), for specific years, or aggregated at European (rather than EU) or even global level.

Secondly, there are **no consolidated and comprehensive data on research projects and other conservation measures implemented by zoos**. Again, some evidence on conservation measures (such as participation in research, captive breeding programmes, reintroduction into the wild, etc.) is limited to specific (often EAZA) zoos and is analysed in the context of specific studies or projects (such as the database of European Endangered Species Programme, EEP and European Stud Books programmes, ESB). More comprehensive evidence is provided by stakeholder organisations, such as the Born Free Foundation, which has supported the so called 'EU Zoo Inquiry' for several years now, an investigation into the status and performance of zoos across most of the Member States. Although this investigation provides many insights and useful information, it does not represent a consolidated database but it is based on in-depth analysis of a sample of EU zoos. Nor can it be ignored that the Born Free Foundation is an interest group, and no other comparable source that allows proper triangulation is currently available. The survey addressed to zoos provided some input with respect to the conservation measures implemented, by bringing real life examples of, and insights into, the main activities undertaken in EU zoos. Nevertheless, it is important to mention that the results of the survey are biased by the over-representation of zoos belonging to federations (in particular EAZA). More generally, the survey is likely to have captured mainly conservation focused zoos. It is clear, therefore, that the re-

²⁴ In particular, the Born Free Inquiry.

²⁵ The data on the situation prior to the Directive is very limited, and relies primarily on the 1988 Survey of Zoological Collections, the previously legislation existing at national level, and preparatory documents from the European Parliament.

plies to the survey cannot be used to extrapolate data on the share of EU zoos implementing conservation measures (nor was this the intended objective) but only to complement the information collected at national level on the actions taken by Member States in order to ensure the compliance of zoos with the legislation.

Finally, an important gap in questionnaire responses from zoos and Member State authorities is related to **the lack of information on the costs and benefits triggered by the Zoos Directive**. This information is key for the assessment of 'Efficiency'. Yet, most of the zoos and Member State authorities replying to the survey did not provide suitable data and information. The challenge for both zoos and MSCAs is to disentangle the effects of the Zoos Directive from what would happen anyway (BAU costs). Zoo inspectors, in most cases, have responsibilities in addition to those under the Zoos Directive, a factor that makes estimates of the effort dedicated to the enforcement of the Directive difficult. Similarly, zoos were often unable to determine which costs (e.g., investments for the renovation of enclosures) are attributable to the Directive, rather than to other developments (e.g. responding to changes in public perception and a general increase in awareness of species conservation issues). The differentiation of zoos by size and collection also makes it difficult to provide general estimates.

The difficulty of isolating the effects of the Zoos Directive is even more significant when it comes to the estimate of benefits: all stakeholders experienced difficulties in responding to this element of the supporting study.

3.5.1.3 Duplicate responses and campaigns affecting the targeted and public consultations

The influence of interest groups affected the results of the consultations launched as part of the supporting study.

This issue partly affected the **replies provided by zoos (belonging to EAZA) in the targeted questionnaire**. Of the 70 replies, around 10 provided duplicate responses to the section of the questionnaire relating to the evaluation issues (whereas the section on the implementation of conservation measures is, of course, related to the specific experience of the zoo).

Another issue relates to the **public consultation**, which took place over a period of 12 weeks and was announced on the evaluation website. At least two NGOs involved in animal welfare (Born Free²⁶ and Eurogroup for Animals²⁷) provided suggested replies to the public consultation. Such guidance was also disseminated through other EU/international associations (such as Animal Defender International, ADI²⁸), and other associations at national level (such as Animal Public²⁹, which is active in Germany). It is expected that additional examples may be found on other websites. A very limited number of respondents followed all indications for the closed questions (40 of the 2,297 respondents)³⁰.

Responses to semi-open fields revealed the presence of additional campaigns by other interest groups, including zoos associations at both EU and Member State level. In these cases, overall, only a limited number of stakeholders provided input in semi-open fields, most of which appear to be influenced by interest groups³¹. These campaigns were followed by various stakeholder categories: individuals, NGOs, other associations and zoo operators.

It is not possible to precisely assess the impact of these campaigns on the overall results (some respondents may have followed the guidance only partly, or might have answered closed questions simi-

²⁶ http://www.bornfree.org.uk/fileadmin/user_upload/files/zoo_check/EU_Zoo_Inquiry/Public_consultation_on_Zoo_Directive_REFIT.pdf

²⁷ <http://www.eurogroupforanimals.org/wp-content/uploads/2016/10/Suggested-Replies.pdf>

²⁸ Suggested replies are the same as those provided by Eurogroup for animals (http://www.ad-international.org/animals_in_entertainment/go.php?id=4264&ssi=12).

²⁹ Suggested replies provided by Eurogroup for animals are the same as those provided by BornFree (<http://www.animal-public.de/europas-zootiere-brauchen-ihre-hilfe/>).

³⁰ 36 respondents followed the indications of Born Free (1.5% of the total number of respondents); four respondents followed the indications of Eurogroup for Animals (0.17% of the total number of respondents).

³¹ Depending on the question, from 56% to 84% of the respondents provided replies affected by campaigns.

larly by coincidence). However, the overall impact of replies that followed all indications for the closed questions is very limited (40 of the 2,297 respondents or 1.74%). These identical reply patterns were not, therefore, analysed separately. For semi-open questions, repeated comments were taken into account in the overall analysis.

Finally, on a more positive note, several organisations disseminated the information on the public consultation without any recommended replies, suggesting that considerable visibility was achieved.

3.5.2 Mitigation measures and robustness of the findings

The challenges described above have been addressed as far as possible by setting up and conducting an extensive collection of primary data, and through targeted questionnaires addressed to the different stakeholder categories, complemented with interviews. Additional interviews with zoos also sought to gain a better understanding of the steps for obtaining and keeping a zoo licence, and to collect suitable information for a more comprehensive assessment of costs, particularly administrative costs. Where relevant, for instance in order to assess the level of implementation of conservation measures by zoos, literature was also used as an additional source of information.

However, some limitations remain in the robustness of the data collected and, consequently, the findings. To summarise the main challenges:

- There are gaps in the data provided by stakeholders, especially when it comes to historical data (e.g. in relation to Member State authorities, data on number of zoos licensed, number of detected breaches of the legislation, etc.) and data on costs. These gaps have, in some cases, prevented the use of the data provided by some of the Member States or zoos.
- Where data are provided, their quality is sometimes low (e.g. the breakdown of zoos by status of the licensing procedure does not match the total number of zoos identified). Data have not been used where it has not been possible to verify the information (or it has been used only for illustrative purposes).

These issues limit the possibility of a detailed analysis based on reliable quantitative data, especially for certain evaluation questions: **EQ 1 (Progress towards the achievement of the objectives: setting up of adequate licensing and inspection systems and implementation of the conservation measures set out in Article 3)**; in relation to the assessment of the ‘Efficiency’ of the Zoos Directive; and in relation to the assessment of the ‘EU Added Value’ (data before and after the implementation of the Directive are missing).

It was difficult to obtain the level of detail required by the evaluation questions and to quantify the relevant indicators. The available data and information were therefore, combined with the data on stakeholder perceptions, and the underlying reasons behind the opinions were investigated by substantiating the findings with examples and specific arguments.

4 IMPLEMENTATION OF THE ZOOS DIRECTIVE

4.1 STATE OF PLAY: IMPLEMENTATION OF THE DIRECTIVE IN THE MEMBER STATES

4.1.1 Status of zoos in the EU

Article 2 of the Zoos Directive defines ‘zoos’ as ‘all permanent establishments where animals of wild species are kept for exhibition to the public for seven or more days a year, with the exception of circuses, pet shops and establishments which Member States exempt from the requirements of the Directive on the grounds that they do not exhibit a significant number of animals or species to the public and that the exemption will not jeopardise the objectives of the Directive’.

The term ‘zoos’, an abbreviation of zoological gardens, now represents **a wide range of collections** that contain non-domesticated animals. Such establishments may concentrate on specific groups of species, geographical regions, conservation ambitions, or solely on attracting visitors. They comprise, therefore, places denominated ‘zoo’, ‘aquarium’, ‘safari park’, ‘bird garden’, etc.

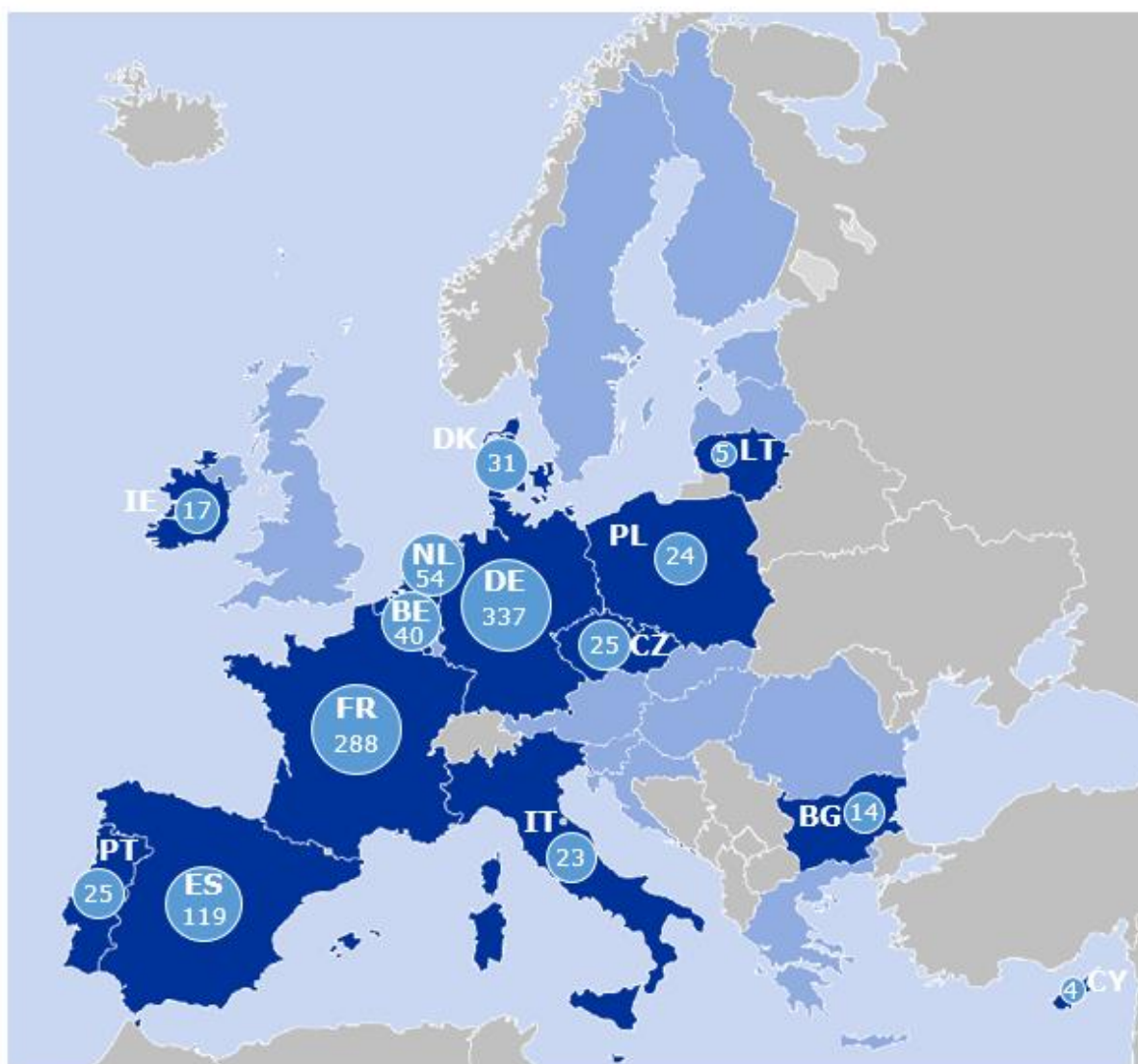
Zoos may be owned and run as charitable or not-for-profit organisations and societies, owned by municipal authorities, or run explicitly as commercial enterprises with the intention of generating income. The different purposes and structures are likely to lead to a **diverse array of establishments** perceived widely as zoos and which fall within the Directive’s definition. There may, for example, be tourist attractions, learning and research centres, conservation organisations or various combinations of these.

The majority of Member States have no official information on either the number of zoos or the nature of zoo ownership (public, private, and other). This lack of data is often the consequence of the absence of a zoo registry at national level (centralised databases have been reported only for Cyprus, the Czech Republic, Ireland, Poland and Portugal). Where data are available on the number of zoos at national level, it is unclear which criteria are taken into account in their identification (i.e. exclusion of non-licensed zoos; inclusion of establishments displaying both domestic and wild species).

For the purposes of the supporting study, data on the **number of zoos** were collected in the 14 Member States selected as case studies. According to MSCAs, there are at least 1,000 licensed zoos in these selected countries³².

³² Data on the number of zoos provided by MSCAs for the survey. These numbers do not include non-licensed zoos, which could be zoos for which the licence has been refused, or zoos for which the licensing procedure is pending. Nor are exempted zoos considered. In some Member States, other sources (e.g. Born Free) tend to report a higher number of zoos (which either could not be detected by the Member State authorities or are considered exempted from the zoo legislation).

Figure 8: Number of licensed zoos in selected Member States in 2015



Source: Data from the present survey of MSCAs

Across the 14 Member States surveyed, 195 zoos (19% of the licensed zoos) are **EAZA members**³³. In two EU Member States, no zoos are members of EAZA (Cyprus and Malta). Table 9 shows the number of EAZA zoos in each country across the 28 Member States and, for the 14 Member States surveyed, the share of licensed zoos which are EAZA members.

Table 9: EAZA membership and percentage of licensed zoos in the 28 EU Member States

Member State	EAZA zoos	Percentage of licensed zoos members of EAZA
AT	6	N/A
BE	7	17.5%
BG	1	7.15%
CY	0	0%
CZ	14	56%
DE	47	14%
DK	11	35.5%

³³ In the 28 EU Member States, 286 zoos are members of EAZA.

Member State	EAZA zoos	Percentage of licensed zoos members of EAZA
EE	1	N/A
EL	1	N/A
ES	16	13.5%
FI	3	N/A
FR	54	18.75%
HR	2	N/A
HU	7	N/A
IE	2	12%
IT	10	44%
LT	1	20%
LU	1	N/A
LV	1	N/A
MT	0	0%
NL	14	26%
PL	11	46%
PT	7	28%
RO	2	N/A
SE	13	N/A
SI	1	N/A
SK	3	N/A
UK	50	N/A

Source: Elaboration of data from the 2016 EAZA database; present survey of MSCAs³⁴

The nature of **zoo ownership** varies across Member States (private, public, and other ownerships). In some of the countries surveyed, zoos are all publicly owned (e.g. Bulgaria), while in others, the majority of zoos are privately owned (commercial enterprise; scientific establishment, e.g. Germany, Denmark, Italy). In some Member States, both public (including those with a charitable status) and private entities operate zoos (e.g. France, Ireland).

4.1.2 Market overview

It is estimated that more than **140 million visits**³⁵ are made each year to zoos that are members of EAZA (EAZA 2016) and that some 700 million visits to zoos are made worldwide annually (Barongi, et al. 2015). In the context of this study, there are **no official figures on the number of zoo visitors** in the 14 Member States surveyed. Nonetheless, data on the number of zoo visits are available for members of zoo federations and/or associations in some countries. For instance, in Germany, 33.4 million visits were made to zoos belonging to the Association of Zoological Gardens in 2014 (Germany has a population of 81 million). In Denmark, four million visits to zoos belonging to DAZA were registered in 2015 (Denmark has a population of 5.6 million)³⁶.

4.1.3 Relevant stakeholders

In all 14 Member States surveyed, **NGOs and associations** are active on issues directly relevant to the implementation of the Zoos Directive (e.g. biodiversity issues, animal welfare, safety of zoo staff). In 12 Member States, national NGOs are active on issues related to **zoos and animal welfare** (Bel-

³⁴ This table takes into account three types of membership: 1) full membership (granted to a zoo or aquarium located in a European country that maintains suitable standards of management and animal husbandry and complies with all other EAZA standards); 2) temporary membership (granted to zoos and aquariums that do not yet meet the standards required for full/associate membership of EAZA or to zoos and aquariums that are under construction and want to apply for full membership directly after opening); 3) candidate for membership (granted to zoos and aquariums under construction - not yet open to the public - in Eastern and Central Europe and to those institutions that are working towards compliance with EAZA accreditation standards).

³⁵ Note that reports and studies refer usually to number of visitors rather than to number of visits. The numbers provided cannot take multiple visits of the same person into account. This report likely refers to the 'number of visits'.

³⁶ Other sources such as academic studies provide information on the number of zoo visits in some of the 14 Member States surveyed (see country fiches in Annex II).

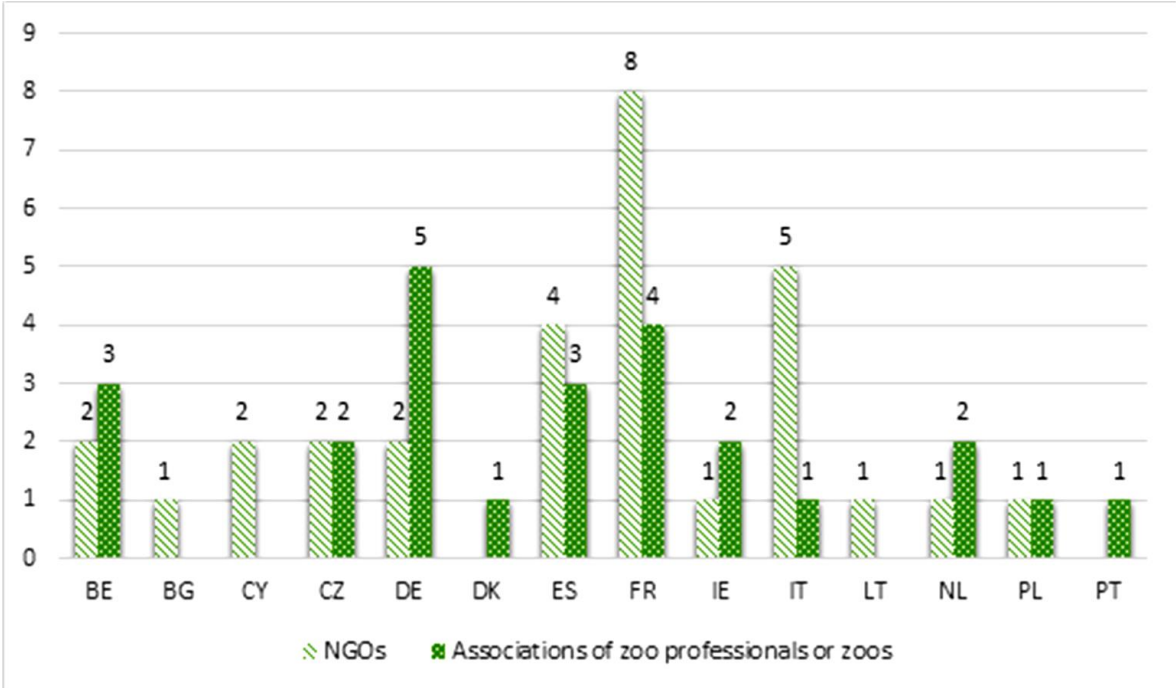
gium, Bulgaria, Cyprus, the Czech Republic, Germany, Spain, France, Ireland, Italy, Lithuania, the Netherlands, Poland). Only some NGOs deal exclusively with animals in captivity (zoo, circus, e.g. Code Animal in France). These NGOs have different roles and activities:

- Advocacy (political lobbying; expertise provided to policy-makers).
- Public education and awareness-raising (spreading information about specific animal welfare issues).
- Targeted individual actions (animal rescue).

National associations representing the interests of zoos or those of zoo professionals (e.g. veterinarians) also exist in 11 Member States (Belgium, the Czech Republic, Germany, Denmark, Spain, France, Ireland, Italy, the Netherlands, Poland and Portugal) and are engaged in:

- Protection of their members' interests.
- Representation before national and international courts.
- Consultation on ethical or legal issues.
- Exchange of knowledge.

Figure 9: NGOs and associations of zoos or zoo professionals in selected Member States



Source: Data collected at national level (see country fiches, Annex II)

4.1.4 Adoption of national law transposing the Zoos Directive

All of the 14 Member States surveyed enacted national law governing zoos following the entry into force of the Zoos Directive. A small number of Member States across the EU (Belgium, Denmark, France and Spain, as well as the UK) had adopted national laws to regulate zoos before the entry into force of the Zoos Directive. Prior to the Directive, zoos in all Member States were subject to basic national animal welfare laws and veterinary health regulations governing trade.

Table 10 and 12 below list transposing laws and regulations (National Implementation Measures,

NIMs) adopted by the 14 Member States surveyed³⁷ and, where applicable, relevant regulations already in place before the entry into force of the Zoos Directive (1999).

Table 10: Adoption of transposing law in selected Member States: ‘old’ Member States’ (EU member before the entry into force of the Zoos Directive)

Member State	Before entry into force	After entry into force
BE	<ul style="list-style-type: none"> ▪ Law of 14 August 1986 on the protection and the well-being of animals ▪ Royal Order of 10 August 1998 on the recognition of zoos ▪ Ministerial Order of 3 May 1999 on setting minimum criteria for keeping mammals in zoos ▪ Ministerial Order of 7 June 2000 on setting minimum criteria for keeping birds in zoos 	<ul style="list-style-type: none"> ▪ Ministerial Order of 23 June 2004 on setting minimum criteria for keeping reptiles in zoos
DE	Not regulated by national law	<ul style="list-style-type: none"> ▪ 2002 Federal Nature Conservation Act ▪ Implementing regulations at Länder level (x16)³⁸
DK	<ul style="list-style-type: none"> ▪ Act on animal welfare of 1967 ▪ Act on State subsidies to zoological gardens of 1977 	<ul style="list-style-type: none"> ▪ Zoos Order 1023 (2003) and Zoos Order 1397 (2015)
ES	<ul style="list-style-type: none"> ▪ Decree 1119/1975 of 24 April 1975 on the authorisation and registration of zoological centres, establishments to practice horse-riding, centres for the enhancement and care of companion animals and other similar centres 	<ul style="list-style-type: none"> ▪ Law 31/2003 of 27 October 2003 on wild fauna preservation in zoological parks
FR	<ul style="list-style-type: none"> ▪ Law no.76-629 on the protection of nature ▪ Amended Ministerial Order of 25 October 1995 on the implementation of the control of establishments holding non-domestic animal species ▪ Ministerial Order of 21 November 1997 defining two categories of establishments other than establishments practicing breeding, sale and transit of game species for which hunting is allowed, holding non-domestic animal species 	<ul style="list-style-type: none"> ▪ Decree No. 2002/266 of 22 February 2002 on establishments holding non-domestic animal species and amending Article R213 of the Rural Code ▪ Order of 25 March 2004 laying down the rules of operation and the general characteristics of facilities of zoological establishments of a fixed and permanent nature, presenting the public with live specimens of local or foreign wildlife under heading 21-40 of the nomenclature of facilities classified for environmental protection ▪ Order of 10 August 2004 establishing the conditions for the detention of animals of certain non-domestic species in establishments practicing the breeding, sale, rental, transit or public presentation of non-domestic animal species
IE	Not regulated by national law	<ul style="list-style-type: none"> ▪ European Communities (Licensing

³⁷ National Implementing Measures (NIMs) communicated by the Member States under Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos <http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:31999L0022&qid=1481147356708>

³⁸ Germany, National Implementing Measures (NIM) communicated by the Member States under Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos <http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:31999L0022&qid=1481147356708>

Member State	Before entry into force	After entry into force
		and Inspection of Zoos) Regulations 2003
IT	Not regulated by national law	<ul style="list-style-type: none"> ▪ Legislative Decree 21 March 2005 n. 73 implementing Directive 1999/22/EC relating to the keeping of wild animals in zoos ▪ Decree of the Ministry of Environment 18 January 2006 ▪ Legislative Decree 4 April 2006 n. 192 implementing Directive 1999/22/EC relating to the keeping of wild animals in zoos
NL	Not regulated by national law	<ul style="list-style-type: none"> ▪ Zoos Law of 19 April 2002; amended by the 2014 Animal Act ▪ Animal Act (Wet Dieren) Animal holders, and Governmental decree (Besluit houders van Dieren), July 2014 ▪ Flora en fauna Act (Flora en fauna Wet) is applicable to zoos
PT	Not regulated by national law	<ul style="list-style-type: none"> ▪ Decree-Law No. 59/2003 of April 2003

Source: Data collected at national level (see country fiches, Annex II)

All of the Member States which joined the EU after 2004 and are covered by this study had adopted national law governing zoos before their accession to the EU.

Table 11 lists the transposing laws and regulations adopted by Member States which joined the EU after the entry into force of the Zoos Directive, according to their date of accession.

Table 11: Adoption of transposing legislation in selected ‘new’ Member States (EU member since entry into force of the Zoos Directive)

Member State	Transposing legislation	Before accession to EU membership ³⁹
BG	<ul style="list-style-type: none"> ▪ 2002 Biodiversity Act (amended in 2003 and 2006 to include provisions specific to zoo licensing and animal keeping) 	✓
CY	<ul style="list-style-type: none"> ▪ Regulation 81/2002: The Animal Protection and Welfare Act 	✓
CZ	<ul style="list-style-type: none"> ▪ Act of 18 April 2003 on Conditions for the Operation of Zoological Gardens 	✓
LT	<ul style="list-style-type: none"> ▪ 1997 Wildlife Protection Act (amended in 2010) ▪ Order No. 298 for licensing and inspection of zoos (04/06/2002) ▪ Order No. 346 for the standards for the keeping of wild animals in zoos (27/06/2002) 	✓
PL	<ul style="list-style-type: none"> ▪ Nature Protection Act, ‘NPA’ (16/04/2004) 	✓

Source: Data collected at national level (see country fiches, Annex II)

4.1.5 Competent authorities for transposition and implementation

Depending on the nature of the NIM (act, decree, order, etc.), various CAs are involved in the transposition of the Directive: national parliaments, ministerial authorities, etc. Generally, the Ministry of Environment is the ministerial authority in charge of the transposition (Bulgaria, Cyprus, the Czech

³⁹ Cyprus, the Czech Republic, Lithuania, and Poland joined the EU on 1 May 2004. Bulgaria became an EU Member State on 1 January 2007.

Republic, Germany, Denmark, France, Italy, Lithuania and Poland).

In two Member States, transposition also occurs at Länder/regional level (Germany, Belgium). In Belgium, the transposition of the Directive originally took place at federal level. However, since 2014, regions are competent to enact legislation on animal welfare. To date, and until regions enact new legislation on animal welfare, federal legislation continues to apply to zoos. In Germany, transposition takes place both at federal and Länder levels. Full transposition of the Directive in all 16 Länder was not fully achieved until 2005.

In two Member States (Spain and Italy), conflicts have occurred between CAs at different levels (States/Regions or Communities) regarding the transposition of the Zoos Directive. Ultimately, national courts ruled that State authorities are the competent transposing authorities.

In general, the authorities competent for the implementation of the Zoos Directive (including licensing and inspection) are ministerial authorities and/or local authorities. CAs may be national or decentralised and/or local agencies, and they may belong to various types of services (environmental, forestry, veterinary, food). In most of the Member States, the Ministry of Environment is responsible for the implementation of the Directive (Bulgaria, Czech Republic, Cyprus, Germany, France, Ireland, Lithuania and Poland). In some Member States, Ministries dealing with other subject matters, such as agriculture, food or economic activity, may sometimes act as the main CA (Denmark and the Netherlands) or they may share competence on zoos with the Ministry of Environment (Belgium, Spain, Italy and Portugal). Implementation takes place at national or local level, or sometimes both. In seven Member States, regional and/or local authorities are competent to ensure the licensing and inspection of zoos (Belgium, Bulgaria, Germany, Spain, France, Lithuania and Poland).

Table 12 below provides an overview of the authorities competent for the implementation of the Directive. Enforcement authorities, competent for inspections, are presented in Table 16 in Section 5.1.1.

Table 12: Competent authorities for the implementation of the Zoos Directive in the 14 selected Member States

Member State	Implementation
BE	Regional authorities: Regional governments; regional Animal Welfare Services; Flanders Environment, Nature and Energy Department; Walloon Department for Development; Walloon Quality Directorate
BG	Ministry of Environment and Water; Regional Inspectorate of Environment and Water
CY	Veterinary Services of the Ministry of Agriculture, Rural Development and Environment
CZ	Ministry of Environment
DE	Federal Ministry for the Environment, Nature Conservation Länder
DK	Ministry of Environment and Food; Danish Veterinary and Food Administration
ES	CAs of the Autonomous Communities
FR	Ministry of Environment: Departmental prefects; departmental veterinary services (licensing and inspection)
IE	National Parks and Wildlife Service (of Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs) under Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs; Contracted zoo license inspectorate services
IT	Ministry of Environment, Land and Sea Protection; Nature and Sea Protection Directorate; CITES Management Authority
LT	Nature Protection Agency under the Ministry of Environment; Regional Nature Protection Departments
NL	Netherlands Enterprise Agency under the Secretary of State of Economic Affairs; Food and Consumer Product Safety Authority
PL	Ministry of Environment; General Directorate for Environmental Protection; Regional Directorate for Environmental Protection
PT	National Authority for Animal Health (General Directorate for Food and Veterinary Medicine); Institute for Nature Conservation and Forestry

Source: Data collected at national level (see country fiches, Annex II) and surveys of MSCAs

4.1.6 National case law

Desk research found no national case law pertaining to the **transposition** of the Zoos Directive in 13 of the 14 Member States surveyed. In Italy, however, conflicts arose between authorities at state and regional level regarding the attribution of competence to transpose the Zoos Directive⁴⁰. The Italian Constitutional Court ruled that the State is the only territorial entity competent to legislate in environmental and zoo matters⁴¹.

With regard to the **implementation** of the Zoos Directive, relevant court cases were identified in France, where the French national courts ruled on various matters relevant to zoo functioning, such as licensing or tax exemptions⁴². In addition, NGOs brought criminal complaints against various zoos for failure to respect the provisions transposing the Zoos Directive, particularly provisions on animal welfare⁴³. An example is provided in Box 1 below.

Box 1: Example of case law at national level - France

Tribunal Administratif de Limoges, 11 February 2016 - Ruling (Administrative Court)

This case relates to the interpretation of the legislation transposing the Zoos Directive.

In this case, the owner of two emus had seen his request to keep these animals rejected by the Prefect on the grounds that the plaintiff did not hold, contrary to Article 1 of the Order of 10 August 2004, the competence certificate requested to keep non-domestic animals pursuant to Article L413-2 of the Environmental Code. The plaintiff challenged the applicability of Order of 10 August 2004, on the grounds that he had had emus since 2003. The Limoges Administrative Court rejected the plaintiff's argument. It held that, pursuant to Order of 10 August 2004, the possibility to keep emus was subject to Articles L413-2 and L413-3 of the Environmental Code and, as a result, to the retention of a competence certificate. More importantly, the Court held that the fact that the owner had the animals before the entry into force of Order of 10 August 2004 did not preclude the application of this Order. Furthermore, the Order could not provide for a different set of rules applicable to persons owning non-domestic animals before its entry into force.

Further detail on national case law can be found in the country fiches (Annex II).

4.2 STATE OF PLAY: INFRINGEMENTS PURSUED AT EU LEVEL

The following paragraphs describe the EU infringement procedures which took place in the context of the implementation of the Zoos Directive in the 14 Member States surveyed for this study.

Overall, there have been 17 cases of infringement against all selected Member States except Belgium, Bulgaria, the Czech Republic, Lithuania and Poland⁴⁴ (Table 14). All cases are now closed.

Most infringements related to the **late transposition** of the Zoos Directive or to **non-communication of national implementing rules**. Pursuant to Article 9(1) of the Zoos Directive, Member States were required to transpose the Directive into their national law by 9 April 2002 and to inform the Commis-

⁴⁰ Corte Costituzionale Italiana, Sentenza n. 220/2008, Pubblicazione in G. U. 25/06/2008 n. 27, available at: <http://www.cortecostituzionale.it/actionSchedaPronuncia.do?anno=2008&numero=220> (accessed October 2016); Corte Costituzionale Italiana, Sentenza n. 387/2008, Pubblicazione in G. U. 03/12/2008 n. 50, available at: <http://www.cortecostituzionale.it/actionSchedaPronuncia.do?anno=2008&numero=387> (accessed October 2016).

⁴¹ Corte Costituzionale Italiana, Sentenza n. 387/2008.

⁴² Cass (crim), 4 October 2011, n°11-80198; Tribunal Administratif de Limoges, 11 February 2016, M. A..., n° 1300852.

⁴³ See Criminal complaint against the Strasbourg Zoo for violation of Order of 25 March 2004 and Directive 1999/22/E (2013).

⁴⁴ This includes cases of infringements by all Member States covered by this study until 10 March 2016. There have been 21 cases of infringement of the Zoos Directive overall by all 28 Member States. This information was collected from the Commission database on infringements.

sion thereof immediately. They were also required to communicate the main provisions of national law adopted in the field covered by the Zoos Directive⁴⁵.

In 2002, the European Commission launched an infringement procedure for non-communication of NIMs against eight Member States (Germany, Denmark, Spain, France, Ireland, Italy, the Netherlands and Portugal). In the case of France and the Netherlands, although they had transposed the Zoos Directive in due time, they had failed to communicate the main provisions of national law transposing the Directive to the European Commission. In the remaining six cases, Member States did not transpose the Zoos Directive on time (Germany, Denmark, Spain, Ireland, Italy and Portugal). For instance, Italy transposed the Zoos Directive in May 2005, three years after the deadline imposed by the Directive. In the infringement procedure against Germany, the Zoos Directive was supposed to be transposed at both federal and Länder levels. While the federal authorities transposed the provisions of the Directive falling under their responsibility within the deadline of the Directive, a number of Länder did not transpose the rest of the Directive until 2005.

The European Commission launched an infringement procedure for **non-conformity** with the Zoos Directive against one Member State (Italy). This infringement procedure related to the definition of zoos in national law. Italian Legislative Decree No 73 of 21 March 2005 excluded establishments which did not pursue the objective of protecting biodiversity and wild fauna from the definition of zoos, meaning that its scope did not conform to the scope of the Zoos Directive. In 2008, Italy amended Legislative Decree No 73, thus resolving the non-conformity.

Other infringements were launched by the European Commission for **bad application** of the Directive, following complaints from stakeholders (Members of the European Parliament) or on its own initiative. Additional information on these cases is provided in Table 13 below.

The European Commission referred five cases to the European **Court of Justice** (CJEU) for two types of infringement. Firstly, it referred four Member States (Germany, Spain, Ireland and Italy) for non-communication (failure to adopt the laws, regulations, and administrative provisions necessary to implement the Zoos Directive; failure to notify NIMs to the European Commission)⁴⁶. The Court decided in favour of the Commission in two cases (Germany and Italy), while in the remaining two cases, the European Commission withdrew its application following the notification of their NIMs by Spain and Ireland. Secondly, the Commission referred one Member State (Spain) for failure to comply with its obligations under the Zoos Directive. The Court decided in favour of the European Commission⁴⁷.

The European Commission launched a second infringement procedure against two Member States (Spain and Italy) for failing to comply with judgments of the CJEU (Article 260 procedure).

Table 13 presents the infringement procedures initiated against the 14 Member States within the scope of the analysis. It provides information on the type of infringement and the latest stage of the EU procedure reached before closure. All of these cases are now closed.

Table 13: EU infringement cases for non-compliance with the Zoos Directive

Member State	Period	Infringement	Facts	Last stage of procedure
BE	-	-	-	-
BG	-	-	-	-
CY	2004 – 2005	Bad application of Zoos Directive (illegal functioning of the Limassol Zoo)	A complaint from an MEP highlighted that the Limassol Zoo was operating without a licence	Request for information

⁴⁵ Article 9(2) Zoos Directive.

⁴⁶ Judgment of 14 October 2004 in Case C-339/03 Commission v Germany ECLI:EU:C:2004:634; Case C-256/03 Commission v Ireland; Judgment of 10 June 2004 in Case C-302/03 Commission v Italy ECLI:EU:C:2004:368; Case C-298/03 Commission v Spain.

⁴⁷ Judgment of 9 December 2010 in Case C-340/09 Commission v Spain.

Member State	Period	Infringement	Facts	Last stage of procedure
	2009 – 2012	Bad application of Zoos Directive (illegal functioning of the Limassol Zoo)	Contrary to their response to the European Commission in the 2004 case, the local authorities did not close Limassol Zoo and planned to expand it	Letter of formal notice
CZ	-	-	-	-
DE	2002 – 2005	Non-communication of NIMs	Germany did not transpose the Zoos Directive in due time. The transposition of the Zoos Directive occurred at two levels – federal and Länder. Some Länder were late to transpose the Zoos Directive (latest NIM was in 2005)	CJEU) ruling in favour of European Commission ⁴⁸
DK	2002 – 2003	Non-communication of NIMs	Denmark did not transpose the Zoos Directive in due time	Reasoned opinion
ES	2002 – 2003	Non-communication of NIMs	Spain did not transpose the Zoos Directive in due time	Referred to CJEU (withdrawn in 2003)
	2002 – 2003	Bad application of the Zoos Directive (poor animal conditions in the Valencia Zoo) (complaint)	A complaint from an MEP raised the issue of living conditions of animals in the Valencia Zoo	Request for information
	2006 – 2010	Bad application of the Zoos Directive (poor animal conditions in various zoos) (complaint)	Complaint raising the issue of living conditions of animals in various zoos – failure in the licensing system	CJEU ruling in favour of European Commission ⁴⁹
	2010 – 2013	Failure to implement CJEU ruling ⁵⁰	Spain failed to comply with CJEU ruling on licensing issues	Second Letter of formal notice
FR	2002	Non-communication of NIMs	France failed to notify all of its NIMs in due time	Letter of formal notice
IE	2002 – 2004	Non-communication of NIMs	Ireland did not transpose the Zoos Directive in due time	Referred to CJEU (withdrawn in 2003)
	2003 – 2004	Non-communication of NIMs (complaint)	Ireland did not transpose the Zoos Directive in due time	Referred to CJEU (withdrawn in 2003)
IT	2002 – 2005	Non-communication of NIMs	Italy did not transpose the Zoos Directive in due time	Second Letter of formal notice following failure to implement CJEU ruling ⁵¹
	2006	Failure to implement CJEU ruling ⁵² (complaint)	Despite the CJEU ruling, Italy continued to be late to transpose the Zoos Directive	Second Letter of formal notice
	2007 – 2008	Non-conformity with Zoos Directive	The scope of the Italian transposing legislation (Legislative Decree No 73) was too restrictive and excluded	Reasoned opinion

⁴⁸ Judgment of 14 October 2004 in Case C-339/03 Commission v Germany ECLI:EU:C:2004:634.

⁴⁹ Judgment of 9 December 2010 in Case C-340/09 Commission v Spain.

⁵⁰ Judgment of 9 December 2010 in Case C-340/09 Commission v Spain.

⁵¹ Judgment of 10 June 2004 in Case C-302/03 Commission v Italy ECLI:EU:C:2004:368.

⁵² Judgment of 10 June 2004 in Case C-302/03 Commission v Italy ECLI:EU:C:2004:368.

Member State	Period	Infringement	Facts	Last stage of procedure
			some establishments from being covered by the Zoos Directive	
LT	-	-	-	-
NL	2002	Non-communication of NIMs	The Netherlands failed to notify its NIMs in due time	Letter of formal notice
PL	-	-	-	-
PT	2002 – 2003	Non-communication of NIMs	Portugal did not transpose the Zoos Directive in due time	Reasoned opinion
	2009	Complaint	-	-

Source: Information collected from the Commission database on infringements

5 RESULTS: ANALYSIS AND DISCUSSION OF EVALUATION QUESTIONS

The results of the analysis of the literature and documentation review, and the targeted and public consultation are presented below. The reporting follows the evaluation criteria and questions presented in Section 3.2, and the elements of the evaluation framework presented in Annex I.

5.1 Effectiveness

This section is intended to: assess the extent to which the general and specific objectives of the Zoos Directive have been achieved; identify any significant factors that may have contributed to, or inhibited progress towards, meeting those objectives; and investigate any negative or positive changes produced beyond the intended effects of the Zoos Directive.

In order to assess the achievement of the objectives pursued under the Zoos Directive, the analysis was carried out according to the intervention logic presented above and the related indicators of output, result and impact. More specifically, the supporting study aimed to analyse the following:

- Actions taken in the 14 selected Member States to ensure the implementation of the different conservation measures foreseen by the Directive across European zoos, and to address cases of non-compliance and handle zoo closures (output).
- The results achieved, looking at the actual implementation of conservation measures by zoos operating in the 14 Member States, and how zoo closures have been handled in practice (result).
- The broader contribution of the Zoos Directive to the protection of wild fauna and conservation of biodiversity (impact).

The first two points were addressed by **EQ 1** (Section 5.1.1). This addressed the systems for inspection and licensing set up in the 14 Member States, and discussed the extent to which these systems are suitable to ensure an effective and consistent enforcement of the zoo legislation, the progress made in terms of licensing and inspection procedures, and the issues encountered. In parallel, the results of the survey addressed to zoos (although not representative of the whole population of zoo operators in the selected Member States⁵³), offered insights and real life examples of the results achieved in terms of implementation of conservation measures, from a sample of 70 zoos.

EQ 2 (Section 5.1.2) addressed the broader impacts of the Zoos Directive, i.e. its contribution towards conservation of biodiversity and protection of wild fauna. Here, the analysis examined the effects that conservation measures defined in Article 3 are expected to produce, based on existing evidence and relevant literature, and assessed the possible contribution of the Directive to the biodiversity goals set at EU and international level.

Following the discussion of the achievements of the Zoos Directive, **EQ 3** (Section 5.1.3) discusses the factors that have contributed to, or hindered, progress to date. The factors analysed related to the Zoos Directive itself and its transposition in the 14 Member States, the activities designed to bring about the expected effects (i.e. actions to be undertaken by the Member State authorities), and external factors such as stakeholder actions, developments in the public opinion, etc.

Finally, other effects beyond the objectives specifically pursued, are identified from stakeholder inputs (**EQ 4**, Section 5.1.4).

5.1.1 Effectiveness – EQ 1

What progress has been made over time towards achieving the objectives set out in the Directive? To what extent is this progress in line with initial expectations? In particular, what progress has been

⁵³ See Section 3.5.1 on this point.

made to achieve the conservation measures set out in Article 3? To what extent have adequate licensing and inspection systems been put in place?

The general objective of the Zoos Directive is ‘to protect wild fauna and to conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity’ in the EU.

In order to achieve these general objectives, the Zoos Directive requires Member States to establish a licensing and inspection system, ensuring that zoos implement a set of conservation measures (Article 3). In order to obtain and keep the licence and, therefore, to operate and be open to the public, zoos are required to:

- Participate in one or more of the following: i) research and training through which conservation objectives may be achieved; ii) exchange of information relating to species conservation; iii) captive breeding; iv) repopulation; or v) reintroduction of species into the wild (Article 3 first indent).
- Promote public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats (Article 3 second indent).
- Accommodate animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and maintain a high standard of animal husbandry (Article 3 third indent).
- Prevent the escape of animals in order to avoid threats to indigenous species and intrusion of outside pest and vermin (Article 3 fourth indent).
- Keep appropriate records of the zoo’s collection (Article 3 fifth indent).

In addition, in cases of closure of a zoo or part thereof, the Member State authorities must take measures to ensure that animals are treated or disposed of under appropriate conditions (Article 6).

In line with the intervention logic, and in order to evaluate the progress made in achieving the objectives of the Directive, this analysis focuses primarily on the systems for inspection and licensing set up in the 14 representative Member States in order to assess the extent to which the national authorities can ensure that the conservation measures set out in Article 3 are implemented by zoos. The existence of effective and adequate licensing and inspection systems is, indeed, expected to ensure that only those zoos that are compliant with the Zoos Directive (and which implement its conservation measures) are allowed to operate. As detailed in the evaluation framework (See Annex I), the effectiveness and adequacy of the national licensing and inspection systems are evaluated against a large set of assessment criteria, notably: the setting up of a system compliant with the requirements of the Zoos Directive (e.g. designation of the CA, definition of a system to carry out controls before granting, extending or significantly amending a licence, etc.); the frequency of regular inspections; the use of clear and explicit criteria to assess the conservation measures implemented by zoos; the overall progress achieved in performing the licensing and inspection procedures at national level (i.e. number of licensed zoos compared to the total number of identified zoos, the timing for completing inspections and licensing procedures following the entry into force of the Directive); the capabilities (e.g. knowledge of the inspectors); and improvement actions undertaken.

The overall analysis draws on several sources: the responses by Member States authorities and zoos to the targeted questionnaires circulated for the purposes of this study; the interviews with national authorities and other national stakeholders (i.e. zoo federations and NGOs dealing with biodiversity conservation/animal welfare); interviews with stakeholders acting at EU level; desk research (including national legislation, documents provided by Member State authorities in relation to the inspection system; documents provided by zoos and retrievable on the web, in relation to research and education strategies implemented, and other general literature). The results of the public consultation are also integrated.

As mentioned in Section 3.5, two main limitations apply: data provided by Member State authorities

on the performance of the licensing and inspection system are not reliable in all cases and are not comparable across Member States. They are also limited to the most recent years. These limitations are closely linked to the lack of any reporting obligation for the Member States on the implementation of the Zoos Directive. In addition, the results of the questionnaire addressed to zoos are partly biased by the higher representation of zoos belonging to zoos' federations. Such survey results are, therefore, used solely as illustrations, while the overall of assessment of the effectiveness of the Zoos Directive is based on the combination of several sources and draws on the analysis of the key features of the licensing and inspection systems set up by the Member States.

5.1.1.1 Overview of the national licensing and inspection systems and provisions aimed at ensuring that conservation measures are implemented by zoos

In order to ensure that all zoos implement the conservation measures of Article 3 and meet the objectives of the Zoos Directive, Member States are required to:

- Identify the CAs for the purposes of the Directive (Article 7).
- Set up an adequate licensing and inspection regime (Articles 4 and 5), along with a procedure for the closure of zoos in cases of non-compliance (Articles 4, fifth indent and Article 6).
- Define a system of effective, proportionate and dissuasive penalties for breaches of compliance (Article 8).

On this basis, each Member State has established CA(s) responsible for the overall application and enforcement of the Zoos Directive, and has defined the system for inspecting the zoos: (a) before granting or refusing a licence, extending the period of a valid licence or significantly amending it; (b) on a regular basis, for the purposes of monitoring the application of the legislation.

The following sections provide an overview of the licensing and inspection system implemented in the 14 Member States within the scope of the supporting study. Particular attention is paid to the legislative provisions and practices of the Member States aimed at ensuring that conservation measures set out in Article 3 of the Zoos Directive are implemented by zoos.

a. CAs and organisation of the licensing and inspection system

Across the 14 Member States, **CAs** for the implementation of the Zoos Directive are found within various departments, either dealing with environmental and biodiversity issues or focused on food security and agricultural matters. In most Member States, the Ministry of Environment (Bulgaria, Czech Republic, Germany⁵⁴, France, Ireland⁵⁵, Italy, Lithuania and Poland) is generally responsible for the implementation of the Directive, while in some others, Ministries dealing with Agriculture and Food act as MSCAs (Belgium, Cyprus, Denmark, Spain and Portugal⁵⁶⁵⁷).

In both cases, veterinary and animal welfare services (chiefly national, but also regional and local level) are normally involved in the enforcement of the legislation on the ground, by supporting the CA in the **inspection of zoos** (for the issuing of licences and for monitoring purposes), or in the detection of potential irregularities and breaches of the legislation⁵⁸.

⁵⁴ In the 16 Federal States.

⁵⁵ CA is the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, which has taken over some of the competences previously attributed to the Ministry of Environment.

⁵⁶ CA is the Directorate General of Veterinary Medicine (Direção Geral de Alimentação e Veterinária - DGAV), which falls under the jurisdiction of the Ministry of Agriculture, Sea, Environment and Planning. The Institute of Nature Conservation and Biodiversity (Instituto da Conservação da Natureza e Florestas - I.C.N.F) is also involved.

⁵⁷ A specific case is represented by the Netherlands, where responsibility is under the Ministry of Economic Affairs, supported by the Netherlands Enterprise Agency (RVO), while inspection and enforcement is attributed to the Food and Consumer Product Safety Authority (NVWA).

⁵⁸ This is the case in 11 Member States: Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Denmark, France, Italy, the Netherlands and Portugal.

Table 14 below provides an overview of the approaches adopted by the 14 Member States to allocate competences for inspections. In general terms, Member States have implemented quite differentiated systems for the implementation and enforcement of the Zoos Directive, bringing together authorities with different competences and acting at national, regional and local level.

Given the nature of the activities to be carried out, some Member States defer to external experts with appropriate technical knowledge (Bulgaria, Belgium, Czech Republic, and the Netherlands; Denmark for licensing or amendments to the licence; or depending on the need, France, Spain and Poland). In the Netherlands and Poland, zoo federations at national and/or European and international level (i.e. EAZA and WAZA respectively) participate in the inspection teams. A specific case is represented by the Netherlands, whose system allows for zoos that are members of EAZA or NVD (the Dutch Zoo Federation) to be inspected by EAZA/NVD inspectors. Based on their report, the MSCAs decide whether or not further inspection is needed.

Table 14: Overview of the institutions, authorities and external bodies involved in inspections

Member State	Institution(s) or CA(s) responsible for inspecting zoos	Other (non-governmental) bodies involved in inspections/providing ad hoc advice
BG	Ministry of Environment and Water, Ministry of Agriculture and Food, Regional Inspectorate of Environment and Water, Regional Veterinary Office for Licences. The Regional Inspectorate of Environment and Water is responsible for conducting regular inspections in zoos, after licensing	Bulgarian Academy of Science, Institute of Biodiversity and Ecosystem Research (for assessing enclosures and the environment created for the animals)
BE	Animal Welfare Service and the Animal Welfare Inspection Service (Flanders). Département Police et Contrôle (Wallonie).	Members of the Zoo Commission appointed every five years.
CY	Ministry of Agriculture, Natural Resources and Environment, Department of Veterinary Services and District Veterinary Office	No
CZ	Commission for Zoos of the Ministry of the Environment, Department of Species Protection and the Implementation of Internal Commitments; Czech Environmental Inspectorate, State (and/or Regional) Veterinary Administration	Commission for Zoological Gardens as an advisory body of the Ministry of the Environment. Members of the Commission are nominated by the Ministry of Agriculture, the State Veterinary Administration, the Union of Czech and Slovak Zoological Gardens and the Czech Environmental Inspectorate
DE	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety is responsible for the Zoos Directive on the Federal Level. Authorities for the conservation of nature and veterinary authorities can be involved (depending on the State)	Only in exceptional circumstances
ES	CA of each Autonomous Community	Depending on the Communities
DK	Danish Veterinary and Food Administration	Advising experts (external) required for a zoo licence or amendment
FR	Local veterinary services (Directions départementales de la protection des populations), in coordination with the national office of hunting and wildlife (Office national de la chasse et de la faune sauvage)	Network of experts attached to the National Museum of Natural History
IE	National Parks and Wildlife Service, through contracted zoo license inspectorate services for the Minister for the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	No
IT	Zoo Commission made up of at least one component from three ministries: Ministry of Environment, Ministry of Agriculture and the	No

Member State	Institution(s) or CA(s) responsible for inspecting zoos	Other (non-governmental) bodies involved in inspections/providing ad hoc advice
	Ministry of Health National Forest Department (Corpo Forestale) acts as the enforcement authority, detecting potentially irregular entities and referring these to the Ministry of Environment	
LT	Ministry of Environment is responsible. Licences are granted by the Nature Protection Agency and Regional Environmental Protection Department	No
NL	Netherlands Enterprise Agency (RVO) and the Food and Consumer Product Safety Authority (NVWA), assisted by external experts	The Advisory Board (visitatiecommissie dieren tuinen) includes members of the RVO, the NVWA and external zoo experts. EAZA/NVD members are inspected by EAZA/NVD inspectors; RVO decides if NVWA inspectors need to carry out further inspections
PL	Regional Director for Environmental Protection competent for the location of the zoo	An opinion from the association of representatives of zoos is obtained, the Council of Directors of Polish Zoos and Aquaria
PT	Directorate General of Veterinary Medicine (DGAV) and Institute of Nature Conservation and Biodiversity (ICNF)	If needed

Source: Data collected at national level (see country fiches, Annex II) and survey of MSCAs

Differences across Member States can also be seen in the **inspection process and frequency**. The Zoos Directive does not determine the frequency of ‘regular inspections’, nor does it specify the duration of licences. An overview of the situation in the 14 selected Member States is presented in Table 15 below. In nine of the 14 Member States, licences are issued for indefinite (unlimited) time. **Annual** inspections have been established in seven of the 14 Member States, while three inspect zoos **biannually** and three inspect **every three years**. Belgium inspects 25% of the zoos annually, meaning that each zoo is inspected only **every four years**. A risk-based system providing for additional inspections has been established by Germany and the Netherlands. One criterion for targeted inspections is the zoos’ membership of EAZA or other organisation(s) In the Netherlands, inspections are less frequent in zoos that are members of the national zoo federation NVD, because compliance issues are less frequently observed in these zoos. This target-based approach reduces the burden on inspection resources.

Table 15: Duration of licences and indicated frequency of inspections⁵⁹

Member State	Duration of the licence	Frequency of inspections
BG	First licence: five years; consecutive license: from five to 10 years	Annual (at least)
BE	Unlimited (restrictions may apply depending on the number of species of animals)	Annual (limited to at least 25% of the zoos)
Cyprus	Five years	Twice per year
CZ	Two years	Biannual
DE	Unlimited	Annual (or more frequently, depending on irregularities or shortcoming observed)
ES	Not specified in the national legislation	Annual (at least)
DK	Unlimited	Annual
FR	Unlimited	Annual (at least)
IE	Up to five years	Annual

⁵⁹ Based on MSCA questionnaire.

Member State	Duration of the licence	Frequency of inspections
	(first licence: two years; subsequent licences: three years)	
IT	Unlimited	Annual (at least)
LT	Unlimited	Biannual
NL	Unlimited	Every three years
PL	Unlimited	Every three years
PT	Unlimited	Every three years

Source: *Legal review and survey of MSCAs*

In seven Member States (Bulgaria, Spain, France, Ireland, Italy, Poland and Portugal), the inspections are structured in two steps, including a preliminary audit of documentation supplied by the zoos to the authorities, followed by an on-site visit⁶⁰.

b. Inspection systems and provisions ensuring that zoos apply conservation measures (Article 3)

According to the questionnaire responses supplied by the MSCAs and based on an analysis of the relevant national legislation in the 14 Member States, inspection related requirements cover the **requirements applicable to zoos under Article 3 of the Directive**. However, Member States differ in their implementation of the national legislation, with **different systems for inspection and verification of compliance of zoos with the requirements**.

Several elements characterise the inspection systems and can impact the overall quality of the inspection process⁶¹:

- **Use of inspection protocols and elements checked during the inspections:** Inspection forms, which offer a structured inspection, exist in seven of the 14 Member States (Belgium, Cyprus, Czech Republic, Spain, Ireland, the Netherlands and Portugal), while in some countries the law itself contains detailed guidance (Bulgaria, Lithuania, Italy and Poland). In France, there is no inspection form as such, but a circular issued by the Ministry on the conditions for granting a certificate of capacity includes a form listing the information/evidence to be provided if such a certificate is to be granted.

The forms differ greatly in layout and approach, but each contains the conservation measures mentioned in Article 3 of the Zoos Directive. Additional requirements (notably on safety and hygiene measures for the public, and standards for animal welfare) are defined by several Member States (inspection forms or provisions in legislation, in Bulgaria, Belgium, Cyprus, Czech Republic, France, Ireland, Italy, the Netherlands, Portugal and Spain).

- **Use of external experts:** Six Member States (Bulgaria, Belgium, Czech Republic, Denmark, the Netherlands and Poland) use external experts, mostly from zoo associations or retired zoo experts that participate on a personal basis in zoo commissions, to ensure independence. In other cases (France, Spain, Germany and Portugal), external experts are mobilised depending on the need or the local body competent for the inspections. A specific case is represented by Ireland, where the zoo inspectorate is appointed on a contract basis.

As discussed in more detail in Section 5.1.1.2, a recurring issue is that zoos require specific skills and knowledge if they are to be adequately inspected. The use of external experts is considered good practice⁶² and is supported by the zoo community, as a means of addressing the need for

⁶⁰ Information required might include: animal stock details, list of enclosures and their features, organigram, documents on education and conservation strategies, environmental enrichment measures.

⁶¹ The elements of the inspection systems analysed in this paragraph have been defined on the basis of the analysis performed during the current evaluation and the main elements of differentiation encountered in the national systems. The EU Zoos Directive Good Practices Document has been taken as a point of reference. It should be noticed that the elements discussed in this paragraph (inspection forms, use of external experts, guidance) are not requirements of the Zoos Directive, but have been investigated as indicators to assess the adequacy of the licensing and inspection systems set up.

⁶² See the Good Practices Document (VetEffect 2015).

- specialist expertise on animals in captivity.
- **Availability of a centralised zoo database:** Although there is no requirement in the Zoos Directive, the availability of a centralised database might add to the quality of zoo inspections. Such a database might contain, for example, inspection protocols, past inspections, guidance documents, and information on zoo closures (and would be, for example, also accessible to regional authorities). Several countries (Czech Republic, Denmark, the Netherlands, Poland, Portugal and Spain) have a public website that specifies the licensed zoos (even if it is not always up to date). According to the replies to the targeted questionnaire, only five Member States have gone beyond that and use a centralised database as specified above (Czech Republic, Cyprus, Ireland, Poland and Portugal).

Table 16 recaps the key characteristics of the inspection system in each Member State, according to these three elements.

Table 16: Key features of the national inspection systems

Member State	National inspection form available?	Reference	Article 3 conservation measures addressed in inspection forms					Other requirements		Use of external experts	Centralised database	Website listing licensed zoos
			Participating in research and/or training and/or exchange of information and/or captive breeding, etc.	Promoting public education and awareness	Accommodation and husbandry of animals	Preventing the escape of animals and intrusion of outside pests and vermin	Keeping up-to-date records	Safety and hygiene for the public	Animal health and/or welfare			
BG	NO (detail in law)	Ordinance № 1 of 9.05.2006 for licensing zoos	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
BE	YES	Rapport de control parc zoologique (FR/NL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
CY	YES	Zoo Inspection Form	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No
CZ	YES	Protocol according to law	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

		162/2003Sb										
DE	NO (Regional authorities are responsible)	-	-	-	-	-	-	-	-	No**	No	No
ES	YES	Protocol of inspection and evaluation of zoos	Yes	No	Yes	Yes	Yes	Yes	Yes	No**	No	Yes
DK	NO	-	-	-	-	-	-	-	-	Yes	No	Yes
FR	NO (regional information notes)	Information Notice for zoo certificate	-	-	-	-	-	-	-	No**	No	No
IE	YES	Zoo Licence Guidance Notes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No***	Yes	No
IT	NO (detail in law)		No	No	Yes	Yes	Yes	Yes	Yes	No	No	No
LT	NO (detail in law)	-	-	-	-	-	-	-	-	No	No	No
NL	YES*	N/A*	Yes	-	-	-	-	Yes	-	Yes	No	Yes
PL	NO (detail in law)	-	-	-	-	-	-	-	-	Yes	Yes	Yes
PT	YES	Zoos Inspection Protocol	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No**	Yes	Yes

Source: This study

*Not publicly available; **If needed/depending on the local bodies; ***IE has completely outsourced its zoo inspections.

It is also important to understand the level of detail in the protocols for inspection, and how fulfilment of the requirements of Article 3 of the Zoos Directive is checked, in practice, during inspections. While, as presented in Table 16, the **requirements of Article 3** (i.e. the conservation measures) are taken into account by eight of the 14 Member States in the inspection forms, they **are rarely detailed and specified in terms of operational criteria and measurable parameters**.

In Ireland⁶³ and the Netherlands⁶⁴, **guidance documents** for zoo inspectors were identified by this study. In most of the surveyed Member States, no specific reference document for inspectors was retrieved and the assessment appears to depend almost entirely on the inspectors' skills.

This is especially the case of **Article 3, first indent** of the Zoos Directive, which defines a set of options available to zoos to implement conservation measures: **participation in research from which conservation benefits accrue to the species, and/or training in relevant conservation skills, and/or exchange of information relating to species conservation, and/or captive breeding, repopulation or reintroduction of species into the wild**.

In their national law, most Member States have taken the approach of the Zoos Directive, by defining the measures listed in Article 3, first indent, as **alternative options**, and by requiring zoos to implement at least one of them⁶⁵. According to the information collected through interviews, in those Member States where the options are considered alternatives, **participation in research projects** by zoos is sufficient to ensure and assess their conservation role while, in some cases, other measures such as captive breeding, repopulation, and reintroduction of species into the wild are considered as optional alternatives to research and training (e.g. Belgium, Bulgaria, Cyprus, Czech Republic, Ireland, the Netherlands, Spain and Portugal). While this approach allows for differences among zoos and their capacity, it also increases differentiation across the Member States. Little detail is available (in either the inspection form and/or the legislation) on the criteria used to assess whether or not the inspected zoos meet the requirements of Article 3, first indent, and can be qualified as conservation-oriented entities. These criteria are varied and include: lists of publications of the zoo; reports of specific activities carried out by the zoo; participation in EEP and ESBs; collaboration with universities; or results achieved over time (verifying the progress made since previous inspections).

With regard to the promotion of **public education and awareness** of conservation of biodiversity (**Article 3, second indent**), some countries require evidence to verify this fulfilment, e.g. presentation of a written education strategy/plan/programme, and the review of educational and information material (signs, website, leaflets, presentations) (e.g. Ireland, Portugal and Spain).

Different considerations apply when it comes to verification of the requirements related to the accommodation of animals and standards for animal husbandry (Article 3, third indent). Minimum standards for the accommodation of animals are mentioned in national laws in a few Member States and are binding (Bulgaria, Belgium⁶⁶, Italy⁶⁷, Lithuania⁶⁸, and Poland⁶⁹). Other Member States use guidelines

⁶³ Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Irish Standards of Modern Zoo Practice, 2016. One of the criteria used in the Irish Guide is that the conservation policy of the zoo should include consideration of how it relates to the World Zoo and Aquarium Conservation Strategy, and the type and level of input the zoo provides for national or international conservation programmes.

⁶⁴ Based on information provided by stakeholders. The document is not public.

⁶⁵ Exceptions are Bulgaria, Italy, Poland, Portugal, and France only in relation to zoos that host conservation sensitive species.

⁶⁶ Specific requirements for the keeping of mammals (Ministerial Order of 3 May 1999 laying down minimum standards for the keeping of mammals in zoos), birds (Ministerial Order of 7 June 2000 laying down minimum standards for the keeping of birds in zoos) and reptiles (Ministerial Order of 23 June 2004 laying down minimum standards for the keeping of reptiles in zoos).

⁶⁷ Legislative Decree 21 March 2005, n. 73, Annexes 1 and 2 specify a range of measures for animal welfare and veterinary care. The minimum standards are only for the keeping of dolphins (*tursiops truncatus*) in zoos.

⁶⁸ Minimum standards for animal accommodation/enclosures are set out in Annex 4 on the Rules on Use of Wild Animals, approved by Order No D1-533/B1-310 of the Minister of Environment and the Director of State Food and Veterinary Service, as last amended on 24 April 2014.

⁶⁹ Ordinance of the Minister of the Environment of 20 December 2004 on the conditions for breeding and keeping particular groups of animal species in zoos (Dz.U. of 2005 No. 5, item 32). The ordinance specifies the necessary rooms and technical equipment for the places where animals stay, as well as minimum spatial conditions for breeding and keeping animals of particular species or groups of species, as well as the necessary conditions for reproducing animals.

which are not legally binding (Germany⁷⁰ and Ireland⁷¹). Across the Member States, major emphasis is placed on the size of the enclosures and animal health (e.g. provision of veterinary medical care, feeding plans, measures for hygiene). These standards or guidelines generally focus on animal welfare aspects that go beyond the objectives and provisions of the Zoos Directive (which require attention be paid to animal accommodation and husbandry for conservation purposes).

Regarding the measures to prevent possible escapes that can cause threats to indigenous species, and intrusion of outside pests and vermin (Article 3, fourth indent), the provisions of the Zoos Directive specifically relate to escapes that can cause ‘possible ecological threats to indigenous species’ (i.e. escapes of invasive alien species or ‘IAS’). Rather than focusing only on escapes of IAS, Member States tend to introduce several requirements addressing the safety of visitors, specifying measures related to enclosures, gates, barriers and staff duties in order to avoid escapes⁷². Again, these measures are not related to the objectives of the Zoos Directive.

Interestingly, from interviews with CAs in Germany, Lithuania and the Netherlands⁷³, animal welfare and prevention of escapes were considered key elements for a zoo inspection that may even outweigh conservation of biodiversity. One explanation is that animal welfare issues and escape of animals have a much more disturbing effect on the general public and fully expose CAs, more so than less prominent activities related to conservation of biodiversity.

Overall, it can be concluded that there is considerable variation in the execution of inspections in the 14 Member States. Not all of the Member States use inspection forms, and there might be a risk of incomplete inspections where such protocols are lacking. However, as with existing protocols, other factors such as the level of detail required and the elements checked during inspection, greatly determine the quality of that inspection. The information collected at national level suggests that detailed criteria has been established to assess the fulfilment of animal accommodation requirements, as well as other aspects such as safety of visitors, that do not have a direct relevance to the conservation objectives of the Zoos Directive.

In the absence of detailed criteria, the quality of the inspection will depend significantly on the level of knowledge of the inspector when evaluating the different elements.

The box below describes the situation in Ireland, where the licensing and inspection system depends on the expertise of an external entity and detailed guidance documents have been made publicly available in order to support the inspection process.

Box 2: Irish inspection system

Prior to 1999, the Republic of Ireland had no statutory licensing and inspection arrangements in respect of its zoos. The Zoos Directive was transposed as European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003 of 19/09/2003, Irish Statute Book (Office of the Attorney General, 2016).

In it, zoos are defined as in the Zoos Directive. In addition, the Irish Zoo Licence Guidance notes - GN03 contain exemption criteria and advise that a collection will be considered exempt from the zoos legislation if, among other things also set out in the guidance document, it does not normally exceed 100 specimens.

The CA has outsourced its zoo inspections to a separate organisation, the National Parks and Wild-

⁷⁰ Guidelines by BMEL (http://www.bmel.de/DE/Tier/Tierschutz/Tierschutzgutachten/_texte/GutachtenDossier.html).

⁷¹ Appendix 9 of the Irish Standards of Modern Zoo Practice (ISMZP) sets out specific sizes for elephant enclosures both indoor and outdoor.

⁷² Zoos are also subject to Regulation 1143/2013 on the control of invasive alien species, including provisions aimed at preventing escapes (Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species).

⁷³ MSCAs questionnaire.

life Service, which issues licences for the Minister for the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (the sole CA for the Zoos Directive in Ireland). The Zoo License Inspectorate is appointed on a contract basis by the National Parks and Wildlife Service of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. This has enabled the CA to specify the required expertise and working methods for adequate zoo licensing and inspection, which provides the CA the certainty of competence and compliance with the existing law.

The CA has produced a Zoos Standards document and has enhanced the licensing process, including questionnaires which allow a stronger interaction between zoos and their inspectors. Inspection teams have a greater breadth of experience, permitted under the framework provided by the Zoos Directive⁷⁴.

The approach in Ireland has been to encourage, rather than force compliance. The emphasis, therefore, has been on raising standards in zoos over a number of years, from a situation where, pre-Zoos Directive, there were no agreed standards. The context within which zoos operate in the country is now strengthened and there is publicly available guidance that spells out expectations. Bringing a consistent approach to the regulation of this sector across the EU is a worthy aim and is being successfully achieved in this Member State⁷⁵.

c. Closure of zoos and penalties

Rules for the handling of closures and the establishment of penalties are the other two components of the overall licensing and inspection system.

Handling the **closure of zoos** represents a major challenge for Member State authorities, with difficulties related to ensuring that appropriate conditions are provided for the animals (as required by Article 6 of the Zoos Directive). **Responsibility** for the animals and the related costs for their accommodation remain with the owner of the zoo, who retains ownership of the animals in cases of closure (except where the animals are seized). However, CAs are ultimately responsible⁷⁶. In their survey responses, 10 CAs⁷⁷ mentioned having specific action plans or arrangements to relocate the animals in cases of closure and/or necessity⁷⁸. Depending on the specific case, animals can be relocated to other zoos or institutions, including sanctuaries and facilities managed by NGOs (in the Member State or abroad).

Two Member States (Portugal and France) have explicitly indicated the use of a network of national/international contacts, involving professional organisations and NGOs. Italy takes a difference approach where zoos, in order to obtain a licence, must enter into an agreement with other entities who may keep the animals in case of closure.

Based on the data provided by the MSCAs, partial or total closures of zoos have been a **rare event** since the entry into force of the Zoos Directive⁷⁹. Overall, there is little evidence of how zoo closures have been handled. The tendency observed in most of the Member States is to ask the zoos for adjustments in order to comply with the requirements (as allowed by Article 4 of the Zoos Directive). There have been also cases of zoos operating regardless of the CA's refusal to grant a licence. A well-known case is that of Limassol Zoo (Cyprus) that continued to operate and remained open to the public until 2010, when it was closed following an EU infringement procedure⁸⁰.

⁷⁴ Interview with Zoo Federation.

⁷⁵ Interview with MSCA.

⁷⁶ According to Article 6 of the Directive, 'the competent authority shall ensure that the animals concerned are treated or disposed of under conditions which the Member State deems appropriate and consistent with the purposes and provisions of this Directive'.

⁷⁷ Belgium, Lithuania, the Netherlands, Czech Republic, Denmark, Italy, Portugal, France, Germany and Bulgaria.

⁷⁸ If the owner is unable to ensure that animals are kept in adequate conditions.

⁷⁹ Closures reported by MSCAs during the stakeholder consultation, or reported by other sources, include two in Belgium; around nine in Germany between 2011 and 2016, including complete and partial closures; three in Bulgaria (Born Free Foundation, 2011).

⁸⁰ Infringement case 2009/2285. After renovation works, the zoo was re-opened in 2012 (<http://limassolzoo.com/home/2012-07-23-03-10-56.html>).

The information collected among MSCAs through the targeted questionnaire shows that closure, in most cases, stems from breaches of the legislation in relation to the accommodation of animals and animal husbandry conditions⁸¹. Although no detailed information is available and no conclusive finding is possible, this trend may reflect the increased attention devoted by MSCAs to animal accommodation and standards for animal husbandry across zoos. Those are also the aspects that tend to be detailed in specific criteria in the inspection forms or in the legislation.

Penalties established in the Member States for breaches of the legislation vary considerably across Member States, depending on the type of offence and on other elements, such as the recurrence of the illicit action or the differentiation between private and legal persons. Table 17 illustrates the approach taken at national level in the selected Member States, providing a simplified representation of the main criminal penalties⁸².

Table 17: Penalties for breaches of zoo legislation in the 14 Member States

Member State	Range of monetary penalties (EUR)
BE*	€450 - €12,000
Lt	€28 - €579
NL	€1,500 - €2,500
CZ	If zoos operate without a licence: up to €110,900; up to €184,900 (if the breach is repeated within one year) ⁸³ / For other administrative breaches: up to €18,500; up to €37,000 (if the breach is repeated within one year) ⁸⁴ .
DK	Penalties set by the courts, up to and including imprisonment
IT	€1,500 - €90,000
CY	Up to €5,000 (administrative fine by the Director of Veterinary Services); €1,700 - €3,400 and/or imprisonment (on court conviction)
PL	€4,400 - €11,100 or detention
ES	€300 - €300,500
PT	€25 - €44,891.81
IE	Up to €3,000 and/or six months' imprisonment
FR	Up to €15,000 and one-year imprisonment
DE	Up to €10,000
BG	€500 - €12,500

Source: Legal review and survey of MSCAs

As illustrated by Figure 10 below, most of the stakeholders responding to the survey (including MSCAs, zoos, federations, NGOs and experts) agreed that penalties are effective, proportionate and dissuasive (46 out of 111 selected the options 'totally agree' or 'somewhat agree'), with 43 unable to express a judgement.

However, concerns were expressed about the adequacy of the resources available to Member State authorities to enforce the legislation and make sure that breaches are actually detected and penalties

⁸¹ Responses to the targeted questionnaire for MSCAs showed the most common breaches detected to be related to the following requirements: accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species; maintaining high standard of animal husbandry with programmes of preventative and curative veterinary care and nutrition.

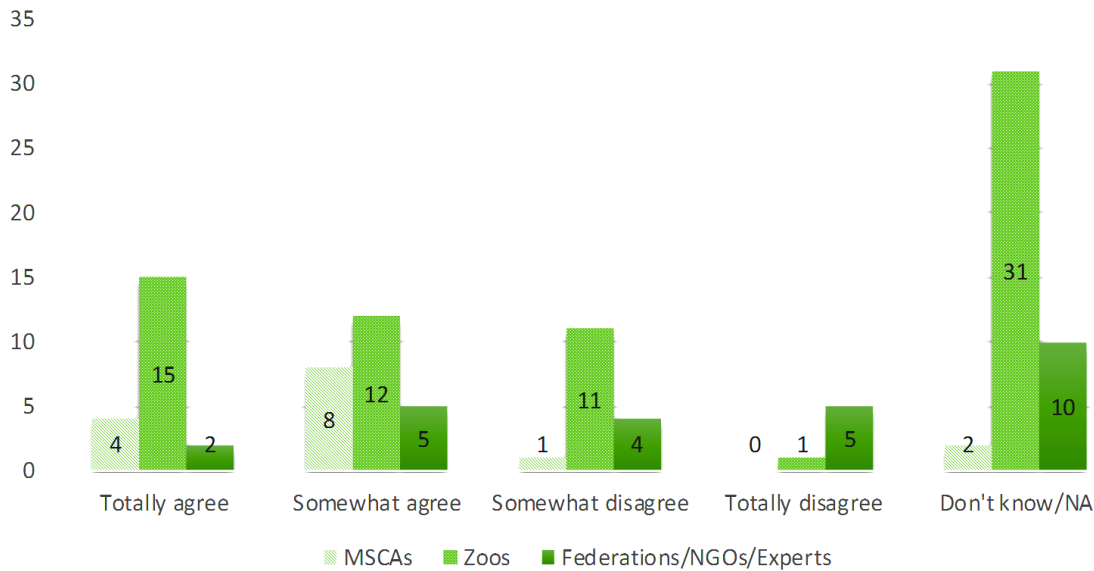
⁸² This table does not detail how the different penalties apply to different circumstances, except in some cases, and it was not possible to provide an accurate picture solely by indicating the range of fines.

⁸³ Values approximated. In Czech Republic Koruna the amounts are, respectively: 3,000,000 CZK (€110,952.45); 5,000,000 CZK (€184,954.74).

⁸⁴ Values approximated. In Czech Republic Koruna the amounts are, respectively: 500,000 CZK (€18,493.13); 1,000,000 CZK (€36,987.82).

applied. The effectiveness of enforcement capacity is discussed in the next paragraph.

Figure 10: Stakeholder opinions of the effectiveness, proportionality and dissuasiveness of penalties (absolute number of replies per each stakeholder category, total number of respondents = 111)



Source: Survey of MSCAs, federations NGOS and experts, and zoos

5.1.1.2 Progress made, results achieved and issues hindering the effectiveness of the national licensing and inspection systems

a. Implementation of the licensing and inspection system: results achieved and gaps identified

Data on the results achieved in terms of zoos licensed, procedures concluded and overall progress in the implementation of the licensing and inspection systems in the Member States have been difficult to collect, in view of the somewhat fragmented information provided by the Member States.

Based on the licensing and inspection systems set up, Member States were requested to complete the process of identification and licensing of zoos within four years of the entry into force of the Zoos Directive (Article 4). Delays in transposition and issues in the correct application of the legislation have been detected in six of the 14 Member States (Germany, Denmark, Spain, Ireland, Italy and Portugal), as shown by several infringement procedures started by the European Commission (see Section 4.2 above).

The data on enforcement of national legislation collected through the survey and provided by 12 Member States, suggests that difficulties have been encountered in making their licensing and inspection systems operational. Table 18 below shows the number of zoos (already existing at the time of entry into force of the Zoos Directive) that have been granted a licence within, and after, four years from the application of the zoo legislation (i.e. the maximum period established by Article 4 of the Zoos Directive).

Except for Belgium and the Czech Republic, all of the remaining 10 responding **Member States have licensed a significant or a major part of the existing zoos only after the four-year transitional period** established by the Zoos Directive. In some cases, no licence was issued within the four-year period (the Netherlands, Ireland and Italy).

Table 18: Zoos licensed within, and after, four years of the entry into force of the legislation in 11 Member States (absolute numbers)

Member	Number of zoos licensed within four years	Number of zoos licensed later than four years
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State		(excluding new zoos)
BG	14*	1
BE	33	
CY	1	3
CZ	17	0
DE	79	182
DK	4	24
IE	0	6
IT	0	24
LT	2	0
NL	0	47
PL	16	10
PT	15	10

* licensed under conditions

Source: Survey of MSCAs

Reasons for this differ and depend on several factors specific to each Member State, including delays and issues in **transposition**. As mentioned in Section 2.1, there was little by way of a comprehensive and consistent approach to *ex situ* conservation in the EU prior to the adoption of the Zoos Directive. The Directive prompted the introduction of a **new system** for all Member States in the scope of the analysis (except Belgium, which continued to apply its previous system), implying time and effort in identifying those entities qualifying as zoos under the new definition, the setting up of the inspection regime, and the actual application of the new rules.

Many countries experienced particular issues at the start of zoo licensing, chiefly the **absence of guidance** in areas such as inspection protocols, and a lack of knowledge on zoo-specific issues among enforcement staff, which took time to develop (e.g., Bulgaria, Germany and the Netherlands).

The difficulty in mobilising **resources** for inspections during the years of financial crisis might have undermined the capacity of some Member States to find the resources needed for licensing and inspection of zoos (as mentioned by Ireland⁸⁵), whereas revisions of the legislation, and burdensome and bureaucratic procedures might have slowed down the process in other Member States. For instance, particularly long licensing procedures have been recorded in Italy, where delays in licensing have been caused by the non-compliance of many zoos following the entry into force of the new legislation and the related time needed to implement the adjustments. Further difficulties stem from the characteristics of the licensing regime set up, based on the preliminary acquisition and analysis of the documentation and the follow-up on-site visits (carried out only when the documentation acquired is complete). Coupled with the legislative revisions occurring at national level, some licensing procedures have taken several years, and the licensing of some zoos existing at the time of entry into force of the Directive is still pending. Licensing also may take a long time because MSCAs favour dialogue with zoos to allow them to redeem deficiencies rather than taking a direct decision to close the zoo⁸⁶.

Member States are gradually catching up, overcoming the issues faced during the period of adjustment, and speeding up and simplifying the process (e.g. through better use of digital tools for communication). In parallel, zoo operators are adjusting to the new legislation.

Table 19 below presents the data on the status of licensing procedures for the 14 Member States according to the information gathered in the survey of MSCAs. Not all of the zoos identified in the Member States are licensed yet, because of pending procedures, exemptions and refusals.

The share of licensed zoos has increased between 2010 and 2015 in all the Member States, excluding Bulgaria, while the gap between total number of zoos and the number of licensed zoos has decreased.

⁸⁵ Targeted questionnaire for MSCAs.

⁸⁶ Interview with MSCA.

Moreover, the data collected shows that several Member States refused the issuance of licenses because conditions were not met (Belgium, the Netherlands, Lithuania, Italy, Poland, Portugal, Germany and Bulgaria), or initially refused the license and granted it only after improvements were made by the zoo (Belgium, the Netherlands, Czech Republic, Lithuania, Cyprus, Poland, Germany)⁸⁷. This information provides a broad indication of the setting up of operational licensing and inspection systems.

However, looking at the evolution of licensed zoos over the years, differences between 2010 and 2015 might be due to different factors (including the decrease in the overall number of zoos, or changes in the number of pending procedures). In general terms, there are no reliable historical data records for analysing the evolution of licensing procedures during the overall implementation period⁸⁸. In addition, differences in the registration system of each Member State (e.g. inclusion/ exclusion of exempted zoos as part of the total) hinder comparability.

Table 19: Number of zoos (licensed and unlicensed) and number of licensed zoos in 14 Member States⁸⁹

Member State	2010		2015	
	Number of zoos (licensed and unlicensed)	Number of licensed zoos	Number of zoos (licensed and unlicensed)	Number of licensed zoos
BG	20	17	21	14
BE	39	37	40	40
CY	4	1	4	4
CZ	19	19	25	25
DK	21	21	31	31
FR	N/A	N/A	288	288
DE	319	290	364	337
IE	N/A	10	30	17
IT	20	4	40	23
LT	2	2	5	5
NL	85	47	107	54
PL	18	18	24	24
PT	20	20	25	25
ES	N/A	108	NA	119

* First set of data referred to 2008-2010.

Source: Present survey of MSCAs

Overall, while this analysis suggests that Member States have progressed in implementing their licensing and inspection systems, the lack of data limits the possibility to draw solid conclusions about the progress made in ensuring that all zoos are licensed and comply with the requirements of the Zoos Directive. Opinions and evidence provided by stakeholders, however, give indications in this regard.

Stakeholders consulted in the context of this study highlighted that the Zoos Directive has introduced rules on a subject largely unregulated before⁹⁰ and represents a significant step forward compared to the situation before its implementation⁹¹. The Directive has contributed to raising standards and quality across EU zoos. MSCAs, zoos, zoos' federations and NGOs recognise (although to varying extents) that the conditions of EU zoos have gradually improved, with growing attention paid to conservation

⁸⁷ Targeted questionnaire for MSCAs.

⁸⁸ As part of the preparatory work for the Zoos Directive, data from the European Parliament on the total number of zoos were reported for some Member States (Italy, Luxembourg, Portugal, Spain, the UK) (European Parliament 1993). However, the figures (referring to the situation before the entering into force of the Directive) are not consistent with the figures collected by Member State authorities for the purposes of this evaluation.

⁸⁹ Depending on the definition of zoo, numbers of zoos may differ between CAs, zoo associations, and NGOs.

⁹⁰ Before the introduction of the Zoos Directive, legislation existed in Belgium, Denmark, France and Spain (although with different scopes and provisions on licensing than those of the Zoos Directive).

⁹¹ As mentioned in Section 2.1, in 1993, only five of the then 12 Member States had relevant legislation on the subject, although it was not focused on conservation objectives. In that context, the European Survey of Zoological Collections (in those 12 Member States) found that few zoos broadly met 'the standards required by international guidelines of modern zoo practice in the areas of animal husbandry, species conservation and public education', and limited focus on conservation activities.

activities and the provision of information to the public⁹².

A majority of respondents to the public consultation considered that one of the benefits of the Zoos Directive has been to ensure improved licensing and inspection schemes, with 60% of the stakeholders seeing crucial or significant benefits in this field. This share rises to 89% if the opinions expressed by zoos and NGOs are included. In parallel, the different conservation measures defined in the Zoos Directive (i.e. research, training, education and awareness raising, information on exhibited species, appropriate animal keep and veterinary care, collection of data on zoo animals) are sufficiently promoted across the EU⁹³.

However, the perceptions vary depending on the types of measure concerned. While the majority of respondents are positive about the measures taken by zoos to provide information, educate and raise awareness⁹⁴, less than half of the participants consider actions related to animal conditions and care, or to research on species conservation as sufficiently promoted by zoos⁹⁵.

Opinions also change depending on the stakeholder group considered, with a clear tendency to a more negative judgement among NGOs. This group has the lowest rate of positive appreciation for all activities, being particularly low in relation to research (33% or 803 respondents), training (36% or 826 respondents) and animal accommodation and care (35% or 758 respondents). However, national licensing and inspection systems are the subject of several criticisms, especially by the animal welfare associations surveyed and interviewed, who claimed that several zoos are not compliant with the legislation (even if they own a valid licence) and that non-compliant zoos have been closed in very few cases.

In particular, the latest Born Free EU Zoo Inquiry 2016 (publication pending) argues that ‘little improvement was identified in those five Member States [Italy, France, Lithuania, Germany and Malta] that were also included in 2010 investigations’⁹⁶.

In addition, the Inquiry points out that unlicensed, although operational, zoos remain and ‘a number of registered “exempt” facilities appear to warrant a zoo licence’ (for example, in Italy)⁹⁷. This concern is echoed by some zoos responding to the survey, several of whom point to the doubts remaining on the enforcement of the licensing system, due to the continued presence of unlicensed and operational zoos, and/or the issuing of licences to zoos that are not actually compliant with the Directive⁹⁸.

⁹² These considerations are based on the general feedback provided by stakeholders in the targeted consultations (survey and interviews). More detailed results are included in other sections of the report, e.g. the benefits brought about by the Directive (Section 5.2.1.2), the results attributed to the implementation of the Zoos Directive and its EU Added Value (Section 5.5.1).

⁹³ Question 21 of the public consultation questionnaire asked for an opinion in relation to the promotion of eight activities corresponding to the Article 3 measures: a. Research on species conservation issues; b. Training on relevant species conservation skills; c. Exchange of information relating to species conservation between zoos, authorities and other organisations; d. Provide education on, and raise awareness of, biodiversity and broader nature protection topics; e. Provide education on, and raise awareness of, species, wild animals and their natural habitats; f. Provide information on exhibited species and their habitats; g. Keep animals under appropriate conditions with good veterinary care; h. Collect data on animals in zoos.

Please see the Public Consultation Report (Annex VIII).

⁹⁴ The majority of respondents rated the following activities as sufficiently promoted:

- Providing information on exhibited species, wild animals and their natural habitats: 70% or 1,607 positive answers;
- Providing education on, and raising awareness of, species, wild animals and their natural habitats: 62% or 1,424 positive answers;
- Providing education on, and raising awareness of, biodiversity and broader nature protection topics: 57% or 1,309 positive answers.

⁹⁵ Negative opinions related to:

- Animal conditions and care (point 21g): 46% or 1,056 negative answers;
- Research in species conservation issues (point 21a): 43% or 987 negative answers.

⁹⁶ Findings of the EU Zoo Inquiry 2016 submitted to Milieu before publication of the Inquiry. The project is an assessment of 55 zoological collections in seven EU Member States: Italy, France, Lithuania, Germany, Malta (which were also included in the EU Zoo Inquiry 2011), Denmark and Croatia.

⁹⁷ Ibid.

⁹⁸ In the targeted consultation, zoos were asked to state whether or not they agreed with the statement ‘Every zoo is licensed’. Fifteen zoos (of the 70 in the sample and the 49 that provided an opinion) disagreed with this statement. In the open comments accompanying the questions about the licensing and inspection system, the concern about the presence of non-licensed zoos was raised in six cases.

Born Free, as part of the EU Zoo Inquiry 2016, concluded that the majority of the zoos investigated are failing to properly implement the conservation measures of Article 3, and that zoo inspections across the Member States are failing to identify breaches or penalise violations of the law.

Stakeholders pointed out that, although progress has been achieved, it should not be overestimated. The implementation of licensing and inspection requirements remains challenging for CAs in terms of the resources and knowledge required, and there are still many non-compliant zoos across the EU, leading to unfair and unacceptable competition for well performing and dedicated zoos⁹⁹.

The field assessment of the actual situation across EU zoos (going beyond the available data and information provided by stakeholders) is outside the scope of this supporting study. Nonetheless, this analysis has identified a range of gaps and factors that hinder the functioning and effectiveness of the licensing and inspection systems, and these elements are discussed below.

b. Main issues hindering the effectiveness of the licensing and inspection system

Different stakeholders (including zoos and zoos' federations) have expressed concern about the **capacity** of the Member States' authorities to effectively implement the legislation, pointing to gaps in terms of both **resources** available and **knowledge** of the inspectors. This concern was also raised during the workshop, where it was stated that MSCAs struggle with the appropriate, highly specialised knowledge required to properly carry out inspections¹⁰⁰.

Some countries solve this issue by using external expertise, where Member States defer to external experts with appropriate technical knowledge (in Bulgaria, Belgium, Czech Republic, Denmark, France, the Netherlands and, depending on the need, in Spain and Poland) to assist enforcement authorities (see Table 14 above).

In all Member States assessed, zoo inspectors are usually responsible for a **range of different duties**, in addition to the application of the Zoos Directive. These duties include the implementation of other legislation (e.g. animals used for scientific purposes, exotic animals, companion animals, farms, transport, slaughter, food safety, animal health, epidemics control, environmental and safety risks, compliance with other legislation dealing with IAS and CITES).

As a consequence, the **skills** of zoo inspectors are quite broad and not necessarily focused on wild fauna or species-specific issues. Inspectors are generally specialised in veterinary science (Belgium, Denmark, Cyprus, Italy, Ireland, Germany and Portugal). Other accepted specialist areas are life sciences (the Czech Republic) and zoology (Germany), while other Member States request additional specific experience in the management of zoo animal collections (Ireland), or knowledge of protected species and their habitats and relevant legislation (Poland), including CITES (the Netherlands).

Seven of the Member States surveyed (Bulgaria, France, Germany, Spain, Ireland, the Netherlands and Poland) provided information on the training activities organised regularly for zoo inspectors, often including both legal and technical aspects (some examples are provided in Box 3 below).

Box 3: Examples of training for zoo inspectors organised in the Member States

Ireland: The Inspectorate operates a two-tier training system. The first part is training in the 'Irish Standards of Modern Zoo Practice' (ISMZP) and related legislation (i.e. the Zoos Directive and the national law transposing the Zoos Directive). The second part is a biannual training weekend, where a specific topic is covered to ensure consistency across an area of inspection or a specific zoo type. This helps to ensure that all inspectors have the basic fundamentals required to conduct an inspec-

⁹⁹ See Workshop Report, June 2017, available at:

http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

¹⁰⁰ See also Findings of the EU Zoo Inquiry 2016 submitted to Milieu before publication of the Inquiry on this point.

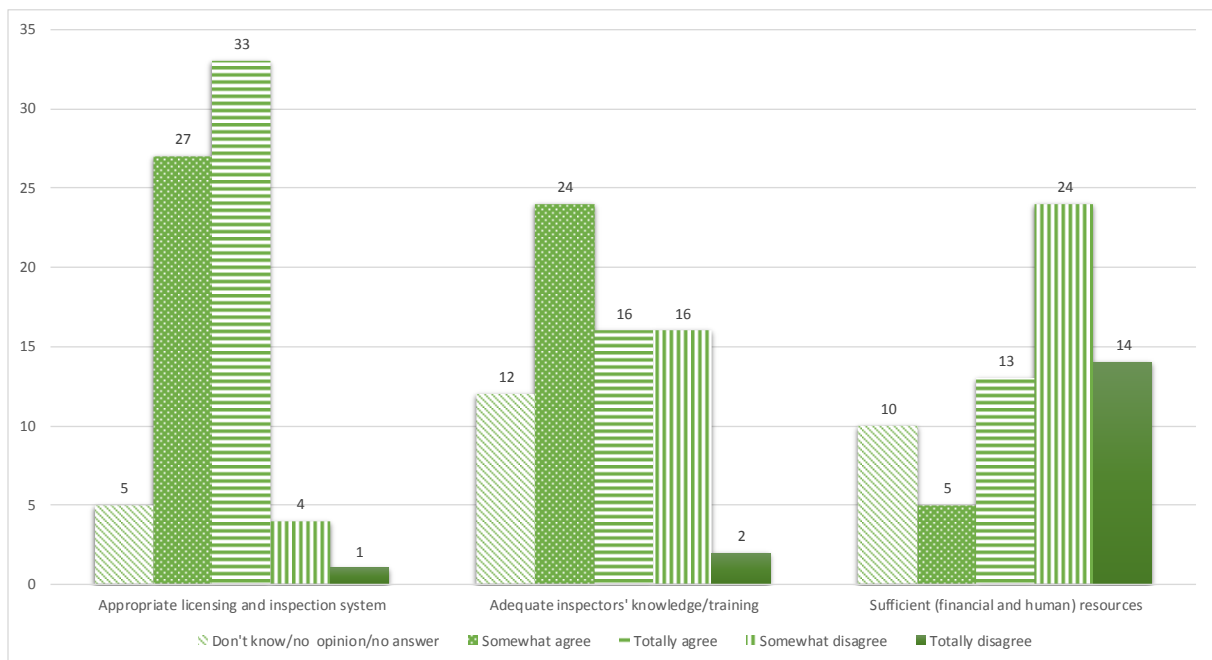
tion of a premises, irrespective of individual knowledge gaps or weaknesses.

Spain: the CA, together with the Foundation of Biodiversity, has organised three courses at state level with which it has sought to contribute to the training of inspectors of the Autonomous Communities in accordance with Law 31 / 2003. These one-week courses were developed in 2009, in June and October of 2011, and consisted of theoretical and practical inspection in zoos.

Source: Present survey of zoos

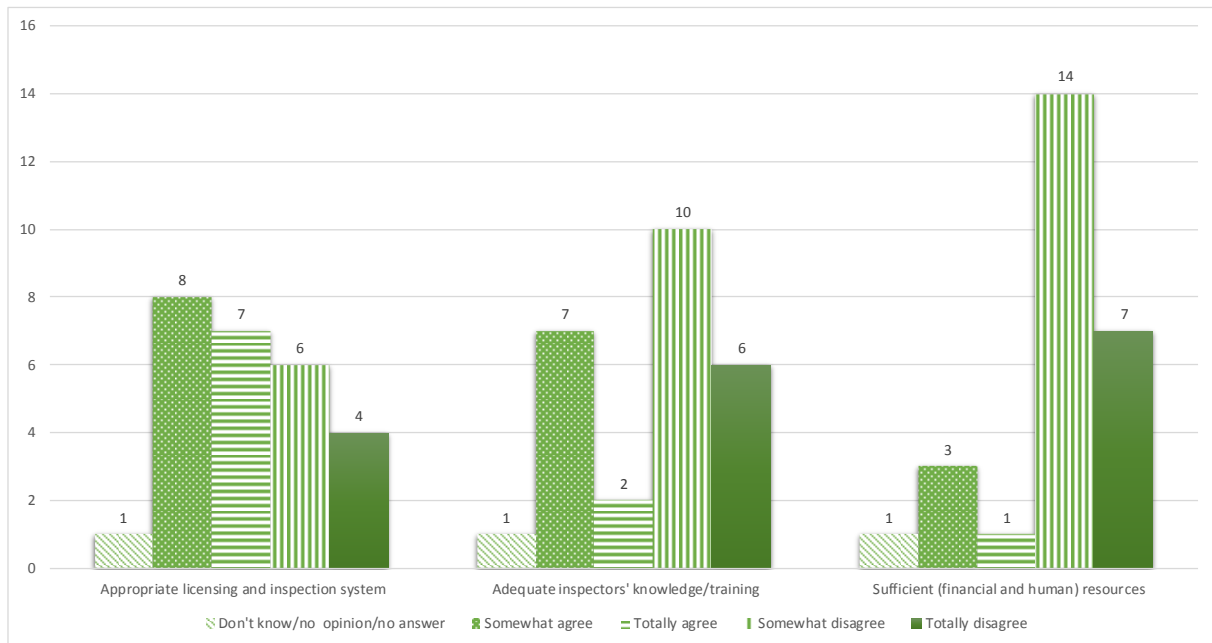
Overall, the survey showed that adequate knowledge and training of inspectors was considered a weak point of the current system by federations, experts and NGOs. Although the majority of zoos (40 out of 70) agreed on the adequacy of inspectors' knowledge and training, a significant proportion expressed a negative opinion (18 out of 70) (see Figure 11 and Figure 12).

Figure 11: Opinion of zoos on the national licensing and inspection systems, in terms of: adequacy of the national licensing and inspection systems, knowledge training of inspectors, and human and financial resources (absolute numbers, total number of respondents = 70) (data referred to zoos in 14 Member States)



Source: Present survey of zoos

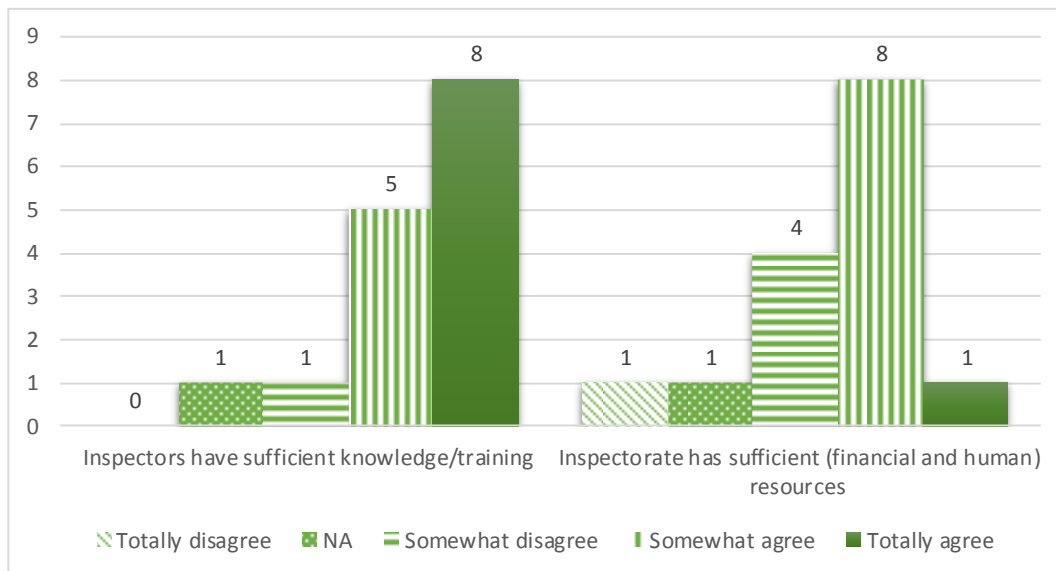
Figure 12: Opinion of federations/NGOs/experts on the national licensing and inspection systems, in terms of: adequacy of the national licensing and inspection systems, knowledge training of inspectors, and human and financial resources (absolute numbers, total number of respondents = 26) (data referred to federations/NGOs/experts in 14 Member States)



Source: Present survey of federations, NGOs and experts

The opinions expressed by zoos and by federations, NGOs and experts differ from the feedback provided by MSCAs. The majority of MSCAs consider the knowledge/training of inspectors as sufficient, while it is the adequacy of financial and human resources that seems to be questioned (Figure 14).

Figure 13: Opinion of MSCAs on the national licensing and inspection systems, in terms of: knowledge training of inspectors, and human and financial resources (absolute numbers, total number of respondents = 15)



Explanations behind the negative judgements include the **lack of updated and comprehensive knowledge** to properly inspect wild/exotic animals, and the wide variety of species exhibited in zoos. Given the variety of areas of expertise to be covered, it is difficult for zoo inspectors to perform detailed and holistic licensing inspections. A recent survey by Born Free and VetEffect argued that sub-standard conditions are the result of CA's inability to effectively apply relevant legislation, including lack of sufficient knowledge and expertise, especially in relation to different species of wild ani-

mals¹⁰¹. Although the MSCAs consulted for this supporting study seem to consider the knowledge and training of inspectors sufficient (Figure 14 above), the survey conducted by Born Free and VetEffect identified several training needs for national inspectors, including the following top five: conservation programme objectives and evaluation protocols; animal welfare indicators and assessment criteria; *in situ* conservation - effective participation and linking to other zoo activities; specific housing requirements; specific husbandry requirements (Born Free Foundation 2016). These needs indicate the difficulties faced by inspectors in assessing zoos' compliance with requirements; as observed, MSCAs generally have not detailed these criteria in measurable and objectives parameters, leaving the quality of the inspection to depend on the skills on the experts involved (see Section 5.1.1.1). These training needs, however, also serve to confirm the difficulty of ensuring specialised knowledge.

Other issues raised by stakeholders in relation to the national licensing and inspection systems point to the **inconsistency among Member States and among regions**, as well as to the **lack of sufficient resources to perform a systematic screening** of the establishments in question.

Member States have undertaken, and are in the process of implementing, several **improvements** to the licensing and inspection system. Two Member States (Belgium and Cyprus) are currently reviewing their national legislation, taking into account the experience gained during the implementation of the Zoos Directive (Belgium), and with the aim of addressing problematic areas of the current legislation (e.g. zoo closure, establishment of an advisory committee, use of expert advice, clarification of the current legal requirements, penalties) (Cyprus). Another example is the renewal of the team of inspectors in charge of zoos in Ireland. During the last year, inspectors were changed for the first time (previous inspectors were in post for nine years) in order to make sure that zoos are inspected by different inspectors, there is less predictability and the quality of inspection is raised overall. In addition, the current system added inspectors (now with a team of eight to nine), with diverse expertise and able to cover the full range of situations likely to be encountered in Ireland¹⁰².

Other Member States (the Netherlands¹⁰³ and Ireland¹⁰⁴) have adopted guidelines on zoo inspections, in order to clarify and standardise the methods used. In Germany, many regional authorities have developed their own inspection standards but these have not been harmonised across the 16 Federal States.

Other Member States (Bulgaria, Italy, Spain, Portugal, France and Germany) promote training, periodic meetings among inspectors and other tools to ensure coordination and the exchange of practices among zoo inspectors (e.g. in France, through the project to develop a national harmonised information system).

5.1.1.3 Implementation of the Article 3 conservation measures by zoos

Each of the 14 Member States within the scope of the analysis has transposed, in many case literally, Article 3 of the Directive (with the exception of Belgium, where the existing legislation was applied), and translated its requirements into the conditions for the issuance of the licence. While the correct transposition and effective enforcement of the legislation by Member States should ensure that all operating zoos implement the conservation measures in line with Article 3, some limitations have been identified: delays in setting up an operational licensing and inspection system by several Member States; lack of detailed criteria for the inspection of zoos and the assessment of the implementation of Article 3 measures, with related risks in terms of inconsistencies (among Member States and at regional/local level); and ineffective application of the legislation.

This section highlights the progress made towards the implementation of the Article 3 conservation

¹⁰¹ Between August 2014 and January 2015, VetEffect created an online survey with the Born Free Foundation to identify the knowledge gaps among authorities at national and regional level.

¹⁰² Interview with the Irish MSCAs.

¹⁰³ Document not public.

¹⁰⁴ Irish Standards of Modern Zoo Practice.

measures by presenting the survey evidence collected from 70 zoos across the 14 Member States. As mentioned above (Section 3.5.1.2 and Section 5.1.1), the survey is likely to have captured mainly conservation focused zoos. The replies to the survey are, therefore, used to complement the analysis on the actions taken by Member States in order to ensure the compliance of zoos with the legislation, and the findings are discussed and compared with the feedback from stakeholders, including the results of the public consultation¹⁰⁵.

Implementation of conservation measures: results of the survey addressed to zoos

Overall, the survey results show that zoos which are members of EAZA, as well as large zoos (250 employees or more), tend to be more conservation-oriented and to have a structured approach to implementing the requirements of the Zoos Directive (such as a written conservation strategy and/or a written education system, high rates of participation in research projects and training activities that benefit conservation). This trend is consistent with the findings of previous studies, which pointed out that membership of zoo associations is positively correlated with the fulfilment of conservation objectives and the implementation of Article 3 measures (Fabregas et al 2012)¹⁰⁶.

The data collected through the survey reveal that the majority of EAZA zoos (28 out of 37, or 75.6%) have a written conservation strategy, with this share being significantly lower among zoos that are part of other federations (6 out of 16, or 37%) and zoos that are not members of any federation (two out of six, or 33%) (Figure 14). Most of the respondents refer to EAZA Best Practice Guidelines¹⁰⁷ and Regional Collection Plans¹⁰⁸, or guidelines issued by national associations.

¹⁰⁵ In particular, the following questions were considered: Question 21 of the public consultation, 'Do you think the following activities are sufficiently promoted in zoos across the EU?'; Question 20 asking respondents about their personal experiences of the actual implementation of the Directive's requirements. The feedback received is briefly reported in this paragraph and is also used in other sections of the report, where relevant. For complete analysis, please see the Public Consultation Report (Annex VIII).

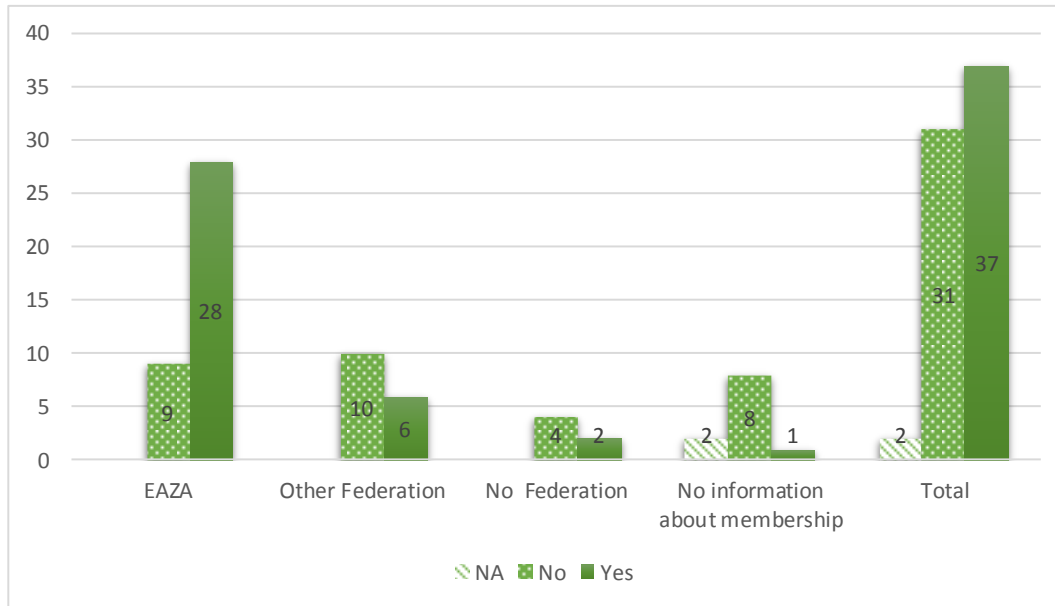
¹⁰⁶ The study conducted in Spain found that private zoos with large zoological collections, located within or near metropolitan areas and members of a zoo association, tended to comply with the conservation requirements of the Directive. The membership of a zoo association (AIZA in the specific case) was the descriptive variable that explained more than 70% of fulfilment of the requirements, except where the requirement related to record-keeping. This finding is explained by the fact that membership helps to ensure that a zoo adheres to the highest industry standards [Hutchins and Smith, 2003], through accreditation processes carried out by a group of experts designated by the Association.

The current survey under discussion found little difference between public and private zoos. The analysis therefore focused on the differentiation between zoos belonging to EAZA or other association vs. zoos not belonging to any association; and between small (fewer than 10 employees; and 10-49 employees) vs. bigger zoos (50-249 employees; and 250 employees or more).

¹⁰⁷ For example, EAZA Best Practice Guidelines, species-specific.

¹⁰⁸ EAZA Regional Collection Plans describe which species are recommended to be kept, why, and how these species should be managed. The Regional Collection Plans also identify which species need to be managed in European Endangered Species Programmes and European Studbooks.

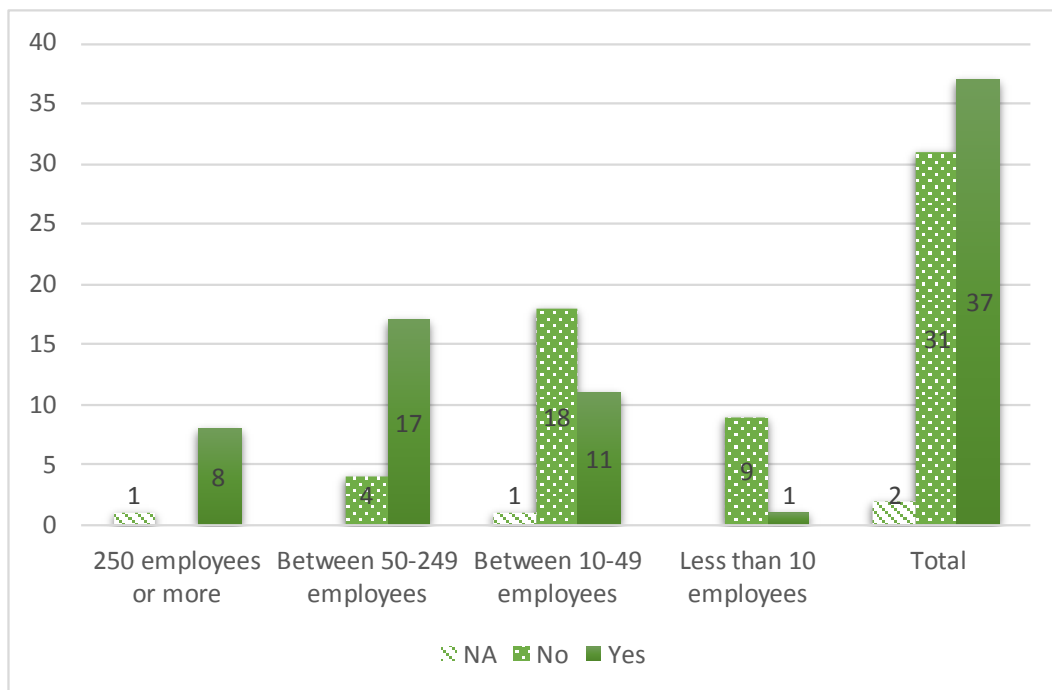
Figure 14: Number of zoos surveyed with a written conservation strategy, by membership



Source: Present survey of zoos

Similar differences exist between large and smaller zoos: while all large zoos (nine out of nine)¹⁰⁹ and the majority of medium zoos (17 out of 21, or 81%) have a written conservation strategy, only 12 out of 40 (or 30%) of the smaller zoos (up to 49 employees) declared themselves to have such a strategy (Figure 15).

Figure 15: Number of zoos surveyed with a written conservation strategy, by number of employees



Source: Present survey of zoos

- a. Article 3, first indent: research, training in relevant conservation skills, exchange of information relating to species conservation, captive breeding, repopulation or reintroduc-

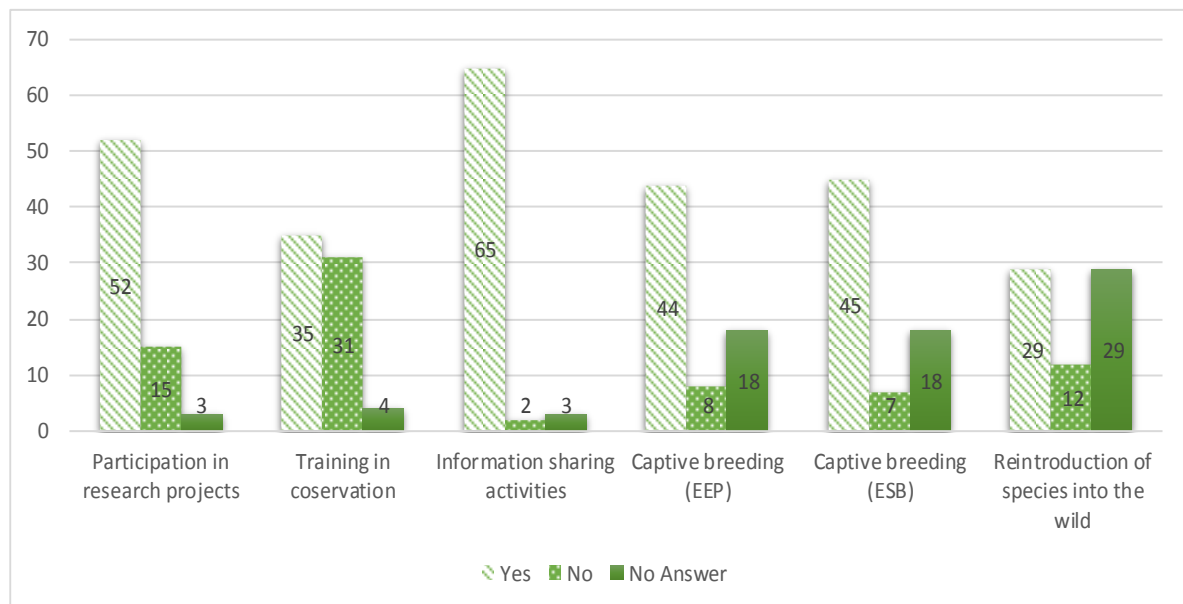
¹⁰⁹ Seven out of nine large zoos are EAZA members.

tion of species into the wild.

Turning to the conservation measures implemented by the zoos surveyed, the first key element relates to the actions taken in line with Article 3, first indent, of the Zoos Directive, listing several conservation measures, as alternative options: **participation in research from which conservation benefits accrue to the species, and/or training in relevant conservation skills, and/or exchange of information relating to species conservation, and/or captive breeding, repopulation or reintroduction of species into the wild.** The wording of the Zoos Directive, presenting the different measures as alternative, answers to the need to take into account the varied landscape of EU zoos and accommodates differences in capacities (see Section 5.1.3.1).

Figure 16 presents the approach taken to Article 3, first indent by the zoos surveyed.

Figure 16: Overview of participation in research projects, training and exchange of information



Source: Present survey of zoos

Most of the zoos declare that they take part in research activities that benefit conservation (52 out of 70, or 74.3%). All of the EAZA zoos that replied to the survey participate in research projects. While 90% of the medium-large zoos (27 out of the 30 zoos with at least 50 employees) take part in research projects, the share decreases to 60% among smaller establishments (25 out of the 40 zoos with between 10 and 49 employees and those with fewer than 10 employees).

A large majority of zoos engage in the exchange of information (65 out of 70, or 92.8%), usually by communicating with other zoos, or through participation in meetings with other regional or national stakeholders (e.g. zoos' federations, national authorities), or with international stakeholders (e.g. IUCN, EAZA). It is also worth mentioning that a significant share of zoos (40, or 57.1%) use 'Species360', a tool developed to facilitate international collaboration on the collection and sharing of knowledge on wild animals in zoos and aquariums (counting around 1,000 members across 90 countries¹¹⁰).

Concerning the other measures implemented, only 35 zoos (53% of the 66 that replied to the question) engage in training on conservation skills (of these, 26 are EAZA zoos), usually for their own employees or employees of other zoos, students, veterinarians and biologists, and volunteers.

¹¹⁰ <http://www.species360.org/about-us/mission-history/>

The fact that many zoo survey participants are part of EAZA or other national federations explains the high share of zoos taking part in EEP or ESB programmes, i.e. breeding programmes aimed at managing and conserving populations of animals in captivity. Nevertheless, zoos which are not part of EAZA also take part in EEP (10 non-EAZA zoos) and/or ESB (11 non-EAZA zoos). In general terms, participation of non-EAZA zoos in these programmes has increased in recent years; in 2015, almost 50% of zoos participating in these programmes were non-EAZA facilities. EAZA attributes this trend to the existence of the Directive and its provisions promoting participation in conservation¹¹¹.

Finally, a remarkable achievement relates to the fact that 28 (40%) of the zoos surveyed have reintroduced species into the wild¹¹² over the last 15 years, both in Europe and in other parts of the world. Similarly, 16 zoos (22.9%) indicated that species have been down-listed in Global/European/Regional red lists (i.e. moved to a lower threat category) because of conservation programmes by zoos. This was the case for the Iberian lynx (*Lynx pardina*), previously considered critically endangered and now considered endangered. The Proyecto Eremita (Reintroduction of Northern Bald Ibis in southern Spain) allowed the reintroduction of an extinct species in Andalusia (example provided by one zoo).

Ten zoos out of 70 (14.3%) did not flag any of the options related to the participation in research, training, captive breeding programmes or reintroduction into the wild¹¹³. These zoos appear to be involved only in information-sharing activities, suggesting a narrow application of Article 3, first indent, measures. These are mainly small establishments (five zoos with between 10 and 49 employees; four zoos with fewer than 10 employees, and one zoo with between 50-249 employees). However, many small zoos take part in research programmes and have achieved significant results. Of the 40 zoos in the sample with fewer than 50 employees, 16 participate in EEP and 18 participate in ESB programmes. In addition, eight have successfully reintroduced species into the wild.

Box 4: Promotion of Article 3, first indent, measures, results of the public consultation

According to the feedback provided through the public consultation, stakeholders generally agreed that the measures under Article 3, first indent, are sufficiently promoted in zoos across the EU, although NGOs express a more general negative opinion. To be more precise, stakeholders agreeing that each measure is sufficiently promoted, were distributed as follows:

- Research on species conservation issues: 44% of total stakeholders; 87% of zoos and only 33% of NGOs. 56% of the respondents (of which 38% fully agreed) noticed improvements in research activities carried out by zoos over the last 15 years. Improvements in research activities were observed by 53% of NGOs and 93% of zoos¹¹⁴.
- Training on relevant species conservation skills: 41% of total stakeholders; 82% of zoos and only 36% of NGOs.
- Exchange of information relating to species conservation, between zoos, authorities, other organisations: 48% of total stakeholders; 96% of zoos and only 52% of NGOs.

b. Article 3, second indent: education and awareness

Most of the zoo respondents stated that they have written strategies for public education and awareness of the conservation of biodiversity.

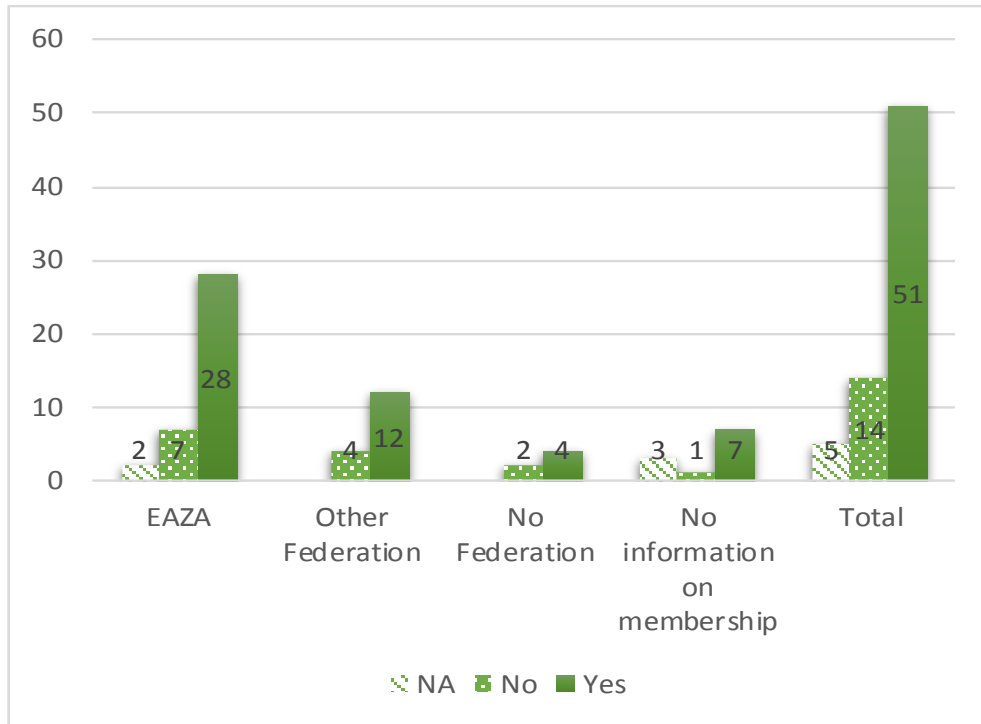
¹¹¹ Interview with EAZA.

¹¹² Reintroduction usually focuses on species that are naturally scarce or threatened and/or are already declining or are extinct locally or globally.

¹¹³ Out of these 10 zoos: 2 are EAZA, 1 is member of another federation; the remaining are not member of any federation or did not provide information about membership.

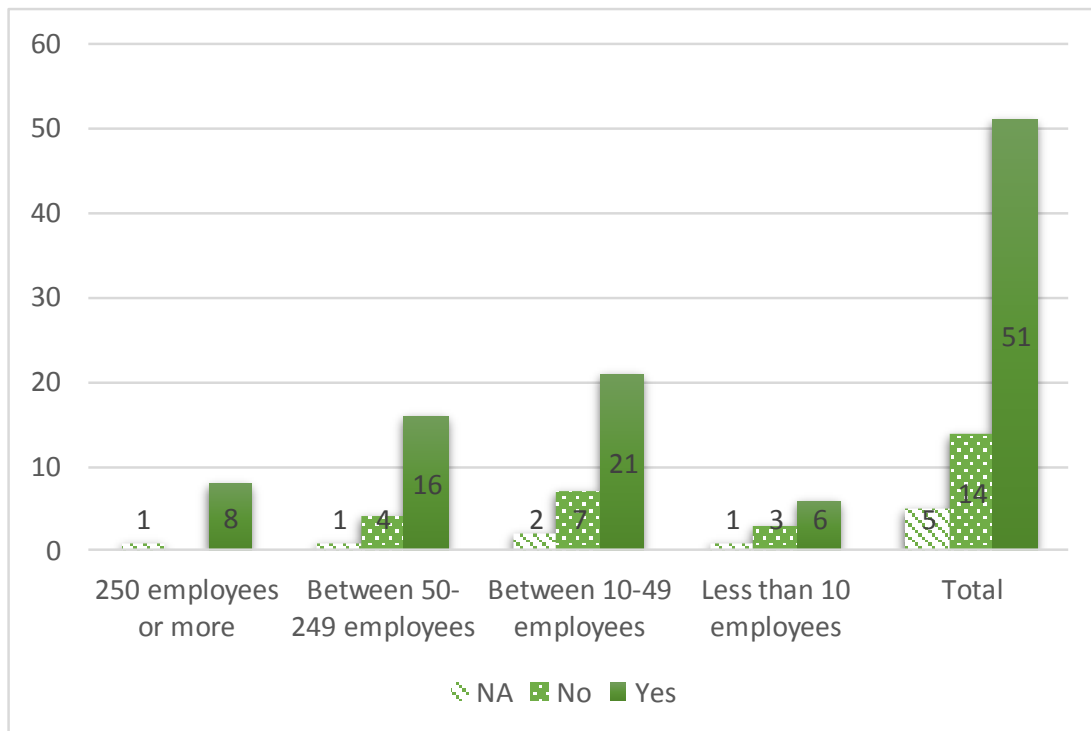
¹¹⁴ Question 20 of the public consultation.

Figure 17: Number of zoos surveyed with a written education strategy, by membership



Source: Present survey of zoos

Figure 18: Number of zoos surveyed with a written education strategy, by size of zoo



Source: Present survey of zoos

In many cases, zoos have adopted the guidelines on education activities issued by EAZA and/or by national federations¹¹⁵. The description provided reveals that several educational activities are per-

¹¹⁵ World Zoo and Aquarium Conservation Strategy (WAZA, published 2015); EAZA Conservation Education Standards (published 2016) and EAZA Education and Exhibit Design Committee Aims 2013-2016.

formed by zoos, addressed to both schools and the general public, with the objective of educating and raising awareness of biodiversity and environmental issues. To this end, the activities carried out include guided tours, illustrated species talks and keeper talks, but also provision of information on the zoo and its animals (zoo maps, species information boards, literature provided at the entrance), as required by Article 3, second indent, of the Directive (Table 20).

Some zoos have also set up dedicated education services and projects and/or are engaged in formal education processes with schools at different levels (providing for the issuance of certificates to school pupils attending the educational activities).

Table 20: Activities carried out by zoos

Main activities carried out by zoos	Answers	Ratio ¹¹⁶
Animal shows	18	26.9%
Animal handling	39	58.2%
Keeper talks	53	79.1%
Guided tours	66	98.5%
Illustrated species talks	52	77.6%
Interactive displays	31	46.3%
Zoo maps	52	77.6%
Species information boards	67	100.0%
Literature provided at the entrance	43	64.2%

Source: Present survey of zoos

Box 5: Promotion of Article 3, second indent, measures, results of the public consultation

The activities related to the provision of information and education by zoos were particularly positively assessed by respondents to the public consultation:

- Providing information on exhibited species, wild animals and their natural habitats: 70% positive answers;
- Providing education on, and raising awareness of, species, wild animals and their natural habitats: 62% positive answers;
- Providing education on, and raising awareness of, biodiversity and broader nature protection topics: 57% positive answers.

Again, the opinions vary according to the stakeholder category. NGOs provided positive answers in slightly more than 50% of cases, compared to over 90% among zoos¹¹⁷.

Progress in ensuring an adequate level of education is confirmed by the following results: 72% of the respondents indicated having received information on species and conservation, and 74% considered (fully or partly) the information of species and their habitats to be well-presented. Finally, a high proportion of respondents (43% ‘totally’/ 26% ‘somewhat’) observed improvements in the educational activities provided by zoos in the past 15 years¹¹⁸.

c. Article 3, third indent: accommodation of animals and animal husbandry

Another provision of the Zoos Directive (Article 3, third indent) requires zoos to **accommodate animals under conditions that satisfy their biological needs and ensures the conservation of different species**. This provision refers, among others, to the implementation of environmental enrichment measures, high standards for animal husbandry and programmes for preventative and curative care and nutrition. Regarding animal accommodation, 54/70 (77.1%) of the zoos responding reported that standards for animal accommodation and husbandry are used, referring mainly to EAZA standards¹¹⁹,

¹¹⁶ Based on the total number of respondents to the survey rather than the number of respondents to the corresponding question (i.e. 67 respondents).

¹¹⁷ Question 21 of the public consultation.

¹¹⁸ Question 20 of the public consultation.

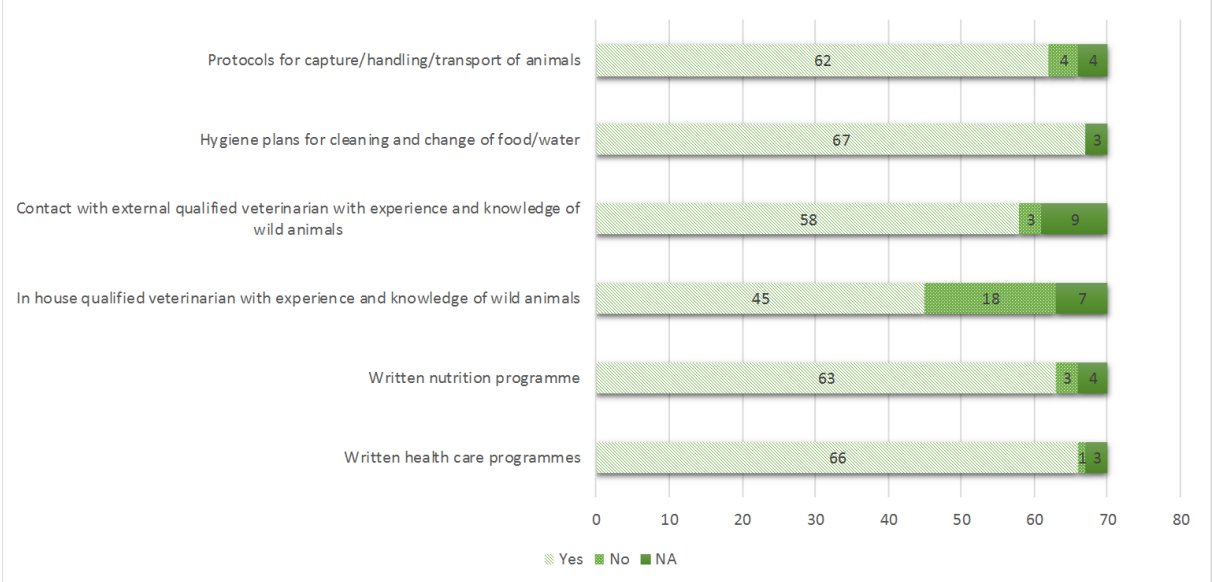
¹¹⁹ EAZA has adopted Minimum Standards for the Accommodation and Care of Animals in Zoos and Aquaria (this document is also referred in the preamble to the Zoos Directive).

standards defined by national federations, or by national authorities in some Member States (Bulgaria, Belgium, Italy, Ireland, Lithuania and Poland). In Germany, animal welfare guidance documents are used, even if not specifically part of the legislation implementing the Zoos Directive.

Thirty-nine zoos (out of 70, or 55.7%) mentioned that they have implemented environmental enrichment measures, with most (24 of the 39) declaring that all of the enclosures are designed to provide environmental enrichment. This seems to be an area for debate, as the Born Free Foundation often found lack of enrichment (BornFree 2011). These differences may stem from a lack of unanimous agreement on what constitutes sufficient enrichment.

Several elements should be taken into account concerning the capacity of the zoos surveyed to ensure high standards for animal husbandry. Firstly, over half of the zoos (40 out of 70, or 57.1%) require their animal keepers to have a specific qualification on animal care. This is especially true for EAZA zoos, of which 23 out of 37 (or 62.2%) ask for specific qualifications. Most of the zoos have put in place measures to make sure that the capacity is provided to properly manage animal husbandry (See Figure 19). Zoos tend to have hygiene plans and nutrition and health programmes, and, while it is generally more difficult for zoos to have in-house qualified veterinarians, this capability was encountered especially among members of EAZA or other federations.

Figure 19: Zoos’ capabilities in the field of animal husbandry



Source: Present survey of zoos

Box 6: Promotion of Article 3, third indent, measures, results of the public consultation

48% of stakeholder respondents to the public consultation considered that zoos ‘keep animals under appropriate conditions with good veterinary care’. Again, this opinion is not shared by NGOs, of whom only 35% expressed a positive opinion, compared to 96% of zoos. Finally, 47% of individual respondents expressed a positive opinion¹²⁰.

It is worth noting that the public consultation results are, in part, contradictory. 67% have noticed improvements in the size and design of spaces where animals are kept over the last 15 years. However, regarding accommodation, 53% of the respondents disagree with the fact that animals live in conditions that satisfy their needs. As expected, significant differences were noted between stakeholder categories: while 90% of zoo operators agree that animals live in appropriate conditions, only 41% of NGOs and 43% of individuals shared this opinion¹²¹.

¹²⁰ Question 21 of the public consultation.
¹²¹ Question 20 of the public consultation.

d. Article 3, fourth indent: Prevention of escapes of animals and intrusion of outside pests and vermin

Most of the zoos surveyed have a formal plan/protocol to prevent both the **escape of animals** and the **intrusion of outside pests and vermin** (Table 21), in line with the Directive's provision aimed at 'preventing the escape of animals in order to avoid possible ecological threats to indigenous species and preventing intrusion of outside pests and vermin' (Article 3, fourth indent).

Table 21: Zoos with plans for the escape of animals and the intrusion of outside pests and vermin, by membership

Formal plan/protocol for:	EAZA		Other federation		No federation		No information on membership		Total	
	n.	%	n.	%	n.	%	n.	%	n.	%
Escape of animals	9	24.3%	3	18.8%	1	16.7%	3	27.3%	16	22.9%
Escape of animals and intrusion of outside pests and vermin	23	62.2%	9	56.3%	4	66.7%	3	27.3%	39	55.7%
Intrusion of outside pests and vermin	3	8.1%	1	6.3%		0.0%	2	18.2%	6	8.6%
No plan	1	2.7%	3	18.8%	1	16.7%	1	9.1%	6	8.6%
No answer	1	2.7%		0.0%		0.0%	2	18.2%	3	4.3%
Total	37		16		6		11		70	

Source: Present survey of zoos

Box 7: Promotion of Article 3, fourth indent, measures, results of the public consultation

74% of all stakeholders agreed that zoos are adequately designed to prevent the escape of animals. The lowest share was recorded among NGOs (65%), with 76% of individuals and 94% of zoos stating a positive opinion. It should be noted that the provision of Article 3 of the Directive is focused on preventing the escape of species to avoid possible ecological threats to indigenous species and preventing intrusion; this aspect is not captured in the replies to the public consultation, which asked a more general question about protection from escape¹²².

e. Article 3, fifth indent: Record-keeping system

The vast majority of zoos have a **record-keeping system** (68 out of 70), as established by Article 3, fifth indent. In most cases, the system is electronic and includes record per individual animal (rather than group records per species), in line with requirements at national level, which usually ask for individual records (Belgium, Ireland, Portugal and Spain¹²³).

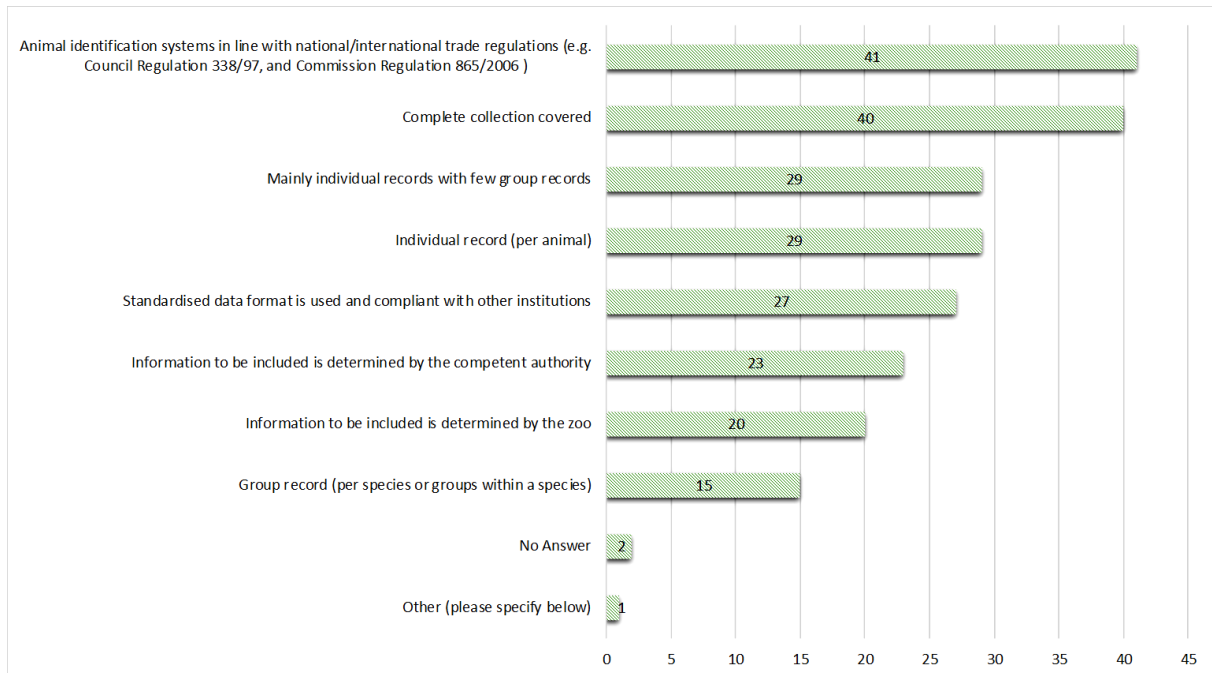
Over half of the zoos sampled (40 out of 70) indicated that the complete collection is covered. While this can be explained by the effort required to record accurate and detailed information, it can limit the capability of zoos to adequately manage the animal collection or manage research activities, and it may hamper exchange of information with other zoos and organisations on breeding programmes or activities, especially if species of conservation interest are not entered in the record-keeping system.

¹²² Question 20 of the public consultation.

¹²³ Article 6 of Law no. 31/2003, on the conservation of wildlife in zoological parks.

Figure 20 below summarises the main features of the record-keeping systems.

Figure 20: Main features of zoos' record-keeping systems, number of answers per option (based on the answer provided by 68 zoos)



Source: Present survey of zoos

Box 8: Promotion of Article 3, fifth indent, measures results of the public consultation

54% of stakeholders shared the opinion that zoos sufficiently promote the collection of data on their animals. This share ranges from 74% among individuals, 65% among NGOs and 97% among zoos¹²⁴. Here, however, results of the public consultation might carry less weight, given the 'technical' nature of the question.

Overall findings and remaining issues

The results of the survey of zoo operators suggest that many zoos are engaged in research projects, population management programmes (EEP and ESB), and education and awareness-raising activities. In addition, many measures are in place for animal husbandry, prevention of escapes and record-keeping, including environmental enrichment measures, hygiene, health and nutrition plans, and electronic record-keeping systems. The results are partly biased by the presence of many zoos belonging to EAZA (37 out of 70, or 53%) or other national or international federations (16 out of 70, or 23%), a factor that is positively correlated with major attention to conservation issues. Nevertheless, the survey responses provide a positive overall picture, suggesting that zoos are undertaking the expected actions and are progressing towards the fulfilment of Article 3 requirements.

The interviews with different stakeholder categories and the public consultation confirmed that progress has been made over the implementation period. The level of knowledge and the quality of the information provided to the visitors, the quality of zoo infrastructure and enclosures (as a result of radical changes since the end of the 20th century), the specialisation of zoo personnel, and collaboration between zoos and educational institutes, are all elements that have shown improvements in recent years.

Stakeholders have, however, raised issues in the effective implementation and enforcement of the

¹²⁴ Question 20 of the public consultation.

Zoos Directive at national level. The EU Zoo Inquiry project, run by the Born Free Foundation in 2011 and in 2016, highlighted failures in implementation and enforcement, suggesting that the objectives of the Directive were yet to be realised in the majority of Member States. Shortcomings were also signalled in relation to the small contribution to conservation by zoos (mainly because of the limited conservation interest of species kept), minimal measures to prevent the escape of non-native animals, and poor enclosure design (BornFree 2011) (Born Free 2016 report pending).

5.1.1.4 Summary and conclusions

Overall, **progress has been made** in achieving both the general objectives (protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity) and the specific objectives (ensuring that zoos implement Article 3 conservation measures and that closures of zoos are appropriately handled) of the Zoos Directive.

Despite delays in the transposition of the Zoos Directive and in the inspection of zoos, all 14 representative Member States have gradually set up the legislative and practical conditions to ensure the implementation and enforcement of the zoo legislation. Most of the Member States have put in place a structured process for inspection (supported by inspection forms), and make use of external experts in order to ensure specialised knowledge.

In parallel, despite the difficulties in collecting comprehensive data, many zoos implement several conservation measures, have set up written conservation and education strategies, and ensure that high standards of animal husbandry are ingrained. These achievements are not limited to EAZA zoos (which are generally more involved in conservation activities), but also include non-EAZA zoos. In addition, they concern small-medium entities operating in different Member States, and not necessarily bigger zoos.

However, the progress towards the achievement of the objectives is limited by remaining issues in terms of implementation and enforcement of the Zoos Directive. The assessment identified a number of **shortcomings** that can be recapped as follows:

- Some of the Member States transposed the Directive after the deadline and further **delays** were recorded in the establishment of the licensing and inspection systems. Most of the Member States inspected and licensed existing zoos only after the four-year transitional period, with procedures still pending for existing zoos. Progress towards the achievement of the objectives has thus been slower than expected in many cases.
- The Zoos Directive provides a framework for the implementation of conservation measures but it does not provide detailed indications about the conservation measures listed in Article 3. Many Member States have transposed the Article 3 measures literally in their legislation and, although most of the Member States use inspection forms, in most cases **no detailed criteria or indicators** are provided as a basis to perform the inspections and assess compliance. Where such detailed criteria have been established, these are mainly related to animal accommodation, and aspects such as safety of visitors, that **do not have direct relevance** to the conservation objectives pursued by the Zoos Directive. Conversely, little focus appears to be placed on the measures to prevent escapes of IAS (whereas, as mentioned, the requirements about escape of animals tend to address the safety of visitors).

While this gap can be explained by the wide differences among zoo collections (making it difficult to define and apply standard criteria), there is the risk of inconsistent application of the requirements, both across Member States and within each Member State (when the inspection system is managed at local or regional level).

- The accommodation of animals under adequate conditions in case of **closure** of a zoo represents a challenge for Member State authorities. So far, the closure of non-compliant zoos has been rare. Solutions depend on cooperation between the authorities and the zoo owners on the one hand, and other zoos and/or NGOs taking charge of the wild animals on the other hand.
- The full effectiveness of the licensing and inspection system is hindered by **lack of resources**

and capacity. Zoo inspectors are usually responsible for the enforcement of different legislation related to animal welfare, trade of wild animals and endangered species (i.e. CITES). The broad range of responsibilities has consequences in terms of limiting the resources that can be mobilised for zoo inspections, as well as creating practical obstacles to the knowledge and understanding of the specificities of zoos.

- The targeted survey (that reached 70 zoos across the 14 Member States) showed that most of the zoos have implemented conservation measures (as listed in Article 3 of the Zoos Directive), albeit in a varied manner, by participating in research, and/or with *ex situ* conservation programmes or some other measure, as required by the Directive. Not all conservation measures receive the same attention; for example, **not all zoos take part in research that benefits conservation, and less than half of the zoos surveyed are not involved in training activities in conservation skills.** This result appears to relate strictly to the alternative wording of Article 3, first indent, which gives zoos the possibility to comply with the requirements by choosing one or more of the options offered, and is aimed at taking into account the differences (also in terms of capacity) among EU zoos. Similarly, not all zoos have the same capabilities in terms of qualified zoo staff (in-house qualified veterinarians, or animal keepers with specific qualifications on animal care). Differentiation remains among zoos that are members of a European (EAZA) or national federation, and zoos that are not members of any federation.
- The overall positive picture emerging from the targeted survey addressed to zoos is confirmed in the **public consultation**, which shows that the public considers that the implementation of conservation measures is, generally, sufficiently promoted by EU zoos. This is especially the case for activities related to the provision of information on exhibited species, wild animals and their natural habitats, and for activities related to education and awareness raising. However, the level of negative perception among stakeholders is higher in relation to animal conditions and care. 53% of the respondents to the public consultation disagree with the fact that animals live in conditions that satisfy their needs.

5.1.2 Effectiveness – EQ 2

What is the contribution of the Directive towards ensuring the protection of wild fauna and the conservation of biodiversity in the EU and globally (including its contribution to implementing the EU Biodiversity Strategy and EU commitments under international conventions such as the Convention on Biological Diversity)?

This question aims to understand the contribution made by the Directive to the achievement of its **general objective** of protection of wild fauna and conservation of biodiversity. In order to evaluate this contribution, two main elements can be, to some extent, objectively measured:

- Impact of the achievement of certain of the Directive **specific objectives**: zoos' participation in research, captive breeding, repopulation and reintroduction, and promotion of public education and awareness;
- Impact of the implementation of the Directive on the achievement of EU and global conservation objectives (**implementation of other policies**), by measuring the interactions of the Directive with other EU legislation and international agreements.

The analysis for this question is mostly based on desk research, with limited input drawn from the stakeholder consultation. Desk research involved a literature review of the academic literature and the reports listed in the bibliography (Annex IV) and the reference database (Annex IVa), and of the relevant legislation. The combined analysis of the extensive literature existing on the topic and of the relevant EU and international legal texts provides a sound source of information to answer the evaluation question.

5.1.2.1 Contribution of zoos to the conservation of biodiversity

As previously explained, the Directive aims to strengthen the role of zoos in conservation of biodiversity. In order to measure the effectiveness of the Directive, therefore, this strengthened role must be

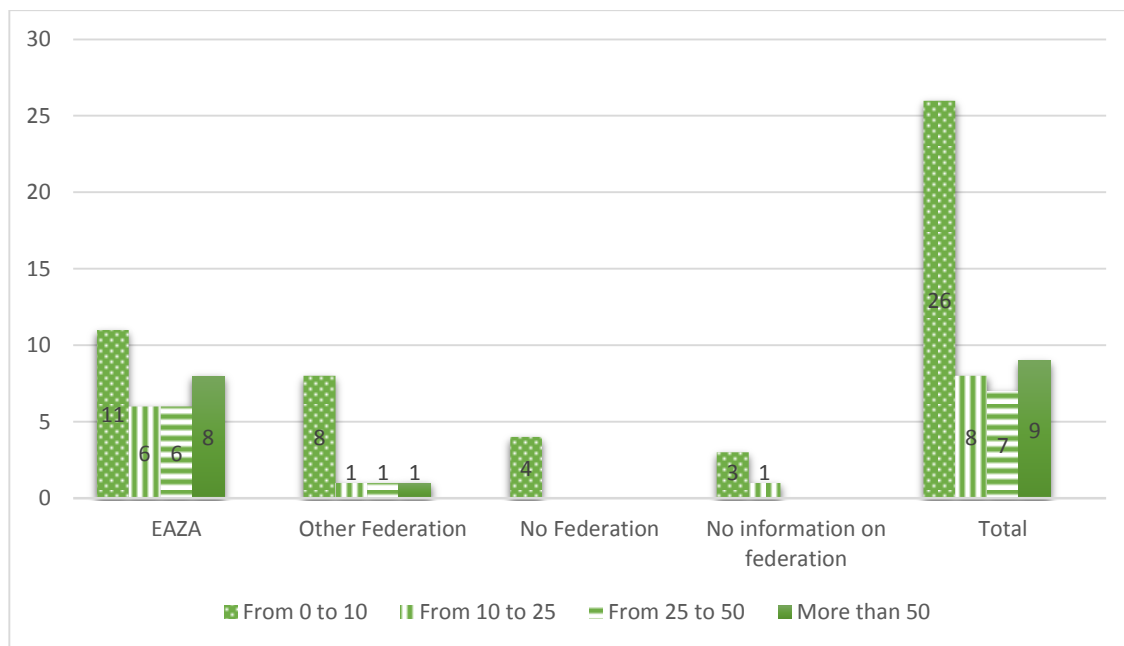
assessed.

The role of zoos in conservation has long been subject to debate (Bowkett 2014) (see also Section 5.3.3.1) and has given rise to extensive academic research and articles from a range of different perspectives (scientific, economic, etc.). The existing literature focuses on measuring the impact of certain **key areas** of activities of zoos in relation to conservation, as defined in Article 3 of the Directive: research, captive breeding and reintroduction, and public education and awareness promotion (activities and results A + B of the Intervention logic of the Zoos Directive). The analysis concentrates on the Article 3 conservation measures to assess contributions to achieving the objectives of the Directive. This will allow an understanding of whether achieving key **results** from proper implementation of the Directive results in its intended **impacts** (see Intervention logic in Section 2.2 above).

a. Impact of participating in research on conservation

Research is expressly mentioned as a possible conservation measure in Article 3, first indent, of the Directive. As mentioned in Section 5.1.1.3 above, research is widespread among the zoos which replied to this present survey. All EAZA zoos which replied participate in research activities, and EAZA has a research committee to support research¹²⁵ undertaken by its members (EAZA 2015, p.23). Figure 21 below presents the data on zoos' participation in research projects, with a significant proportion being EAZA members.

Figure 21: Survey results on zoos' participation in research projects 2003-2016 (number of projects)



Source: Present survey of zoos

As per the Directive, research shall aim to benefit conservation of biodiversity, i.e. 'research from which conservation benefits accrue'. An analysis undertaken in 2005 (P. A. Rees 2005) analysed the topics of papers published in a specialised journal (*Zoo Biology*) between 1996 and 2004, and noted that only two out of 349 papers dealt with ecology, field biology, conservation or reintroduction. Rees explained this perceived under-representation by stating that such research would more likely be published in ecology or conservation journals. He also stated that 'a great deal of zoo research is not published in peer-reviewed scientific journals and is therefore largely lost to the wider scientific community'. Rees concluded that 'it is unrealistic to expect the quantity of conservation relevant research from zoos to substantially increase as a result of the Zoos Directive', for economic reasons (no re-

¹²⁵ Research should be understood in this context as the 'systematic collection and analysis of biological data by scientists, or the development of new scientific techniques, as opposed to day-to-day record-keeping performed by keepers' (P. Rees 2005).

sources for researchers or research facilities inside zoos), for scientific reasons (more difficult to find conservation relevant subjects that can be set up in zoos), and for ethical reasons (welfare concerns).

This analysis covered two years of the implementation period of the Directive and the situation is likely to have evolved. With the aim of understanding this evolution, the publications of the Journal of Zoo and Aquarium Research (JZAR)¹²⁶ were analysed. EAZA launched JZAR in 2012 to publish *inter alia* peer-reviewed research papers, reviews, technical reports and evidence-based case studies. Research categories covered by JZAR includes studies in biological sciences, *in situ* conservation research, and research aimed at developing other roles of zoos and aquariums (e.g. visitor learning and marketing surveys) (JZAR 2016). A quick search based on 92 papers with key words resulted in one match for ‘biodiversity’ and 27 matches for ‘conservation’. In the latter results, most studies related to biological sciences (nutrition, reproduction)¹²⁷.

The limited extent of research was also one of the key findings of the 2016 Zoo Inquiry, according to which only 7.14% of the zoos studied took part in scientific research¹²⁸. Academics surveyed for this study also observed that, although there are zoo-driven research programmes (e.g. Antwerp Zoo) and some successful examples of cooperation between zoos and universities (e.g. Edinburgh zoo and universities), collaboration between zoos and academia could be improved, and that zoos are rarely, except for the most modern ones, involved in research. They experienced this problem directly when looking for zoos in which to implement their research¹²⁹.

One explanation provided by Rees in 2005, and which still applies, may be the absence of incentives to carry out research to comply with Article 3, due to the alternative options provided under Article 3, first indent (training, captive breeding, exchange of information), which are activities in which zoos are likely already engaged prior to the Directive (See Section 5.1.3). The absence of a commitment to research is an observation shared by an important proportion of the respondents to the public consultation, which showed that 43% of respondents consider research insufficiently promoted in zoos across the EU. This is one of the responses with the highest share of negative opinions among the activities listed for this question in the consultation¹³⁰.

However, though there is some evidence that would indicate that research amongst zoos is limited, other elements may bring some nuance to this observation.

Firstly, the number of publications is not a fully reliable indicator, since, in terms of **timescales**, it may be that insufficient time had elapsed between the adoption of the Directive in 1999 and for the implications to be understood, projects to be conceived, funds secured, research activities conducted and results then analysed and submitted to lengthy peer-review prior to publication in the scientific literature. In addition, it was reported that zoos often contribute to research without being mentioned as **authors** in papers published by universities or research institutes, which indicates that the number of publications is not necessarily a reliable indicator of the research activity of zoos. This observation was also raised during the discussions at the Workshop held at the end of the present study (see Workshop Report in Annex IX). According to the stakeholders present at the Workshop, zoos undertake a lot of research that might not be immediately visible and may not always be published, and they are often not considered as co-authors by academics.

The present survey of zoos shows the zoos’ own perceptions of their contribution to publications during the implementing period. This is illustrated in Figure 22 below.

¹²⁶ The International Zoo Yearbook is also a relevant publication in this context. For the purpose of the exercise, however, the research was limited to European publications.

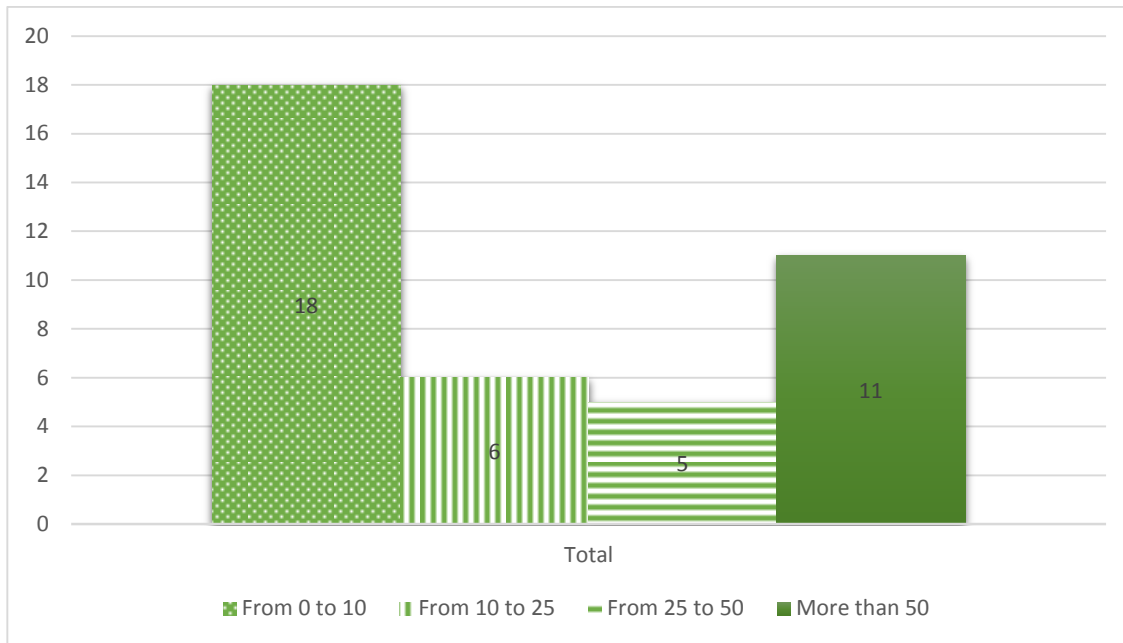
¹²⁷ Research on 1 December 2016.

¹²⁸ Information provided in a document submitted by Born Free to Milieu in advance of the publication of the Zoo Inquiry 2016.

¹²⁹ High-level questionnaire and report of exchanges between academia and the Commission.

¹³⁰ See Public Consultation Report (Annex VIII), analysis of Question 21.

Figure 22: Survey results on the number of publications benefiting conservation 2003-2016



Source: Present survey of zoos

In total, 41 of the 70 responding zoos contributed to publications. Even though the question covers a broad range of publications (general interest publications, scientific publications and guidance documents), the proportion remains quite high, particularly since it does not take ongoing or unpublished research into account.

Secondly, while the research on the conservation of species remains limited and needs to be better promoted, research which does not have conservation of biodiversity as its main purpose, e.g. on population genetics, reproduction, nutrition or concerned with influencing the behaviour of people, can also result in conservation benefits. Research relating to animal welfare benefits conservation, for example, is relevant to the extent that, as per Article 3 third indent, proper care and accommodation contribute to the conservation of biodiversity. Also, research in the other fields of biological science mentioned above (e.g., nutrition, reproduction) contribute to conservation by supporting the keeping of viable captive populations and the management of small populations in the wild. One stakeholder mentioned that zoos can be ‘a key resource for primary research on animal biology because the animals’ ages, diets, medical/ life histories etc. are known. This complements studies in the wild, where behaviour is natural but less contextual information is available’¹³¹. It was also observed at the Workshop that zoos contribute significantly to research on veterinary issues (see Workshop Report in Annex IX). In that regard, Rees’s selection of subjects and identification of research outlets seems very narrow and will capture an unknown, and probably very small, proportion of potentially relevant research findings.

It remains difficult, however, to **measure the impact** of zoo-based research on the conservation of biodiversity. It can be asserted that a wide range of research has conservation impacts without it being supported by direct evidence. More generally (beyond conservation and the context of the Zoos Directive) there is an increasing desire both for research to have impact on society and for this impact to be demonstrated. For example, the UK Research Councils now require a statement of ‘Pathway to Impact’ for research proposals¹³². A stronger framework for linking zoo-based research to conservation impact would help to significantly narrow the uncertainty about links between research in zoos and changes in the status of species, for example. Without this, the very large range of research disci-

¹³¹ High-level questionnaire; answer by academia.

¹³² UK Research Councils: Pathways to Impact <http://www.rcuk.ac.uk/innovation/impacts/>

plines that are now known to be important for conservation, and the extremely voluminous and diverse literature that documents scientific findings, makes it a significant challenge to provide an overall assessment of the relevance and impact of zoo-based research on conservation of species in particular, and biodiversity more widely.

On a positive note, the public consultation, in response to the question of the progress achieved in relation to research, showed 56% of the respondents (of which 38% fully) noticed improvements in research activities carried out by zoos over the last 15 years (point 20e). This number increases to 93% positive perceptions among zoos operators, which are the stakeholders the most directly impacted by this measure. This seems to illustrate a positive trend in the involvement of zoos in research.

b. Impact of captive breeding, repopulation and reintroduction of species

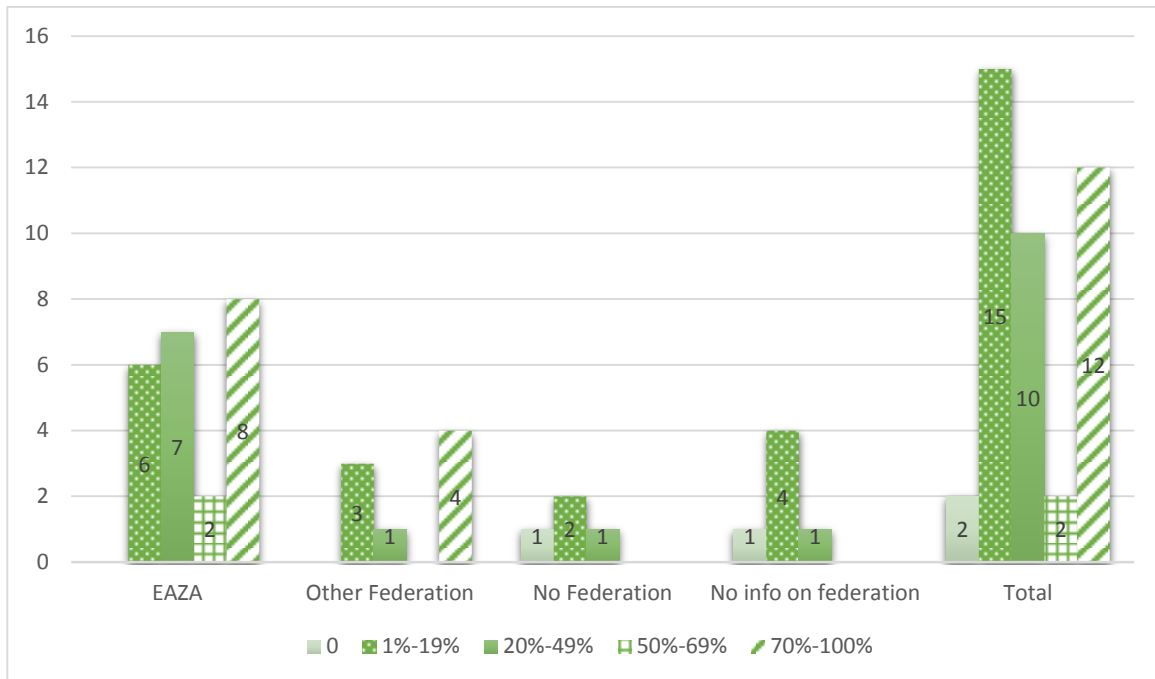
The initial role allocated to zoos in biodiversity conservation was to maintain populations of threatened species *ex situ*, reintroduction being ‘the ultimate goal’ of *ex situ* conservation as defined in the first World Zoo Conservation Strategy (IUDZG/CBSG 1993).

Even though the perspective has since then evolved (Lees C & Wilcken 2009) (McGowan, Traylor-Holzer and Leus 2016), the efforts to conserve the most threatened species *ex situ* must be assessed. According to a 2011 study, globally, zoos members of the Species360 programme hold about one in seven threatened vertebrate species¹³³ according to the IUCN red list (i.e. 15% of the species) and, more precisely, 25% of threatened bird species, 20% of threatened mammal species, 12% of threatened reptile species and 4% of threatened amphibian species (Conde, Flesness, et al. 2011). Zoos taking part in Species360 show clear improvements over the last 20 years regarding the number of threatened species. The most substantial increase was noted for amphibians, with an increase of 1020% between 1990 and 2009. There has also been an increase of mammal metapopulation sizes (<250 individuals) by 48.6% in the same time period (Conde DA 2011b). It has been established, however, that zoos usually hold species (in particular mammals and birds) that are less threatened than their close relatives not held in zoos (Martin, et al. 2014).

Of the 70 responding zoos, 42 provided an estimation of the percentage of species they keep that are on the global IUCN red list. For each of these 42, the population of threatened species represents between 0 and 100% of the species they hold, with an average of 35.35%. As indicated in Figure 23 below, EAZA zoos hold the greatest proportion of threatened species.

¹³³ Classified as vulnerable (VU), endangered (EN) or critically endangered (CR).

Figure 23: Survey results on zoos' estimations of the percentage of species they keep that are on the global IUCN red list



Source: Present survey of zoos

This is consistent with the observations in literature, that less than half of the species kept in zoos are threatened.

The question, then, is the extent to which keeping threatened species contributes to the conservation of biodiversity. Even though the number of species kept is low, some authors consider that ‘each zoo may make a larger conservation contribution by specialising in breeding a few at-risk targeted species rather than aiming to increase its species diversity, as specialisation increases breeding success’ (Conde, Flesness, et al. 2011). There is no evidence to substantiate this observation in the data collection for this current study.

Activities at EU level in relation to threatened species include **breeding programmes**, such as the EEP and ESB coordinated by EAZA, which aim at ‘conserving healthy populations of animals in captivity while safeguarding the genetic health of the animals under the care’ of their zoos (EAZA 2016). There are currently 199 ESBs and 201 EEPs. In 2015, these programmes included not only EAZA zoos, but also 192 non-EAZA facilities (EAZA 2015). As indicated in Section 5.1.1, a significant number of the zoo respondents in this study survey participate in such programmes. In spite of the very low proportion of threatened amphibians held in zoos (4% of Species360 zoos (Conde, Flesness, et al. 2011)), projects such as the Amphibian Ark aim to restore a healthy population of amphibian species. The Amphibian Population Management Advisory Group is co-chaired by EAZA. In 2004 and 2005, EAZA also promoted a campaign on ‘safety net populations’ for turtles and tortoises (EAZA Turtle and tortoise campaign 2004/2005).

In terms of the outcomes of conservation breeding programmes, **reintroduction** of animals kept *ex situ* into the wild remains a minor activity of zoos. Nevertheless, this survey indicated that 34 of the 70 zoo respondents (almost half) have reintroduced species into the wild within the last 15 years. According to literature, the impact of such reintroductions on conservation is nuanced. Captive breeding has so far played a major role in the recovery of 16 of the 68 species whose threat level was reduced (e.g. Prewalski horse or back-footed ferret) (Hoffman, M et al 2010), with zoos playing a key role either by contributing stock from captive breeding or otherwise in 13 cases (D. Conde 2011a). Reintroduction, however, has its limits, notably due to the limited population in zoos, resulting in limited genetic diversity and effects of captivity on the behaviour of the animals kept *ex situ* (Balmford, et al. 2011).

Breeding programmes and reintroduction do not only cover threatened species. While animal welfare organisations interviewed for this study considered that only endangered species should be kept in zoos¹³⁴, and some authors have argued in favour of zoos focusing on the more survival-compromised species (Fa, et al. 2014), other stakeholders consider that breeding of non-threatened species may also have an impact on conservation. In particular, species should not only be selected because of the level of threat, but also ‘for their potential to excite public attention and help to protect habitat and other taxa’ (Hutchins, Willis and Wiese 1995). Charismatic animals kept in zoos serve as flagship species or ambassadors that raise public awareness and support for *in situ* conservation (Keulartz 2015). In addition, the breeding of other species can also be an asset to develop additional breeding techniques that can be used for *in situ* conservation and threatened species (Redford and Jensen 2012). There are linkages between the knowledge and expertise acquired from working with non-endangered species and the conservation (*in situ* and *ex situ*) of endangered species (e.g. the management of endemic bird species on Mauritius or management of the Montserrat Mountain Chicken were mentioned in interviews). Also, contributions may arise from keeping non-threatened species, as there is a risk for such species to see their status change from non-threatened to threatened, or for species threatened regionally although not globally (Bowkett 2014), corroborated by interview with zoos’ federation and by discussions held at the Workshop; See Workshop Report in Annex IX).

With more and more wild populations becoming dependent on species-specific management, zoos not only contribute animals for repopulation or reintroduction, they also contribute techniques, approaches, knowledge and personnel for *in situ* population management. The work of zoos becomes increasingly important in respect of their knowledge of the genetics of small populations to avoid inbreeding, reproduction, health assessment, sedation and transport, and remote sensing technologies (Redford, Jensen and Breheny 2012).

The contribution of zoos to conservation is not limited to *ex situ* programmes or to providing expertise and techniques for *in situ* conservation; zoos also participate in the funding of *in situ* programmes (see Box 9 below). This aspect of zoos’ contributions to biodiversity conservation was emphasised at the Workshop at the end of this project (see Workshop Report in Annex IX)

Box 9: Impact of financial support to *in situ* conservation programmes

According to a 2011 survey, the world zoos and aquarium community reportedly spent about USD 350 million on wildlife conservation in 2008, with European and American zoos and aquariums reporting 97% of their expenses dedicated to wildlife conservation (Gusset and Dick 2011). This makes WAZA zoos the third major contributor to conservation worldwide, after the Nature Conservancy and the World Wildlife Fund (WWF). Such expenses frequently include funding of *in situ* conservation projects. A 2010 study looked more closely at the impact of zoos’ contributions to 113 WAZA conservation projects. The study observed that the main source of project support from zoos and aquariums was monetary funding (48%), and concluded that ‘thanks to the investments made by zoos and aquariums, particularly financial, such projects reached overall impact scores of a magnitude suggestive of an appreciable contribution to global biodiversity conservation’. On the other hand, the study also indicated that the resources allocated by most zoos to *in situ* conservation projects was relatively small (Gusset and Dick 2010). This observation is supported by a 2011 study which found that, at a global level, zoos invested about 5% of their budget in conservation projects (Fa, Funk and O’Connell 2011).

The EAZA Guidelines on the definition of a direct contribution to conservation (EAZA 2015) refer to grants to other conservation organisation or persons to support field work as a mean of contribution. At the Workshop, EAZA mentioned a EUR 9.7 million investment in conservation projects across the globe (Workshop Report).

¹³⁴ See also the findings of the Zoos Inquiry 2016, which observes, in relation to marine mammals, a limited representation of the most threatened species in the facilities investigated, and gives the example of the bottlenose dolphin (*Tursiops truncatus*) largely represented and bred in aquariums in spite of its status of ‘least concern’ in the IUCN red list, with wild populations largely stable and not threatened with extinction.

Captive breeding of threatened or non-threatened species is commonly considered only one of the tools by which zoos can contribute to the conservation of biodiversity (Bowkett 2009). Research and education are among the other recognised channels whereby zoos have contributed to conservation.

c. Impact of public education and awareness promotion

Education is expressly mentioned in Article 3, second indent, of the Directive, making it a compulsory conservation measure. With an estimated 140 million visitors to European zoos in 2015 (EAZA 2015), the potential for increasing awareness of conservation issues is considerable.

As indicated in Section 5.1.1, the survey shows that most zoos (51 of the 65 which provided an answer) have a written education strategy. Education thus seems well embedded in the activities of EU zoos. This is also confirmed by the results of the public consultation, according to which providing information on exhibited species, wild animals and their natural habitats is sufficiently promoted for 70% of the respondents. Further, over half of respondents considered that zoos provide sufficient education on, and raise sufficient awareness of, biodiversity (57%) and on species, wild animals and their natural habitats (62%). A high proportion of respondents (43% ‘totally’/ 26% ‘somewhat’) observed improvements in the educational activities provided by zoos in the past 15 years.

However, zoos have been criticised for misleading the public as to their commitment to conservation by stakeholders (BornFree 2011)¹³⁵ and likewise in literature (Carr and Cohen 2011). For instance, the educational benefits of animal shows are questioned by NGOs¹³⁶, and were clearly an area of concern in the public consultation, which found that 54% of the respondents, and 60% among individuals, did not agree that animal shows were adapted to the animals’ natural behaviours. Besides, the educational impact of zoos is difficult to measure (Marino, et al. 2010) (Balmford, et al. 2007). A 2014 large scale, global study (Moss, Jensen and Gusset 2015) measured the impact of visits to zoos and aquariums on visitors. The study showed that zoo and aquarium visits contribute to increasing the number of people who understand biodiversity and know the actions they can take to help protect biodiversity, with a comparatively better response rate in European zoos¹³⁷. A previous study focused on children aged 7-15 visiting London zoos reached similar conclusions (Jensen 2014). The respondents to the public consultation largely acknowledged a link between a visit to the zoo and their level of awareness:

- On species: 66% of the respondents (65% for individuals) agreed that they knew more about wild animals and protected species after a visit to the zoo.
- On biodiversity conservation in general: 54% (51% for individuals) agreed that they knew more about biodiversity and conservation after a visit to the zoo.

Nevertheless, the 2015 study pointed out that only over half of the respondents reportedly saw or heard biodiversity information during their visits, thus limiting the potential effect of education measures and showing room for improvement in zoos’ communication on biodiversity. By contrast, the public consultation for this study showed 86% of survey respondents indicating having received information on species and conservation during a visit, and 86% considered (fully or partly) the information of species and their habitats well presented. Given the geographical coverage and the samples of the two studies¹³⁸, this seems to indicate a significantly higher rate of information in the EU, which might be attributable to the Directive.

The 2015 study pointed out that the impact of education on conservation is not necessarily tangible, to the extent that increased knowledge does not systematically result in improved behaviour but, rather, knowledge can be built upon to drive pro-conservation behavioural and social change (Moss, Jensen and Gusset 2015). The same authors further explored this link in a 2016 study (Moss, Jensen and

¹³⁵ Also confirmed by the findings of the Born Free 2016 Inquiry submitted to Milieu before its publication.

¹³⁶ *Ibid.*

¹³⁷ European zoos surveyed for this study were based in Germany, Sweden and the UK.

¹³⁸ 1,905 visitors responding to the public consultation across the EU-28, 5,661 visitors in 19 countries around the globe, of which only three were in the EU.

Gusset 2016). The study observed that biodiversity understanding was only the sixth most important variable in significantly predicting knowledge of actions to help protect biodiversity, and that biodiversity understanding was the least important variable of those that were significantly related to self-reported pro-conservation behaviour. The study concluded that the link between knowledge and pro-environmental behaviour, even though established, is very limited. This is in line with the results of the public consultation here, according to which NGOs and individuals still have rather negative perception of possible behavioural changes triggered by a visit (zoo visits encourage visitors to become more engaged in the protection of species - 33% for NGOs and 51% for individuals; and in the protection of biodiversity- 36% for NGOs and 49% for individuals). This perception is strikingly different from that expressed by public authorities and zoos operators, who have assessed such measures extremely positively (100% for all points listed above for public authorities and between 88 and 90% for zoo operators). These results would tend to indicate that educational measures are not as successful among visitors as perceived by public authorities and zoos. It was acknowledged during the Workshop that, based on these recent studies, a different approach to education in zoos is needed. It was also pointed out that, although it is hard to achieve and measure long-term changes in behaviours by zoos visits, smaller achievements, such as ‘cherishing nature’, should also be recognised.

Overall, the literature agrees that more progressive zoos have shifted from a purely entertainment perspective to a more conservation-oriented perspective over the last 50 years, well before the adoption of the Directive, which itself participated in the trend towards a conservation shift within zoos (Pritchard, et al. 2011). There remains a dichotomy between keeping those charismatic species that attract visitors, and conducting direct conservation, research, and education. The answers to the survey and interviews carried out, as well as the public consultation, consistently supported the view that the Directive participated in this shift towards conservation (see Section 5.5.1.2 below).

5.1.2.2 Contribution of the Zoos Directive to ensuring the protection of wild fauna and the conservation of biodiversity at the international level

a. Contribution to implementing the CBD

The main instrument to protect biodiversity at international level is the CBD. As a contracting party to the Convention since 1994, the EU is bound to implement and comply with its requirements, as are its Member States. The Zoos Directive was adopted with the aim to fulfil the EU’s ‘obligations to adopt measures for *ex situ* conservation under Article 9 of the Convention’ as stated in the fourth recital of the Directive. This Directive is the only piece of legislation in the EU legal order which regulates these matters.

It is widely acknowledged that efforts to protect biodiversity should focus on measures applying *in situ*, and Article 9 provides that *ex situ* conservation measures shall be undertaken ‘predominantly for the purpose of complementing *in situ* measures’. This has been recognised in the international legislation and in literature but is not expressly reflected in the Directive, and few zoos currently combine *ex situ* and *in situ* conservation efforts (see Section 5.3.3).

Ex situ conservation measures envisaged under Article 9 of the CBD include:

- Adoption of measures for the *ex situ* conservation of components of biological diversity (Article 9(a)).
- Establishment and maintenance of facilities for *ex situ* conservation and research (Article 9(b)).
- Measures for the recovery and rehabilitation of threatened species and for their reintroduction into the wild (Article 9(c)).
- Regulation and management of the collection of biological resources for *ex situ* conservation purposes in a way that does not threaten *in situ* populations of species (Article 9(d)).
- Cooperation in providing financial and other support for *ex situ* conservation, and in the establishment and maintenance of *ex situ* conservation facilities in developing countries (Article 9(e)).

9(e)).

The adoption of the Directive in itself responds to the Article 9(a) requirement¹³⁹. On the other hand, the conservation measures of Article 3 of the Zoos Directive on research participation, captive breeding, repopulation and reintroduction into the wild, and the prevention of animal escapes in order to avoid possible ecological threats to native species, reflect to a great extent the *ex situ* measures foreseen in Article 9(b) to (d).

This correspondence was observed in the present survey, where nearly all respondents from MSCAs and federations/NGOs (11 out of 12 and 15 out of 19, respectively) observed a synergy between the two texts. Similarly, 54% of respondents to the public consultation who expressed an opinion also considered the Directive and the CBD to be mutually supportive¹⁴⁰. However, literature points to certain discrepancies between the Convention and the Directive that would impede proper implementation of the Convention, with the Directive described as a ‘lost opportunity to implement the Convention’ (P. A. Rees 2005a). On the basis of the literature and interviews, some such elements can indeed be observed.

One discrepancy refers to the **alternative wording** provided in Article 3 first indent, where the Convention requires its parties to engage in all activities (P. A. Rees 2005). Indeed, this may go against the spirit of the Convention, and even though the alternative wording may impede greater protection of biodiversity (see Section 5.1.3 below), from a legal perspective, the Convention’s requirement is addressed to the parties, and it can be argued that the different approach adopted by the Directive stems from giving Member States the option to enable zoos to implement one or other of the measures yet ensuring that, overall, all measures adopted at national level cover all types of measures.

Another issue is that the Directive does not expressly requires zoos to participate in the captive breeding and reintroduction of **endangered species**, as per Article 9(c) (P. A. Rees 2005a). The Directive takes a broader approach and refers to species in more general terms. Even though, as previously described, zoos can contribute to conservation by breeding non-threatened species, and this survey showed a contribution of zoos to the reintroduction of threatened species, the current wording of the Directive does not in itself guarantee that the requirements of Article 9(c) will be properly implemented.

While the CBD provides that measures for *ex situ* conservation, in particular the establishment of *ex situ* conservation facilities, should be undertaken **preferably in the country of origin** of the species, such wording is absent from the Directive. Measures have nevertheless been adopted at EU level and are described in the analysis of the contribution of the Directive to biodiversity conservation at EU level developed below.

The common points and differences between the Convention and the Directive illustrate that, from a theoretical (legal) perspective, the Directive properly reflects the requirements of the Convention, with some limitations. In terms of practical implementation, this, in turn, means that where zoos have engaged in activities in the area of research, captive breeding, reintroduction and prevention of escape (as seems to be the case, see Section 5.1.1), the Directive has contributed to implementing the requirements of the Convention. While discrepancies are observed, national legislation or zoos which go further than the Directive (by cumulative conservation measures and a proportion of reintroduction of threatened species) can be considered to fully implement Article 9 of the Convention.

b. Contribution of the Directive to implementing CITES

There is a clear connection between the Zoos Directive and CITES, which aims to conserve biodiversity by regulating trade in species of wild fauna and flora. Trade is regulated through a system of procedures and documents requiring, among other things, the issuing of import and export permits admin-

¹³⁹ Article 9(d) goes beyond the scope of the Directive, though funding is an important component of zoos’ activities (see previous subsection on contribution of zoos to biodiversity conservation).

¹⁴⁰ See Annex I to the Public Consultation Report (Annex VIII), Section 1.6.

istered by the Management Authorities. Importantly, trade and the display to the public of certain species (listed in Annexes) for commercial reasons are prohibited. Exemptions from the prohibition of displaying such species to the public may be granted for research and education purposes aimed at the preservation and conservation of species, as well as for species intended for breeding that will build up conservation benefits for the species concerned.

There are synergies between CITES and the role of zoos which could enhance the achievement of the common objective on biodiversity conservation, such as the signing of a memorandum of understanding (MoU) between CITES and WAZA in 2011 (CITES Secretariat and WAZA 2011). Zoos in the WAZA network have considerable experience in the care of wild animals and the MoU aims to facilitate the use of this expertise to assist CITES Parties to implement the Convention, particularly the conservation objective.

In relation to the implementation of the Zoos Directive itself, this survey indicated that zoos record-keeping systems are also used for permits, information exchange and transport certificates (in 45 out of 70 cases), and for animal identification in line with the CITES Regulation (in 41 out of 70 cases). To that extent, the fifth indent of Article 3 may have contributed to the implementation of CITES (or the other way around).

In several instances, surveys and interviews indicated that the same authorities are in charge of implementing (e.g. France, Italy) and or enforcing (e.g. the Netherlands, Czech Republic, Ireland) the two instruments. Conversely, it was mentioned during interviews that the lack of communication and co-ordination between enforcement authorities in charge of CITES and other zoos inspectors could be an obstacle to effective zoo inspection¹⁴¹. However, it was also mentioned during interviews that the CITES database was used to inventory zoos in several countries (e.g. Spain), in which case CITES would contribute to the implementation of the Zoos Directive rather than the contrary. EU stakeholders¹⁴² also observed that the implementation of CITES has positive impacts for the Zoos Directive in terms of consistency between the Zoos' registers and CITES databases. The public consultation also indicated that 50% of the respondents expressing an opinion saw synergies between the Directive and the Convention, with a rate of positive opinion increasing to 83% among zoo operators and public authorities¹⁴³.

c. Contribution of the Directive to implementing other international agreements

Other international agreements (often known as multilateral environmental agreements or MEAs) are directed at species either wholly or in part. These include the Convention on Migratory Species (CMS)¹⁴⁴, the 'Ramsar' Convention (formally known as the Convention on Wetlands of International Importance)¹⁴⁵ and the World Heritage Convention¹⁴⁶. These global processes predate the Zoos Directive and whilst zoos may become involved in work that supports the objectives of one or more of these conventions, this is likely to be quite specific and targeted. Such work may not involve *ex situ* management but could involve *in situ* work or other approaches to conservation.

5.1.2.3 Contribution of the Zoos Directive to ensuring the protection of wild fauna and the conservation of biodiversity at the European level

a. Contribution of the Directive to implementing the EU Biodiversity Strategy

The EU Biodiversity Strategy adopted in 2011 ((COM)2011) 244) is one of the elements that reflect the commitment of the EU to implementation of the CBD. The Strategy lays down the framework for EU action to meet the 2020 headline target: 'Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the

¹⁴¹ Interview with NGO.

¹⁴² Interview with one federation.

¹⁴³ See Annex I to the Public Consultation Report (Annex VIII), Section 1.6.

¹⁴⁴ <http://www.cms.int/>

¹⁴⁵ <http://www.ramsar.org/>

¹⁴⁶ <http://whc.unesco.org/>

EU contribution to averting global biodiversity loss'; and the 2050 vision: 'By 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided'. The EU Biodiversity Strategy to 2020 is built around six mutually supportive targets, which address the main drivers of biodiversity loss and aim to reduce the key pressures on nature and ecosystem services in the EU.

Target 6 'To help avert global biodiversity loss' is most relevant in the context of the Zoos Directive. In addition, contribution to Target 1 'Protect Species and Habitats' (mainly in relation to Natura 2000, see point b below), and Target 5 'Combat invasive alien species' can be observed through interlinkages with the Nature Directives and Regulation 1143/2014 on invasive alien species (IAS) (see Section 5.4.1 below).

b. Contribution of the Directive to implementing the Nature Directives

As outlined earlier, Article 9 of the CBD refers to *ex situ* conservation, preferably in the country of origin of the species. Conservation of endemic species of the EU is regulated by the Nature Directives. The complementary role of the Nature Directives and the Zoos Directive is particularly important in this regard; while the latter is the main EU instrument specifically covering *ex situ* conservation, the former have created a comprehensive scheme of protection of all wild bird species and natural habitats occurring in the EU.

There are many interactions with the Nature Directives, with zoos frequently involved in survey and conservation efforts for endemic species. In particular, zoos hold species protected by the Nature Directives (e.g. European mink, red squirrel, bearded vultures, European hamster, corncrake).

Educational programmes in some zoos address biodiversity and Natura 2000. For instance, in Ireland, zoos have used materials from the Ministry on Natura 2000 in their educational programmes. Zoos are also involved in the reintroduction of endemic species. In Italy, for example, several reintroduction and repopulation programmes have been carried out in conjunction with Natura 2000 sites (examples include the reintroduction of the griffon and the repopulation of the turtle *emys orbicularis*). This has also been the case in France, with reintroduction programmes for prey birds and Alsace Hamsters.

Six zoos responding to the survey indicated projects in which they participated in the context of the Nature Directives. However, overall, it appears that there is limited participation of zoos in such projects, or a limited awareness of the link with the Nature Directives. One authority mentioned during interviews that contribution of zoos to conservation programmes in the context of Birds and Habitats were individual actions and that the link should be enhanced. The results of the public consultation also clearly demonstrate a positive perception of the link between the Zoos Directive and the Nature Directives, with 85% of the respondents expressing an opinion considering the Zoos Directive to be consistent with, and/or mutually supportive of, the Nature Directives.

Another good indicator of the interlinkages between the Nature Directives and the Zoos Directive is the use of LIFE funding for conservation activities undertaken by zoos. Some stakeholders have observed that zoos may, in order to fulfil the requirements of Article 3 of the Zoos Directive, apply for EU funding. In particular, some zoos working on the reintroduction of species in the wild have applied for LIFE funding. Smaller educational programmes are also funded by LIFE.

More than 80 LIFE funded nature projects have included *ex situ* measures. Between 1995 and 2014, 17 zoos were involved in LIFE projects and contributed to conservation actions supported by this programme¹⁴⁷. In addition, over 300 species included on the Annexes of the Birds and Habitats Directives, and which are among Europe's most vulnerable species, benefited from such projects (European

¹⁴⁷ Information provided by the European Commission, DG Environment.

Commission 2011). Zoos have participated in these projects by hosting breeding centres, or by providing expertise on breeding (European Commission 2015). Examples of involvement of zoos in LIFE projects are presented in Box 10 below.

Box 10: Examples of participation of zoos in LIFE funded projects

Reintroduction of the European mink - programme established by Tallinn Zoo (Estonia)

The 2000-2004 Estonian project (LIFE00 NAT/EE/007081) aimed to increase European mink numbers on the island of Saaremaa by releasing animals bred in captivity under a programme established at the Tallinn Zoo in 1999. The captive breeding stock numbered some 100 individuals and a trial release programme began on Hiiumaa Island in western Estonia in 2000. The LIFE project built on previously acquired experience to launch a more substantial breeding programme to reinforce the size and the genetic status of the captive population at the Tallinn Zoo. Releases also helped the existing captive-bred population on Hiiumaa. By the end of the project, 149 animals had been released into the wild and the surviving population was estimated to be 16-28 animals.

Supportive breeding of the European pond turtle - collaboration of Kaunas Zoo (Lithuania)

In Lithuania, a project (LIFE05/NAT/LT/000094) aimed at improving the reproductive success of surviving small populations in the wild was carried out using supportive breeding from turtles bred in captivity at Kaunas Zoo. There were also plans to release individuals for recolonisation of sites where the turtles were previously found.

Reintroduction of the fire-bellied toad - specimens bred in Latgale Zoo (Latvia)

In order to facilitate the reintroduction of the fire-bellied toad, Latgale Zoo established a captive breeding programme (LIFE04 NAT/LV/000199) for *Bombina orientalis*, starting off with five mature toads. As a result of the programme, some 870 individuals were reintroduced to selected wetlands in the park between 2006 and 2008. The captive breeding programme is continuing after LIFE, with up to 300 individuals being released and monitored each year by researchers working in cooperation with Latgale Zoo.

Reintroduction of the Hungarian meadow viper - veterinary support from Budapest Zoo (Hungary)

With financial assistance from LIFE (LIFE04 NAT/HU/000116), the beneficiary started a programme of collecting individuals from threatened populations and reintroducing them into the wild in suitable and secured habitats. Veterinary support – and food sources (crickets) for the vipers – came from Budapest Zoo.

Source: LIFE preventing species extinction - Safeguarding endangered flora and fauna through ex situ conservation, European Commission, 2011.

One EU stakeholder¹⁴⁸ mentioned that the Zoos Directive created the assumption that zoos contribute to biodiversity as they are *ex situ* biodiversity conservation centres, which facilitates the granting of LIFE funding. The European Commission, when evaluating LIFE funded *ex situ* projects, concluded that even though *ex situ* actions were not always successful and have faced a range of challenges, it was ‘clear that many of the *ex situ* programmes supported by LIFE have effectively meant the recovery of species that would otherwise have become extinct if only habitat management measures had been applied’ (European Commission 2011, p.7). Zoos, as conservation entities under the Directive and key stakeholders in these programmes, have contributed to this success.

Erasmus grants are also available for training and education programmes among zookeepers.

Nevertheless, interviews and the literature (Gusset and Dick 2010) indicate that most projects are funded by the zoos themselves, or by their federations (in particular by EAZA).

c. Contribution of the Directive to other EU instruments

A few other instruments are worth mentioning, in view of their synergies with the Zoos Directive. Such synergies imply a contribution to the Directive, and vice versa.

¹⁴⁸ Interview with EU stakeholder.

One such instrument is Regulation (EC) No 338/97 on the trade of endangered species. This act implements the CITES Convention, and thus contributes similarly to the Directive as does the Convention (see Section 5.1.2.2).

Another instrument is Council Directive 92/65/EEC of 13 July 1992 laying down animal health requirements governing trade in and imports into the Community of animals. Some potential synergies are explored in Section 5.4.1 below.

Finally, Commission documents (European Commission 2011, p. 8) refer to a Commission project of an EU strategy for *ex situ* conservation. This project, initiated under the previous Biodiversity Action Plan, would aim to have an EU-wide strategic approach to *ex situ* conservation, revolving around 10 actions, such as awareness-raising, promotion of good practices, data sharing and research. The Directive would be instrumental in implementing this strategy.

5.1.2.4 Summary and conclusions

The Directive intends to ‘strengthen the role of zoos in the conservation of biodiversity’. Although the evidence gathered shows that, overall, zoos undertake the activities listed in Article 3 of the Directive, it is difficult to assess the potential of zoos to contribute concretely to conservation through Article 3 measures. Based on the existing literature on the subject and feedback from stakeholders in the course of this study, the following conclusions can be drawn:

- Participation in research: there is no evidence to assess the contribution of zoos to biodiversity conservation through research activities. Firstly, the extent of research activities is difficult to measure. This may be explained by the absence of visibility of the research done by zoos (e.g. problems of authorship). Secondly, the impact of such research on overall conservation is unknown. Indeed, it is not possible to definitively measure the impact of research activities on conservation at a macro scale.
- Captive breeding, repopulation and reintroduction: captive breeding is one of the most common conservation activities carried out by zoos, reintroduction being less frequent. The level of contribution of these activities to conservation is subject to debate both within the literature and among stakeholders, in particular in relation to the benefits (or lack thereof) of keeping non-threatened species in zoos. Here again, the existing evidence does not permit an assessment of the actual level of contribution of such activities to conservation.
- Public awareness: public education is a longstanding activity undertaken by zoos. Recent studies point to a real benefit in terms of visitor awareness of conservation issues. The impact on their long-term behaviour towards biodiversity conservation, however, remains limited.

In parallel, the evidence also indicates that the Zoos Directive represents an essential condition for the achievement of the general objectives set at European and global level in relation to the protection of wild fauna and conservation of biodiversity, in particular:

- At EU level, Targets 6, 1 and 5 set in the EU Biodiversity Strategy and the preservation of local fauna promoted in the Nature Directives.
- At international level, Article 9 of the CBD and CITES.

5.1.3 Effectiveness – EQ 3

Which main factors (e.g. implementation by Member States, action by stakeholders) have contributed to, or stood in the way of, achieving these objectives?

This question aims to understand the underlying reasons for the progress and difficulties observed in the achievement of objectives of biodiversity conservation and protection of wild fauna, as presented in EQ1. It shall identify the elements that have enabled the completion of the **activities** described in the intervention logic presented in Section 2.2.

The analysis is based mainly on the consultation with stakeholders. The survey and, to a greater degree, the interviews, provided insightful information as to the elements believed to have positive and negative effects on the achievements of the Directive's objectives. Literature research is also considered in the analysis, including legislation and documents accompanying the implementation of the Directive. The public consultation did not provide significant information in relation to this question, and is included only where relevant.

The factors influencing the achievement of the Directive's goals can be articulated around three key elements:

- Firstly, and most importantly, the Directive places obligations on the Member States through its licensing and inspection requirements. The transposition, implementation and enforcement by the Member States' authorities of the legislation therefore needs to be assessed.
- Secondly, other stakeholders, and in particular the European Commission, the federations, NGOs and zoos themselves, also play a role in implementing the Directive, and their actions necessarily influence the achievement of the Directive's objectives.
- A final emerging factor is that the economic component of zoos' activities had a non-negligible impact on the achievement of the Directive's goals.

The analysis is therefore structured according to these three points.

5.1.3.1 The impact of interpretation, transposition, implementation and enforcement by Member States' authorities on achieving the objectives of the Zoos Directive

As explained in Section 2.2, the Directive's obligations lie with the Member States. Activities undertaken by the authorities therefore play a key role in the achievement of the Directive's objectives. The authorities intervene in three main areas: transposition, implementation and enforcement. Overall, the stakeholders surveyed (federations, NGOs and scientific experts) had different perceptions of the impact of transposition, implementation and enforcement: nearly all federations (11 out of 13) considered the contribution positive, while NGOs were much more divided on the question (four positive/ four negative/ two no effect). An analysis of the impact of the actions corresponding to these three areas is presented below. The targeted consultation and literature both suggested that the level of clarity of the wording of the Directive had a significant impact on the level of implementation of the Directive in the Member States and thus on the achievement of its objectives.

a. Interpretation of the Directive

The Directive is quite generic in its wording, and this has in some instances prevented a consistent, and effective, implementation of the Directive in the Member States. In general, most stakeholders surveyed (federations and NGOs) assessed the impact of the level of clarity of the Directive on its implementation positively (11 respondents, mainly federations¹⁴⁹), while six respondents considered the impact negative (all NGOs), and five opted for neutral¹⁵⁰. Given the size of the sample (22 respondents expressed an opinion), and the clear division of opinion of answers depending on the type of stakeholder, it is not possible to draw conclusions on the actual impact of the level of clarity of the Directive based on the survey. However, the interviews conducted as part of the study provided additional elements of understanding, with some recurring issues visible:

- The **definition of 'zoos'**, in Article 2 of the Directive¹⁵¹: the question of the clarity of the definition was asked of all stakeholders during interviews. Thirteen respondents (all types of stakeholder) assessed the impact of the definition as negative, while six assessed it positively. A few elements emerge as being problematic:

¹⁴⁹ Eight federations, two NGOs, one international organisation.

¹⁵⁰ Four federations, one NGO.

¹⁵¹ See overview table in Annex III.

- Minimum of **seven days** of exhibition is not reflected in the definition in several countries, including Belgium and Spain. On one hand, some stakeholders¹⁵² argued that this requirement omits those establishments exhibiting animals only for ‘open days’. On the other hand, others, including federations, considered that all establishments keeping animals should be subject to the Directive, irrespective of their opening to the public. Spain offers an interesting example here. Even though it does not provide a minimum number of days for opening, it has two different regimes: one for zoological gardens and another for zoological centres (*núcleos zoológicos*), which do not have to meet the stricter licensing requirements of zoological gardens. Zoological gardens are open to the public, while zoological centres are not. However, it has been reported¹⁵³ that in order to maintain their public-related activities, zoological centres have taken advantage of the existing legislation, without meeting the requirements for zoological gardens. For instance, they sign up to education activities (such as training courses) in order to have some open days for the public but still are not required to meet the licensing requirements of zoological gardens. Here, the differentiation between open to the public or not has clearly impeded the objectives of the Directive.
- The exemption on the ground that the establishment does not exhibit ‘**a significant number of species or animals**’ has been interpreted very differently where such exemptions have been used. The number of species varies between five (Germany) and 20 (Czech Republic) in the countries surveyed¹⁵⁴, and the number of specimens between five (Germany) and 100 (Ireland), while some countries transpose the definition literally (e.g. Bulgaria) or assess the exemption on a case-by-case basis, irrespective of the number (e.g. Italy and Cyprus). Some countries, such as Italy, have used a greater margin of interpretation in order to exempt zoos (see Workshop Report in Annex IX). Also, several stakeholders from federations and NGOs likewise consider that the criterion of ‘number of species’ is not relevant, having observed that ‘excellent facilities with programmes of biodiversity conservation can focus on one single species’. One stakeholder pointed to good practices in Austria and the UK, where zoos are categorised based on the number of species, proportion of specific taxa and/or species conservation status (see Box 11 below).

Box 11: Categorisation of zoos in Austria

According to the Ordinance on minimum requirement for zoos (BGBl II Nr. 491/2004) transposing the Zoos Directive, zoos are classified into three categories:

- Category A zoos are allowed to keep any species, without restriction: this is subject to the supervision of a highly qualified zoologist, biologist or veterinarian, and presence of a sufficient number of qualified keepers and caregivers. These zoos are required to participate in research, training activities and exchange of information.
- Category B zoos are not allowed to keep certain species which are explicitly listed. If the supervisor does not have the necessary qualification, an external veterinarian must be contracted.
- Category C zoos are only allowed to keep species that are exhaustively listed in the Act. Caretakers should be present in sufficient number and be sufficiently qualified.

Category B and Category C zoos are required to fulfill at least one of the conservation tasks listed in the legislation, which include participation in research, training, exchange of information, or, where appropriate, captive breeding, repopulation or reintroduction.

- The concept of **wild species**: this concept is defined in most countries surveyed¹⁵⁵. The definitions do not vary significantly from one country to another and thus do not appear to be problematic.
- The concept of ‘**mobile zoo**’: several stakeholders referred to a challenge with the definition of zoos when it comes to ‘mobile zoos’ (e.g. ‘Hawk Walks’) and whether these are included

¹⁵² One MSCA.

¹⁵³ Interview with NGO.

¹⁵⁴ The Born Free 2011 Inquiry refers to Member States with licensed large animal collections of over 300 species.

¹⁵⁵ Lithuania, the Netherlands, the Czech Republic, Denmark, Cyprus, Poland, Ireland and France.

in the scope of the Directive. For instance, mobile (or ‘travelling’) zoos are expressly covered in the Belgian definition of zoos, while they are expressly excluded (‘on the spot’) in the French and British definitions.

Each of these elements of definition has a direct impact on the scope of application of the Directive, and thus on the achievement of its objectives. The impact of the definition of ‘zoos’ may be positive or negative, depending on whether they include or exclude certain establishments from the scope. Overall, the margin of discretion given to the Member States for interpretation has resulted in significant discrepancies and is likely to have impeded implementation. Several stakeholders interviewed expressed the view that the definition was ‘outdated’ and would need to be reviewed in order to avoid the discrepancies observed in the different national legal systems. On the one hand, EU-level federations considered that the current scope was too broad to allow the conservation aim to be achieved (e.g. the inclusion of natural history museums or aviaries not dedicated to conservation or ‘catch-all that applies to a wide range of institutions with little common grounds’). On the other hand, several stakeholders (including federations) stated that the scope was too narrow, with establishments such as sanctuaries not being covered by the Directive because they are not open to the public, despite playing an important role in conservation. One federation advocated for a ‘two-speed’ system, whereby the terms ‘zoo/zoological parks’ would be reserved for institutions that are mainly committed to biodiversity conservation, education, research or training in these fields, while other facilities, including sanctuaries, would be included under the Zoos Directive under a broader concept of ‘animal facilities’. All facilities hosting animals would abide by certain minimum standards and requirements, while zoological parks would be recognised as having a specific role in the conservation of biodiversity.

- The **alternative options** provided under Article 3, first indent, provides the possibility for Member States to choose between participating in research, training, exchange of information and captive breeding, repopulation or reintroduction. This flexible approach has pros and cons:
 - It is considered by some stakeholders as the most reasonable option to ensure that all zoos, including small ones, can, within the remit of their possibilities, contribute to conservation¹⁵⁶. As one EU stakeholder observed¹⁵⁷, ‘institutions have different capabilities and objectives’, and it therefore ‘makes sense to leave a margin for them to prioritise their objectives and resources’.
 - On the contrary, for one MSCA and two NGOs¹⁵⁸, compliance with a selection of measures cannot guarantee a strengthening of biodiversity conservation. It is also argued in the literature that most zoos would already have necessarily complied with at least one of these elements in their daily routine as a zoo (P. A. Rees 2005a). This is particularly the case for measures such as captive breeding or exchange of information. Besides, the impact on conservation of such measures taken in isolation is arguable, and the range of measures proposed have a more or less strong link with conservation (for the latter point, see (BornFree 2011, p.30) and a variable impact on biodiversity (see Section 5.1.2.1).

While it may be unrealistic to expect the same level of investment and commitment from all zoos irrespective of their size or resources, the contribution of some of the measures listed by Article 3, first indent, to conservation if implemented as a single measure (e.g. training) is unclear. On that point, the zoos survey responses revealed that zoos are likely to be engaged in exchange of information with other zoos, while other measures such as training on conservation skills and captive breeding programmes are less frequently undertaken (see Section 5.1.1). It should nevertheless be kept in mind that, at a broader scale, it is the varied and cumulative activities of all members of the zoo community that will have an impact on biodiversity conservation, rather than the activities of each zoo taken in isolation.

¹⁵⁶ Interview with one zoo federation and MSCA.

¹⁵⁷ Interview with EU stakeholder.

¹⁵⁸ Interviews with MSCA, EU stakeholder and NGO.

- The **lack of clarity of the Directive’s wording in Article 3** has been mentioned by many different stakeholders, authorities, NGOs and federations as a key factor impeding the proper implementation of the Directive.
 - In relation to research, training, exchange of information and captive breeding, repopulation and reintroduction, the lack of indications on measuring the proper implementation of these activities, together with the lack of common criteria for such an assessment, were mentioned as problematic issues by national authorities. In particular, one MSCA pointed out that the Directive ‘does not provide the necessary elements to assess the correspondence between an activity and its objectives, be it from a qualitative or from a quantitative point of view’¹⁵⁹.
 - The lack of specific rules results in the same problem for assessing proper implementation of public education in the Member States. One stakeholder mentioned that the lack of specific rules sometimes resulted in biased information being provided by zoos to the public¹⁶⁰.
 - NGOs¹⁶¹ and national authorities¹⁶² both stated that the provisions on care and keeping of wild animals needed better definition. More precisely, the expression ‘satisfying the biological and conservation requirements’ of species was deemed too vague to ensure proper implementation¹⁶³. The lack of standards at EU level leaves Member States with the choice of adopting standards, or not; and while many countries have adopted specific standards for accommodation and care (e.g. Belgium, Bulgaria and Italy)¹⁶⁴, these may vary considerably from one country to another (see the comparative analysis in (BornFree 2011, p. 37-38). Several stakeholders, however, including authorities and federations, stated that the adoption of standards in the EU legislation would be problematic, since guidance on animal husbandry is very complex and detailed (species-specific), needs constant updating and in view of the fact that a consensus among stakeholders on appropriate standards would be difficult to obtain (as illustrated by the differences in existing standards among Member States).

The wording of the Directive has given much lee-way to the Member States in their implementation of conservation measures. This is likely to come at the expense of more ambitious conservation goals which would improve the achievement of the Directive’s objectives. The Good Practice Guidance Document provides an in-depth explanation on how to interpret the provisions of the Directive but was issued a long time after the entry into force of the Directive and its dissemination remains problematic (see Section 5.1.3.2a below).

b. Transposition of the Directive in the Member States

Key factors influencing the effectiveness of the Directive also stem from the legislative activities of the Member States.

Impeding factors

The infringements launched at EU level (see Section 4.2) provide a good overview of the problems experienced by Member States in relation to the transposition of the Zoos Directive in their legal order. The Commission launched 11 cases for **late transposition**¹⁶⁵ of the Directive at national level. A brief overview of the delays experienced in transposition which gave rise to infringement procedures is provided below.

Table 22: Overview of late transposition of the Directive

Member State	Date of adoption or entry into force of the legislation	Delay in transposition
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¹⁵⁹ Interview with MSCA.

¹⁶⁰ Interview with NGO.

¹⁶¹ Interview with EU stakeholder.

¹⁶² Interview with MSCA.

¹⁶³ High-level questionnaire, Q40.

¹⁶⁴ An overview of countries which adopted standards is provided in Section 5.5.2.1.

¹⁶⁵ An infringement case against France was opened for non-communication but closed once existing measures were notified in July and August 2002. The same applied to Sweden.

Member State	Date of adoption or entry into force of the legislation	Delay in transposition
Austria	30 January 2003 (Burgenland)	10 months
Denmark	1 January 2003	Nine months
Finland	25 June 2003 (Åland)	14 months
Germany	1 August 2005 (Bavaria)	Three years and three months
Greece	3 March 2004	Two years
Ireland	19 September 2003	17 months
Italy	2 May 2005	Three years
Luxembourg	10 February 2003	10 months
Portugal	1 April 2003	12 months
Spain	27 October 2003	18 months
UK	31 March 2003	11 months

Source: Desk research for the present study

With delays ranging from between nearly one year to more than three years, late transposition is one of the elements that impeded the proper implementation of the Directive. In practical terms, it meant that, in most of these cases, the issue was not (properly) regulated in these Member States. The same observation applies to countries which adopted new legislation even though their transposition was already effective (i.e. France and Germany). While transposition was considered effective by the deadline in France and by 2004 in Germany, both countries later adopted new legislation with a significant increase in the quality of transposition (in 2004¹⁶⁶ and 2010¹⁶⁷, respectively)¹⁶⁸.

Four infringement cases were also launched for **non-conformity** against Austria, Italy, Slovakia and Latvia. These cases indicate that the national legislation was not in line with the Directive. Incorrect transposition prevents the full achievement of the Directive's objectives in the Member States concerned. For instance, the Italian case referred to an incorrect transposition of the definition of 'zoo'. As a result of incorrect transposition, the scope of the Italian legislation was wrongly narrowed down to establishments being *de facto* compliant with the Directive (see Section 4.2), thus preventing other, more 'entertainment-oriented', zoos to increase their standards to reach the conservation objectives of the Directive.

While transposition may, in some instances, have impeded proper conservation and protection of wild fauna, in other areas it has been instrumental in contributing to the achievement of these objectives, such as providing additional requirements to those of the Directive, in order to avoid some of the shortcomings described above.

Contributing factors

- **Additional requirements** provided in the transposing legislation at national level have been observed in several instances (See Annex III for an overview of selected instances of additional requirements¹⁶⁹). Analysis of additional requirements shows that national legislation has, in some cases, been designed so as to remedy the ambiguities observed in the Directive.
 - In relation to the definition of zoos, the Spanish definition does not refer to a number of days of opening to the public.
 - According to the Born Free 2011 Enquiry, four Member States (Bulgaria, France, Poland and Portugal) require a combination of three or more of the measures listed as alternatives in Article 3, first indent (BornFree 2011, p.30). It is also the case for Italy.
 - France has an additional requirement relating to the level of qualification of zoos operators.

¹⁶⁶ Order of 25 March 2004 constitutes the key transposing act for the Zoos Directive.

¹⁶⁷ Federal Nature Conservation Act of 2010 replaced the framework provisions with a set of provisions at the federal level, which are directly applicable without additional Federal States' regulations.

¹⁶⁸ In addition, the Netherlands adopted their transposing act with a slight delay (10 days). In this case, it cannot be considered that the timing of transposition had a negative impact on the level of implementation.

¹⁶⁹ Annex III, Table 9: Prepared mainly on the basis of the Good Practice Document, with supporting information from this survey and desk research.

There, in addition to the zoo licence, zoo operators are required to have a personal certificate of capacity. The granting of this certificate is decided by a Committee, and requires a good understanding and commitment to conservation of biodiversity. In bigger zoos, all managers, including financial managers, have this certificate.

- **Legislation existing prior to transposition** has also contributed to the proper implementation of the Directive's requirement in some Member States. Legislation regulating zoos existed in several of the Member States before the adoption of the Directive (see Section 4.1). In these countries, pre-existing legislation facilitated the implementation of the Directive thus contributing to more rapid achievement of the Directive's objectives (e.g. Belgium, Denmark and France). Similarly, although transposition occurred later for the Member States which became members after the deadline, most countries had already regulated the issue before accession¹⁷⁰. In these cases, it cannot be considered that the timing of transposition had a negative impact on the level of implementation. If at all, transposition before accession in the new Member States limited the differences in the timeframe for the implementation between the 'new' and 'old' Member States.

c. Implementation of the Directive's Article 3 and Article 6 requirements in the Member States

Section 5.1.1 provides an overview of the status of implementation of the Article 3 conservation measures.

Two infringement cases for bad application have been launched by the Commission. The first related to non-compliance of a zoo in Cyprus¹⁷¹ with conservation measures, while the second related to licensing issues in Spain (see point d below). Of these two, the Cypriot case was based on problems observed with one zoo and arguably has little impact on the protection of wild fauna and biodiversity of conservation¹⁷². The number of cases is very low, and would not indicate major issues with the implementation of the Directive.

Nevertheless, some factors relating directly to MSCAs' implementation were mentioned by the surveyed stakeholders as impacting, either positively or negatively, the achievement of the Directive's objectives. These factors are summarised below.

Impeding factors:

- **Organisation** of Member State administration to implement the Directive has, in some cases, proved problematic. The **division of competences** between different levels of administration (federal/ national/ regional) has, in some instances, complicated the proper implementation of the Directive and thus impacted its effectiveness. In three of the cases of late transposition (Austria, Germany and Spain, see above), the delay was experienced because of late transposition by one or more regions. This problem was also mentioned in both the literature and in the survey for other countries (e.g. Belgium, France¹⁷³). Coordination between different authorities was considered a negative or non-existent factor for the achievement of the Directives' objectives by 13 out of 26 respondents to the high-level questionnaire, while five considered coordination to be both present and positive. Another element raised by a few stakeholders is the **portfolio of national authorities** which often includes other, more demanding, areas (e.g. CITES, animal health) and which make implementation of this Directive a second rank issue¹⁷⁴ (see also Section 5.1.1.2). As explained in detail earlier (see Section 5.1.1.2), the **lack of knowledge** among national authorities and the **absence of exchanges** across MSCAs were also mentioned as impediments to implementation of the Directive by many stakeholders¹⁷⁵.

¹⁷⁰ For example, Lithuania adopted basic legal acts on wild fauna, regulating zoos, in 2002, Bulgaria and the Czech Republic in 2003.

¹⁷¹ Limassol Zoo in Cyprus.

¹⁷² Consistent with the analysis given by the Commission.

¹⁷³ Mentioned in the Born Free Inquiry 2011- not experienced as an issue by the authorities interviewed.

¹⁷⁴ Interview with MSCAs.

¹⁷⁵ Interview and survey of EU stakeholders, federations, experts and NGOs.

- The **identification and inventory of zoos** has proved very difficult in the context of the present exercise. Several Member States' authorities agreed that gaining an overview of zoos existing in the country was a problem¹⁷⁶. Of the 14 Member States surveyed, five reported having a central database for zoos (Cyprus, the Czech Republic, Ireland, Poland and Portugal)¹⁷⁷, three of which are accessible to all local and regional authorities dealing with the Zoos Directive (see Section 5.1.1.2). Monitoring of the proper implementation of the Directive can only be impaired by this lack of data.
- The requirements of Article 6 on the **closure of zoos** have been difficult to implement (see Section 5.1.1), partly because the authorities failed to regulate the rehoming of animals. This resulted in zoos remaining open in spite of their non-compliance with the Directive's requirements¹⁷⁸, among other issues.

Contributing factors:

The **proactive attitude** to implementation among the national authorities and the support they provided to implement the requirements were considered as a positive factor by some of the stakeholders surveyed and interviewed. In particular:

- **Guidance documents** have been adopted at national level by several Member States (e.g. Spain, Ireland, the Netherlands, the UK, Germany). Several stakeholders, such as associations and zoos, deemed this a positive element.
- **Training and workshops** given by national authorities were also mentioned by stakeholders as a contributing factor. In Bulgaria, for example, the authorities organised three training sessions between 2012 and 2014 for zoo staff, inspectors and zoo managers.

d. Enforcement of the Directive in the Member States

The explanation provided in Section 5.1.1 on the licensing and inspection procedures in the Member States provides an overview of the factors which influenced the proper enforcement of the Directive. These are listed below (see Section 5.1.1 for more detail).

Impeding factors:

- Lack of adequate **knowledge and training** among Member States' authorities in charge of enforcing the Directive.
- **Lack of sufficient resources** to perform systematic screening of the establishments on the national territory.
- **Inconsistencies among Member States and among regions** in the level of enforcement of the Directive (i.e. level of requirement, frequency of inspections, level of sanctions and consistency in their application).

Contributing factors:

- **Additional enforcement activities**, such as **legislative updates**, preparation of **guidance** documents or protocols for inspections, or organisation of **training** (e.g. training programme for inspectors) to counteract the lack of clarity of the Directive.
- **Sub-contracting** of inspections (e.g. Ireland), as well use of **external experts** with appropriate technical knowledge to assist in inspections (see Table 14 above). According to an Irish stakeholder, subcontracting of inspection was 'the biggest change [in implementation] in the last two years, [...]' which 'resulted in a comprehensive zoo inspection process and the tools to enforce it which has provided the operators with clear expectation and the means to meet the Directive and its legislative transposition into Irish law'¹⁷⁹.
- **Synergies with other EU acts** resulting in, for example, combined inspections for the enforcement of the different acts applying to zoos (see Section 5.4).

¹⁷⁶ Interview with MSCA.

¹⁷⁷ Websites with list of zoos have been identified in the Czech Republic, Denmark, the Netherlands, Poland, Portugal and Spain (Table 16).

¹⁷⁸ Mentioned in interviews, Born Free Inquiry 2001 and Born Free Inquiry 2016, and observed in EU case law.

¹⁷⁹ Interview with MSCA.

5.1.3.2 The impact of other stakeholders' activities on the achievement of the objectives of the Zoos Directive

According to the stakeholders surveyed, stakeholder involvement generally has contributed to the effective implementation of the Directive¹⁸⁰.

a. Actions by the European Commission

Impeding actions

- The **lack of monitoring and reporting** requirements in the Directive has been repeatedly mentioned by stakeholders as a factor which, even if not an impediment, did not contribute to the effective implementation of the Directive. As pointed out by stakeholders¹⁸¹ and observed by the project team, the absence of monitoring results in scarcity of data and makes it difficult to assess the progress achieved under the Directive.
- The **absence of a forum for exchange** among MSCAs, such as a European Commission Steering Group or Stakeholders' group on zoos and aquariums, comparable to those in place for other EU acts (e.g. CITES Regulation) has been raised as an issue in both the survey¹⁸² and the interviews¹⁸³.

Contributing actions

- The Commission has launched 21 infringement actions and five pilot procedures. Seven of these cases reached the Court of Justice, and a judgment was issued in one case (Germany) (see Section 4.2). The Commission's **enforcement activity** was therefore quite limited. However, the Commission's involvement has been beneficial to the proper implementation of the Directive, as transposition has been sped up by the Commission's intervention in many cases, and since it can be assumed that full compliance was unlikely to be achieved without those interventions.
- The **Good Practices Document** (VetEffecT 2015) was viewed as a positive tool by all stakeholders interviewed (i.e. MSCAs and EU-level stakeholders). Some authorities expressly confirmed that they used it (e.g. France, Denmark and the Netherlands), while others considered it to be of limited interest because of the level of detail of their national legislation or national guidelines (e.g. Belgium, Germany). The document is directly mentioned in the Zoos Standards document in Ireland.

However, several stakeholders complained about the lack of distribution of the document, with the language of the document cited by many stakeholders as the main issue for its lack of dissemination¹⁸⁴. One EU stakeholder suggested including a reference to the Good Practices Document in the Directive to improve its visibility¹⁸⁵. The lack of clarity (multiple cross-references to other documents) was also mentioned as an issue by one stakeholder¹⁸⁶.

- **Funding** of research or education programmes is another action by the European Commission which has supported the application of the Directive, in particular the LIFE and ERASMUS funding awarded to zoos leading or contributing to conservation work (see Section 5.1.2.3 b). However, contributions remain limited, as zoos tend to fund their own projects. Applications for EU funding are considered too burdensome and time-consuming for zoo operators¹⁸⁷, confirmed by the high-level survey, in which only three respondents agreed that dedicated funding and resources contributed to the implementation of the Directive, while 15 respondents considered impact negative (11) or non-existent (four). The problem of funding conservation activities was also raised as an issue by stakeholders in the public consultation¹⁸⁸.
- **Training** by the Commission was mentioned by one interviewee¹⁸⁹. Training was organised by

¹⁸⁰ High-level questionnaire, Q45f: 17 positive answers, two negative, four neutral.

¹⁸¹ Interview with two EU stakeholders.

¹⁸² Zoos questionnaire - one respondent.

¹⁸³ Interview with MSCA and NGO.

¹⁸⁴ Interviews with EU stakeholders and MSCAs.

¹⁸⁵ Interview with EU stakeholder.

¹⁸⁶ High-level questionnaire - answer from academia.

¹⁸⁷ Interview with EU stakeholder.

¹⁸⁸ 80 respondents referred to the need to increase EU funding for zoos in the semi-open fields of Question 29 of the Public Consultation.

¹⁸⁹ Interview with EU stakeholder.

DG SANTE in 2011 on animal welfare¹⁹⁰, with some sessions dedicated to animal welfare in zoos. The interviewee however, observed that the zoo community had little involvement in the training, being invited solely as observers, with the training itself given by Born Free. Given this lack of involvement, the lack of visibility of such training¹⁹¹, and the focus on animal welfare, the contribution of this activity to the achievement of the Directive was probably extremely limited.

b. Actions by zoos' and aquarium federations

Actions by zoos' associations at EU and national level were considered instrumental in the proper implementation of the Zoos Directive, according to many stakeholders surveyed for this question¹⁹².

At European level

As indicated in Section 4.1 above, EAZA is a key stakeholder in the implementation of the Directive, with 346 EU zoos members of EAZA in all Member States, except for Cyprus and Malta¹⁹³. From the currently available data, this represents around 17% of licensed zoos in the EU-28¹⁹⁴. EAAM has 21 accredited institutional members (zoos and aquaria) across 10 Member States.

EAZA, as well as the European Association for Aquatic Mammals (EAAM), intervene in various forms to support the implementation of the Directive in order to ensure its effective achievement of conservation objectives:

- **Membership of EAZA and the EAAM** involve stricter requirements than those specified by the Directive. Members must operate in accordance with certain practices and standards, usually exceeding legal requirements. The accreditation process to belong to these associations is also demanding, requiring both a financial investment and submission to frequent inspections. This investment benefits the conservation purposes of the Directive, even though these activities go well beyond the simple implementation of the EU legal requirements. As pointed out in Section 5.1.1, the results of this current survey support the observation that membership of zoos' associations is positively correlated with the fulfilment of conservation objectives and the implementation of Article 3 measures.
- EAZA has adopted detailed **standards** with which its zoos must comply: the EAZA Standards for the Accommodation and Care of animals in zoos and aquaria, Research Standards, the Conservation Standards and the Conservation Education Standards. Similarly, the EAAM has published Standards and Guidelines for the management of bottlenose dolphins under human care (EAAM 2016). Such standards and guidelines help to counterbalance the lack of clarity in the Directive, reducing the level of discrepancies with national implementation rules. The role of standards produced by organisations, in particular EAZA's guidelines for the care and accommodation of animals, is expressly acknowledged in the Preamble to the Directive as helpful in guiding the development and adoption of national standards. The EAAM also stated that this work contributes to increasing zoos' understanding of expected of them and preparing them for licensing¹⁹⁵.
- EAZA also provides **training** to all of its members' zoo professionals on a range of topics, including breeding programmes and other conservation related issues (e.g. education) (EAZA Academy 2016). This training has been mentioned as a good practice by another federation.

¹⁹⁰ See http://ec.europa.eu/dgs/health_food-safety/information_sources/animals_events_2011_en.html

¹⁹¹ Only one stakeholder mentioned this training.

¹⁹² No statistical information is provided on this question, as the results of the survey cannot be considered representative. It has been observed that EAZA, as well as several (at least 13) zoos have provided the exact same answer, according to which 'associations (like EAZA) contributed strongly to strengthening the role in biodiversity conservation, as indeed did the many leading zoos and aquariums in EAZA, resulting in significantly increased conservation action'. While the statistical information is therefore excluded, the statement is nevertheless based on overall trends in responses in the survey and in interviews.

¹⁹³ See Section 4.1 above.

¹⁹⁴ Assuming an overall number of zoos of around 2,000, taking the numbers of licensed zoos gathered from MSCAs of 14 Member States in the context of this study (1,006 zoos), and the estimations provided in the Born Free EU Zoo Inquiry 2011 and the Born Free /VetEffect Survey (2014). This number cannot be considered fully reliable as these other sources did not provide information for some of the Member States and reflected a broad definition of zoos (not only licensed ones) in some others. Another number circulated by NGOs is 7-8% of all European zoos.

¹⁹⁵ Interview with EU stakeholder.

- EAZA-led **breeding programmes** (EEPs and ESBs), as indicated in Section 5.1.2, provide a significant contribution to conservation. These are followed not only by EAZA members but also by other zoos¹⁹⁶. The EAAM also supports two breeding programmes (EAAM 2016a).
- EAZA and EAAM organised **workshops and conferences** to bring zoos together and allow them to exchange information (e.g. the EAAM annual scientific symposium). Of 70 responding zoos, 44 (i.e. 62%) indicated their attendance at meetings with international stakeholders.
- **Public awareness-raising** is an important component of federation activity. EU federations also organise **campaigns** to engage the public in biodiversity conservation, thus contributing to the Directive's objectives. One example is the 'Let it Grow' campaign (Let it grow 2016) by EAZA¹⁹⁷ which encourages visitors to measure biodiversity in their living environment.

At national level

National federations exist in most EU Member States (see Section 4.1). They usually play a similar role to EU-level ones, such as issuing **guidelines and standards**, facilitating **exchange of information** and **public awareness-raising** activities.

In addition, as highlighted in the survey, national federations have established close **working relationships with the authorities** to ensure proper implementation of the legal requirements. Positive feedback on cooperation between federations and authorities has been reported by stakeholders in both the survey and the interviews in several cases (e.g. France, Germany, Ireland, Sweden and the UK). This collaboration also contributes to the achievement of the Directive's aims.

c. Actions by EU and national NGOs

NGOs playing a significant role in the implementation of the Directive are either conservation-oriented or animal welfare organisations. At EU level, Born Free and Eurogroup for animals are the main stakeholders, and are animal welfare-oriented organisations (see Section 4.1 for a full overview of associations). Although the primary objective of the Directive is conservation of biodiversity, rather than animal welfare, nevertheless the activities of animal welfare-oriented NGOs have also impacted on the implementation and achievement of the Directive's conservation objectives. The contribution of EU and national NGOs can be summarised as follows:

- **Monitoring of implementation** of the Directive's requirements has been a key area of work for NGOs active in this field. The Born Free EU Zoo Inquiry is the most comprehensive project in that regard. It aims at 'evaluating the status and performance of zoos across the European Union set against the obligations of the EU Zoos Directive 1999/22' and 'identifying the causes behind the substandard conditions in Europe's zoos'. To that end, 'in 2009 and 2010, a total of 200 zoological collections in 20 European Union Member States were assessed as part of the EU Zoo Inquiry 2011 project, and in 2015, a total of 54 zoological collections in seven EU Member States were assessed under the EU Zoo Inquiry 2016 project. Activities included an evaluation of the national zoo law of each EU Member State against the requirements of the EU Zoos Directive 1999/22, an assessment of the implementation and enforcement of the law and an investigation into the status and performance of a sample of zoos in each Member State' (Born Free 2016). Other NGOs monitor the situations in zoos on a daily basis. The monitoring done (in particular by animal welfare organisations) has been instrumental in flagging implementation issues to the authorities. For instance, the Zoos Inquiry has triggered some Member States (e.g. Cyprus) to review their legislation and zoos to improve their conditions (Born Free 2012, p.17). However, it should also be mentioned that this role entails some risks. As pointed out by several stakeholders¹⁹⁸, animal welfare NGOs are fundamentally against the existence of zoos and their work is, accordingly, orientated towards one message. This entails the risk of inaccuracies, which

¹⁹⁶ Interview with EU stakeholder.

¹⁹⁷ In partnership with the European network of science centres and museums (Ecsite) and Botanic Gardens Conservation International. Substantial differences exist between Member States, many of which have not set minimum species standards (e.g. the Netherlands). Among those that have set such standards (e.g. Belgium, Bulgaria and Germany), the (scientific) basis on which it was done is subjective and thus debatable. For most species, the knowledge and expertise for establishing such standards are only available among stakeholder groups with specific interests (e.g. zoos' federations, animal welfare NGOs) which challenge each other's expertise rather than academia (BGCI).

¹⁹⁸ Interview with MSCA and EU stakeholder.

may eventually be counterproductive¹⁹⁹.

- NGOs play also a central role in **informing the public**. However, while some NGOs (in particular in the field of conservation) may contribute to informing the public on the conservation role of zoos and thus enhance its objective of public awareness, there is also a risk that the public awareness activities of other animal welfare focused NGOs may draw public attention away from the role of zoos in conservation.
- NGOs also give **training** to zoo professionals. For example, Born Free, in collaboration with EAZA, provided training to veterinarians and other practitioners (see Workshop Report in Annex IX).

d. International stakeholders

A few international organisations play an active role in the implementation of the Zoos Directive, in particular through their guidelines on *ex situ* conservation measures, their specialist groups, or other activities. This is especially the case for the IUCN and WAZA.

- WAZA and the IUCN have adopted, respectively, the IUCN Technical **Guidelines** on the Management of *Ex Situ* Populations for Conservation (2002) or the World Zoo and Aquarium Conservation **Strategy** (WZACS). Those documents seek to support zoos by providing guidance and recommendations on the conservation measures that they should undertake. The WAZA conservation strategy includes advice on the development and improvement of conservation research strategies, and the development of education and media strategies to engage staff, visitors, volunteers and the wider community in order to broadcast the importance of the role of zoos in conservation. It also urges zoos to partner with other biodiversity institutions and conservation organisations to implement conservation actions. The IUCN technical guidelines indicate when *ex situ* conservation should be initiated, what the objectives of conservation projects should be, and calling for *ex situ* institutions (including zoos) to develop *ex situ* protocols prior to any forthcoming *ex situ* management projects, giving due consideration to institutional and financial viability before embarking on any such project. These documents have been mentioned by stakeholders as being equally useful to the EAZA guidelines, as contributing to the implementation of the Directive and its objective of biodiversity conservation, and as ‘key drivers for the teams in charge of the scientific management of zoos’²⁰⁰.
- Thirteen zoos (18.5 %) of those responding to the survey have staff that are members of an **IUCN specialist group**. Of particular importance in this context is the Conservation Breeding Specialist Group (CBSG), whose mission is to ‘save threatened species by increasing the effectiveness of conservation efforts worldwide [...by providing] species conservation planning expertise to governments, Specialist Groups, zoos and aquariums, and other wildlife organisations’ (CBSG). This specialist group plays a significant role in creating an environment whereby zoos can pursue the Directive’s objectives. There is a CBSG Europe, which works closely with EAZA and is supported strongly (including financially) by the Copenhagen Zoo.
- The **IUCN red list of threatened species** is an essential tool to assess the level of conservation of the world’s species. As explained in Section 5.1.2, the conservation status of species kept *ex situ* is a central element in understanding zoos’ contributions to biodiversity conservation and the protection of wild fauna.

e. Actions by zoos

- Several stakeholders²⁰¹ stated that modern zoos make a positive contribution to the protection of

¹⁹⁹ The Belgian CAs highlighted that the Zoo Inquiry in Belgium adopted a biased interpretation of the implementation of the Directive in Belgium. The Born Free report implies that automatic licensing in Belgium was the general principle for licensing zoos up to 2011. The authorities denied that this was the case and underlined that systematic inspections took place to confirm and adapt the first wave of authorisations that were granted in a semi-automatic manner before 2002. After 2002 the authorities inspected all new zoos and undertook regular inspections (25% of zoos in Flanders, on an *ad hoc* basis in Wallonia). A corrigendum letter drafted by the public authorities was, according to the authorities, supposed to be published by Born Free. This did not occur and, from the point of view of the authorities, seemed to have led to a counterproductive antagonisation between the animal welfare organisation and the public authorities.

²⁰⁰ Interview with international stakeholder.

²⁰¹ No statistical information is provided on this question, as the results of the survey are not representative. It was observed that several (at least 10) zoos provided identical answers, according to which ‘The increased impact of modern zoos in the protection of global biodiversity,

global biodiversity, public education, research and animal husbandry, with differences observed between more ‘conservation-oriented’ zoos and other zoos. Conservation-oriented zoos in particular have played a key role in implementation by **sharing their knowledge** with less advanced zoos, e.g. through the drafting of guidelines and technical standards for *ex situ* management, or through visits and training with other zoos.

- One stakeholder²⁰² observed that there appears to have been a change in zoo owners’ perceptions during the implementation period because they are now more **responsible** and take **public opinion** very seriously (and thus biodiversity conservation and husbandry standards). This perception was confirmed during the discussions held during the Workshop for this study, where it was observed that zoos increasingly include conservation objectives in their activities and that the importance of conservation activities in zoos at a small scale, i.e., at local level, should not be undermined.
- Another stakeholder²⁰³ observed that the sector attracts highly motivated staff, which has driven many innovations in enhancing captive care. In that respect, the work done by veterinarians in zoos was also highlighted as a significant contribution to conservation. Veterinarians carry out substantial research, although this may not be very visible because their work is not published in conservation-oriented reviews (see Workshop Report in Annex IX).
- By contrast, a **lack of commitment** on the part of certain zoos has been observed by several stakeholders, either due to the lack of capacity or because of reluctance to abide by the rules. This is corroborated by the EU Zoo Inquiry findings. On this point, it was mentioned that the difference in the level of expertise between zoo operators and enforcement authorities was sometimes exploited by operators, who would ‘impose their authority’ during inspections²⁰⁴.

f. Action by academia

One stakeholder²⁰⁵ surveyed stated that the academic literature is a critical source of information but can be difficult for non-academics to access and interpret. While there are outstanding examples of successful collaborations between zoos and academics, and effective tools for translating research into zoos, this relationship is not necessarily sector-wide. Box 12 below provides an example of successful collaboration between the University of Birmingham and the Birmingham Zoo. Other examples include collaboration between the Antwerp Zoo and the Centre for Research and Conservation (CRC) and the research institute of the Royal Zoological Society of Antwerp (RZSA), between the Leipzig Zoo and the Max-Planck Institute for Evolutionary Anthropology, between the London Zoo and the Institute of Zoology, and between the University of Southern Denmark and the Max Planck Odense Centre.

Box 12: Example of successful contribution to conservation by joint efforts of zoos and academia

The University of Birmingham’s Enclosure Design Tool for great apes^[1]
Because of their sedentary lives and tendency to develop heart disease, anxiety and stress due to a lack of species-typical physical, social and mental opportunities, great apes are some of the most difficult species to keep successfully in captivity. The University of Birmingham developed the ‘Enclosure Design Tool’ (‘EDT’) to help to address this issue. The EDT guides zoo keepers in collecting data on their great apes, from which it then provides recommendations on possible modifications of enclosures to correct missing or under-represented wild-type behaviours of those apes. These improved enclosures allow zoos to exhibit great apes that behave in more natural ways, thereby enhancing public education about the species. It also is an example of applied academic research made accessible to zoo keepers, which can, in turn, trigger improved animal welfare given

public education, research and animal husbandry is mainly due to the efforts of each individual zoo as well as the exchange with zoo associations, wildlife-experts from the zoo community and our in-situ colleagues, scientists and other conservation related NGOs as well as donors’. While the statistics are excluded, the statement is nevertheless based on overall trends in responses to the survey and interviews.

²⁰² Zoos questionnaire.

²⁰³ High-level questionnaire.

²⁰⁴ Interview with NGO.

²⁰⁵ High-level questionnaire.

[1] Dr Thorpe, Dr Chappell, University of Birmingham, ‘An Enclosure Design Tool to enable zoos to create integrated, wild-type enclosures for great apes’: <http://gtr.rcuk.ac.uk/project/ED68C067-9547-4772-A382-C0536EF1151A> (last accessed on 14.03.2017).

the increased understanding of the animals' needs. Finally, it is an evidence-based monitoring tool with which zoo keepers can reliably demonstrate that measures are implemented to ensure the welfare of their great apes.

g. Action by the media

To a certain extent, the media have contributed to the implementation of the Directive. The literature review showed that many **press articles** deal with the question of zoos, not only from an animal welfare perspective but also for their conservation role, or to explore the link between conservation (breeding activities in particular) and animal welfare. In that respect, media coverage of the 2014 case of the giraffe 'Marius' euthanised by Copenhagen Zoo for conservation management reasons, is a good example.

Likewise, **TV programmes**, such as 'reality shows' (e.g. in Germany and France) showing the day-to-day work of zoos, also have an educational purpose.

The contribution of such programmes or press reports to the achievement of the Directive's objectives is complex, however. Such media intervention is usually one-sided (either pro- or anti- zoo), relies on the emotions of the public to convey a message, and is, in the case of shows, a commercial tool for participating zoos. There is therefore a risk of lack of information on biodiversity issues in order to focus on animal welfare or to present a 'glamorous' vision of zoos' day-to-day work at the expense of their actual contribution to biodiversity conservation.

In addition to the lack of clarity on the educational benefits of media activities, the impact of public awareness on conservation objectives is unclear. This is also confirmed in the perceptions of NGOs and federations surveyed for this study. Thirteen respondents considered that public awareness and support contributed effectively to the effective implementation of the Directive, while 11 considered it to have no effect.

5.1.3.3 Economic factors

An additional source of influence emerged from the consultation: economic factors. Zoos can be important economic actors, relying wholly or partly on entertainment and tourism expenditure. Two recurring issues must be mentioned here:

- The impact of the 2008 **economic crisis** was mentioned as a factor impeding the proper implementation of the Directive by several zoos, especially southern ones²⁰⁶. The crisis resulted in fewer visitors and decreased income for private zoos, and budget cuts for public zoos. This impacted the human resources dedicated to specialised work (e.g. research or education), as well as investments in facilities, research and conservation activities.
- Zoos, depending on their size, can generate significant revenue and/or employ large numbers of local people. The **economic influence of zoos at local level** has sometimes been detrimental to the proper implementation of the Directive. 'Local politics' was repeatedly raised during the interviews with all types of stakeholders²⁰⁷ and stated to have a negative impact on the implementation of the enforcement of the licensing requirements, with MSCAs having difficulties imposing licensing conditions and controls on zoos that are popular attractions and important economic actors at local level.

5.1.3.4 Summary and conclusions

The factors influencing the achievement of the Directive's objectives can be grouped into three key points:

- Firstly, and most importantly, the Directive places obligations on the Member States through its

²⁰⁶ Zoos questionnaire, answer provided by Spanish and Portuguese zoos.

²⁰⁷ Interviews with federations, NGOs and MSCAs.

licensing and inspection requirements. The transposition, implementation and enforcement of the legislation by the Member States' authorities therefore needs to be assessed.

- Secondly, other stakeholders, in particular the European Commission, the Federations, NGOs and zoos themselves, also play a role in implementing the Directive, and their actions necessarily influence the achievement of the Directive's objectives.
- Thirdly, the economic component of zoos' activities had a notable impact on achievement of the Directive's goals.

With respect to the **first point**, the analysis concludes that:

a. The Directive is broad in its **wording** and this has, in some instances, prevented consistent and effective implementation of the Directive across the Member States. The main difficulties are:

- Definition of zoos and the corresponding concepts (e.g. 'significant number', number of days, 'wild species').
- Alternative options provided under Article 3, first indent.
- Lack of detail and broadness of the requirements of Article 3.

b. **Transposition** of the Directive at national level resulted in both impeding and contributing factors. The main impeding factors are:

- Late transposition, corresponding to inadequate regulation of the issue at national level, thus delaying implementation of the Directive's objectives.
- Cases of non-conformity of the transposing legislation, which resulted in four infringement procedures launched by the Commission.

The most significant contributing factors are:

- Additional requirements provided in the transposing legislation to remedy the ambiguities experienced in interpreting the Directive.
- Pre-existing legislation in some Member States, which facilitated the implementation of the Directive's requirements.

c. **Implementation** of the Article 3 and Article 6 measures in the Member States have proved to be particularly challenging for the stakeholders, in particular:

- Organisation of the Member States' administrations (division of competence, portfolio of MSCAs, absence of communication) has impeded the implementation of the Directive.
- Identification and inventory of establishments to be regulated under the Directive is very difficult.
- Closure of zoos represents a major difficulty for implementation due to the absence of rehoming options and organisation by the MSCAs.

However, in terms of contributing factors, the proactive attitude of MSCAs, especially the preparation of guidance documents and the organisation of training and workshops, has significantly contributed to achieving the Directive's objectives.

d. The effectiveness of the Directive relies heavily on **enforcement** (See Section 2.2 above). Some factors have impeded proper enforcement:

- Lack of knowledge and training of enforcement authorities.
- Lack of resources (human and financial) to carry out enforcement effectively.
- Inconsistencies in the level of enforcement among Member States and among regions in some Member States.

Some other factors, such as additional enforcement activities, the use of external experts, guidance

documents, training and harnessing synergies with other acts, have contributed positively to enforcement.

The **second point** is the impact of the actions undertaken by the **various stakeholders** active in the field. These can be summarised as follows:

- The **Commission's** actions have contributed minimally to the achievement of the Directive's objectives. The Commission does not have the legal means to monitor implementation, nor does it provide for a forum for exchange of information between MSCAs. Its enforcement activity is limited, funding difficult to obtain, and training nearly inexistent and not inclusive. The enforcement activities of the Commission and the Good Practice Document are the main contributing activities from the Commission, even though distribution of the latter was deemed unsatisfactory (low awareness and no translation).
- **Zoos' and aquarium federations** have been very active in supporting the implementation of the Directive, through their membership requirements, standards, training, breeding programmes, workshops and conferences, and public awareness-raising activities. The role of EAZA's standards is expressly mentioned in the Directive's Preamble.
- **EU and national NGOs** have been instrumental in monitoring the implementation of the Directive, flagging issues to the authorities, and informing the public, although animal welfare NGOs focus more on animal welfare than conservation.
- **International stakeholders** (the IUCN, WAZA) have published key documents assisting with the implementation of the Directive.
- **Zoos** themselves have played a key role in implementation as well. Academia has contributed to involving zoos in research and improving their knowledge on conservation and species' needs, while the media have a less clear impact in terms of contribution to awareness-raising and an even less clear impact on biodiversity conservation.

Under the **third point**, it was observed that zoos can be important economic actors, with the 2008 **economic crisis** mentioned as a factor impeding the proper implementation of the Directive by several zoos, especially southern ones²⁰⁸. In addition, the **economic influence of zoos at local level** has sometimes been detrimental to the proper implementation of the Directive.

5.1.4 Effectiveness – EQ 4

Beyond these objectives, what, if any, other significant changes both positive and negative can be linked to the Directive?

This question discusses whether other positive or negative effects were produced, beyond the implementation of conservation measures and the strengthened role of zoos in biodiversity conservation. The identification of positive and negative effects has been guided by stakeholder input at interviews and through targeted survey responses.

Only a few stakeholders pointed out negative effects and these were generally related to the legitimisation of the role of zoos, even where their participation in conservation activities and contribution to conservation is very small.

Most of the stakeholders agreed that the Directive had a positive role in increasing public awareness of the role of zoos in biodiversity conservation and increasing attention paid to the welfare of wild animals in zoos.

These elements are discussed briefly below.

²⁰⁸ Zoos questionnaire, answer provided by Spanish and Portuguese zoos.

5.1.4.1 Effects on public awareness

As discussed earlier, enforcement appears weak and is faced with resource constraints while, simultaneously, the Zoos Directive provides only limited guidance on conservation measures, leading to its inconsistent application across the EU. Nevertheless, the Directive has raised zoos' standards, particularly among those not part of federations, and in those Member States where no relevant legislation existed previously. This was noted by many stakeholders and is one of the most important achievements of the Directive.

As such, the Zoos Directive has helped to create a minimum legal framework, ensuring that zoos fulfil certain obligations, and has had a positive effect on harmonisation across the EU²⁰⁹.

Another effect concerns the increased awareness among the general public of conservation of biodiversity and the role played by zoos. On the one hand, although the effectiveness of zoos as education centres should be explored further, millions of people visit zoos every year²¹⁰ and are exposed to learning opportunities for the species exhibited and their natural habitats and, more generally, about the importance of biodiversity conservation (Gusset et Dick 2011). On the other hand, the expectations of the public of zoos have gradually evolved. EU legislation, combined with this increased public awareness, has also amplified the possibility for NGOs to mobilise public opinion and other players, at both EU and national level, in order to make sure that the improved role of zoos is actually achieved.

These results are confirmed by the public consultation findings. According to the respondents, the most significant benefits related to the creation of a common legal framework across the EU, improved systems for licensing and inspection (missing in most of the Member States prior to the entering into force of the Zoos Directive), and better knowledge of biodiversity among the public. There seems to be widespread agreement among stakeholders on the ability of the Zoos Directive to 'ensure a coherent legal framework for zoos to operate across the EU' (63%, or 1,447 responses rated benefits in this field as significant or crucial) and to 'promote public education and better knowledge on biodiversity' (59% or 1,355 responses)²¹¹.

5.1.4.2 Effects on animal welfare

According to some stakeholders²¹², a significant positive effect of the Zoos Directive relates to improvements in accommodation and housing conditions (including environmental enrichment measures, consideration of species-specific needs, etc.) which have led directly to better animal welfare in zoos across the EU. This may be considered an important side-effect, as this objective is partly outside the scope of the Zoos Directive.

Most of the existing European animal welfare legislation is concerned with farm animals²¹³ and animals used in experiments²¹⁴. Article 3, third indent, of the Zoos Directive requires zoos to accommodate animals under conditions which 'aim to satisfy the biological and conservation requirements of the individual species'. Although this provision represents a conservation rather than a welfare measure, it has contributed to establishing a framework across the Member States and raising the standards for husbandry of animals kept in zoos, currently not covered by European animal welfare legislation.

Many Member States, in implementing the Zoos Directive, have paid specific attention to adequate

²⁰⁹ In line with the general objectives of the Zoos Directive. In particular, the 7th recital of the Directive mentions the necessity 'to provide a common basis for Member States' legislation with regard to the licensing and inspection of zoos'.

²¹⁰ Estimates of WAZA for 2008 indicates 142 million visits per year, compared to 125 million visits estimated in 1990 (Gusset et Dick 2011).

²¹¹ See the Public Consultation Report (Annex VIII).

²¹² In particular, eight stakeholders (zoos, zoos' federations and MSCAs) out of the 44 interviewed.

²¹³ Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes; Council Decision 78/923/EEC concerning the conclusion of the European Convention for the protection of animals kept for farming purposes.

²¹⁴ Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes.

conditions for accommodation and animal husbandry. In some of the 14 evaluated Member States, specific standards or non-binding guidelines have been defined for keeping animal in zoos (Bulgaria, Belgium, Italy, Lithuania, Poland, Germany and Ireland). In parallel, elements such as the size of the enclosures, existence of hygiene and feeding plans and veterinary care are all explicitly mentioned by most of the Member States as indicators used to assess the compliance of the zoo with Article 3, third indent (see also Section 5.1.1).

The provisions related to the accommodation of animals in the event of closure of a zoo add a further element and ensure that a legal framework exists to protect the animals in these situations.

Overall, these elements suggest that animal accommodation and welfare represent important components of zoo legislation across the Member States, and receive specific attention when it comes to the implementation of the legislation and the inspection of zoos.

These are also two of the main benefits of the Zoos Directive highlighted by stakeholders participating in the public consultation. 57% of stakeholders (1,320 respondents) reported significant or crucial benefits in the conditions under which animals are kept and standards of animal husbandry. Although influenced by the interest groups, a high number of stakeholders also pointed out (in their open comments) the importance of the Zoos Directive for the establishment of animal husbandry standards and the introduction of stricter rules for animal welfare²¹⁵.

5.1.4.3 Summary and conclusions

The Directive did not bring significant negative effects, other than the negative loop created by the lack of effective implementation. It does, however, risk giving legitimacy to zoos that are not in line with the requirements and/or only provide a limited contribution to conservation of biodiversity.

Positive effects have been identified in relation to:

- Increased awareness among the public in relation to the role played by zoos in biodiversity conservation.
- Increased standards for the welfare of animals kept in zoos not covered by EU legislation on animal welfare. Although animal welfare is not the objective of the Zoos Directive, its provisions on animal accommodation and animal husbandry (Article 3, third indent) have contributed to increased attention by Member State authorities and thus better conditions for animals kept in captivity.

5.2 Efficiency

Efficiency is essentially a comparison between inputs used in a certain activity and the outputs and results produced. The key question addressed is whether the range of regulatory costs imposed by the implementation of the Directive are reasonable and proportionate in view of the benefits delivered.

This requires a structured assessment of the range of costs incurred in implementing the Directive and the benefits achieved. Since the costs and benefits that accrue may differ according to the size of the zoo, it is important to assess whether the costs are higher for small zoos. These issues were addressed in EQ5 (Section 5.2.1). The remaining questions investigate whether or not the costs are disproportionate to the benefits (EQ6, Section 5.2.2), the factors driving costs and benefits (EQ7, Section 5.2.3) and whether evidence exists that the Directive has caused unnecessary regulatory burden or complexi-

²¹⁵ When asked about 'Other benefits' besides those listed in the consultation questionnaire, stakeholders provided some answers; 20 pointed to the establishment of stricter rules for animal welfare; 100 pointed to the importance of the Directive in 'recognising that each animal species has specific welfare needs and animal husbandry standards will ensure animals are appropriately kept in zoos'; 67 comments highlighted the benefits of the Directive in terms of establishment of animal husbandry standards. All these comments are considered to be based on suggested replies communicated by different interest groups (i.e. they represent repeated comments, although it is not always possible to establish the extent of this). See the Public Consultation Report in Annex VIII for more detail.

ty (EQ8, Section 5.2.4).

Based on the intervention logic presented in Section 2.2, and the **activities** identified, the analysis examined costs accrued for both Member State authorities (responsible for setting up and implementing the licensing and inspection system), and zoos (required to implement a set of conservation measures and undergo inspection and licensing procedures).

The sections below are based on the analysis of the licensing and inspection systems in the 14 Member States (EQ1, Section 5.1.1.1), and the specific information collected through stakeholder consultations (targeted surveys, interviews, and public consultation).

It is important to point out that the possibility of quantifying the costs and benefits is limited, as is the possibility of drawing any general conclusions, due to:

- Lack of literature and any independent assessment that might have provided a point of reference.
- The paucity and low quality of information provided by stakeholders and, importantly, the difficulty of attributing the costs and benefits to the Zoos Directive. Both Member States' authorities and zoos were, in most cases, unable to identify the costs directly due to the Zoos Directive, a factor which strongly limits the possibility to provide validated and shared estimates of the costs. Similar considerations are true of the benefits. In addition, there has been no systematic gathering of data on the provisions of the Directive over time that would allow for an independent analysis of benefits over time. Such data might have comprised zoos' contributions to enhanced conservation status of species, trends in educational visits to zoos, enhanced awareness of biodiversity issues, increased availability and accuracy of records, as well as general statistics on zoos as such (number, size, visitors, turnover, etc.).
- Most of the benefits of the Directive (e.g. public awareness, species conservation) cannot be effectively expressed in quantitative terms and mainly represent non-monetary benefits (with some exceptions). This suggests that a comparison of costs and benefits in monetary terms is neither feasible nor appropriate.

This study's approach to the evaluation of costs and benefits, their proportionality, and the extent to which they can be attributed to the Directive, combined the quantitative data provided by the entities directly affected by the Directive (the MSCAs and zoos), with qualitative information on the implementation of the Zoos Directive in the 14 selected Member States, and perceptions expressed by the stakeholders involved.

The results of the analysis remain largely qualitative. This approach ensures that the information is used in a defensible way, and that conclusions drawn are appropriate to the information available. Indeed, the lack of reliable data and the difficulty experienced by the stakeholders in providing estimates make any robust quantification and generalisation at EU level difficult.

5.2.1 Efficiency – EQ 5

What are the costs and benefits (monetary and non-monetary) associated with the implementation of the Directive for the different stakeholders, at local, national and EU level? Where possible, an estimate of costs broken down by size of enterprises (micro/small/medium-sized enterprises) should be provided.

The purpose of this question is to understand the costs imposed by implementation of the Directive and the benefits that have arisen from it.

Given the lack of any independent published analyses, information to address this question is drawn largely from the targeted questionnaire survey, with some context provided by the interviews. Respondents providing information include MSCAs, zoos, zoos' federations, NGOs and other stakeholders. Results of the public consultation are also integrated.

This section:

- Reports on the estimates of costs and benefits that have been provided by stakeholders; and
- Seeks to identify where costs (and benefits) are believed to have been incurred as a direct consequence of the Directive.

Overall, while there is a paucity of data detailing costs and benefits (i.e. quantification), respondents have expressed clear views on the scale of costs that they believe they have incurred and the perceived benefits that have arisen. These form the basis of the assessment of this question.

The approach taken in relation to EQ5 also applies to the analysis of the other evaluation questions under 'Efficiency'.

5.2.1.1 Costs for zoos and Member States' authorities associated with the implementation of the Directive

The implementation of the Zoos Directive requires MSCAs to set up and run a licensing and inspection system and to take action to ensure appropriate treatment or disposal of animals in the case of zoo closures (see the Intervention Logic defined in Section 3.2). For their part, zoos are required to implement several conservation measures (as defined in Article 3 of the Zoos Directive) in order to obtain a licence. These activities are expected to translate, to different extents, to increased costs for both MSCAs and zoos.

Table 23 maps the main activities to be carried out by zoos and MSCAs in line with the provisions and Articles of the Directive, and lists the types of costs that may reasonably be expected to be attached to each activity²¹⁶.

Costs for **MSCAs** are related to the enforcement of the legislation at national level. **Zoos** are expected to bear direct compliance costs, falling into different categories: substantive compliance costs ('compliance costs'), including one-off investments and recurring expenses to comply with the requirements of the Directive; administrative costs related to the procedures to be followed in order to obtain the licence; charges paid to obtain the licence, etc. As described in the following paragraphs, the possible costs stemming from delays in obtaining a licence have also been explored.

²¹⁶ The relevant types (or categories) of costs are defined on the basis of the Better Regulation toolbox (http://ec.europa.eu/smart-regulation/guidelines/tool_51_en.htm).

Table 23: Links between the Articles of the Directive and related activities, types of costs and stakeholders involved

Provision	Article	Activity	Type of cost	Stakeholder
Conservation measures	Article 3, indent 1	Participation in research and conservation projects	Compliance cost	Zoos
	Article 3, indent 1	Participation in training activities in relevant conservation skills	Compliance cost	Zoos
	Article 3, indent 2	Promotion of education and awareness-raising activities	Compliance cost	Zoos
	Article 3, indent 2	Provision of information on exhibited animals	Compliance cost	Zoos
	Article 3, indent 3	Renovation of enclosures, provision of resources for animal husbandry	Compliance cost	Zoos
	Article 3, indent 4	Setting up and implementation of systems to prevent escape of alien species and intrusion of outside pests and vermin	Compliance cost	Zoos
	Article 3, indent 5	Setting up and implementation of record-keeping/animal identification systems	Compliance cost	Zoos
Licensing and inspection system	Article 4	Treating licence applications received by zoos	Enforcement cost	MSCAs
	Article 4	Preparing, conducting and following-up on on-site inspections of zoos	Enforcement cost	MSCAs
	Article 4	Training of inspectorate staff on the requirements of the national legislation implementing the Zoos Directive	Enforcement cost	MSCAs
	Article 4, indent 3	Monitoring compliance with the Zoos Directive	Enforcement cost	MSCAs
	Article 4	Preparing the application to obtain the licence	Administrative cost	Zoos
	Article 4	Preparatory work for the inspection, taking part in the visit of the MSCAs, providing answers to the inspection report	Administrative cost	Zoos
	Article 4	Charge paid to obtain the licence	Charges	Zoos
Closure and sanctions	Article 8	Penalties applied for non-compliance with licensing requirements	Compliance costs	Zoos
	Article 4, indent 5, and Article 6	Ensuring that the animals are treated or disposed of under appropriate conditions in the event of the closure of a zoo	Enforcement costs	MSCAs

This mapping represented the starting point for the collection of information about the additional costs imposed by the Zoos Directive among MSCAs and zoos in the 14 Member States. Information has been collected through targeted questionnaires and interviews, with a two-fold objective:

- Understand which provisions of the Zoos Directive have implied additional costs for zoos and MSCAs, and identify the most relevant costs.
- Collect information on the magnitude of the costs incurred by zoos and MSCAs (including one-off investments and recurring costs due to activities to be carried out on a regular basis).

The following paragraphs present the results by category of stakeholder (i.e. MSCAs and zoos).

a. Costs for MSCAs

The replies to the questionnaire indicated that a certain increase in costs followed the implementation and enforcement of the Zoos Directive at national level.

As shown in Table 24, responses were received by 15 CAs from the 14 Member States²¹⁷. Of those CAs that were able to give an opinion, the majority considered the Zoos Directive to have led to **increased efforts and thus new enforcement costs** in relation to all aspects of the licensing, inspection and monitoring processes, although no CA was able to provide quantification details.

An exception is represented by Belgium, which has had legislation on zoos since 1998. Here, the Zoos Directive had the effect of enhancing the existing system and imposed only a minor increase in effort and related costs. For the remaining Member States, increased costs are reported, especially with reference to the **treatment of licence applications and to the need for preparing, carrying out and following-up on inspections** (cost categories from a) to e) in Table 24).

Table 24: CAs' opinions on increased costs triggered by the Directive for licensing, inspection and monitoring

Costs	Yes	No	Don' t know	No Answer
a) Treating licence applications	8	3*	3	1
b) Preparing the inspection necessary for granting the licence	9	2*	3	1
c) Desk-based inspections (e.g. analysis of records)	8	3*	3	1
d) On-site inspections	9	3*	3	1
e) Follow-up of inspections	8	3*	3	1
f) Training of inspectorate staff	5	5	4	1
g) Monitoring compliance, providing information to the European Commission, and other authorities	7	3	3	2

* Regarding cost categories a) to e), no cost increase was reported by three Member States. However, based on the information collected during the interviews and other questions of the survey, it can be assumed that two of the three Member States actually recorded increased costs (compared to the situation in place before the entry into force of the Directive). While this table reflects the replies provided in the survey, the comment has been adjusted in order to take that into account.

Source: Present survey of MSCAs

In practical terms, the introduction of the Zoos Directive has required all MSCAs (except Belgium) to dedicate new resources to the inspection of zoos, either by mobilising internal staff and/or engaging with external contractors (as in the case of Ireland).

²¹⁷ For Belgium, two replies were received, from two regional authorities.

However, as also mentioned in Section 5.1.1.1, zoo inspectors are usually responsible for a range of different duties, including the enforcement of other legislation concerning biodiversity protection and animal welfare (e.g. IAS Regulation, CITES, animals used for scientific purposes, exotic animals, companion animals, etc.). As a result, for most of the Member States, calculating the staff fully dedicated to zoo licensing and inspections (expressed in Full Time Equivalent - FTE – units) is neither possible nor practical. Where estimates have been provided, the resources of MSCAs fully dedicated to the enforcement of the Zoos Directive appear to be relatively limited with, for example, less than one FTE in Denmark, and between one and two FTE in Italy, Portugal and Belgium. However, if the involvement of external experts or bodies is included, the number of staff dedicated or costs borne by MSCAs is obviously higher. This is the case in the Netherlands (where the involvement of external experts and NVWA²¹⁸ veterinarians must be considered) and in Ireland (where a zoo license inspectorate is appointed on a contract basis)²¹⁹.

The average time needed to carry out an inspection also varies considerably, depending on the size of the zoo and the nature of the inspection (i.e. monitoring inspection versus inspection to grant a licence). Accordingly, indications of the time for completing a licensing procedure (including preliminary and follow-up activities) also vary, from one day to seven days or more²²⁰. In addition, each inspection involves teams of different sizes, generally ranging from a minimum of two to four or more inspectors, depending not only on the size of the zoo or the type of inspection, but also on the system set up in each Member State, whether involving different authorities and organised in a centralised/decentralised manner²²¹.

While there is agreement among MSCAs on the increase in costs directly related to the performance of the inspections, it is interesting to note that an increase in training costs is reported by only half of the Member States that provided an answer (i.e. five out of 10). This is in line with the issues raised by stakeholders, including MSCAs, about the lack of appropriate knowledge of zoo inspectors, and the need for better targeted training activities (see Section 5.1.1.1).

Finally, no MSCA was able to quantify the costs incurred following the closure of a zoo and the relocation and accommodation of animals. Zoo closures incurred a cost in the order of EUR 1000 for one CA, but otherwise costs were thought to be zero or were unknown, due to the few cases registered in the Member States²²². Again, the burden placed on Member States in cases of zoo closure is expected to vary, depending on the agreements set up at national level and, for example, the obligation placed on zoo operators to cover the expenses of the relocation and accommodation of animals, or the reliance on NGOs (supported through private funding²²³) for the relocation of animals.

b. Costs for Zoos

As shown in Table 23, potential increased costs for zoos related to two main aspects:

²¹⁸ Food and Consumer Product Safety Authority.

²¹⁹ The number of FTE dedicated to inspection of zoos depends, primarily, on the number of zoos in the Member State and the frequency of inspections. The number of licensed zoos in the Member States that provided estimates varied from 23 (in Italy) to 54 (in the Netherlands). A higher effort in terms of resources might be expected in Member States with a significant number of zoos (i.e. Germany, France and Spain); however, these Member States did not provide estimates of the effort, in terms of FTE, needed for the inspection of zoos.

²²⁰ Based on the estimates provided by the Member State authorities in the targeted questionnaire. Very different estimates were provided. For example, Poland indicated up to two weeks and Portugal around 60 days for completing all the procedure (including one day for the inspection).

Data should be intended as the time for the inspection only, and not the time needed for the completion of the overall licensing procedure.

²²¹ The number of inspectors involved in each on-site visit may depend on several factors, including the system set up at national level. In Member States where several authorities are involved (e.g. in Italy, three different Ministries are involved), the number of inspectors taking part in the visits is established in order to ensure representation of all the authorities.

²²² According to the information collected through the targeted survey, two closures were recorded in Belgium; around nine in Germany between 2011 and 2016, including complete and partial closures; two in Italy.

²²³ During the workshop, it was noted that when the relocation of animals relies on NGOs, costs following the closure of a zoos are placed on citizens contributing to the work of NGOs or rescue centres through funding (see Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf).

- Implementation of conservation measures, as foreseen in Article 3 of the Zoos Directive and in line with national legislation: this translates into compliance costs, i.e. one-off investments in order to adapt to the requirements and obtain the licence, and recurring expenses related to the implementation of conservation measures.
- Procedures to request and obtain the licence, translating into administrative costs and (when foreseen by the Member State) charges.

Looking at **compliance costs**, it should be mentioned that incurring additional costs depends not only on the changes brought about in the national system by the Zoos Directive, but also on the fact that zoos might have implemented conservation measures irrespective of the Directive and/or national legislation. The analysis is primarily aimed at understanding whether additional costs have actually been incurred by zoos because of the Zoos Directive and, if so, investigating the magnitude of these costs. Obtaining information on the investments and recurring expenses of zoos, and the proportion of these incurred as a direct result of the Directive, was problematic. As a consequence, the high number of zoos not replying to the relevant survey questions does not allow for solid inferences, although some trends can be clearly identified.

As reported in Table 26, regarding **one-off investments**, among the zoos that provided a reply, a number of zoos reported that investments were incurred along a range of expenditure types, such as investing especially for the renovation of enclosures, but also for the provision of information on exhibited animals, improved standard of animal husbandry, record-keeping/animal identification systems and, to a lesser extent, for systems to prevent the escape of animals.

Where zoos have reported investing money, these costs are not usually seen as a direct consequence of the Directive. For example, of the 31 zoos that reported investments for enclosure renovation, only 12 attributed part of these costs to the Zoos Directive. Similarly, for the other types of expenditures, the majority of responding zoos did not consider their expenditure a direct consequence of the Directive.

Some of the zoos answering the survey reported additional types of costs not directly linked to the Zoos Directive, such as extra safety measures for visitors to some dangerous animal facilities or for zoo personnel.

Table 25: Number of zoos reporting one-off investments and, for those reporting some costs, estimates of the proportion attributable to the Directive (zero costs, i.e. zoos reporting no investments or none attributable to the Directive, are also included)

Type of expenditure	Number of zoos reporting incurred costs				
	Number of zoos giving estimates		Number of zoos reporting 'some cost' ²²⁴ and allocation of costs to the Directive		
	Zero cost	Some cost	0% of costs attributable	Some costs attributable	No answer
Renovation of enclosures	2	31	15	12	4
Provision of information on exhibited animals	4	25	17	5	3
Improved standard of animal husbandry and enclosures	3	23	12	7	4
Systems to prevent escape	4	17	8	7	2
Record-	3	19	10	7	2

²²⁴ Amounts indicated are highly variable, from thousands to millions of Euro. Similarly, in % terms, the share attributable to the Directive varies from 5% to 100%. Finally, this table also counts those zoos that have reported incurring expenses but who have not specified the amount (e.g. reported 'variable' or 'yes').

Type of expenditure	Number of zoos reporting incurred costs				
	Number of zoos giving estimates		Number of zoos reporting 'some cost' ²²⁴ and allocation of costs to the Directive		
	Zero cost	Some cost	0% of costs attributable	Some costs attributable	No answer
keeping/animal identification systems					

Source: Present survey of zoos

The same pattern appears to hold for **recurring expenditure**, where some zoos report a wide range of expenditure but do not see this as attributable to the Directive. The items of expenditure that a few zoos consider to have at least some proportion attributable to the Directive are **training activities, information on animals exhibited, and animal accommodation and husbandry** (Table 26).

Table 26: Number of zoos reporting recurring expenditure²²⁵ and, for those reporting some costs, estimates of the proportion attributable to the Directive (zero costs, i.e. zoos reporting no investments or none attributable to the Directive, are also included)

Type of expenditure	Number of zoos reporting incurred costs				
	Number of zoos giving estimates		Number of zoos reporting 'some cost' and allocation of costs to the Directive		
	Zero cost	Some cost	0% of costs attributable	Some costs attributable ²²⁶	No answer
Research and conservation projects	2	16	10	4	2
Training activities	2	15	7	6	2
Information exchange activities	4	11	6	3	2
Education and awareness-raising activities	3	15	9	4	2
Information on exhibited animals	3	17	8	6	3
Animal accommodation and animal husbandry	1	16	8	6	2
Preventing escape of animals	4	9	2	6	1
Preventing pests and vermin	4	7	4	2	1
Record-keeping and animal identification systems	2	13	6	5	2

Source: Present survey of zoos

Where estimates of the costs are reported, the amount spent can be significant, especially where investments related to the renovation of enclosures are concerned. Other significant investments can be related to hygiene requirements, setting up of education facilities, and certification procedures for the optimisation of organisational structure²²⁷. Regarding recurring expenditure, costs can be significant for ensuring high standards of animal accommodation and animal husbandry, while annual expenditure for the education of staff can also be a significant element²²⁸.

²²⁵ i.e. expenditure incurred more than once, as opposed to one-off investment.

²²⁶ See footnote 224.

²²⁷ Written contribution by a zoo federation reporting estimates on costs.

²²⁸ Based on the data provided by zoos in the questionnaire and a written contribution by one zoo federation reporting estimates on costs. However, these considerations should be considered as examples, given the low number of zoos that provided estimates and the low comparability of data (e.g. costs largely depend on the size of the zoo).

Table 27 provides a summary of the information collected from the zoo survey, including the magnitude of the cost estimates provided by a limited number of zoos. In brief, 15 out of 33 zoos reported one-off investments, ranging from hundreds to millions of Euro, that they considered directly attributable to the Directive. Ten out of 36 reported **recurring expenditure** (annual) ranging from tens to hundreds of thousands of Euro arising from the requirements of the Directive.

Table 27: Estimates of one-off investments and recurring zoo expenditure attributed by zoos to the Zoos Directive²²⁹

Type of cost	Amount attributed to the Zoos Directive (EUR)							No estimate
	0	1-100	101-1000	1001-10,000	10,001-100,000	100,001-1,000,000	1,000,000+	
One-off capital costs								
Number of zoos	22	0	3	1	4	4	3	33
Recurring costs (annual)								
Number of zoos	24	1	0	3	3	3	0	36

Source: Present survey of zoos

Other possible investments and recurring expenses relate to the **human resources** required to support the implementation of the conservation objectives and measures introduced by the Zoos Directive. However, the majority of zoos also did not report any need to employ new staff to obtain and keep the licence. Of the 70 zoos surveyed, nine needed new staff while 51 did not (the remaining 10 either did not know or did not answer). Only seven zoos listed the staff that they needed to hire, specifying veterinarians, biologists or personnel for promotion and education. Another zoo federation highlighted that the number of qualified employees on educational activities in zoos has generally increased in the past 15 years²³⁰.

Overall, in many cases, zoos costs incurred are not seen as a direct consequence of the Zoos Directive.

EAZA zoos replying to the survey underlined that investments and efforts for research activities are carried out by zoos in any case, irrespective of the Zoos Directive, as part of the commitments of ‘modern zoos’. Similarly, conditions for the membership of zoos’ federations have requirements and investments that are close to those requested by the Zoos Directive (as well as inspections).

Apart from EAZA zoos, investments in conservation measures and facilities for animal keeping should also be viewed in the context of the evolution of zoos, i.e. no longer limited to the exhibition of species but increasingly engaged in wildlife conservation and nature protection.

Zoos struggled to disentangle the costs of compliance with the Zoos Directive from those costs that would have occurred anyway. This is suggested by the results of the survey presented so far, as well as by the opinions expressed by zoos in relation to other sections of the survey (see, in particular, Section 5.2.2.1). At this point it is also worth noting that if little information has been provided on costs incurred, nor has any major issue been raised in relation to the costs imposed by the Zoos Directive.

Different considerations apply to **administrative costs** placed on zoos as a result of the procedures to request and obtain a licence, in line with Article 4 of the Zoos Directive. These costs mirror the enforcement costs borne by MSCAs, and can be directly traced back to the Zoos Directive and the introduction of licensing and inspection systems.

The time needed to prepare licence applications varies considerably, due to the high variability among

²²⁹ This table provides an overview on the basis of all amounts indicated by zoos. However, amounts indicated largely differ, therefore any generalisation would not provide reliable results. Compared to the tables reported above, a smaller number of zoos is considered (i.e. only zoos that indicated an amount, while zoos that reported expenses but were not able to provide an amount are excluded).

²³⁰ See footnote 227.

Member States in terms of their procedures (e.g. documentation requested before the inspection, detail of information requested), or the size of the zoos and their collections.

According to the information provided in the survey by 20 zoos across different Member States, preparing an application for the licence might take anything from: no time (two zoos), through 0.5-5 person days (six zoos), 6-20 person-days (five zoos), 30-40 person-days (four zoos) to 100-300 person-days (three zoos)²³¹. This cost, however, should be incurred only once (or for any significant amendment to the licence).

The same 20 zoos report a similar effort with respect to the inspection phase (i.e. preparatory work for the inspection, sending documents to authorities, completing pre-inspection questionnaires, taking part in the visit of the MSCAs, providing answers to the inspection report). In this case, the frequency of the activity generating administrative burden varies from Member State to Member State, with inspections happening anywhere from every three years to twice per year.

Another element that creates differentiation across Member States and affects the overall costs placed on zoos is the existence of **fees** to obtain the licence (Table 28).

Table 28: Charges applied for the issuance of a licence in the 14 Member States

Member State	Charges applied (EUR)
Belgium	€250 (if the collection contains birds or mammals); €125 (if the collection contains only animals other than birds or mammals)
Bulgaria	€500
Cyprus	€555.75
Denmark	No charge
Czech Republic	€370.10
France	No charge ²³²
Germany	Depending on the Region, from 0 to more than €7,000.
Ireland	No charge
Italy	€2,707.05
Lithuania	€145
Netherlands	No charge
Poland	€17 ²³³
Portugal	€1,000, €2,000 or €3000, depending on the size of the collection
Spain	No charge

Source: Present survey of MSCAs

Finally, for some zoos, the process to obtain the licence took several years, especially in the initial phase of implementation of the Directive (see also Section 5.1.1). Looking at the zoos surveyed, a small proportion of zoos have reported that delays in licensing caused additional costs, with six zoos experiencing problems²³⁴, compared to 51 that did not (the remaining 13 did not know or did not an-

²³¹ Replies were provided by zoos from nine Member States. However, the size of the sample does not allow for an analysis by Member State. In addition, two zoos estimated the cost financially: EUR 5,000 (a German zoo) and EUR 6,000 (a French zoo).

²³² No charge for the licence but the application should contain several environmental studies that have a cost (minimum EUR 30,000).

²³³ Fees for issuing the licence. Additional costs might be related to obtaining the documents to be presented along with the licence application.

²³⁴ Of the six zoos that reported delays, four are based in Italy, one in France and one in Belgium.

swer). Only two zoos reported any consequences: for one zoo, they lost the opportunity to exhibit a threatened species and for the other they had to postpone renovations.

In summary, administrative costs have accompanied the licensing and inspection system but the feedback of zoos indicate that these costs remain quite limited and do not represent a significant burden. The results are even more nuanced when it comes to substantive compliance costs for the implementation of conservation measures, which were triggered only to a minor extent by the Zoos Directive.

The increase in costs for zoos appears to be quite limited overall, a conclusion that is consistent with the judgement of zoos on the balance between costs and benefits (see Section 5.2.2.1), and is confirmed by the zoos' federations survey responses (eight out of 13 replied that the costs for zoos increased slightly, while only two indicated a substantial increase²³⁵).

5.2.1.2 Benefits associated with implementation of the Directive

This section presents the main benefits that can be attributed to the Zoos Directive, according to the opinions provided by MSCAs, zoos and other stakeholders (federations, NGOs, experts, individuals participating in the public consultation), and in the light of the findings of the overall supporting study. For the sake of clarity, the results of the targeted and public consultation are presented separately.

a. Feedback from the targeted consultation: main benefits from the Zoos Directive and views of the different stakeholder categories

The main benefits have been identified on the basis of the potential **impacts** of the Directive, which is expected to enhance zoos' roles in biodiversity conservation, knowledge and public awareness of biodiversity conservation, and protection of wild fauna and biodiversity (see the intervention logic in Section 2.2). In parallel, the potential benefits of the Directive for zoos as economic operators, and for the local economy at large are also considered. The assumption is that the enhancement of zoos as institutions with a conservation and educational role might have an impact on the number of visitors (with increased income for zoo operators), the economic activities established around zoos (e.g. restaurants), as well as on cultural and recreational offers for citizens.

Most of the stakeholders consulted agreed that the Zoos Directive has brought benefits across different areas of action.

Figure 24 shows the replies to the surveys of MSCAs, zoos and zoos' federations, NGOs and experts. The results suggest that **major or moderate benefits** were attributed to the Zoos Directive, especially in some areas:

- Contribution to public education and knowledge of biodiversity (aspect d).
- Improved accommodation of animals and standards for animal husbandry (g).
- Contribution to efforts for *ex situ* conservation (c).
- Higher engagement of the public and stakeholders in biodiversity protection (f).
- Protecting species from extinction (b) and overall biodiversity conservation (a).

The results of the consultation activities are consistent with the findings under the analysis of the “effectiveness” of the Zoos Directive (Section 5.1). While implementation and enforcement issues remain, the analysis concludes that, compared to the baseline situation and in conjunction with several external factors (such as the evolution of the role of zoos or the action of zoo federations), the Zoos Directive has contributed to strengthening the role of zoos in protection of wild fauna and biodiversity, by establishing a common legal framework and minimum requirements for zoos. Moreover, in line with the main benefits pointed out above, the analysis of “effectiveness” points to the particularly im-

²³⁵ Of the remaining zoo federations, two indicated ‘No significant costs’ and one did not answer.

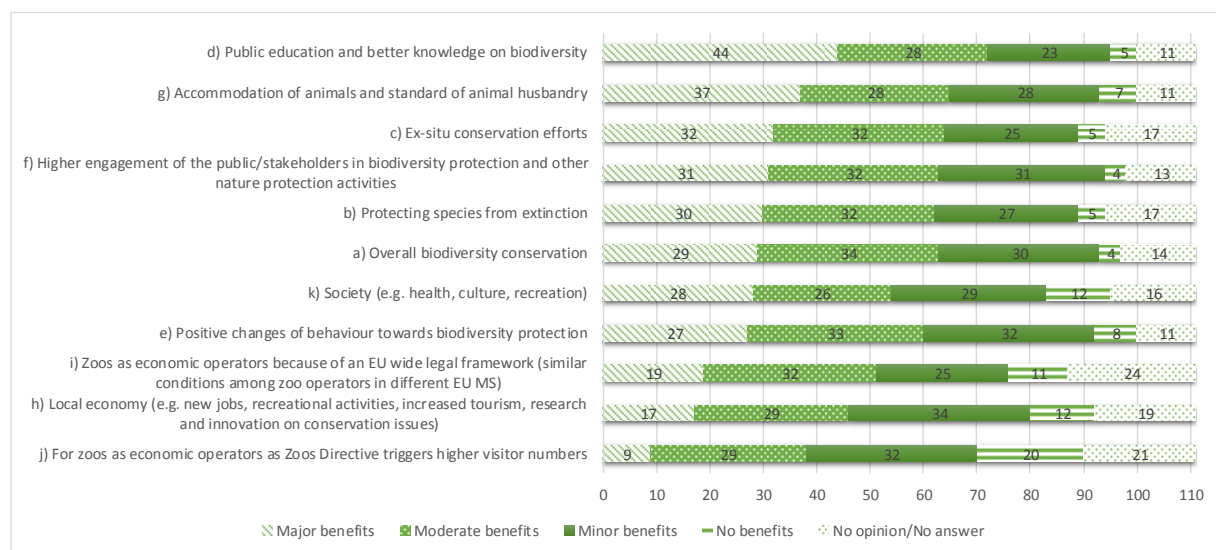
portant role played by Directive in increasing public awareness of the role of zoos in biodiversity conservation and enhancing the welfare of wild animals in zoos (Section 5.1.4).

By contrast, the stakeholders saw the Zoos Directive as bringing only **minor benefits, or no benefits at all**, in terms of:

- Economic operators (j).
- Boosting local economy (triggering further recreational activities, tourism, etc.) (h).

When looking at zoos as economic operators, the only benefits recognised by stakeholders are related to the creation of an EU-wide legal framework for zoos thus ensuring a level playing field across Member States (i).

Figure 24: Stakeholder opinions on the extent of the benefits associated with the Zoos Directive (results from the targeted questionnaires addressed to MSCAs, zoos and zoos’ federations, NGOs and experts. Number of replies = 111)

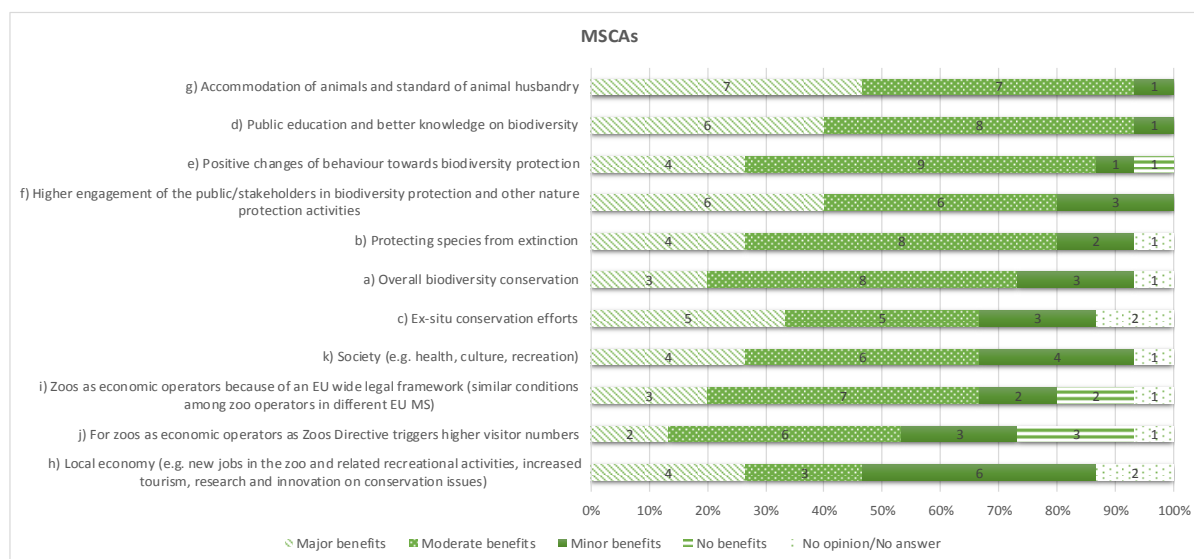


Source: Present survey of MSCAs, zoos and zoos’ federations, NGOs and experts

Looking at the breakdown by stakeholder category, slightly different views emerge. In particular, based on the results of the targeted consultations, MSCAs share a slightly more positive view of the overall benefits achieved by the Directive, compared to zoos.

The majority of the **MSCAs** considered there to be moderate or major benefits arising from the Directive in all areas (Figure 25), especially on accommodation of animals and standards for animal husbandry, public education on biodiversity (each 14 out of 15, or 93%), improved behaviour towards biodiversity protection (13 out of 15, or 87%), and increased engagement by the public with nature conservation activities (12 out of 15, or 80%). According to many MSCAs, moderate and major benefits were also achieved in terms of protection of species from extinction (12 out of 15, or 80%) and overall biodiversity conservation (11 out of 15, or 73%).

Figure 25: MSCAs opinions on the extent of the benefits associated with the Zoos Directive (Number of replies = 15)

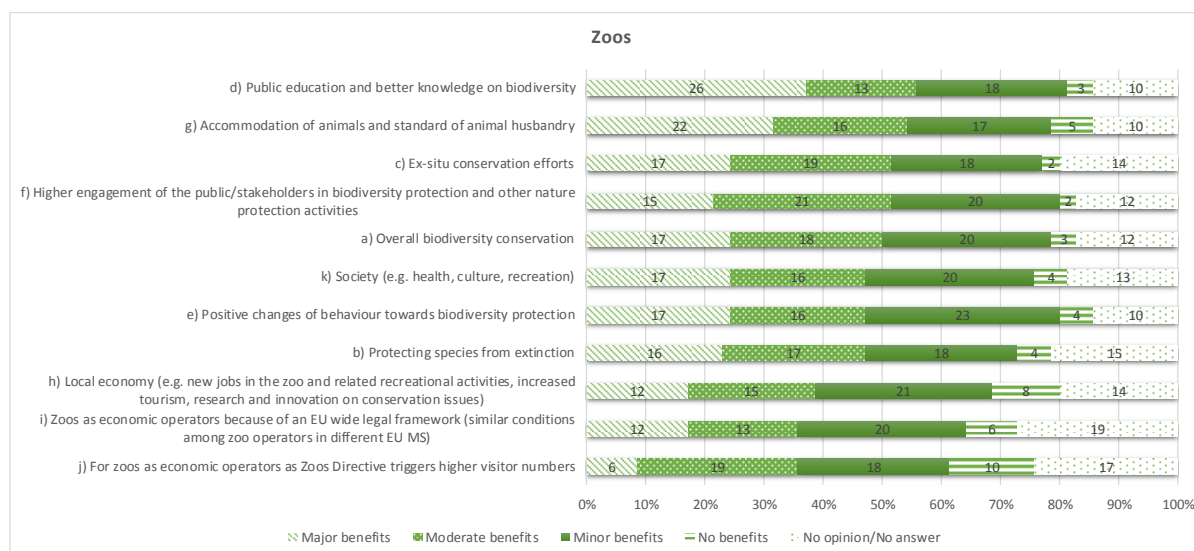


Source: Present survey of MSCAs

The opinions expressed by **zoos** within the targeted consultation revealed a more complex picture (Figure 25).

While the importance of the Zoos Directive is recognised in several areas (enhancing public education, accommodation and animal husbandry, *ex situ* conservation efforts, and higher engagement of stakeholders and public in biodiversity conservation, overall biodiversity conservation), less than half of the stakeholders saw significant benefits in other areas, particularly in terms of higher visitors and benefits for the local economy.

Figure 26: Zoos' opinions on the extent of the benefits associated with the Zoos Directive (Number of replies = 70)



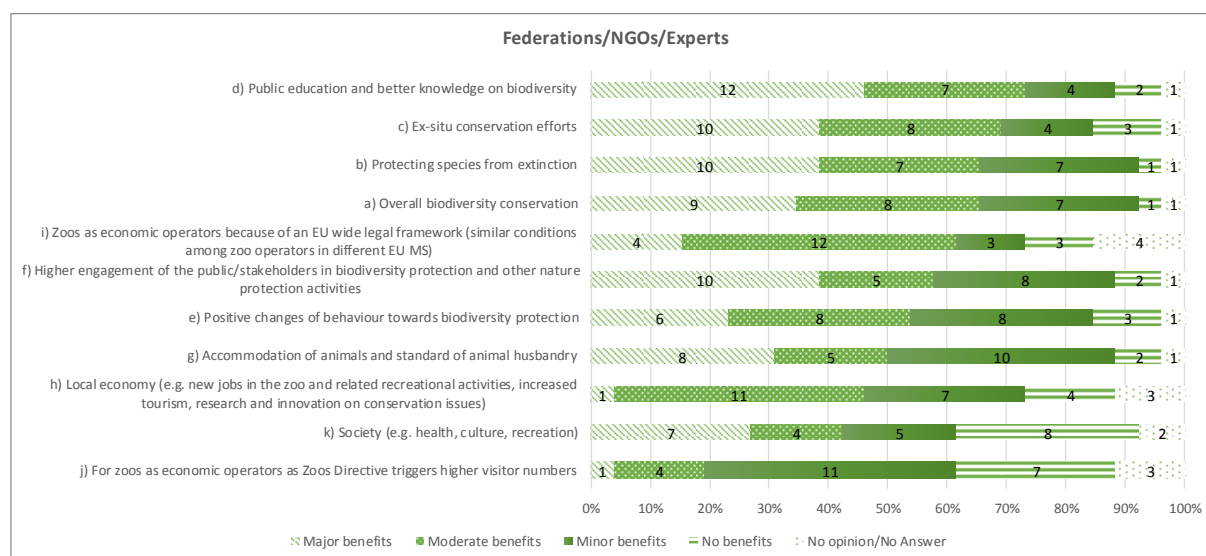
Source: Present survey of zoos

Some key themes also emerged from the interviews, which further stressed two main changes stemming from the Zoos Directive: it has represented a key instrument for **raising standards for animal accommodation and housing conditions in all zoos**, and it has led to increased attention for **education and awareness-raising** among zoo operators.

Finally, **zoos' federations, NGOs and experts** replying to the survey supported the general view that the Zoos Directive has led to positive changes in public education on biodiversity (19 out of 26 re-

spondents to the targeted survey, or 73%), *ex situ* conservation efforts (18 out of 26, or 70%), and overall biodiversity conservation (each at 17 out of 26, or 65%) (see Figure 27).

Figure 27: Opinion of zoos' federations, NGOs and experts on the extent of the benefits associated with the Zoos Directive (Number of replies = 26)



Source: Present survey of zoos' federations, NGOs and experts

The stakeholders saw the Zoos Directive as an important instrument to convey the message that **zoos have a key role to play in promoting conservation, education and information** on wildlife, biodiversity and nature protection. In parallel, the Directive and the efforts undertaken by zoos have contributed to **raising public awareness and knowledge** of the themes and issues related to conservation.

Several interviews with zoos and zoos' federations pointed to the increased commitment of zoos towards conservation and education activities, which indirectly led to their **increased attractiveness to visitors**²³⁶, even if the link is difficult to demonstrate (as emerged in the questionnaire-based survey, Figure 27).

More generally, it remains difficult to establish the extent to which the Zoos Directive has prompted investments and improvements across European zoos or if, indeed, these trends were the result of **other factors**, including the change in approach towards conservation and the protection of biodiversity, and the change in attitude among the general public.

Firstly, the evolution of the role of zoos from 'living museums' to conservation centres has been a long-term process since the end of the 20th century (IUCN/CBSG 1993)²³⁷, including the 1992 Rio Earth Summit at which the CBD was adopted.

Secondly, the attitude of visitors to the exhibition of animals has gradually shifted. Preference is given to exhibits that resemble the native ecosystem of the species (Moss, Esson and Francis 2010) and visitors increasingly expect animals in zoos to be kept in appropriate conditions. The change in attitude among the public has been a strong driver behind the action taken by zoos to adapt their structures, along with the requirements of the Zoos Directive. As noted in the analysis of the costs prompted by the Zoos Directive (see Section 5.1.1.3), most of the zoos would have undertaken investments in enclosures, for example, even in the absence of the Zoos Directive, as part of their commitments as 'modern zoos', and/or in order to comply with the requirements of zoos' federations.

²³⁶ Two stakeholders have emphasised the contribution of the Directive in terms of increased visitors (notably: one MSCA interviewed and the written contribution of one zoo federation).

²³⁷ See Section 2.1.1.

While it is difficult to isolate the benefits of the Directive on the biodiversity conservation, role and attractiveness of zoos, there is a strong consensus that the Zoos Directive had a crucial role in establishing an **EU-wide legislative framework**, balancing the **standards for all zoos** and allowing authorities to **close non-compliant zoos**. The creation of a common framework and the closure of substandard zoos are two important benefits that emerged in the interviews with zoos and their federations, and that recall the importance of an effective licensing system as a condition to fully realise the benefits of the Zoos Directive.

b. Results of the public consultation

Although the public consultation questionnaire asked for feedback on the basis of a slightly different list of benefits²³⁸, results point to similar findings as those emerging from the targeted consultations.

Across all categories of benefits proposed, 50% or more of the stakeholders considered the benefits achieved to be significant or crucial. Here, too, there seemed to be widespread agreement on the ability of the Zoos Directive to promote public education and better knowledge of biodiversity, along with other two important areas of benefit:

- Ensure a coherent legal framework for zoos to operate across the EU.
- Ensure improved licensing and inspection schemes for zoos.

Conversely, in respect of benefits to tourism, employment in areas where zoos are located, and increased offers of cultural and recreational opportunities, a large number of stakeholders did not provide an answer, while less than 50% of the respondents to this question rated these benefits as crucial or significant.

This finding was confirmed by the zoo operators (148) and businesses (21) that replied to the public consultation: while the feedback on the benefits achieved was generally positive across all aspects, only a slight majority of zoo operators and businesses perceived the benefits of the Zoos Directive in the economic sphere (i.e. in terms of increased employment, tourism, cultural and recreational opportunities for the public)²³⁹.

Open comments on additional benefits, although influenced by the action of interest groups²⁴⁰, pointed to the ability of the Directive to promote harmonisation at EU level, to help raise standards for animal keeping and to promote the perception of zoos as entities contributing to biodiversity conservation and protection of species.

5.2.1.3 Costs and benefits associated with implementation of the Directive and size of zoos

Given that there are significant difficulties in obtaining detailed information on costs and benefits, breaking such an assessment down by zoo size is not possible. Again, however, it is possible to make assessments based on the perceptions of respondents to the survey and to assess if there is consistency between responses.

Concerning the **costs**, contrasting views prevailed among MSCAs and federations/NGOs and zoos. While most MSCA survey respondents (nine out of 12 replying) considered that smaller zoos (<10

²³⁸ The list of impacts was slightly different in order to adapt it to the target (including citizens). The public consultation question on the benefits brought about by the Directive required at least a basic knowledge of the Zoos Directive in order to attribute the benefits. Indeed, the results of the public consultation show a high share of 'No opinion' (on average 19% of respondents). This element might impact the reliability of the results slightly. See the Public Consultation Report in Annex VIII for more detail.

²³⁹ See the Public Consultation Report (Annex VIII).

²⁴⁰ Repeated comments have been identified in the replies to the public consultation, indicating that these were likely influenced by guidance from interest groups (see Public Consultation Report in Annex VIII).

employees) found it more difficult to comply with and finance the requirements listed in Article 3, most of the zoos' federations, NGOs and experts (14 of 20 respondents) explicitly stated that it was not more difficult for smaller zoos.

Most of the zoos, across all sizes, reported that it was not difficult at all to comply with and finance Article 3 requirements. Eight (out of 40, or 20%) zoos in the micro (<10 employees) and small (10-49 employees) enterprise categories reported that it was very or moderately difficult for them to comply with and finance Article 3 requirements. This compares with no medium-sized zoos (0 of 21) and 11% (one of nine) of large zoos (Table 29: Reported difficulties in complying with and financing Article 3 requirements in order to obtain a licence for zoos of varying sizes). The different size of the samples makes comparison across categories difficult. Smaller zoos (up to 49 employees) appeared to face more difficulties compared to medium establishments (between 50 and 249 employees); however, only 20% (eight out of 40) of smaller zoos considered complying with and financing Article 3 requirements to be very or moderately difficult. Overall, the survey results did not reveal a significant difference between bigger and smaller zoos.

Table 29: Reported difficulties in complying with and financing Article 3 requirements in order to obtain a licence for zoos of varying sizes

Answer	Number of employees				Total
	<10	10-49	50-249	>250	
Very difficult	2	2			4
Moderately difficult	2	2		1	5
Slightly difficult	1	8	5	1	15
Not difficult at all	3	10	14	6	33
Don't know	2	3			5
N/A		5	2	1	8
Total	10	30	21	9	70

Source: Present survey of zoos

Looking at the **benefits** associated with the Zoos Directive, further analysis by size of zoo reveals that smaller zoos (i.e. up to 49 employees) found there were major or moderate benefits arising from the Directive in all categories (except for benefits for zoos as economic operators, and in terms of higher engagement of stakeholders/the public in conservation). At the same time, on average, a smaller proportion of medium size zoos (with 50-249 employees) and large zoos (>250 employees) tended to consider that significant benefits were brought about by the Directive (see Table 30).

Table 30: Number of zoos reporting major or moderate benefits associated with various items arising from the Directive (numbers in parentheses are percentages of zoos reporting benefits in each size category)

Benefits	Number of employees				Total
	<10	10-49	50-249	>250	
Overall biodiversity conservation	5 (50)	18 (60)	7 (30)	5 (56)	35
Protecting species from extinction	5 (50)	16 (53)	7 (30)	5 (56)	33
Ex situ conservation efforts	5 (50)	18 (60)	8 (38)	5 (56)	36
Public education/biodiversity knowledge	6 (60)	21 (70)	7 (30)	5 (56)	39
Behaviour change towards biodiversity protection	7 (70)	19 (63)	4 (19)	3 (30)	33
Higher engagement of the public in nature protection activities	4 (40)	19 (63)	8 (38)	5 (56)	36
Standards of animal accommodation and husbandry	7 (70)	20 (29)	6 (28)	5 (56)	38
The local economy (e.g. new jobs, tourism and research)	5(50)	15 (50)	4 (19)	3 (30)	27
Zoos as economic operators because of an EU-wide legal framework	4 (40)	12 (40)	5 (24)	4 (44)	25

Benefits	Number of employees				Total
Zoos as economic operators through higher visitor numbers	4 (40)	12 (40)	5 (24)	4 (44)	25
Society (e.g. health, culture, recreation)	3 (50)	18 (53)	5 (60)	7 (22)	33
Number of zoos per size category	10	30	21	9	70

Source: Present survey of zoos

5.2.1.4 Summary and conclusions

By introducing a licensing and inspection system and requirements for the implementation of conservation measures, the Zoos Directive has imposed **new costs** for:

- MSCAs, in relation to the enforcement of the legislation at national level.
- Zoos, who are expected to face: one-off investments and recurring expenses to implement conservation measures and comply with the requirements of the legislation (i.e. substantive compliance costs); efforts related to the procedures to obtain the licence (administrative costs); charges paid to obtain the licence.

For **MSCAs**, costs are stated to have increased for all aspects of the licensing, inspection and monitoring processes (in relation to the treatment of licence applications, preparing, carrying out and follow-up on inspections). However, zoo inspectors are usually responsible for a range of different tasks, including the enforcement of other legislation concerning biodiversity protection and animal welfare (e.g. IAS Regulation, CITES, etc.). As a result, where estimates have been provided, the resources fully dedicated by the Member States to the enforcement of the Zoos Directive appear relatively limited with, in some Member States, less than one FTE assigned to the enforcement of the zoo legislation.

The picture is slightly more complicated when it comes to assessing the costs imposed on **zoos** by the introduction of the Directive. Although the information provided by the zoos surveyed was extremely fragmented, between 20 and 31 zoos (of the 70 surveyed) reported an increase in investment across different fields, i.e. renovation of enclosures, provision of information on exhibited animals, improved standards of animal husbandry and enclosures, systems to prevent escape, and record-keeping/animal identification systems. Zoos also report a wide range of recurring expenditures related to the implementation of the conservation measures established in Article 3 of the Directive. Nevertheless, a relatively small part of these expenses is seen as attributable to the Directive. For all cost categories, less than half of the zoos reporting costs attribute those costs to the Zoos Directive. In the case of one-off investments, of the zoos that reported expenses across different cost categories, between 20% and 40% attributed those costs to the Zoos Directive. A similar pattern is recorded for recurring expenditure (between 25% and 40% of zoos reporting expenses attribute those to the Zoos Directive²⁴¹).

It appears that these costs (both recurring and one-off expenditure) cannot be easily disentangled from costs that zoos would have supported even in the absence of the Directive, as part of their commitment to conservation and education, and in line with the evolution towards ‘modern zoos’. Feedback from the zoos’ federations in the survey and in interviews supported these assertions.

Administrative burden has increased along with the licensing and inspection systems, while additional direct costs might be due to charges set by the Member States. Both the efforts for undergoing the inspection procedure (in order to obtain the licence or for monitoring purposes) and the cost of the licence itself vary across Member States, depending on many factors (from the frequency of inspections, to the existence or absence of a licence fee). However, most of the zoos reported that it was not difficult at all to comply with and finance Article 3 requirements. There is limited evidence to suggest

²⁴¹ The only exception is in relation to the category ‘preventing escapes of animals’, with six out of nine zoos reporting expenses attributing this cost to the Zoos Directive.

that smaller zoos have faced higher difficulties in adapting to the legislation.

Most of the stakeholders consulted agreed that the Zoos Directive had brought **benefits** across different areas of action.

The results of the different consultation activities (public and targeted consultations) suggest that the most notable benefits arising from the implementation of the Directive relate to: contribution to public education and knowledge of biodiversity; improved accommodation of animals and standards for animal husbandry; contribution to efforts for *ex situ* conservation; and higher engagement of the public and stakeholders in biodiversity protection. The public consultation further highlighted the benefits brought about by the Zoos Directive in terms of public education and better knowledge, its importance in ensuring a coherent legal framework for zoos to operate across the EU, and improving licensing and inspection schemes for zoos.

The benefits for zoos in terms of increased visitors and income, and the benefits for the local economy in triggering further recreational activities, tourism, etc. were considered less significant.

It remains difficult to establish the extent to which the Zoos Directive has prompted increased engagement in biodiversity conservation across European zoos and the related benefits or if, indeed, other factors (the evolution of zoos as institutions, and the change in attitude among the general public) have played a role. Nevertheless, the fact that the Directive has contributed to achieving benefits related to biodiversity conservation was generally recognised by all stakeholder categories. There is a strong consensus that the Directive has played a crucial role in establishing an EU-wide legislative framework and raising the standards of zoos across the EU.

5.2.2 Efficiency – EQ 6

To what extent are the costs associated with the Directive proportionate to the benefits that it has brought?

The purpose of this question is to understand whether or not the costs of implementing the Directive are proportional to the benefits that have arisen from it.

As discussed in Section 5.2.1, it has proven difficult to attribute costs and benefits directly to the Zoos Directive or to provide any quantification. The benefits expected from the Directive are concerned with aspects that are not readily, or appropriately, quantified, such as public education, improved conservation status and better research.

The emphasis, therefore, is on understanding the extent to which the different stakeholder categories see the costs as proportionate to the benefits that have accrued. Information from the targeted and public consultation are used to determine this.

5.2.2.1 Proportionality of costs and benefits

Although the lack of supporting data makes this judgement difficult for stakeholders, all categories stated that the costs borne as a direct consequence of the Zoos Directive are, in most cases, not considered disproportionate when compared to the benefits.

For the majority of **MSCAs**, costs had increased following the introduction of the Zoos Directive due to efforts required in regular and follow-up inspections, documentation and record-keeping, or the disposal of animals in case of the closure of zoos (see Table 24, Section 5.2.1.1). Member States can face difficulties in finding adequate resources to run the licensing and inspection systems at the level required for the effective implementation of the Zoos Directive, and MSCAs have pointed to issues related to the lack of sufficient resources for systematic screening of establishments on the national territory (see Section 5.1). Concerns were also raised by stakeholders (including zoos, zoos' federations and NGOs) about the capacity of Member States' authorities to effectively implement the legisla-

tion (see Sections 5.1.1.1 and 5.1.3.1).

When asked if costs were disproportionate compared to the benefits, only one MSCA stated a disproportionality, citing the costs of licensing and inspections, costs relating to closure of zoos and to monitoring compliance. The remaining MSCAs in the sample supported the view that costs remained proportionate to the benefits.

Benefits have arisen from the implementation of the Zoos Directive in a wide range of areas, prompting positive changes in terms of increased efforts by zoos in biodiversity conservation, improved standards for animal accommodation and husbandry, and increased knowledge and awareness of biodiversity among the public (see Figure 25 under Section 5.2.1.2). Some elements that characterise the licensing and implementation systems in the Member States make costs relatively moderated.

The Zoos Directive and its provisions for licensing and inspection have been implemented in conjunction with other legislation related to biodiversity conservation and/or animal welfare, making it difficult to separate the costs directly attributable to the Zoos Directive. It is expected, however, that synergies can be created or harnessed in the use of the resources for inspections.

In those Member States in which a fee system exists (nine out of 14), the costs for licensing and inspection borne by MSCAs are (at least partly) covered by the charges paid by the zoos for their licence. In some cases, the costs of on-site inspections are also charged to the zoos. This clearly creates a differentiation among Member States. In those Member States where no charge/fee system is in place, MSCAs recognise that costs implied by the Zoos Directive are reasonable and proportionate to the benefits.

When asked specifically about costs associated with investments, licensing, administration, or other financial consequences of the Directive, the majority of **zoos** surveyed (between 42 and 47 of the 70 sampled) did not consider costs to be disproportionate (Table 31). Several zoos did not reply to this question, seven explicitly considered the costs of investments to comply with licensing requirements and administration associated with licensing to be disproportionate, and five considered the recurring costs associated with licensing requirements to be disproportionate.

Table 31: Zoos' perceptions of whether or not the Directive implies disproportionate costs for investments and recurring administrative or other costs (number of replies = 70)

	Yes	No	Don't know	No Answer
a) Investments in order to ensure compliance with the licensing requirements	7	47	7	9
b) Recurring costs triggered by the licensing requirements in your zoo	5	47	8	10
c) Administrative costs, in relation to the procedures for licensing and inspection	9	42	8	11

Source: Present survey of zoos

These results do not vary if disaggregated by size of zoos. No significant difference is recorded between smaller (up to 249 employees) and larger zoos (> 250 employees). In most cases, around 10% of zoos in each size category considered costs to be disproportionate and, given the sample sizes, these correspond to between one and four zoos (Table 32).

Table 32: Number of zoos reporting disproportionate costs associated with licensing under the Directive for four categories of size of zoo (numbers in parentheses are percentages of zoos reporting disproportionate cost in each size category)

Answer	Number of employees				Total
	<10	10-49	50-249	>250	
Investments in order to comply with licensing requirements	1 (10)	3 (10)	1 (5)	2 (22)	7 (10)
Recurring costs triggered by the licensing re-	-	3 (10)	2 (10)	-	5 (7)

Answer	Number of employees				Total
	<10	10-49	50-249	>250	
quirements in your zoo					
Administrative costs for licensing and inspection	1 (10)	4 (13)	3 (14)	1 (11)	9 (13)
Number of zoos per size category	10	30	21	9	70

Source: Present survey of zoos

Finally, it should be noted that zoos reporting disproportion costs and benefits included both public and private entities and charities.

This data must be viewed against a background of overall uncertainty about the extent to which both costs and benefits can be purely attributed to the Zoos Directive or to other factors (as discussed in the previous section).

Where costs have been considered a consequence of the Zoos Directive, these have been significant, especially in relation to the renovation of enclosures. In parallel, benefits in terms of increased visitors have been generally rated as less important compared to other benefits by most of the zoos surveyed and in the public consultation. Still, among the zoos consulted, it appeared that costs remain proportionate to the benefits brought about by the Zoos Directive on several dimensions (conservation, social and economic). It was also highlighted that the costs related to the implementation of the Zoos Directive are low compared to costs under other legislation (such as animal welfare laws) and, overall, the Zoos Directive represents an efficient instrument for Member States to implement Article 9 of the CBD²⁴².

These results are also supported by the opinions expressed by NGOs, zoos' federations and experts in the survey²⁴³ and by the results of the public consultation.

The results of the public consultation show that:

- The majority of zoo operators declare that the benefits *far* exceed or are somewhat greater than the costs (94 zoo operators out of 148, or 63.5% of total). At the same time, only 24 (of 48, 16%) zoos explicitly consider the costs to exceed the benefits (the remaining 17 did not answer or expressed the opinion that costs more or less equal benefits).
- The same opinion is shared by public authorities, with four respondents (out of seven) stating that benefits *far* exceed the costs (although the size of the sample does not permit generalisation)²⁴⁴.

5.2.2.2 Summary and conclusions

There is no evidence that the costs incurred by MSCAs in implementing, and zoos in complying with, the Directive are out of proportion to the benefits. There is limited evidence that smaller zoos may find it more difficult to comply because of their more limited resources (funds and personnel) to meet licensing requirements.

5.2.3 Efficiency- EQ 7

What factors influenced the efficiency with which the achievements observed were obtained? In particular, what, if any, good or bad practices can be identified? If there are significant cost/benefit differences between Member States, what is causing them?

²⁴² Discussion during the Workshop on the REFIT evaluation of the Zoos Directive - Brussels, 16 May 2017 (see Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf).

²⁴³ 17 out of 26 (65%) of NGOs, zoos' federations and experts replying to the targeted questionnaire believed there to be no disproportionate costs for CAs or zoos. Only one federation stated that there were disproportionate costs for zoos and a further federation felt there were disproportionate costs for both CAs and zoos.

²⁴⁴ See the Public Consultation Report (Annex VIII).

5.2.3.1 Factors influencing the efficiency of the Zoos Directive's achievements

The purpose of this question is to understand the reasons behind the achievement of the objectives of the Zoos Directive at minimised costs.

The national systems differ to a large extent in respect of several aspects of the transposition, implementation and enforcement of the Zoos Directive.

As indicated in Sections 5.1.1 and 5.1.3, there are several sources of variation across the 14 Member States that affect the costs borne by both zoos and MSCAs. These include:

- Definition of more or less demanding requirements, including the definition of standards for animal keeping in some Member States or the establishment of additional requirements not in the scope of the Zoos Directive (for example, in relation to the safety of visitors).
- System set up for the inspection, steps followed (sometimes including a pre-inspection phase based on the submission of documentation), use of inspection protocols/forms, involvement of zoos' federations and/or other external expertise.
- Organisation of Member States' administrative processes and administration involved in monitoring and enforcement tasks (including the possible involvement of regional or local administrations).
- Frequency of inspection controls, varying from once every three years to once every six months.
- Knowledge and capacity of inspectors.

The presence or absence of a fee/charge system for issuing the licence may influence the opinion of MSCAs and zoos on the extent to which the costs are proportionate to the benefits.

All of these elements can have an impact on the speed of the procedures related to licensing and inspection, on the efforts required of zoos (to adapt to the legislation) and of MSCAs (to perform the inspection controls).

The results and benefits achieved from implementation of the Zoos Directive depend on a complex set of factors, operating at a range of different levels (e.g. legislative, executive and operational). As discussed in Sections 5.1.1 and 5.1.3, the achievement of the objectives in the Member States has been affected by delays in adopting transposing legislation and in implementing the licensing and inspection systems. The general wording of the Zoos Directive resulted in variations across the Member States, which have adopted different definitions of 'zoo' and associated concepts (e.g. in relation to 'significant' number of species or 'wild species'), with consequences for the number and type of entities subject to regulation in each Member State.

Understanding how these factors are related to each other requires more complete and precise information, and a larger sample than was within the scope of this study. It is likely that there are underlying drivers that influence those factors more easily seen in the operation of the Directive (e.g. the organisation of Member State administrative processes may influence the rapidity with which the Directive was transposed into national law and, therefore, how quickly an inspection system was created and what it comprised). Furthermore, the information collected on the costs and benefits associated with the Zoos Directive does not enable a systematic comparison between the Member States, nor does it permit any conclusions to be drawn about casual links between the level of costs and achievements/benefits on the one hand, and the key features of the national implementation system on the other hand.

The qualitative information gathered suggests that the issues hindering the proper and efficient functioning of the licensing and inspection system are mainly associated with the capacity of the national inspectorates (in terms of resources available to MSCAs, but also in terms of skills and competences

of the inspectors)²⁴⁵, rather than with specific requirements of the national legislation (such as the frequency of inspections). As competencies are often shared across different Ministries (e.g. environment, health and agriculture), there is a risk of lack of coordination and exchange of information between the CAs, creating bottlenecks and inefficiencies in the process²⁴⁶.

The Zoos Directive has introduced a system of licensing and inspection which did not exist in most of the Member States. As such, it has required both MSCAs and zoos to adapt to new procedures and requirements, as well as mobilising specialised knowledge. There were some examples of good practices submitted through the targeted consultation and the workshop held in Brussels, focusing especially on guidance on requirements and capacity of inspectors' teams. More precisely, only three of the MSCAs surveyed for this study provided examples of good practices (with no examples of poor practices). One MSCA considered that **tendering publicly for a zoo inspectorate** resulted in good value for money and an efficient and effective zoo inspection process. A second MSCA sought to ensure that **requirements were proportional to the size** of the establishment (e.g. in information programmes). A final MSCA reported that in one Member State **guidelines** were provided for local zoos, with a list of measures for improvement.

Zoos also commented on good practices, particularly related to the involvement of zoo associations in aspects of the inspection process. For example, in countries such as the Netherlands and Denmark, the **national (or regional)²⁴⁷ zoo associations are involved in the licensing process** in order to reduce the administrative burden. The involvement of zoo associations also helps to increase the expertise within the licensing process.

Links with the EAZA accreditation system were appreciated and could be strengthened in the view of some zoos. Eleven (out of 26, 42%) zoos' federations, NGOs and other stakeholders provided examples of good practices, the majority of which related to the **participation of zoo associations in the inspection process**, providing both efficiency and also greater expertise.

The Netherlands is one of the Member States where zoos' federations (EAZA and the national zoo federation) are strongly involved in the inspection process, a system cited as best practice by a few respondents. The box below provides a short description of inspections in the Netherlands, and the ways in which the zoos' federations are involved.

Box 13: Dutch inspection system

In the Netherlands, the licensing of zoos was a new activity for the authorities. The Directive was initially adopted through the Animal Act (Dierentuinbesluit) in 2002 and this law was subsequently incorporated in 2011 in Article 4.1-4.13 in the new Animal Law (Wet Dieren).

The Dutch defined zoos as establishments where at least 10 species were exhibited, with the exception of species that are protected under the Flora and Fauna Act. Pursuing this policy and implementing the legislation is the responsibility of the Ministry of Economic Affairs, and the Secretary of State of Economic Affairs grants the relevant licences. The Netherlands Enterprise Agency (RVO) was given the responsibility of granting licences on behalf of the Secretary of State.

Inspection and enforcement falls under the remit of the Food and Consumer Product Safety Authority (NVWA). A list of licensed zoos is published on the internet²⁴⁸, with details of application number, licence number, zoo name and date of licence. A Dutch zoo licence has an indefinite duration and no cost is associated with licence applications. Inspections are carried out after a licence is

²⁴⁵ See Section 5.1.2.

²⁴⁶ Discussion during the Workshop on the REFIT evaluation of the Zoos Directive, Brussels, 16 May 2017 (see Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf).

²⁴⁷ As discussed during the Workshop, regional associations (i.e. acting at the EU level) could provide such support, if national associations do not exist in the Member State or do not have a screening process.

²⁴⁸ <http://www.rvo.nl/sites/default/files/2015/05/Overzicht%20verleende%20vergunningen%20dierentuinen.pdf>

granted, about once every three years, and are risk-based. This means that whenever there may be a suspicion that a zoo falls below the required standard, such as imports or movements of exotic animals related to a particular zoo, or upon receipt of information or a complaint from a citizen in respect of animal welfare, the authorities may initiate an inspection. Other major reasons for inspections include: a zoo open to the public without a licence and exhibiting species without approval of any necessary changes to the licence.

The Dutch authorities make use of zoo associations: EAZA and NVD members (Dutch Association of Zoos and Aquaria; Nederlandse Vereniging van Dierentuinen, NVD) are inspected by EAZA/NVD inspectors, and such inspections are non-governmental. They send the reports to the RVO which then decides if NVWA inspectors need to do further inspections. Currently, the licensing team is small and has external support: the RVO works with an advisory board (visitatiecommissie dierentuinen), which advises on the granting of licences. The Chairman and the Secretary of the board are staff of the RVO, while other board members are veterinarians of the NVWA and external zoo experts.

For each visit, the Chairman appoints a team of two to four persons. This is because government staff has insufficient knowledge and experience across the wide variety of issues related to the different animal species housed in zoos and aquariums. The costs associated with this external zoo expert advice during inspections are borne by the government.

NVD is able to link and relate its membership conditions to the Directive, thereby helping to make the Directive accessible and understood by its members. The NVD also uses the guidance provided in the Directive to be pro-active in achieving the requirements, for example developing conservation standards, running biodiversity campaigns, etc. The NVD also has a role in supporting the licensing by the CA by providing professional zoo expertise. In this respect, current standards of professional zoo associations are often more progressive than the national legal standards based on the Zoo Directive.

In France, the participation of many professional members of national associations in the commissions involved in the implementation of the Directive (e.g. the National Commission for Wild Fauna in Captivity which was consulted for the granting of certificates of capacity for certain species) genuinely involves all the parties concerned with the Directive.

The emphasis on the need for ensuring relevant expertise within the licensing process is consistent with the findings of the Good Practices Document (VetEffect 2015), which highlights the importance of multidisciplinary teams with complementary skills and able to assess every aspect of the implementation of the Zoos Directive. The Good Practices Document points out that MSCAs may choose to assemble teams complemented with selected external personnel with relevant expertise, or advisory bodies composed of any combination of government, academic, zoo professional, independent or other experts²⁴⁹.

However, as highlighted during the Workshop, it is also important to ensure that licensing and inspection is supported through a multi-stakeholder process, in order to avoid over-representation of the interests of a particular stakeholders' group (i.e. zoos' associations or animal welfare organisations). Suggestions included the establishment of a committee of experts to support MSCAs in the implementation of the Directive, or advisors with no decision-making role, to ensure impartiality.

A further example of good practice proposed by survey respondents was the **smaller zoos forming consortia to sponsor conservation projects collaboratively**. This is more aspirational than a description of what happens at present. It reflects a concern that many zoos are too small to have a significant conservation benefit on their own, whereas if they were able to work together they would be able to

²⁴⁹ Good Practices Document (VetEffect 2015).

pool resources so that they would have sufficient ‘critical mass’ to be able to play a more substantial role in field conservation.

5.2.3.2 Summary and conclusions

There are significant variations between Member States on a wide range of factors, including legal, executive and operational, that seem likely to influence the implementation of the Directive, its costs and benefits. The extent of these variations (both in number of factors and the scale of each factor) make it difficult to draw definitive conclusions on causal factors among the 14 Member States in this study. Insights were drawn, therefore, from responses to the survey and from case studies that described the inspection process in detail.

Qualitative information gathered suggests that the issues hindering the proper and efficient functioning of the licensing and inspection systems are mainly associated with the capacity of the national inspectorates (resources, skills and competences) rather than with specific requirements of the national legislation. Inputs from stakeholders suggested that the licensing process works well in countries where the lines of responsibility are clear and all available expertise is used.

MSCAs, zoos, zoos’ federations, NGOs and other stakeholders identified several good practices that have contributed to the positive achievements of the Directive. Drawing on zoo associations (nationally or at European level) is seen as a factor in enhancing the inspection process in some Member States. Similarly, the importance of a multi-stakeholder process was highlighted, in order to ensure impartiality and the balanced representation of all interests.

5.2.4 Efficiency – EQ 8

Taking account of the objectives and benefits of the Directive, what evidence is there that it has caused unnecessary regulatory burden or complexity? What factors identify this burden or complexity as unnecessary or excessive?

5.2.4.1 Evidence of unnecessary regulatory burden or complexity caused by the Zoos Directive

This question deals with administrative burdens, defined in the European Commission Better Regulation Toolbox (European Commission 2015) as those costs borne by businesses, citizens, civil society organisations and public authorities as a result of administrative activities performed to comply with information obligations included in legal rules²⁵⁰. The assessment of administrative burdens is addressed in EQ5 (as part of regulatory costs that are caused by the Zoos Directive) and the related findings represent the starting point for analysis of this question.

The evidence provided by stakeholders does not suggest major issues in terms of excessive administrative burden. More specifically, administrative costs related to the Zoos Directive appear strictly related to the necessary procedures for obtaining a licence (from the point of view of zoos) or issuing a licence (from the point of view of MSCAs). Few estimates of the effort required by the licensing and inspection process were provided by stakeholders and, where estimates are available, these vary considerably. Nevertheless, most of the stakeholders, and both zoos and MSCAs, consider the effort required to apply the Zoos Directive (including the administrative burden implied) is proportionate to the benefits brought (see Section 5.2.2 above). In parallel, the different consultations with stakeholders²⁵¹ have not raised any specific issues pointing to burdensome and complex requirements and/or procedures that could be avoided or reduced. During the workshop it was highlighted that, given the increased focus on illegal trade of wild animals, the inspection and licensing schemes required by the

²⁵⁰ In addition, in order to clarify the terminology, it should be mentioned that, according to a CEPS-Economisti Associati study for the European Commission, ‘administrative burdens are the part of administrative costs which is caused by regulatory requirements: accordingly, they do not include so-called “BAU costs”, i.e. costs that would emerge also in absence of regulation’ (CEPS-Economisti Associati 2013).

²⁵¹ The reference is specifically to the targeted consultation with MSCAs and zoos through interviews and the survey.

Directive are increasingly essential²⁵².

In this context, only two elements suggesting unnecessary complexity and need for simplification were identified.

The first relates to the **organisation of the licensing and inspection system**. One stakeholder suggested that subsequent (i.e. repeated) inspections from national authorities are often not coordinated, with one inspection not building on the other.

The second relate to possible overlaps with other legislations and **duplication of inspection** controls. As described in Section 5.4, the licensing and inspection systems set up for the implementation of the Zoos Directive can overlap with the licensing and inspection regimes established in relation to other EU legislations, such as Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, and Directive 92/65/EEC on animal health requirements for trade in and imports into the EU²⁵³.

Both of these pieces of legislation entail inspections by national CAs, and involve zoos hosting CITES species²⁵⁴ and zoos that are listed as approved bodies, institutes and centres (ABICs)²⁵⁵. The result is a duplication of effort (both for zoos and CAs) and even confusion between different pieces of regulation. This issue has been reported by stakeholders and recently raised by audits conducted by DG SANTE on the application of animal welfare legislation²⁵⁶.

These factors suggest that synergies in the enforcement of different legislations applicable to zoos could be harnessed by improving cooperation among national authorities and the coordination of different licensing and inspection systems. However, attention should be paid to the recognition of the specificities of each legislation and the different competences needed by inspectors for the correct application of the different rules.

5.2.4.2 Summary and conclusions

There is no evidence of unnecessary regulatory burden nor were any poor practices identified by stakeholders. However, some aspects that are likely to create unnecessary burden and which are, therefore, possibilities for simplification could be investigated. Overall, however, all MSCAs suggest that costs that have been incurred as a result of the Directive are proportionate and those incurred by zoos are widely seen as necessary business costs. All costs that have been highlighted are seen as important for the implementation of the Zoos Directive.

5.3 Relevance

Analysis of relevance relies on a comparison of the current **needs and objectives** with those defined at the time of adoption of the Directive (see intervention logic under Section 2.2). The Zoos Directive was adopted in 1999 and has been in force for 16 years without further amendments. It is therefore important to identify any mismatch between the objectives of the Directive and the current (legal, policy and scientific) situation. The analysis therefore requires:

- Firstly, an assessment of the **current needs** and their correspondence to the original objectives of

²⁵² Discussion during the Workshop on the REFIT evaluation of the Zoos Directive, Brussels, 16 May 2017 (see Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf).

²⁵³ Directive 92/65/EC laying down animal health requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to other specific rules.

²⁵⁴ Species covered by the Convention on International Trade in Endangered Species of Wild Fauna and Flora; inspections are carried out under the Regulation (EC) No 338/97.

²⁵⁵ Zoos defined as establishments approved in accordance with Article 13 of Directive 92/65/EC, where animal species are kept or bred for one or more of the following purposes: display of animals and education of the public; conservation of the species; basic or applied scientific research or breeding of animals for the purposes of such research.

²⁵⁶ Audits performed by DG SANTE, see Section 5.4.1.3.

the Zoos Directive.

- Secondly, an assessment of the **current objectives** set out in the EU and global legal and policy framework, and the contribution of the Directive's general and specific objectives to this bigger picture.
- Thirdly, an assessment of the **technical and scientific progress** achieved during the implementation period of the Directive, and the correspondence of the Directive's objectives to this progress. Also, an assessment of the extent to which the conservation actions promoted and the licensing and inspection systems set up by the Member States have kept pace with the latest developments.

The first point was addressed in EQ9 (Section 5.3.1). For this question, the objectives pursued by the Directive are framed in the context of current and emerging issues, in order to assess the role played by the Directive in conservation of biodiversity.

The second point was addressed in EQ10 (Section 5.3.2). There, the developments shaping the biodiversity agenda at the EU and global level (e.g. the CBD's Aichi Biodiversity Targets and the UN's SDGs) are considered against the Zoos Directive as it has been implemented to date, in order to better understand its relevance at present.

For the third point, which is addressed under EQ11 (Section 5.3.3), the technical and scientific progress achieved was mapped, in particular in relation to *ex situ* management, in order to assess the level of adequacy of the Directive to reflect this progress.

5.3.1 Relevance – EQ 9

How well do the (original) objectives (still) correspond to the needs within the EU and globally?

In this first step of analysis of relevance, the objectives of the Directive are examined in the context of current trends and emerging issues in biodiversity conservation, in order to assess the role played by the Directive in conservation of biodiversity. The following elements are provided:

- Outline of the current trends and needs in the area of biodiversity, including an understanding of the status of biodiversity and the way in which it is reflected in global policy (within which EU responses are framed or are being framed).
- Assessment of the extent to which the Directive's objectives support the needs identified.

Information to answer this question was drawn from literature, policy documents and from the targeted and public consultations.

5.3.1.1 Current trends in the area of biodiversity conservation

The attention given to the conservation of the environment, and especially biodiversity, has increased considerably since the Directive came into force in 1999. Some of this evolution is described in Section 5.3.2, but key features of these changes with regard to current EU and global needs are:

- Biodiversity continues to decrease, with the **status of species still deteriorating** (e.g. (Hoffman, M et al 2010)), and the **loss of habitats** increasing (e.g. (Boakes, et al. 2010).
- There is **increasing specificity** in the needs of biodiversity, and this is reflected in the CBD's Aichi Targets, and the detailed targets of SDGs 14 and 15 (see Section 5.3.2 below). **Species needs** feature significantly, as does **awareness-raising**.
- The **political importance** given to biodiversity conservation has continued to rise and is now captured in the **SDGs** adopted by all UN Parties in September 2015.

The priority given to **biodiversity conservation** needs is, therefore, **still relevant and is increasing**. The EU and its Member States have contributed to determining the nature of this global need: the EU is a Party to the CBD and its Biodiversity Strategy is framed within the context of the EU's commit-

ments to the Convention ((COM)2011) 244).

5.3.1.2 Current needs in the area of biodiversity conservation

The need to protect biodiversity has been translated by international agreements and literature into various specific needs, in particular, the need to protect species threatened with extinction and to raise public awareness.

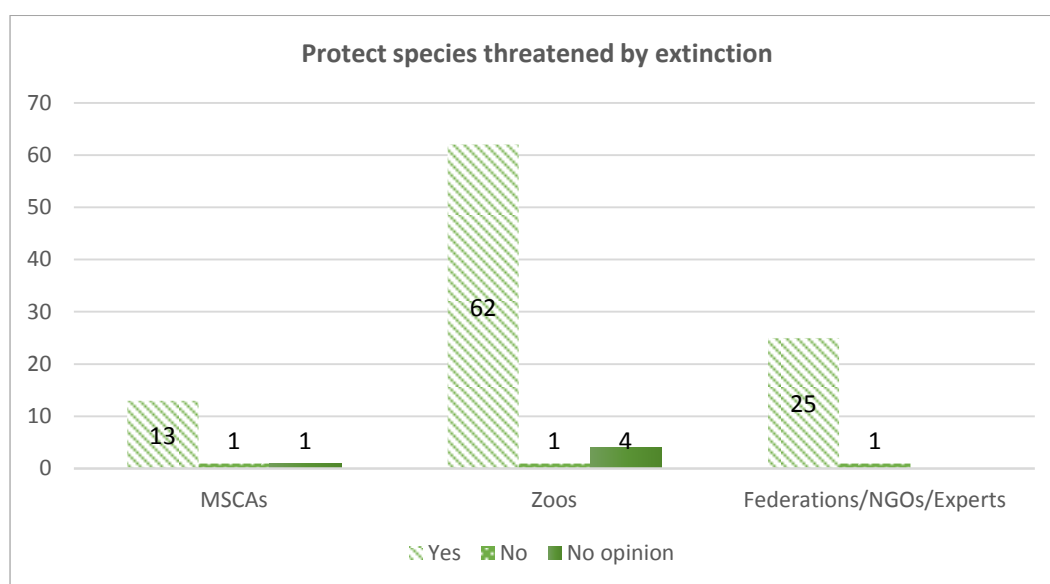
This is confirmed by the results of this survey. Thirty-four zoos of the 70 questionnaire respondents emphasised the need to raise public awareness and for the conservation of species in general. Several zoo operators²⁵⁷ expressed the view that the zoos should ‘undertake continued efforts to halt the ongoing loss of biodiversity by supporting conservation projects; by successfully managing *ex situ* populations; by enabling non-invasive research on wildlife which could not be done likewise in the wild; by raising public awareness for the protection of nature, species and the environment; by enabling all citizens of our mainly urbanised societies to experience true wildlife encounters; by portraying highest standards of animal husbandry to build up appreciation for the needs of animals’.

a. Protect species threatened with extinction

Protecting species threatened with extinction is an ever-increasing need. According to IUCN data, species extinction is occurring at up to 1,000 times the natural rate, and **nearly 30% of the 80,000 species assessed on the IUCN red list are threatened with extinction** (IUCN 2016).

Stakeholder perceptions reflect this finding, as illustrated in Figure 28 below.

Figure 28: Stakeholders considering the protection of threatened species to be relevant, in absolute numbers²⁵⁸



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

The results of the public consultation undertaken in the context of the study show a similar pattern. 88% of the respondents (2,023 respondents) considered protecting European and globally threatened species as important or very important²⁵⁹.

²⁵⁷ No statistical information is provided on this question, as the results of the survey cannot be considered representative. It was observed that several (at least seven) zoos provided identical answers, according to which ‘The underlying reasons for putting the EU Directive in place back then are still prevailing. It is of utmost importance that all zoos undertake continued efforts to halt the ongoing loss of biodiversity by supporting conservation projects; by successfully managing *ex situ* populations; by enabling non-invasive research on wildlife which couldn’t be done likewise in the wild; by raising public awareness for the protection of nature, species and the environment; by enabling all citizens of our mainly urbanised societies to experience true wildlife encounters; by portraying highest standards of animal husbandry to build up appreciation for the needs of animals’.

²⁵⁸ Questionnaires of MSCAs 107a/High-level 65a/Zoos 102a

²⁵⁹ Public Consultation Report (Annex VIII), Section 6.1.1.

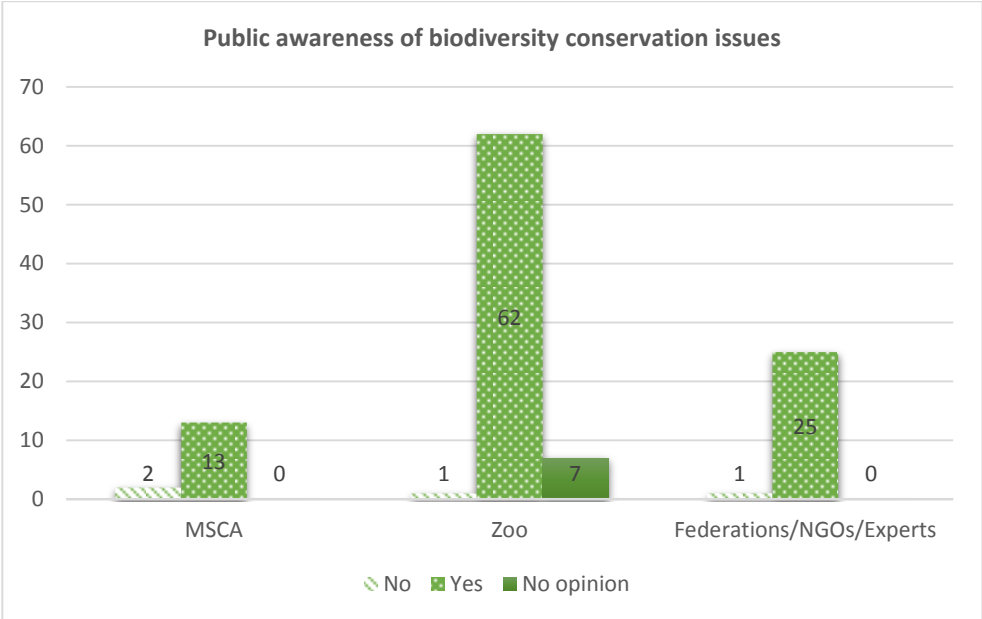
In this regard, there is a clear pathway for *ex situ* management to contribute to overall **conservation** strategies to halt species extinction (see Section 5.1.2 on the contribution of zoos to the management of threatened species).

b. Public awareness of biodiversity conservation issues

The importance of raising awareness is increasingly understood as a first step in changing attitudes to, and perceptions of, the natural world, both of which are necessary to effect behaviour change that will result in more sustainable use of the environment.

Among the stakeholders surveyed, perceptions of public awareness were that it remains a **current need**.

Figure 29: Stakeholder perceptions of the relevance of public awareness of biodiversity conservation issues²⁶⁰



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

Similarly, most respondents to the public consultation (69%, 1,578 respondents) felt that having EU-wide rules increasing public awareness of biodiversity and nature protection by offering education and information on these topics remains very important, with a further 21% (470 respondents) considering it important²⁶¹.

Conservation of biodiversity and raising public awareness were already the essential needs that led to the adoption of the Directive. Sixteen years later, this survey confirmed that **these needs remain the same**. None of the respondents indicated that the needs of species and biodiversity more generally had changed since the Directive came into force, although there were diverse views on the role of zoos (and, by implication, the Directive) in addressing those needs.

5.3.1.3 Directive's contribution to the identified needs

The information presented above indicates that the need for biodiversity conservation not only still exists, but is seen as ever more urgent (as the rate of biodiversity loss increases) and the policy responses (especially CBD and UN SDGs) both contain significant detail and seek to integrate biodiversity more generally into development activities. While the Directive is concerned with a specific con-

²⁶⁰ Questionnaires MSCAs 107c/High level 65c/Zoos 102c.

²⁶¹ Public Consultation Report (Annex VIII), Section 6.1.1.1.

servation response (the contribution of zoos to biodiversity conservation), the **potential for it to play an enhanced role in achieving these heightened global needs is evident**, through its specific objectives of ensuring the participation of zoos in conservation activities, including the promotion and awareness-raising activities of zoos.

The relevance of the Directive to the prevailing global policy needs (and the EU's responses to them) are **supported by the trends in responses** from stakeholders to the targeted survey. They felt strongly that the Directive was still relevant in protecting species from extinction, regulating *ex situ* management, and raising public awareness of biodiversity conservation issues, as illustrated in Figure 28 and Figure 29 above. In more practical terms, the increasing realisation of the scale of the challenge facing biodiversity, and the potential for the Directive to increase the effectiveness of zoos in meeting this challenge, especially by **providing a 'coordinated approach'** was mentioned by the stakeholders.

There were, however, some **criticisms about the suitability of the existing approach** to the current needs expressed in the survey. In relation to awareness-raising, one CA²⁶² pointed out that many other approaches, such as media, events, and campaigns could be used instead of exhibiting live captive animals of wild species to raise public awareness of biodiversity conservation issues. Several respondents to the survey suggested that present biodiversity conservation needs a **more targeted approach to *ex situ* conservation**, indicating that there should be some sort of guidance on how to pursue *ex situ* conservation. This is discussed further under Section 5.3.3.2.

5.3.1.4 Summary and conclusions

In conclusion, the objectives of the Directive still support the current needs of biodiversity, even though these needs are now seen as significantly greater. The provisions of the Directive are still seen as an appropriate way for *ex situ* management to meet these needs, although better guidance would allow zoos to play a greater role in meeting biodiversity conservation needs.

International and EU policies reflect an increasing recognition that concerns about deteriorating biodiversity must be incorporated in many other fields of social, economic and environmental endeavour. In other words, efforts to conserve biodiversity cannot remain in isolation from efforts to, for example, promote economic growth, pursue food security and alleviate poverty.

The relevance of the Directive to the policy objectives stemming from these changes in the status of biodiversity, and the way that these are now seen as integral to sustainable development, is explored in the next evaluation question.

5.3.2 Relevance – EQ 10

How relevant is the Directive to achieving legal and policy biodiversity objectives at EU and global levels?

This question aims to identify the main developments that have taken place in the EU and international policy framework, and the corresponding changes in objectives. It will then assess the suitability of the Directive's objectives to address these developments and changes. This complements the analysis carried out under EQ2 (Section 5.1.2) which assessed the contribution of the Directive to the original instruments.

The analysis is done in two steps:

- Firstly, the evolution of global and EU policies is examined in detail in order to identify the current global and EU biodiversity objectives and targets. As EU biodiversity targets are framed within global policy processes, notably the CBD (and increasingly the UN SDGs), the emphasis

²⁶² MSCAs Questionnaire Q108.

here is on describing the global process as it sets the context for evolution of the EU's biodiversity policy.

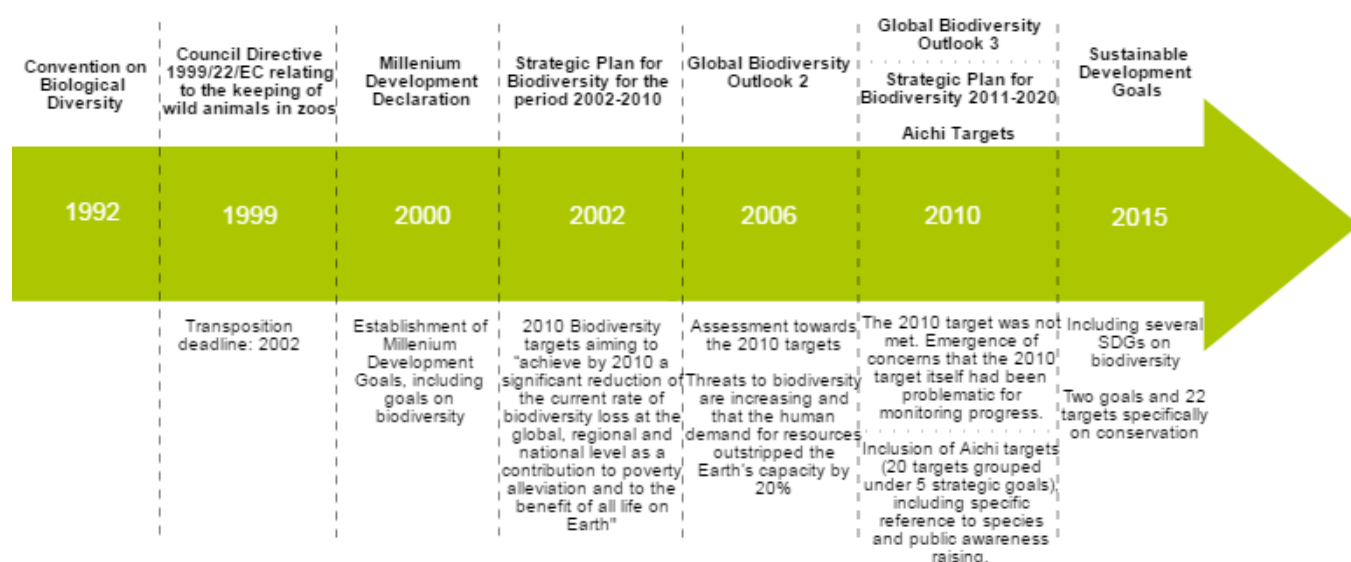
- Secondly, these current objectives and targets are compared with the Directive's (general and specific) objectives in order to assess the extent to which the Directive has 'kept pace' with the changes that occurred at EU and international level.

The information used to address both parts of this question is largely drawn from documents produced by global policy processes, notably the CBD and the UN SDGs.

5.3.2.1 Evolution of EU and global biodiversity and conservation objectives since the adoption of the Zoos Directive

As the Zoos Directive is a response to the CBD, changes in this Convention are outlined first, followed by the UN SDGs, and then other global instruments and processes. The process is highlighted in Figure 30 below.

Figure 30: Development of global biodiversity and conservation objectives



Source: Desk research for this survey

a. Developments under the CBD since the Zoos Directive came into force

Shortly after the Zoos Directive came into force, the CBD adopted a **Strategic Plan for Biodiversity for the period 2002-2010** in order to guide its implementation at national, regional and global levels. This marked a decade since the Convention was agreed and the Strategic Plan set out 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth', and this became known as the '**2010 Biodiversity Target**' (e.g. (Balmford and al et 2005), (Secretariat of the CBD 2006), (Walpole 2009).

Global Biodiversity Outlook 2 (Secretariat of the CBD 2006) sought to assess progress towards this Target. In doing so, it reported on 'supporting' goals and targets and indicators for evaluating biodiversity status and trends (see also (Walpole 2009)). It concluded that, overall, the threats to biodiversity were increasing and that the human demand for resources outstripped the Earth's capacity to meet that demand by 20% ((Secretariat of the CBD 2006)). At the end of that decade, **Global Biodiversity Outlook 3** ((Secretariat of the CBD 2010a)) concluded that the 2010 target had been missed, perhaps not surprisingly, given the work that needed to be done on many levels and the relatively short duration of the Strategic Plan. At the same time, and after taking almost a decade to consider how the sta-

tus of biodiversity could and should be measured, there were some concerns that the 2010 target itself had been problematic for monitoring progress, including *inter alia* that it was vague ‘about timescales, baselines, acceptable rates and measures’ (Mace GM 2010).

Current CBD Targets

A revised and updated **Strategic Plan for Biodiversity 2011-2020** was adopted at the 10th Conference of the Parties (in Decision X/2: (Secretariat of the CBD 2010b); (2010)). A significant development was the inclusion within this strategy of 20 targets, known as **the Aichi Targets**. These included specific reference to species and to raising public awareness. The 20 targets are grouped under five strategic goals²⁶³.

The Aichi Targets have provided a tighter focus for biodiversity conservation efforts under the CBD than existed when the Zoos Directive came into force in 1999 (CBD Article 9), or from the 2010 Biodiversity Target that was adopted shortly after. This improved focus comes from both the specification of particular components of biodiversity for attention (i.e. threatened species, genetically and culturally important species) and the sort of attention required (e.g. education and awareness, mainstreaming and protected areas), as well as providing clarity for some of the targets on what precisely is pursued. Some of these targets have strong indicators associated with them.

All of these provide a **stronger framework** within which the contribution of zoos to globally agreed biodiversity targets can be set and how this contribution can be measured. A mid-point analysis of the CBD’s 2011-2020 Strategic Plan indicated that while conservation responses were increasing, the pressures on biodiversity were increasing at a greater rate (Secretariat of the CBD 2014), (Tittensor 2014)).

b. UN SDGs

The world’s heads of government adopted the **Millennium Development Declaration** in 2000 (UN 2000)), which introduced what became known as the **Millennium Development Goals (MDGs)**. Reducing the loss of biodiversity was included as a new target in the MDGs (SCBD 2016), as one of four targets contributing to Goal 7²⁶⁴, as follows:

Goal 7: Ensure environmental sustainability
Target 7b: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.

Towards the end of the 15-year lifespan of the MDGs, attention turned towards the post-2015 Development Agenda and in September 2015, the MDGs were replaced by the **SDGs** (UN 2015).

As with the CBD, where the Aichi targets provided greater focus than the 2010 Biodiversity Target, so too do the SDGs provide greater clarity on biodiversity conservation than the MDGs. While many of the goals and their targets are linked to biodiversity, there are two goals (and 22 targets) that deal specifically with its conservation: Goal 14 *Life below water*²⁶⁵ and Goal 15 *Life on land*²⁶⁶.

These SDG targets resemble the CBD targets in places. This is especially striking where the timescale runs until 2020 rather than 2030, so as to match the reporting deadline for the CBD’s Strategic Plan. The elements of most direct consequence to the Zoos Directive are:

SDGs relevant for Zoos
SDG Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. This also mirrors the CBD’s Aichi Target 12.

²⁶³ <https://www.cbd.int/sp/targets/>

²⁶⁴ <http://www.un.org/millenniumgoals/envIRON.shtml>

²⁶⁵ <https://sustainabledevelopment.un.org/sdg14>

²⁶⁶ <https://sustainabledevelopment.un.org/sdg15>

SDG Target 15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species. This also mirrors CBD's Aichi Target 9.

Other targets may be relevant to the work of some zoos and fall within the provisions of the Directive (i.e. they promote the role of zoos in the conservation of biodiversity). These include, but are not limited to, **targets for habitat conservation** (e.g. Targets 14.2, 15.1 and 15.4) and **sustainable management** (Target 15.2) and reducing **over-exploitation of certain species** in the wild (Targets 14.4 and 15.7). Zoos may also contribute significantly to operational targets for enhanced support for these SDGs, through Targets 14a and 15a-c.

c. Other global instruments and developments

Global developments are the UN Food and Agriculture Organization's (FAO) work on **genetic resources** (e.g. of food species and their wild relatives)²⁶⁷ that has seen the development of global action plans to reduce **overharvesting** (especially illegal, unreported and unregulated [IUU] fishing)²⁶⁸.

There has also been a considerable increase in attention to the escalating problem of **illegal trade in wildlife** (referring to plants, such as trees, as well as animals), including an analysis commissioned by the UN Environment Assembly²⁶⁹, which duly adopted a resolution that, *inter alia*, 'Urges Member States to take further decisive steps and action at the national level and through regional and international cooperation, including with the International Consortium on Combating Wildlife Crime²⁷⁰ and other partners, to prevent, combat and eradicate the supply, transit and demand related to illegal trade in wildlife and wildlife products [...]'^{271 272}

All of these global instruments and developments provide further evidence for the pressures on species and wider biodiversity and the need for concerted and coordinated responses. Many of them require action in the wild, where areas that are of special importance for biodiversity require careful management and/or where there are very specific pressures that have to be reduced. The role of *ex situ* management, and of zoos more generally, is therefore, likely to be context-specific.

d. Development of European instruments

The EU's **Biodiversity Strategy** (Anon., (COM)2011) 244 2011) is framed within the context of the CBD Strategic Plan and it 'is aimed at reversing biodiversity loss and speeding up the EU's transition towards a resource efficient and green economy'. It has five targets, of which the first is:

Target 1 of the EU Biodiversity Strategy

To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that, by 2020, compared to current assessments: (i) 100% more habitat assessments and 50% more species assessments under the Habitats Directive show an improved conservation status; and (ii) 50% more species assessments under the Birds Directive show a secure or improved status.

5.3.2.2 Contribution of the Directive to the current EU and international objectives and targets

As described above, there has been considerable change to the global biodiversity targets, and their pursuit in the EU. These are reflected in both the specificity of species-related targets, such as halting extinction (rather than 'reducing biodiversity loss') and in objectives to ensure that biodiversity is a fundamental consideration in national planning and development sectors and plans.

²⁶⁷ <http://www.fao.org/genetic-resources/en/>

²⁶⁸ <http://www.fao.org/fishery/iuu-fishing/en>

²⁶⁹ http://www.unep.org/about/sgb/Portals/50153/UNEA/FINAL_%20UNEA2_Inf%20doc%2028.pdf

²⁷⁰ The members of the Consortium are the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the International Criminal Police Organization (INTERPOL), the United Nations Office on Drugs and Crime, the World Bank and the World Customs Organization.

²⁷¹ Emphasis added.

²⁷² http://www.unep.org/about/sgb/cpr_portal/Portals/50152/2-14/K1607258_UNEPEA2_RES14E.docx

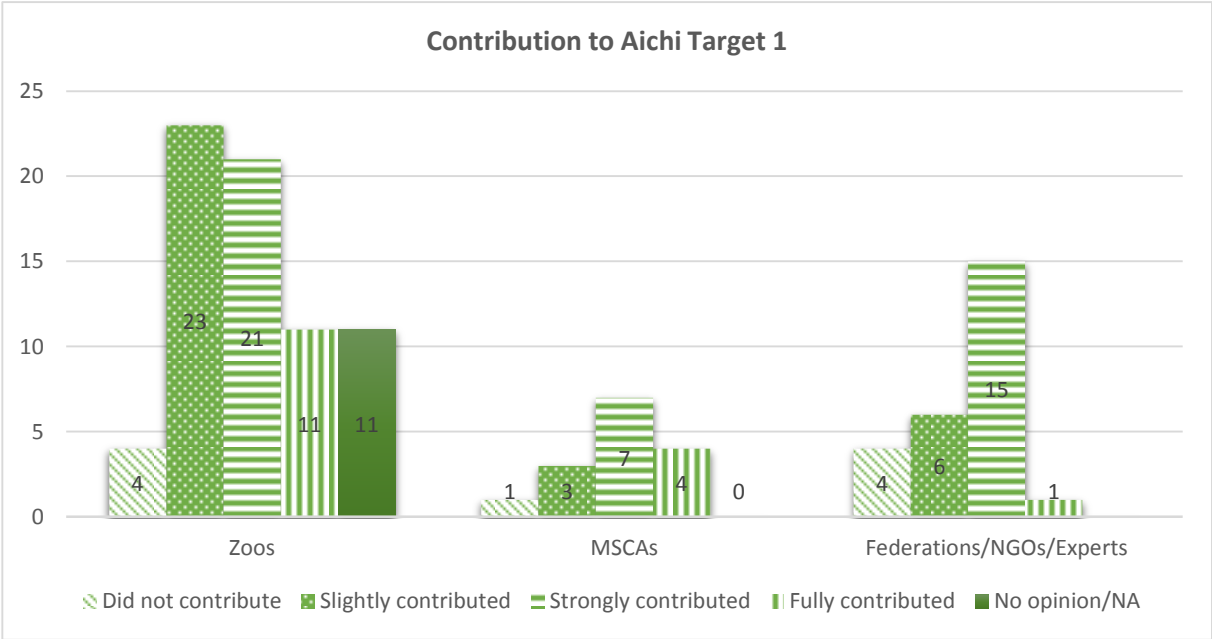
Crucially, what is desired for biodiversity is now detailed in the **20 Aichi Targets** of the CBD and the **22 Targets of SDGs 14 and 15**. A comparison of these against the provisions of the Zoos Directive provides a good indication of the extent to which the Directive is well adapted to the current needs, i.e. the extent to which the Directive has ‘kept pace’ with the changes that have taken place in biodiversity target-setting since the Directive was adopted in 1999.

Though all potentially relevant, three of the Aichi targets are particularly important in the context of the Directive, as presented below.

- Key targets in view of the Zoos Directive**
- **Aichi Target 1:** By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
 - **Aichi Target 9:** By 2020, invasive alien species and pathways are identified and prioritised, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
 - **Aichi Target 12:** By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

For **Aichi Target 1**, zoos have a very pertinent role in relation to educating visitors and raising awareness of biodiversity conservation, and their contribution to education has been established (Moss, Jensen and Gusset, Evaluating the contribution of zoos and aquariums to Aichi Biodiversity Target 1 2015). From that perspective, the second indent of Article 3 of the Zoos Directive implements Aichi Target 1. This is consistent with the interviews and survey carried out here, both of which noted the contribution of the Directive to the Target. The survey showed that a majority of stakeholders, regardless of type, considered the Directive to contribute positively to Aichi Target 1, as shown in Figure 31 below²⁷³.

Figure 31: Stakeholder perceptions of the contribution of the Directive to Aichi Target 1



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

The contribution of the Directive to this Target therefore corresponds to the level of implementation

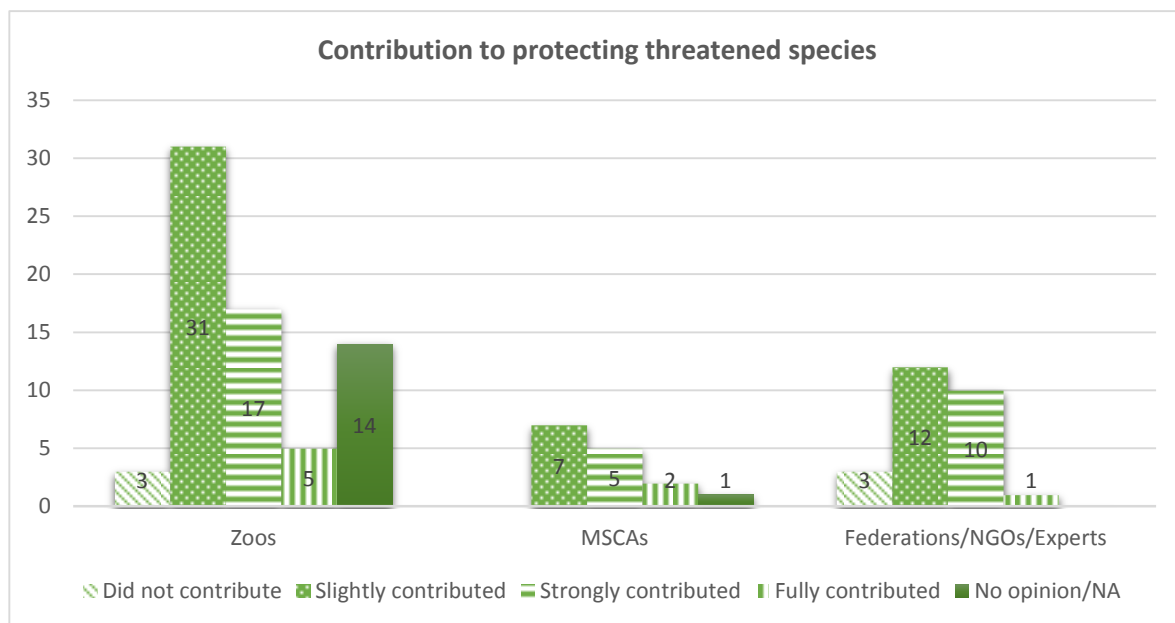
²⁷³ Zoos Questionnaire Q 68c.

achieved for this provision, as presented in Section 5.1.1.

Aichi Target 9 has mainly been reflected at EU level in Regulation 1143/2014 on invasive alien species²⁷⁴. However, Article 3, fourth indent, also covers the prevention of escape of animals in order to avoid possible ecological threats, and is therefore highly relevant in order for the EU to reach Target 9. The analysis of implementation of this conservation measure (see Section 5.1.1.3) demonstrated the successful implementation of this measure, thereby substantiating the contribution of the Directive to Target 9.

Finally, the extent to which zoos contribute to the protection of threatened species remains the subject of debate. The pros and cons are outlined in Section 5.3.3.1 (especially paragraph 5 and section b). While there is clear scope for *ex situ* management to contribute to Aichi Target 12, through research, breeding programmes and reintroduction (as expressed in Article 3 of the Directive), the protection of threatened species *per se* is not expressly addressed in the Directive, and providing a meaningful assessment of the extent to which protection has *actually* been achieved is not straightforward. This is because projects and initiatives could be carried out under all types of activity listed in Article 3 but do not necessarily contribute directly to halting species extinctions or improving the status of the species most in decline. For example, breeding programmes or reintroduction targeting species that are listed as Least Concern on the IUCN red list will not contribute towards this target. Literature (Hoffmann, et al. 2010) reported that *ex situ* management had played a role in improving the status of some species prior to the establishment of the Aichi Targets in 2010 (see Section 5.1.2.1) and it is likely that there has been some contribution since 2010, but this has not been quantified. It is important to note that the Aichi Target 12 covers only a part of conservation activity that is directed towards species, and these include Targets 9 (sustainable use of selected species) and 13 (conservation of wild relatives of species important to humans). There is no available evidence of the extent to which zoo-based research, breeding programme management or reintroductions have contributed, since 2010, to either species conservation broadly, or, more specifically, to halting and reversing the declines of the most threatened species, as required under Aichi Target 12. This is corroborated by the present survey, where the contribution of the Directive to the protection of threatened species was assessed very variably, depending on the type of stakeholders (see Figure 32 below).

Figure 32: Stakeholder perceptions of the contribution of the Directive to the protection of threatened species



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

²⁷⁴ Interactions between this Regulation and the Zoos Directive are presented in Section 5.4.1 below.

Other targets are also applicable to zoos to some extent, as part of national efforts to meet the 2020 targets:

- **Aichi Target 13:** By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals, and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimising genetic erosion and safeguarding their genetic diversity.

This matches the Zoos Directive ‘research, training and conservation benefits accrue’ conservation measure (Article 3, first indent).

- **Aichi Target 19:** By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

This matches the Zoos Directive ‘research, training and conservation benefits accrue’ conservation measure (Article 3, first indent).

Additional targets, although not directly corresponding to specific provisions, can also potentially be areas to which the Directive, through its objectives, and in its implementation, contributes:

- **Strategic goal A.** Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- **Aichi Target 4:** By 2020, at the latest, governments, business and stakeholders at all levels have taken steps to achieve, or have implemented plans for, sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Other targets may be relevant to the work of some zoos and may fall within the provisions of the Directive (i.e. they promote the role of zoos in the conservation of biodiversity). These include, but are not limited to, targets for habitat conservation (**Aichi Target 5**), protected areas (**Aichi Target 11**) and the sustainable use of certain species in the wild (**Aichi Target 6**).

The SDGs seek to further embed biodiversity considerations into policies to achieve better management of a range of natural resources, such as forests and fisheries. As such, they are broader in scope than the Aichi targets, and overall are less relevant to the provisions of the Directive. There is, however, clear potential for the Directive to promote action towards SDG Target 15.5 that seeks to, *inter alia*, ‘protect and prevent the extinction of threatened species’.

5.3.2.3 Summary and conclusions

There has been a **great change in global biodiversity policy** since 1999 when the Zoos Directive was adopted. This is illustrated by the fact that the **targets** set by the Parties to the CBD, which provided the context for the Zoos Directive, have evolved markedly since 1999 when the Directive came into force. These evolutions have resulted in a clearer understanding of where the problems lie (such as species that are highly threatened or exploited unsustainably) and the emphasis is now on reducing threats. The current EU Biodiversity Strategy reflects this development.

The consequences of these developments for the relevance of the Directive are twofold:

- Firstly, it provides a **more structured context** for the provisions of the Directive to facilitate zoos’ contributions to biodiversity needs, at both EU and global level. Opportunities to contribute are primarily, but not exclusively, through targets on protecting threatened species and halting their extinction, and raising public awareness of biodiversity issues.
- Secondly, the evolution of both CBD and SDG targets from general aspirations to focused targets with indicators and supporting documentation (e.g. technical rationale, indicators and progress reports) may provide **insights that would help to enhance the impact** of the Directive.

In summary, as human understanding of the pressures faced by species increases, it becomes possible to improve the targeting of actions to mitigate and overcome those pressures. It will also provide the opportunity to adjust actions as new pressures on species increase and, if it happens, old ones decrease. All of this means that it should be possible to be **much more explicit and focused** about where *ex situ* management (along with all other conservation interventions) are most needed and can

have the biggest impact. Section 5.3.3 on EQ11 discusses the scientific and technical developments that help with this.

5.3.3 Relevance – EQ 11

How well adapted is the Directive to (subsequent) technical and scientific progress?

The previous questions evaluate the extent to which the Directive remains relevant for the current needs of biodiversity and policy targets. At the same time, as noted in Section 2.1, zoos operate within a context that exists beyond the Directive and this context has also evolved over time. The understanding of the needs of individual species, and therefore, the role that zoos may play in their conservation, has evolved significantly since the 1990s.

This evaluation question is concerned with examining the scientific and technical progress that has taken place since 1999 and considering the extent to which the Directive is valuable in light of these developments. This analysis has two steps:

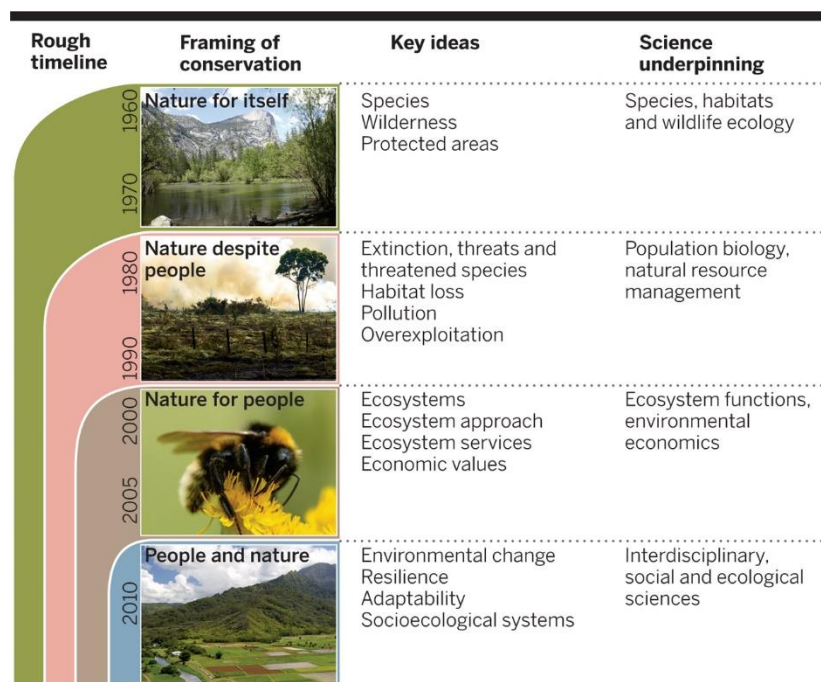
- Firstly, an analysis of the adequacy of the Zoos Directive in view of the technical and scientific progress, as it has been identified through scientific literature and in the broader perspective of development of *ex situ* management.
- Secondly, the views of the relevant stakeholders surveyed for this study provide another understanding of the contribution of the Directive from the perspective of the professionals dealing with *ex situ* conservation.

The information used to address this question is largely drawn from the questionnaire survey of MSCAs, zoos, zoos' federations, NGOs and other stakeholders, together with a desk study of scientific and other (grey) literature.

5.3.3.1 Adaptation of the Zoos Directive to technical and scientific progress

The **general societal context** within which all species conservation efforts take place (including conservation-focused zoos) is well described by the literature (G. Mace 2014), which points to four phases in the human approach to nature conservation, reflecting the way that people see nature and their relationship with the environment.

Figure 33: Timeline of approach to conservation



Source: AAS - Permission from editor needed for publication

Conservation programmes and policies have, therefore, changed to reflect this increasingly holistic view of human engagement with species and with wider biodiversity. This does not always make it easy to see a **role for species conservation** and this has opened up a clear niche for zoos, as places where species can be celebrated, if they are exhibited appropriately.

The prevailing approach of zoos to conservation in the years up to the adoption of the Directive was to create an ‘ark’, where many species would be maintained in captive conditions over many generations. The rationale for this was described eloquently by Michael Soulé and colleagues in their evocatively titled and widely quoted paper ‘The Millennium Ark: How Long a Voyage, How Many State-rooms, How Many Passengers?’ (Soulé, et al. 1986). It is important to note that, at that time, conservation biology was only beginning to emerge as a scientific discipline and, indeed, the Society for Conservation Biology only came into being in 1985 as ‘a response by professionals, mostly biological and social scientists, managers and administrators of the biological diversity crisis that will reach a crescendo in the first half of the twenty-first century’ (Soulé, et al. 1986).

The premise behind the article was that the human population was increasing at such a rate that its need would see a ‘demographic winter’ of some 500-1,000 years during which time most wildlife habitat in the tropics would be eliminated. This, they suggested, would mean that about 2,000 species of large, terrestrial animals would have to be bred in captivity if they were to be saved from extinction. The title of their paper reflected the three major considerations that they felt were crucial:

- Number of species.
- Number of individuals of each species.
- Length of time for which viable populations could be sustained on the ‘voyage’.

All of this implied that zoos had to work together in order to ensure that captive populations were managed cooperatively so that overall captive population targets could be set and pursued. As described in Section 2.1, significant efforts were made in this regard. Over the next 20 years or so, difficulties with this approach became apparent and limitations emerged (e.g. (A. M.-W. Balmford 1996) (Snyder 1996), (Bowkett 2009), (Lees C & Wilcken 2009), (Williams 2009), (Bowkett 2014)). At the same time, there were more detailed considerations of where and how *ex situ* management could contribute to species conservation (Conde, Flesness, et al. 2011a), (Fa, et al. 2014), (Pritchard, et al. 2011), (Redford, Jensen and Breheny 2012)).

These developments can be categorised in a range of ways; here, they are considered under the three main areas where understanding of conservation needs and the potential of *ex situ* management to meet those needs (at least in part) has developed significantly since the Directive entered into force. They are described briefly in order to inform conclusions about how well adapted the Directive is to (subsequent) technical and scientific progress.

a. Population management

There is now a strong theoretical and analytical basis to the management of captive populations. In essence, these inform estimates of the size of populations that are required in order for species to minimise the loss of genetic heterozygosity and remain viable in the long-term, and how they should be managed (e.g. (Lacy, Ballou and Pollak 2012), (R. Lacy 2013), (Ivy 2016); see also (B. C. Traill LW 2007), (B. B. Traill LW 2010)). As one publication points out (Lees C & Wilcken 2009), captive populations often struggle to meet targets that would allow them to be considered sustainable over many generations. Reasons cited for this include the number of individuals in the founding population being too small and current breeding rates too low. Ultimately, legislation (such as restrictions on moving animals as part of managed breeding programmes), changing attitudes towards zoos, the differing priorities of zoos, and the costs associated with maintaining large breeding problems all presented issues (Lees C & Wilcken 2009).

b. Identifying species in need of conservation action

Priorities for species conservation are often based on the IUCN red list²⁷⁵. This list is an assessment of the likelihood of a species to become extinct and is not, therefore, a prioritisation tool in its own right. As many conservation efforts are concerned with avoiding species extinctions, this is often taken as the basis for determining species conservation priorities. For example, the CBD (the context within which the Directive is framed), is now explicitly concerned with avoiding species extinctions through Aichi Target 12 (see Section 5.3.2 above).

Although the process for establishing the revised IUCN categories and criteria was started before the Directive came into force (see (G. a. Mace 1991)), it was 10 years before the categories and criteria currently in use were agreed (see (G. M.-T.-W.-G. Mace 2008)). This now provides a sound basis for assessing which species are most threatened with extinction and thus allows comparison between threatened species and those held in captivity. For example, (Conde, Flesness, et al., An emerging role of zoos to conserve biodiversity 2011a)) estimated that 15% of threatened species are held by zoos, although the sizes of these captive populations are often small (see above) and the total zoo capacity devoted to threatened species was estimated to be 8% in 2011 ((Conde DA 2011b); see also (Balmford, et al. 2011). This last point demonstrates that zoos determine their species mix for reasons other than conservation, such as for attracting visitors.

c. Action needed for threatened species

The IUCN red list process requires documentation of the reason(s) for considering a species at risk of extinction. Species are listed as threatened on the basis of the rate of decline (of population or geographical range) or inherently small populations of geographical distributions, or some combination of these factors. The action needed to prevent extinction should, therefore, match the reasons causing the decline, or should consider the intrinsic vulnerability.

In the majority of cases, the most appropriate action is likely to be *in situ* conservation, given that the widely-held aim of species conservation is to maintain species in the wild. In some cases, however, *ex situ* management may be necessary, or may add significantly to wider conservation efforts. It is increasingly important, therefore, that the role of the captive population in achieving the survival of the species is clearly identified ((IUCN/SSC 2014); see also (McGowan, Traylor-Holzer and Leus 2016)). The IUCN/SSC guidelines propose a five-step process (see Box 14) for a strategic approach to considering whether *ex situ* management is appropriate as part of a species conservation strategy and, if so, what its role might be. Such roles are not restricted to the maintenance of large populations in a conceptual 'ark', but could include, *inter alia*: temporary rescue, protecting against catastrophes or imminent threats; demographic manipulation; or as a source for population restoration (McGowan, Traylor-Holzer and Leus 2016).

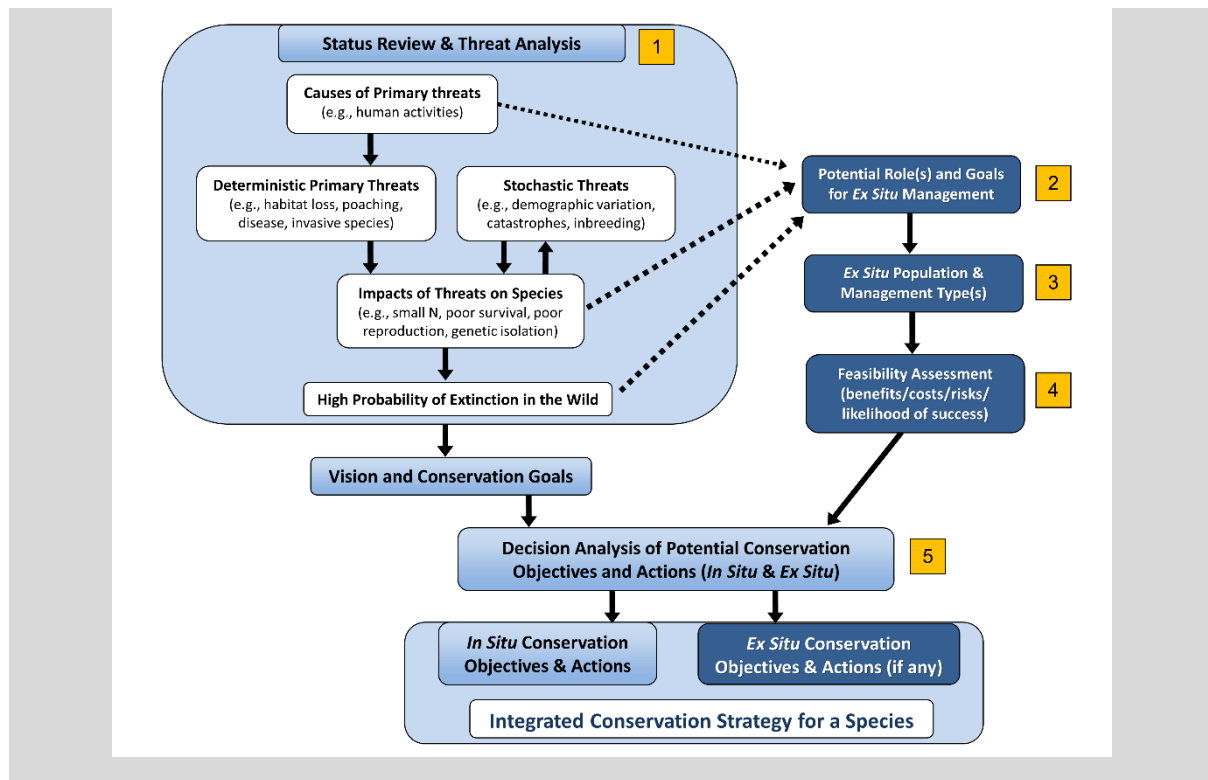
Box 14: Steps in assessing the relevance of ex situ management for conservation purposes

The five-step decision-making process to decide when *ex situ* management is an appropriate conservation tool:

- STEP 1. Compile a status review of the species, including a threat analysis.
- STEP 2. Define the role(s) that *ex situ* management can play in the overall conservation of the species.
- STEP 3. Determine the characteristics and dimensions of the *ex situ* population needed to fulfil the identified conservation role(s).
- STEP 4. Define the resources and expertise needed for the *ex situ* management programme to meet its role(s) and appraise the feasibility and risks.
- STEP 5. Make a decision that is informed (i.e. uses the information gathered above) and transparent.

Source: IUCN/SSC 2014

²⁷⁵ <http://www.iucnredlist.org/>



Source: McGowan et al. (2016) Permission from editor needed for publication

5.3.3.2 Broader perspective on development of ex situ management

Zoos have evolved substantially since ‘modern zoos’ came into existence around 200 years ago (see Section 2.1.1). During the 1980s, there was an emerging awareness of both the conditions within which animals were housed and the scale of biodiversity loss. As a result, it was proposed that zoos could, and should, play a more significant role in conservation. This is reflected by, *inter alia*, Article 9 of the CBD, the World Strategy for Conservation in Zoos and Aquaria 1993, and the Zoos Directive, all of which indicated that *ex situ* management had a role to play in overall biodiversity conservation, especially of species (see Section 2.1.2).

Since the Directive came into force, understandings of the scale of biodiversity loss, the potential for *ex situ* management to support *in situ* conservation and, more importantly, how *ex situ* management can contribute meaningfully to wider conservation objectives, have increased significantly. The critical development here is that it is increasingly recognised that zoos can be most effective in supporting *in situ* conservation if their activities are shaped by priorities arising in the wild, rather than from within zoos. In other words, they are demand-driven (what is needed) rather than determined by supply (what zoos feel that they can do). Perhaps most importantly, this recognises that efforts to halt the current anthropogenically-driven high rate of species extinctions would benefit from a much more strategic alignment of *ex situ* capability (e.g. through their financial resources, staff expertise, interaction with the general public and animal populations) with clearly articulated *in situ* biodiversity conservation needs.

The Zoos Directive is framed as an EU response to the CBD and, at present, encompasses the 20 Aichi Targets that comprise the Convention’s 2011-2020 Strategic Plan for Biodiversity. A mid-term review of progress showed that while conservation responses are increasing, the pressures facing biodiversity are increasing at a greater rate (Tittensor et al. 2014) and the most recent CBD Conference of the Parties (December 2016) revealed that progress towards Target 12 on halting species extinctions is espe-

cially weak²⁷⁶. This suggests that there is a need for conservation responses to be more effective than they have been to date, if progress is to be made towards Target 12. Given the short time remaining until reporting is due (less than three years) and the long time it takes for conservation action to result in the improved status of species and/or wider biodiversity, it may be more realistic and timely to learn lessons now and put mechanisms in place so that substantial progress can be made on halting extinctions and enhancing the conservation status of species post-2020, when the CBD Strategic Plan should surely contain a similar provision for reducing species extinctions and improving the conservation status of the most threatened species.

Stronger integration of *ex situ* management capacity into holistic species conservation strategies and plans is possible, and has considerable potential to improve the status of species. This is because:

- a) Lessons are being learned about the capacity of zoos to contribute to conservation. For example, as partly described in Section 5.3.3, there is now recognition of the significant challenges in managing viable populations of vertebrates in captivity over any meaningful timescale (e.g. Lees and Wilcken, 2009), and the role that zoos can play in species recovery is now understood to be much wider (e.g. IUCN SSC 2014 and McGowan et al. 2016).
- b) There is an increasingly clear understanding of what is driving declines in individual species in the wild, the pressures causing those declines, and the constraints on tackling the pressures. This means that there is now the potential for zoo-based activities to be targeted towards problems where their work has the greatest prospect of reducing a problem or overcoming a constraint facing a species.
- c) It is increasingly understood that species conservation requires a strategic approach to addressing problems (both threats and constraints) so that scarce resources are used to best effect and the real problems causing the decline are addressed. IUCN's Species Survival Commission published a Handbook on developing species conservation strategies in 2008²⁷⁷, and a second edition of this guidance is being developed, with publication expected in 2017.

All of this provides a context in which there is considerable scope for the contribution of zoos to *in situ* species conservation to be increased considerably. What is needed is recognition that conservation actions must be targeted and informed by evidence. A collection of 'conceptual approaches' was gathered by WAZA for its 14th newsletter in 2014 entitled *Towards integrated species conservation*²⁷⁸.

Given the gloomy prospects for achieving CBD's Aichi Target 12 by 2020, the urgent need is to consider how to bring together the above strands quickly and effectively. This is vital if species conservation is to be in a stronger position at the end of the CBD's 2011-2020 Strategic Plan for Biodiversity than it was at the beginning. This period coincides with the UN Decade on Biodiversity.

Assessing exactly how this might be achieved at a spatial scale and on a timescale that would make a difference to global species extinction rates and the conservation status of a significant number of the most threatened species, requires significant leadership at a regional or global scale.

5.3.3.3 Stakeholders' perceptions of the level of adequacy of the Directive

Stakeholders surveyed were asked the extent to which the Directive remains relevant in the light of scientific and technical progress in: a) biodiversity conservation in general; and b) strengthening the links between *in situ* and *ex situ* conservation.

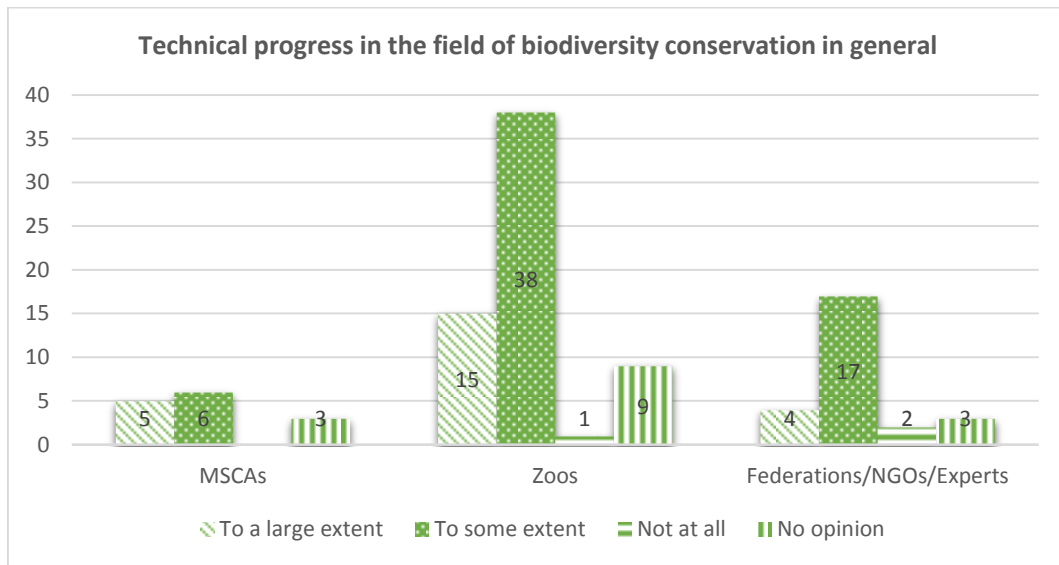
²⁷⁶ Updated states of Aichi Biodiversity Target 12 UNEP/CBD/COP/13/INF/18, <https://www.cbd.int/doc/meetings/cop/cop-13/information/cop-13-inf-18-en.doc>

²⁷⁷ IUCN (2008). Strategic Planning for Species Conservation: A Handbook, http://cmsdata.iucn.org/downloads/scshandbook_2_12_08_compressed.pdf

²⁷⁸ http://www.waza.org/files/webcontent/1.public_site/5.conservation/integrated_species_conservation/WAZA%20Magazine%2014.pdf

a. Biodiversity conservation in general

Figure 34: Number of stakeholders considering the protection of threatened species to be relevant



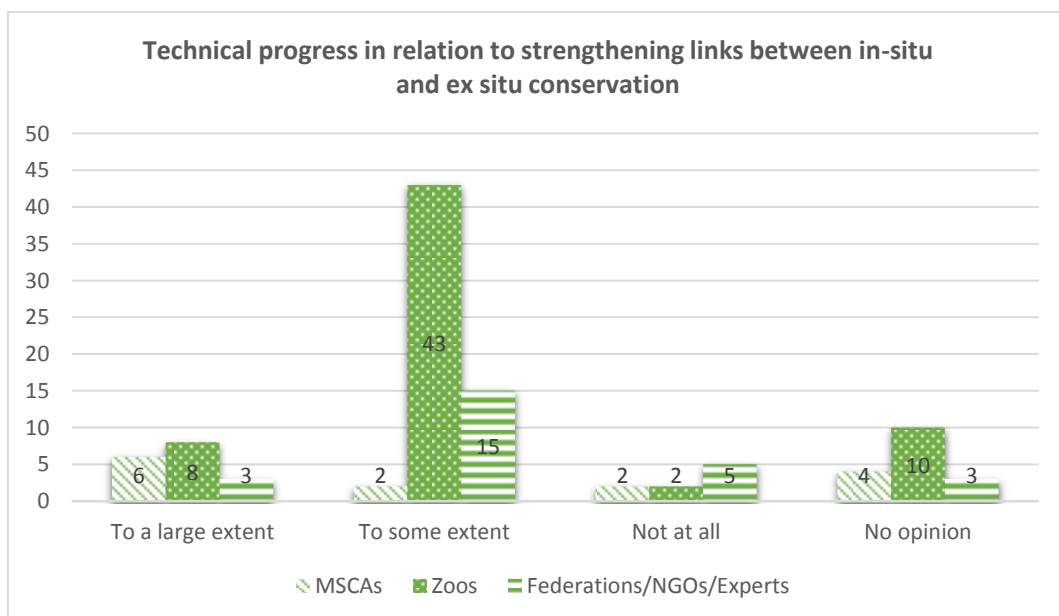
Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

Eleven of 15 (73%) of CAs considered the Directive to remain relevant to either some extent or a major extent given the technical and scientific progress that has taken place in the field of biodiversity conservation since its adoption. The remaining four CAs offered no answer or opinion. The Directive remains well adapted to at least some extent to the scientific and technical progress that has taken place in the field of biodiversity, according to 76% of zoos. A majority of zoos' federations, NGOs and other stakeholders also considered the Directive still relevant in light of the progress in this field, with 81% of the respondents agreeing.

b. Strengthening the links between *in situ* and *ex situ* conservation

Survey respondents provided nuanced views on the contribution of the Directive to strengthening the links between *in situ* and *ex situ* conservation, as illustrated in Figure 35 below.

Figure 35: Stakeholder perceptions of technical progress in relation to strengthening links between *in situ* and *ex situ* conservation



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

57% of MSCAs considered the Directive still relevant to either some extent or a major extent, given the technical and scientific progress that has taken place in relation to *ex situ* conservation and its links to *in situ* conservation. Three of the remaining seven felt that it was not at all well adapted. Views are much more uniform for zoos, with 73% considering the Directive relevant to at least some extent to science and technical progress in integrating *in situ* and *ex situ* conservation. Similarly, a majority of zoos' federations, NGOs and other stakeholders (66%) also considered the Directive to remain relevant in light of the progress in this field.

Interestingly, 18% of the federations, NGOs and experts felt that the Directive was not at all adapted to progress in strengthening links between *in situ* and *ex situ* conservation. This assessment was mainly done by NGOs, but also by one federation. Comments offered by stakeholders in support of their assessments emphasises the view that there is now much more understanding of how to strengthen the link between *in situ* and *ex situ* conservation than is reflected in the Directive.

Several zoos²⁷⁹ felt that the Directive could emphasise the link between *ex situ* management and *in situ* conservation efforts more clearly. They said that much had happened in this area outside of the Directive, such as through the World Association of Zoos and Aquariums Strategy. Twelve zoos' federations, NGOs and other stakeholders provided comments in their support of their opinions on *ex situ-in situ* management. The two issues that emerged from those comments were the desire to see a requirement for *ex situ* management to support *in situ* conservation (nine respondents) and for *ex situ* management to have a clearer and more transparent purpose (four respondents). There were comments made by respondents to the effect that the role of *ex situ* management would be enhanced if it were more targeted and better integrated with *in situ* conservation. In other words, respondents would welcome a more explicit requirement and greater guidance on how to pursue *ex situ* management, rather than simply saying it should be undertaken.

5.3.3.4 Summary and conclusions

There have been wide-ranging scientific and technical developments since 1999, and three pertinent categories of relevant development were examined, i.e. population management, identification of species in need of conservation action, and identifying the action needed for threatened species. Whilst the second of these may appear highly relevant for identifying species that require conservation resources, it is the third (understanding the action required by a threatened species) that is especially relevant here. This is because the processes outlined allow assessments to be made of whether or not *ex situ* management is an appropriate conservation action for a particular species, and if so, what form that management should take. Ways of encouraging such a strategic approach to assessing the role of *ex situ* management (if any) in the overall conservation strategy for a threatened species would be well-received. Guidance (from IUCN's Species Survival Commission) exists to support this decision-making process.

These findings are supported by the public consultation results. The majority of stakeholders considered the Directive to remain appropriate in the light of subsequent technical and scientific developments. There is a strong sense that it is well adapted, given the scientific and technical progress in the field of biodiversity generally. While there is a strong view that it is also well adapted given developments in strengthening the interaction between *in situ* and *ex situ* conservation, it was observed that that this could be greatly enhanced. Further comments pointed to the presence of such strengthening outside of the Directive, such as through WAZA.

²⁷⁹ Zoos Questionnaire, Q.106. No statistical information is provided on this question, as the results of the survey cannot be considered representative. It was observed that several (at least 15) zoos provided identical answers, according to which 'The EU Directive does not specifically mention/support/encourage the close cooperation between *ex situ* and *in situ* conservation strategies which have developed strongly over the last decade (see World Zoo and Aquarium Conservation Strategy, WAZA)'.

5.4 Coherence

Evaluating the coherence of an EU act involves looking at the wider policy and legal framework, and placing the act alongside other interventions with similar objectives and requirements. In view of its objective to conserve biodiversity and the protection of wild fauna embodied in Article 3, the Zoos Directive fits within a wide net of laws and policies at EU and national level aimed at the conservation of biodiversity and animal welfare. In line with the Commission guidelines on evaluations, the coherence analysis in this section aims to evaluate how well, or not, the different interventions work together, by providing evidence of synergies and complementarities that could reinforce the achievement of common objectives, but also inconsistencies and overlapping obligations that could lead to inefficiencies²⁸⁰ (EQ12, Section 5.4.1). The analysis also covers the impact of the Zoos Directive on the internal market and the creation of a level-playing field among zoos operators (EQ13, Section 5.4.2).

For the purposes of the coherence analysis, it is important to note that the primary objective of the Directive is the conservation of biodiversity through establishing a conservation role of zoos, with animal welfare being a secondary objective. In order to assess the coherence of the Zoos Directive with the wider policy and legal framework on biodiversity conservation and animal welfare, an important first exercise consisted of identifying and mapping the most relevant legislation, guidance and policy documents that share similar objectives or lay down similar requirements with those of the Directive. The coherence analysis is primarily based on the legal examination of the strategic objectives and specific provisions of the targeted legislation, with a view to assessing their consistency with the Zoos Directive. It should be noted that there is no published literature or previous studies on this topic.

During the targeted consultation, a number of stakeholders shared opinions and provided examples of complementarities and inconsistencies. The information gathered was of considerable use in targeting the analysis to specific legislation and provisions that merited closer examination, either due to their potential for synergies or because they allegedly contained overlapping or conflicting requirements. The same applies to the responses to the public consultation, which sought to gather the opinions of the wider public on this question. However, given the legal nature of the coherence exercise, the issues raised in the consultation activities were followed up by the legal team, and conclusions are drawn from a legal analysis of interactions, complementarities and inconsistencies between the Zoos Directive and the targeted legal and policy documents.

5.4.1 Coherence – EQ 12

To what extent does the Zoos Directive complement or interact with other EU sectoral policies affecting biodiversity conservation and relevant animal welfare issues at Member State and EU levels, in particular as regards wild animals kept in captivity for commercial reasons (notably circuses) and how do these policies affect, positively or negatively, the implementation of the Zoos Directive?

The legal analysis focuses on the complementarities and interactions with EU instruments, and then analyses the potential conflicting requirements with the EU framework.

5.4.1.1 Complementarities and interactions

This section aims to evaluate the extent to which the Zoos Directive complements or interacts with the legal and policy framework on biodiversity conservation and animal welfare at the EU and national level, pointing to synergies and positive interactions. As there is important EU environmental *acquis* related to the protection of biodiversity, and long-established EU acts laying down health requirements for the trade, transport and accommodation of animals, with which Member States must comply, the analysis focuses on key legal instruments at the **EU level**.

²⁸⁰ European Commission, Better Regulation: Guidelines on evaluation and Fitness Checks, available at: http://ec.europa.eu/smart-regulation/guidelines/ug_chap6_en.htm

a. Nature Directives

Together with the Zoos Directive, the Nature Directives constitute the most important acts adopted by the EU to implement the Union's obligations as a Contracting Party to the CBD. Their role in the implementation of the CBD is complementary: while the Zoos Directive is the only EU instrument providing for *ex situ* conservation, as required by Article 9 of the CBD, the Nature Directives have established a comprehensive system for the protection of wild bird species and natural habitats occurring in the Union that is aligned with the *in situ* conservation measures that Parties to the CBD need to adopt pursuant to Article 8 of the Convention.

Overall, the legal analysis considers the Zoos Directive and the Nature Directives to be coherent and mutually supportive. In terms of strategic objectives, despite the differences in the scope and terminology used, it is evident that they all aim to protect and conserve species. To achieve 'favourable conservation status', the Nature Directives require Member States to prohibit the capture, keeping and trade of species in need of strict protection. Article 16 of the Habitats Directive and Article 9 of the Birds Directive provide for exceptions to such prohibitions for the purposes of research, education, repopulation and reintroduction of the species, and for breeding operations linked to those purposes. By exceptionally allowing capture and keeping for these specified purposes, the Nature Directives implicitly acknowledge the contribution that research, education and captive breeding activities could make to achieving favourable conservation status of European species. The derogation system under the Nature Directives is thus fully consistent with the conservation role of zoos (see Section 5.1.2 on the contribution of zoos to biodiversity).

Article 3 of the Zoos Directive and Article 22(c) of the Habitats Directive require zoos and Member States, respectively, to promote education and public awareness on biodiversity conservation and the need to protect species of wild fauna²⁸¹. The existence of requirements on the promotion of education in both Directives reinforces efforts towards the achievement of the first Aichi Target by the EU. With regard to synergies in the practical implementation of the two Directives, one MSCA indicated that the educational programmes of some zoos address Natura 2000 and use Natura 2000 educational materials prepared by the state's Environment Office in their programmes²⁸².

Finally, there is a strong potential for synergies between the Zoos Directive and Article 22(a) of the Habitats Directive. Article 22(a) calls for Member States to study the desirability of reintroducing species that are native to their territory and listed in Annex IV as in need of strict protection, provided that an investigation indicates that reintroduction will effectively contribute to recovering those species to favourable conservation status. As part of the conservation measures required under the Zoos Directive, zoos may opt to engage in repopulation and reintroduction activities. In fact, there is evidence that some zoos are actively involved in native species breeding and reintroduction schemes in collaboration with other conservation organisations²⁸³. The funding opportunities available through the LIFE Programme can further enhance biodiversity conservation through reintroduction programmes (see Section 5.1.2 for more information on the participation of zoos in LIFE funded projects).

In view of the above, the legal analysis of the strategic objective of the three Directives, and the requirements implemented to achieve those objectives demonstrate that there is coherence between the Zoos Directive and the Nature Directives. This conclusion is further supported by the views of the stakeholders; of the 15 MSCAs who answered the relevant survey question, 11 considered the Directives to be consistent and mutually supportive, with the remaining four indicating that they did not know the answer. Similarly, of the 23 NGO and zoos' federations respondents, 15 considered the Directives to be consistent and mutually supportive, five responded that they did not know, two reported

²⁸¹ The education requirements in both Directives are coherent with the first Aichi Biodiversity Target, which provides that, by 2020, people must be aware of the value of biodiversity and of the actions that can be taken in order to conserve it.

²⁸² Interview with MSCA.

²⁸³ The stakeholders consulted have given examples of reintroduction and repopulation programmes carried out by zoos in collaboration with Natura 2000 sites (reintroduction of the griffon, repopulation of the turtle *emys orbicularis*), while examples are also included in the EU Zoos Directive Good Practices Document.

inconsistencies, and one stated there were overlaps²⁸⁴, without providing further evidence or explanation.

b. Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein (Wildlife Regulation)

Council Regulation (EC) No 338/97 is the main EU act implementing CITES in the EU legal order. The recitals of the Zoos Directive make reference to the Regulation, suggesting that there is a link between the two legal instruments. The coherence analysis indicates coherence and synergies in their objectives and the requirements they contain.

With regard to the objectives, both the Zoos Directive and the Wildlife Regulation (which pre-dates the Directive) aim to conserve biodiversity. To achieve this aim, the Regulation regulates trade in wild species of fauna and flora through a system of procedures and documents regulating imports, exports, re-exports, as well as intra-EU trade of the species listed in its annexes.

Importantly, Article 8 of the Regulation prohibits the commercial trade of Annex A species. The ‘display to the public for commercial purposes’ clearly figures among the commercial activities mentioned in that provision. Pursuant to paragraph 4 of Article 8, derogations from the prohibition may be granted for research and education purposes aimed at the preservation and conservation of species, as well as for species intended for breeding that will build up conservation benefits for the species concerned. Due to Article 3 of the Zoos Directive, which requires zoos to engage in research (expressly providing that research must accrue conservation benefits to the species), to promote education and, where appropriate, captive breeding, repopulation or reintroduction of species into the wild, zoos can benefit from this derogation and display to the public those species included in Annex A of the Regulation. The possibility for zoos to import and include in their collections animals that are in threat of extinction is fully coherent with their conservation role under the Directive. However, it was raised by NGOs that there may be a risk that zoos may argue their conservation role in order to obtain a derogation from the prohibition on exporting animals, while using them solely for entertainment purposes. One NGO interviewed for this study stated that dolphins are listed in Annex A of Council Regulation No.(EC) 338/97, prohibiting the import of dolphins for commercial purposes, and yet dolphinariums are commercial facilities and no legislation exists to prevent further imports of wild-caught dolphins into the EU.

In terms of synergies, the survey indicated that zoos record-keeping systems were often also used for permits, information exchange and transport certificates (in 45 out of 70 zoos surveyed), and for animal identification in line with the CITES Regulation (41 out of 70). To that extent, the fifth indent of Article 3 may have contributed to the implementation of the CITES Regulation (or the other way around).

To enhance such synergies, given that the implementation of the CITES and the EU Wildlife Regulations entails inspections by CAs to ensure that animals are lawfully obtained, to control the validity of imports and the appropriateness of the facilities that accommodate the CITES species²⁸⁵, zoos hosting CITES species could benefit from the establishment of a single inspection system for zoos that would deal with all EU legislation applicable to them²⁸⁶.

c. Regulation (EC) No 1143/2014 on invasive alien species (IAS)

The IAS Regulation is also part of the EU legal framework on biodiversity conservation, establishing rules specifically targeting the problem of IAS. The Regulation has close links with the Zoos Di-

²⁸⁴ The interviews revealed that there is no clear understanding of the term ‘overlaps’, with some stakeholders interpreting it as having positive connotations.

²⁸⁵ For the introduction into the Community of species listed in certain Annexes, Regulation 338/97 requires the applicant to provide documentary evidence that the intended accommodation for a live specimen at the place of destination is adequately equipped to conserve and care for it properly.

²⁸⁶ This was one of the findings of a meeting organised by DG SANTE to present the findings of the audits carried out on approved bodies, institutes and centres (ABICs) under Directive 92/65/EEC.

rective. Firstly, the objective of both legal acts is conservation of biodiversity. Secondly, in addition to sharing a common objective, it may be argued that the two acts also contain similar requirements. The prevention and control of IAS (which is extensively regulated under the IAS Regulation) is also an essential requirement under the Zoos Directive. Among the conservation measures that zoos must implement under the Directive is the prevention of the escape of animals ‘*in order to avoid possible ecological threats to indigenous species*’. This suggests that even prior to the adoption of the IAS Regulation, the Directive recognised the need to take measures to prevent the spread of invasive species in view of the detrimental impact such spread may have on local biodiversity.

However, the two acts have important differences in their scope of application that ought to be highlighted. The Zoos Directive is a sector-specific instrument aiming to establish some minimum requirements for zoos across the EU. The IAS Regulation, on the other hand, was designed as an overarching act to comprehensively tackle the problem of IAS, without targeting any particular sector. Zoos, pet shops, pet owners and laboratories for instance, are all affected by the Regulation insofar as they keep or breed IAS. With regard to zoos, it should be further noted that, in practice, the 37 species listed as being of ‘Union concern’ under the Regulation include species that are in small minorities in the population of zoos²⁸⁷. Article 7 of the IAS Regulation essentially requires a ban in the keeping and breeding of IAS of Union concern. This prohibition applies to zoos which display and breed those species and zoos will thus have to gradually phase out these listed species. For now, the Regulation allows them to keep the animals already in their collection until the end of their life, provided that they take steps to prevent escape and reproduction.

Article 8 of the IAS Regulation then provides for derogations from the restrictions established under Article 7, enabling Member States to establish a permit system that will allow establishments to carry out research or *ex situ* conservation activities related to IAS of Union concern. Even though zoos undertaking such activities could, in principle, benefit from the exemption under Article 8, the issuing of permits is subject to the cumulative fulfilment of strict conditions (listed in the second and third paragraphs of Article 8), which include the physical isolation of the specimens, a continuous surveillance system, the design of a contingency plan covering possible escapes, and the existence and implementation of cleaning, waste handling and maintenance protocols to ensure that species cannot escape or be removed by unauthorised persons. There is no evidence on the numbers of zoos that have obtained a permit allowing them to include IAS in their collections since the adoption of the IAS Regulation.

During the targeted consultation, some stakeholders argued that there are problems of coherence between the Zoos Directive and the IAS Regulation. In particular, stakeholders pointed to the fact that measures to prevent escapes and the spread of IAS are already required of zoos under the Zoos Directive. Applying the provisions of the Regulation to zoos, in particular the prohibition to keep and breed IAS, could negatively impact the diversity of zoo collections. Stakeholders stated that this could also compromise the conservation, research and education objectives enshrined in the Zoos Directive, as some IAS are of conservation interest. Further, given their educational role, zoos could play an important role in addressing the risks from IAS invasions by raising public awareness of the issue. The public consultation also revealed that a greater number of respondents considered there to be a coherence problem in respect of the two acts than the number observing consistency between them.

From a legal perspective, there is no incoherence between the Zoos Directive and the IAS Regulation. The Regulation is the *lex specialis* on the IAS issue, establishing a comprehensive system of measures to address the negative impact of IAS on biodiversity. Biodiversity conservation, which is the overarching objective of both acts, must prevail over secondary objectives such as the promotion of education and awareness of the IAS problem. The ban on keeping and breeding IAS does not annihilate the educational role of zoos, who may still raise awareness of the IAS problem through other means, such as displaying European native species that are invasive in other areas of the world.

²⁸⁷ Interview with EU stakeholder.

By providing for an exception to the ban on keeping and breeding IAS for institutions carrying out *ex situ* conservation or research, from which zoos could benefit, the Regulation sufficiently acknowledges the importance that these activities could play on biodiversity conservation. Zoos may benefit from this exception for listed IAS that are of conservation interest²⁸⁸. The fact that the derogations are subject to strict conditions, aimed at limiting the danger of escapes and IAS spread, does not hinder but rather reinforces the conservation objectives of the two acts. Among the issues raised in the Born Free 2011 Zoo Inquiry (Born Free, 2012) was the fact that enclosure fencing in zoos was frequently observed to be in a poor state, such that it could permit the escape of non-indigenous species into the natural environment²⁸⁹. Even though it acknowledged that zoos are not the main pathways for IAS, there is evidence that they can be pathways in certain circumstances, which justifies taking a strict approach. There is thus full coherence between the overarching objectives of the Zoos Directive and the IAS Regulation, as well as potential for synergies. Zoos may play an important role in the implementation of the IAS Regulation, under the IAS management measures that Member States must have in place under Article 19 of the Regulation. As part of their strategy to prevent and mitigate the impact of invasive species, Member States may provide for zoos to take captured species and keep them in their collections until the end of their life, provided that reproduction and escape are prevented. In this way, zoos may contribute significantly in the management of those species while also benefiting from the opportunity to display them and educate the public.

d. Directive 92/65/EEC laying down animal health requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to other specific rules

The coherence of the Zoos Directive with Council Directive 92/65/EEC²⁹⁰ has also formed part of this study, given the relevance of the latter for zoos. Directive 92/65/EEC is not part of the EU environmental *acquis* on biodiversity but is, rather, an act adopted under Article 43 of the EEC Treaty giving the competence to the then Communities to adopt legislation for the implementation of the Common Agricultural Policy (CAP). The Directive lays down detailed animal health requirements for the trade in animals, semen, ova and embryos in the EU, including import rules, with a view to ensuring that intra-EU trade will not be prohibited or restricted by Member States for animal health reasons other than those arising from the requirements of Union legislation. As it concerns trade in all animals for which no health requirements are provided under other, more specific EU legislation, trade in zoo animals falls within its scope of application. Despite the absence of a biodiversity conservation objective, it is considered that by establishing detailed animal health rules that include quarantine and testing requirements, Directive 92/65/EEC results in a higher level of biosecurity, which in its turn contributes to biodiversity conservation and thus supports the objectives of the Zoos Directive.

While, in general, intra-EU trade of animals under Directive 92/65/EEC requires a health certificate issued by the CA, the Directive establishes a special regime for ‘approved bodies, institutes or centres’ (ABICs), defined as establishments approved in accordance with Article 13 of the Directive, where animal species are kept or bred for one or more of the following purposes: display of animals and education of the public, conservation of the species, or basic or applied scientific research or breeding of animals for the purposes of such research. Given that Article 3 of the Zoos Directive requires zoos to undertake at least one of the abovementioned activities, zoos can be approved as ABICs if they comply with the ABICs approval and supervision conditions listed in Annex C to Directive 92/65/EEC. The benefit of ABIC approval is that ABICs can then exchange animals amongst themselves more easily.

The approval conditions for ABICs in Annex C to Directive 92/65/EEC contain requirements that are similar to those imposed on zoo operators under the Zoos Directive. In particular, Annex C requires ABICs to have quarantine facilities and to legally secure the services of a veterinarian who will be responsible for ensuring that vaccination against infectious diseases takes place and that an annual disease surveillance plan is applied in the approved institution. This is consistent with Article 3, third

²⁸⁸ None of the species listed in the IAS list as being of Union concern are listed as endangered species under the IUCN list.

²⁸⁹ Born Free 2011 Zoo Inquiry (Born Free, 2012), p. 40.

²⁹⁰ The Directive is often informally referred to as ‘the Balai’ Directive.

indent, of the Zoos Directive, which refers to the maintenance of ‘a high standard of animal husbandry with a developed programme of preventative and curative veterinary care and nutrition’. The Commission Good Practices Document indicates that veterinary care in zoos should involve curative care, but also the development and execution of preventative health programmes that include health monitoring, parasite control and vaccination, quarantine procedures and biosecurity measures (European Commission 2015, p.45-47). This resembles the measures imposed on ABICs under Directive 92/65/EEC.

Both Directives require the keeping of up-to-date animal records. While the Zoos Directive does not indicate what such records should include, Annex C to Directive 92/65/EEC details the information that must be registered. The Zoos Directive Good Practices Document provides some guidance on the content of the records, comparable to Annex C to Directive 92/65/EEC. Finally, the requirement under the Zoos Directive to take measures to prevent the escape of animals in order to avoid the spread of IAS and the intrusion of outside pests and vermin could be viewed as similar to the obligation imposed on ABICs to separate animal surroundings or maintain the animals confined and located in a manner so as not to pose risks to agricultural holdings.

For the licensing and inspections regime, Directive 92/65/EEC contains more detailed requirements than Article 4 of the Zoos Directive. The frequency of inspections is regulated in Directive 92/65/EEC. In addition, Annex C Point 2 to Directive 92/65/EEC requires that in order to maintain approval as an ABIC, an official veterinarian from the CA shall visit the premises of the ABICs at least once per year, to audit the activities of the ABICs veterinarian and to ensure that the Directive provisions are met.

In practical terms, the combined effect of the Zoos Directive and Directive 92/65/EEC is that zoos that are listed as ABICs are inspected more often than other zoos. Stakeholders reported that the existence of two inspection procedures for ABIC zoos could lead to confusion and duplication of the administrative work needed, both from the zoos themselves and the CAs responsible for the inspections. For instance, audits performed by DG SANTE in Hungary to evaluate the animal health control system in place for ABICs, revealed that the authorities considered their obligations under Directive 92/65/EEC to be met through the decree implementing the Zoos Directive. The latter requires the licensing authority to check the operation of a zoo once every five years, despite the fact that point 2(a)(i) of Annex C to the Directive 92/65/EEC requires that an inspection is carried out by an official veterinarian at least once a year²⁹¹. A similar audit performed in Spain indicated that the authorities in charge of licensing and inspecting zoos are different to those carrying out approval and inspections of ABICs, with unclear respective responsibilities for the approval of such establishments. As this could lead to inefficiencies and duplication in the work of CAs and zoos, synergies between the different inspection procedures should be further exploited. Box 15 shows examples of Member States where a common inspection system is in place.

Box 15: Common inspection systems

Zoos must comply with a series of obligations, stemming from different international, EU and national laws. These include the Zoos Directive and their national transposing legislation, but also the CITES and EU Wildlife Regulation, Directive 92/65/EEC laying down animal health requirements, legislation on animal by-products etc.

Some Member States already implement joint inspections to verify compliance of zoos with the abovementioned pieces of legislation.

- Danish CA authorities organise common inspections to check compliance of zoos with their obligations under the Zoos Directive, Directive 92/65/EEC and legislation on animal by-products.
- In Belgium, Lithuania, France and Portugal, there is a common inspection to ensure compliance with the Zoos Directive and Directive 92/65/EEC.

²⁹¹ http://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3431

- In Sweden, authorities cover jointly the enforcement of the Zoos Directive, the Wildlife Trade Regulation and animal welfare legislation.
- Spain has also made some efforts towards the implementation of a system of joint inspections. A coordination meeting of the national committee for identification and registration of ABICs agreed on a means of registering zoos approved as ABICs, while a regional ABIC CA identified possible synergies with other official controls to which ABICs, including zoos, are subject. The regional ABIC CA plans to increase its coordination with other CAs, such as those responsible for animal welfare or environmental matters²⁹².

The organisation of common inspections can be beneficial both for zoos and CAs. Each time there is an inspection, zoos need to devote time and resources to gathering the necessary documentation in order to demonstrate compliance with the applicable legislation. The same applies for CAs, who also need time and resources to carry out the inspections and assess compliance. Common inspection procedures can be more efficient and prevent duplication in the work of zoos and CAs.

The analysis reveals that despite the differences in their objectives and scope, the two Directives are generally consistent in the requirements they impose on zoos. There is also the potential for further synergies to be exploited in order to render the inspections system more effective. Overall, it can be concluded that the detailed health rules and biosecurity rules in Directive 92/65/EEC are coherent with the Zoos Directive, as they directly contribute to zoos fulfilling their obligations in respect of Article 3 requirements to maintain high standards of animal husbandry, with developed programmes of veterinary care, while indirectly supporting its conservation objectives through the elevated health and biosecurity standards.

5.4.1.2 Conflicting requirements

The legal analysis revealed no coherence problems between the Zoos Directive and other EU legislation, with the exception of some theoretical inconsistencies with Commission Regulation (EC) No 1739/2005 laying down animal health requirements for the movement of circus animals between Member States. It could be argued – and it was indeed perceived by some stakeholders – that the absence of a conservation objective in the Circus Regulation could compromise achievement of the conservation objectives of the Zoos Directive and other conservation-oriented legislation.

Article 2 of the Zoos Directive defines zoos for the purposes of the Directive, and circuses are explicitly excluded from the scope of application. While circuses need to comply with the EU Wildlife Regulations, there is no comprehensive EU legislation aimed at regulating the activities of circuses or the welfare of circus animals, other than Commission Regulation 1739/2005.

The Circus Regulation was based on Article 23 of Directive 92/65/EEC, which empowered the Commission to adopt special requirements for the movement of circus animals. Similarly to Directive 92/65/EEC, the Circus Regulation is not part of the environmental legislation aimed at biodiversity conservation but, rather, aims to lay down animal health rules that will facilitate the intra-EU movement of those animals. To this end, it requires the registration of circuses with the CA of the Member State where the circus has its legal residence, or where it is situated, and foresees checks to be carried out by the CA in order to control compliance with the animal health rules established in the Regulation. Before the movement of a circus to another Member State, an official veterinarian in the Member State of departure is required to verify the accuracy of the animal passports and of the circus register, as well as being obliged to inspect all animals to ensure that they are clinically healthy. The obligation to ensure the ‘clinical health’ of the circus animals certainly does not go as far as the obligations imposed on zoo operators under the Zoos Directive, i.e. to accommodate their animals under conditions that satisfy the biological and conservation needs of the individual species, to provide species specific enrichment of the enclosures, and to maintain a high standard of animal husbandry. Thus, it can be argued that there is some inconsistency in the level of animal welfare requirements imposed on zoos

²⁹² http://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3361

on the one hand, and circus operators on the other.

From a legal perspective however, given the clear exclusion of circuses from the scope of the Zoos Directive, there is no interaction between the Directive and Regulation 1739/2005. Due to the different scopes of application and different objectives of the two acts, no coherence issues should be noted.

Opinion of the wider public

Even though the coherence analysis is mainly a legal exercise, responses to the public consultation provided a useful overview of public perceptions of the coherence and interactions between the Zoos Directive and other legal acts and policy documents. With regard to the public consultation, it should first be noted that the ratio of respondents who did not have an opinion on this matter was particularly high. This is understandable, as assessing coherence requires a familiarity with the targeted legal instruments and a certain level of technical and legal knowledge.

Of those members of the public who expressed an opinion on the coherence questions, their responses showed some trends. The public considers there to be consistency and positive interaction between the Zoos Directive and the Nature Directives, Directive 92/65/EEC laying down animal health requirements, and policy documents developed by EAZA and WAZA, such as the European Code of Conduct on zoological gardens and aquaria, and invasive alien species, and the WAZA conservation strategies.

On the other hand, for certain instruments, a great number of respondents stated that there are gaps than those that noted consistency. This is clearest for the IAS Regulation, which was highlighted as lacking consistency (gaps) by all types of stakeholders (mostly by zoo operators and businesses, but also public authorities and individuals). Regulation 1739/2005 on the movement of circus animals was also mentioned, mainly by NGOs and individuals, as not being coherent with the Zoos Directive. However, in view of the differences in scope between these instruments and the Directive, from a legal perspective they are not inconsistent.

5.4.1.3 Summary and conclusions

The Zoos Directive is coherent with the targeted legislation and is an important part of the EU framework on biodiversity conservation. The legal analysis of the Zoos Directive and the legal acts examined under this section indicates that their objectives and requirements are similar. There are several interactions between the Zoos Directive, the Nature Directives, the EU Wildlife Regulations, the IAS Regulation and Directive 92/65/EEC that could reinforce the achievement of the biodiversity conservation objective embodied in most of these legal instruments. There is also potential for further synergies, e.g. between the Zoos Directive and the Nature Directive in the development of reintroduction programmes for native species and the design of educational programmes. Similarly, synergies between the different inspection procedures to check the compliance of zoos with the EU legislation applicable to them (Zoos Directive, CITES Regulation, Directive 92/65/EEC, Regulations covering transport) should be considered by the Member States when implementing the relevant laws, as this would reduce administrative burden for zoos and CAs.

The findings of the stakeholder consultation support the conclusions of the legal analysis, with the majority of respondents considering the Directive to be consistent and mutually supportive of the targeted acts. Even though some stakeholders and responses to the public consultation pointed to inconsistencies between the Zoos Directive and both the IAS Regulation and Commission Regulation No. 1739/2005 on the movement of circus animals, the legal analysis found no coherence issues.

5.4.2 Coherence – EQ 13

To what extent does the Directive support the EU internal market and the creation of a level playing field for economic operators, especially SMEs?

The evaluation of coherence also seeks to examine the extent to which the Directive has supported the EU internal market and the creation of a level playing field for zoos across the EU. Answering this

question requires an analysis of the following:

- Legal basis of the Directive.
- Common requirements it established for zoos across the EU.
- Practical implementation and enforcement of the Directive in the different Member States.

Stakeholder opinions provided during the targeted consultation, on the benefits of the Directive insofar as it has established a common legal framework in the EU, are also taken into consideration.

5.4.2.1 Applicable legal framework and implementation

This section assesses the coherence between the Zoos Directive and the underlying principles of the EU internal market. The internal market is defined in the Treaty on the Functioning of the EU as an area without frontiers, in which the free movement of goods, persons, services and capital is ensured. This entails the elimination of trade barriers between Member States, *inter alia* through the adoption of EU legislation establishing harmonised, common rules that provide a clear and predictable legal framework for business. In addition to clarity and legal certainty, the rules create a level playing field throughout the internal market for economic operators by applying equally to all competitors in the internal market. In view of their size and limited resources, it is harder for SMEs to respond to the costs of regulation, and it is important that the design of harmonised rules consider the differences in costs and benefits of regulation for companies of different sizes.

The Zoos Directive is not among the EU acts creating internal market harmonisation. Trade and intra-EU movement of animals is covered by different legislation to complete the internal market. However, the legal basis for the adoption of the Zoos Directive was Article 130s of the Treaty establishing the European Communities, providing for the competence of the then European Community to adopt non-market related measures for preserving, protecting and improving the quality of the environment. The adoption of environmental regulations often imposes some regulatory burden on economic operators, and this is acceptable in view to the need to protect the environment. Even though zoos are economic operators that may generate significant income from the visits of the public, and trade in animals is regulated under a series of EU acts adopted with the aim to complete the internal market, for the purposes of the coherence analysis, the environmental legal basis of the Zoos Directive, its biodiversity conservation aim and the absence of an internal market harmonisation objective, must be emphasised.

The Directive ensures that zoos across the EU are subject to certain harmonised requirements, including the obligation to adopt the conservation measures of Article 3, to hold a licence and to be subject to inspections by the MSCAs. Prior to the adoption of the Zoos Directive, legislation regulating zoos existed in only some Member States thus, by establishing minimum requirements with which all zoos across the EU should comply, the Directive has contributed positively towards achieving a level playing field for zoos.

The establishment of a level playing field requires uniform implementation of EU legislation by the Member States. The implementation of the Zoos Directive shows that, in practice, there are discrepancies in the level of obligations imposed on zoos across Member States. The lack of details of the requirements set by the Directive has given Member States a significant margin of discretion at the implementation stage. This has resulted in a situation where Member States have adopted legislation which varies significantly in terms of the obligations with which zoos must comply. The EU Zoo Inquiry, which investigated the implementation and enforcement of the Directive in all Member States, concluded that ‘implementation of the Directive’s requirements is inconsistent across the EU and enforcement is largely lacking in the majority of EU Member States’ (Born Free 2012, p.12) (see Section 5.1.3 for a detailed analysis of the implementation of the Directive).

In view of the differences in implementation and enforcement of the Directive, the legal analysis indicates that a level playing field has not yet been achieved for zoos. This conclusion is supported by the results of the targeted consultation, as well as the views of zoo operators on the benefits stemming

from the Directive establishing a common, EU-wide legal framework and a level playing field between zoos in different Member States: 39% of the respondent zoos reported that the Directive brought no benefit or only minor benefits in this regard; 26% believed the benefits to be moderate; and only 8% considered the benefits major (the remaining 27% expressed no opinion/ did not give an answer). Responses to the public consultation, however, suggested that the public had a different view. When answering the relevant question, 63% of the respondents considered the Directive to have brought significant or crucial benefits in ensuring a coherent legal framework for zoos operating across the EU.

In addition to the legal framework, the similarities or differences in the costs borne by zoos across Member States, as well as for zoos of different sizes, are important indicators in assessing the existence or absence of a level playing field in the EU. From the results of the targeted consultation, no evidence can be drawn as to the extent of differentiation among Member States in terms of costs and benefits faced by zoos.

As to the economic impact of the Zoos Directive on zoos of different sizes, the results of the analysis suggest that, overall, costs are not thought to be disproportionate (Section 5.2.1). However, smaller zoos appear more likely to consider costs disproportionate. Similarly, the majority of the CAs (64%) considered it more difficult for small zoos to bear the costs of implementing Article 3 requirements. While the opinions of stakeholders could suggest a difference between small and large zoos in terms of costs and benefits, in the absence of detailed information no conclusions can be drawn as to the contribution of the Directive to the creation of a level playing field for zoos that fall into the category of SMEs.

5.4.2.2 Summary and conclusions

The information gathered indicates that the Zoos Directive has made a positive contribution to the establishment of a level playing field for zoos across the EU. Prior to its adoption, there was no regulation for zoos in some Member States, yet all zoos must now comply with the minimum requirements imposed by the Directive, such as the obligation to hold a licence and to implement the conservation measures listed in Article 3. However, the Directive's requirements have not been implemented in a harmonised manner. Due to the framework nature of its requirements, there are significant discrepancies in the obligations imposed on zoos, as well as in the enforcement of the Directive in the different Member States. This suggests that a true level playing field has not yet been achieved for European zoos.

5.5 EU Added Value

In line with the Better Regulation Guidelines, EU Added Value looks at the changes which can reasonably be attributed to the EU intervention rather than any other factors (i.e. results of interventions initiated at regional or national levels by public authorities and the private sector).

In assessing the EU Added Value of the Zoos Directive, there is a substantial lack of data on the baseline and the changes produced (i.e. conservation measures implemented by zoos before and after the entering into force of the Zoos Directive), while estimating the effects of conservation measures promoted by zoos on biodiversity is a complex task, one which has generated debate in literature and is outside the scope of this supporting study.

In this context, the EU Added Value analysis examines, from a qualitative perspective, the extent to which the Zoos Directive has contributed to strengthening the role of zoos and promoting the adoption of conservation measures in a way that could not be achieved by Member States and other stakeholders, and whether there is a need for continued EU action.

More specifically, the following aspects are explored:

- Which results can be attributed to the Zoos Directive and would not have been achieved

- otherwise (Evaluation Question 14)?
- Have Member States gone beyond the provisions of the Zoos Directive, and which is the level of harmonisation achieved (Evaluation Question 15)?
- What would be achieved in the absence of the Zoos Directive, given the developments at both national and international level (including actions promoted by private stakeholders) (Evaluation Question 16)?

The analysis combines different sources, including the opinions expressed by stakeholders, and draws on illustrative cases in order to reflect transformational changes, which almost certainly would not have happened without the Zoos Directive²⁹³.

5.5.1 EU Added Value – EQ 14

What has been the EU added value of the Zoos Directive compared to what could be achieved by Member States at national and/or regional levels?

This question focuses on the added value of the EU Zoos Directive compared to actions at international, national or regional levels. It firstly examines how and to what extent the Zoos Directive played a role in creating a legal framework regulating zoos and promoting the shift of all zoos towards biodiversity conservation. Secondly, it analyses how the Zoos Directive has contributed to the strengthened role of zoos in biodiversity conservation, compared to other factors (memberships of zoos' associations with stringent standards, evolution of the attitude of the public, and individual ambitions of zoos).

The information used to address this question comes from desk research, including the legislative frameworks existing before the adoption of the Zoos Directive, infringement cases launched by the European Commission against Member States, information gathered through the targeted surveys and opinions expressed through the public consultation.

5.5.1.1 Role of the Zoos Directive in prompting the adoption of national legislation and establishing common minimum requirements across the EU

The evolution of the role of zoos towards conservation-oriented entities started before the adoption of the Zoos Directive, as illustrated in the 1993 World Zoo Conservation Strategy (IUCN/CBSG 1993). Before the entering into force of the Directive, zoos' organisations also required their members to participate in activities and engage in conservation measures beyond the mere display of animals, through standards such as the EAZA Research Standards, Education Standards, Conservation Standards (also referenced in the preamble of the Zoos Directive).

Yet, in the majority of Member States examined under this study, no legal requirements addressed *all* aspects covered by the Directive, prior to adoption of the Directive.

As highlighted in Section 2.1.2.3, only four of the 14 selected Member States (Belgium, Denmark, France and Spain²⁹⁴) had some legislation on the licensing of zoos before the entry into force of the Directive in 1999 (European Parliament 1993). The table below presents the legislation that applied in those countries at that time.

²⁹³ A suggestion at the inception stage of the study was to assess differences in the results achieved in relation to the stage and/or quality of implementation in the different Member States (e.g. by comparing the results achieved in newer vs. older Member States, or in Member States considered to exhibit best practice vs. those with poor practices). However, the evidence collected suggests that such an approach would not produce meaningful results. Indeed, it has been not possible to find clear links between the implementation of the Directive in the Member States and the features of the national licensing and inspection systems on the one hand, and the results in terms of effective implementation of conservation measures by zoos on the other hand.

²⁹⁴ Regarding the other countries that were members of the EU at the time of the adoption of the Directive, the UK also had legislation prior to the adoption of the Directive. The 1981 Zoo Licensing Act established a comprehensive licensing and inspection system for zoos. The government produced a list of authorised inspectors and detailed guidelines for the accommodation and care of animals in zoos. This legislation was considered one of the models on the basis of which the Zoos Directive was drafted.

Table 33: Legislation prior to the adoption of the Zoos Directive

Country	Legislation	Main provisions
Belgium	Royal Order of 14 August 1986 on the protection and well-being of animals Royal Order of 10 August 1998 on the licensing of zoological gardens	Belgian legislation required licences for zoos, animal parks and private collections. It outlined conditions for the accommodation of wild animals. By the adoption of a Royal Order of 1998, the framework was revised in 1998 to follow the proposal and content of the Zoos Directive ²⁹⁵
Denmark	Act on Animal Welfare (1967) Act on State subsidies to zoological gardens (1977, amended in 1980, 1983, 1985)	Danish legislation required zoos to hold authorisations issued by the police authority on the basis of information (submitted by the applicant) on the conditions of animal accommodations and inspections
France	Law of 10 July 1976 on the protection of nature Amended Ministerial Order of 25 October 1995 on the implementation of the control of establishments holding non-domestic animal species Ministerial Order of 21 November 1997 defining two categories of establishments other than establishments practicing breeding, sale and transit of game species for which hunting is allowed, holding non-domestic animal species	Zoos are regulated under the general legislation on nature protection, complemented by regulations on the conditions for keeping wild animals, the licensing system and inspection of zoos
Spain ²⁹⁶	Decree of 24 April 1975 and Order of 28 July 1980	Zoological collections must be authorised and registered by the Provinces

Source: (European Parliament 1993).

The legislation existing in those Member States prior to the adoption of the Directive contained at most: (i) requirements for licensing; (ii) requirements for inspection; (iii) conditions for animal accommodation; (iv) requirements for animal welfare. These pieces of legislation did not systematically include requirements for wider conservation measures, unlike Article 3 of the Zoos Directive²⁹⁷.

The late transposition of the Zoos Directive, even in Member States where legislation regulating zoos was already in place, demonstrates how the adoption of the Directive induced changes to the existing legislative frameworks, especially regarding the inclusion of conservation measures as part of the licensing requirements of zoos²⁹⁸.

Member States joining the EU more recently adopted national legislation on zoos shortly before their accession (see Section 4.1.4)²⁹⁹, suggesting that the existence of an EU Directive was the key driver behind national developments.

Before the action taken by the EU and the adoption of the Zoos Directive, in the absence of national legislation requiring zoos to be licensed and inspected, only zoos that adhered to zoos' federations had to undergo inspections, as part of their membership requirements (EAAM 2016, EAZA 2016). Since 1994, EAZA applied standards on the accommodation and care of animals³⁰⁰. However, even in those

²⁹⁵ Interviews with BE MSCAs.

²⁹⁶ Spanish legislation was ruled as failing to satisfy the requirements of the Directive on the licensing system (Commission v. Spain 2010).

²⁹⁷ Such as: participation in research, training or in exchange of information, captive breeding, repopulation or reintroduction of species into the wild; public education and awareness raising; keeping records of animal collections.

²⁹⁸ Effective transposition of all the requirements of the Directive was late in Denmark, France and Spain (i.e. Member States that had legislation in place prior to the adoption of the Zoos Directive). France transposed the legislation on time, while Belgian legislation was considered to be already aligned with the provisions of the Zoos Directive.

²⁹⁹ Cyprus, Czech Republic, Lithuania and Poland adopted transposing legislations between 2002 and 2004, Bulgaria between 2003 and 2006.

³⁰⁰ Original Standards for the Accommodation and Care of Animals in Zoos, 1994 (based on information provided by EAZA).

cases, the implications of not complying with the requirements set up by the zoos' federations were not as severe as the consequences of a lack of compliance with legislation (i.e. mainly bilateral discussion between EAZA and the failing member zoos to achieve compliance, suspension of participation in EEPs and ESBs programmes)³⁰¹. In addition, EAZA standards and guidance gradually developed and increased their focus on education, research and, more generally, on conservation strategies between 1994 and 2000s³⁰².

Besides this information on the legal framework applicable to zoos and the information gathered in the European Survey of Zoological Collections (Travers et Straton 1988), no quantitative information was available regarding the situation of zoos before the adoption of the Directive.

Overall, the available evidence points to the fact that the Directive was the legal basis that led to the adoption of national legislations and the establishment of licensing and inspection schemes in all of the Member States, forcing all zoos to take part in conservation activities, including minimum requirements for accommodation and animal husbandry. In that respect, the EU intervention induced important changes across the EU Member States, by providing a framework applicable to all zoos, including those outside zoos' organisations. Even if standards and guidelines were provided by zoos' federations such as EAZA prior to the adoption of the Directive, the limitations in terms of coverage (17% of licensed zoos are currently part of EAZA) and scope (mainly focused on accommodation and care of animals) should be acknowledged.

EU action has, therefore, contributed to the creation of a **common and coherent legal framework for zoos**, one of most notable benefits of the Zoos Directive recognised by the stakeholders through the public consultation³⁰³, interviews and discussions held during the Workshop on the REFIT evaluation of the Zoos Directive (Brussels, 16 May 2017)³⁰⁴. It also contributed to **the promotion of the role of zoos as entities participating in the wider conservation of biodiversity**. Additionally, most of the stakeholders participating in the public consultation also pointed to benefits in terms of improved licensing and inspection schemes of zoos³⁰⁵, revealing a positive perception about the developments triggered by the Directive in this respect. Finally, stakeholders underlined that the cross-border nature of conservation issues emphasise the need for coordinated and consistent actions at supra-national level³⁰⁶.

5.5.1.2 Strengthened role of zoos in the conservation of biodiversity: contribution of the Zoos Directive and other factors affecting developments

While it is safe to say that the Zoos Directive triggered the adoption of national legislations on previously unregulated aspects of zoos in the vast majority of EU Member States, it is more difficult to establish the extent to which the new legal framework (rather than other factors) contributed to promoting widespread implementation of measures on biodiversity conservation and thus strengthened the role of zoos in protecting wild fauna and conserving biodiversity.

The 'Effectiveness' analysis underlined that, in line with Article 3 of the Zoos Directive and the requirements of national licensing and inspection systems, many zoos have implemented several conser-

³⁰¹ Interview with stakeholder.

³⁰² First EAZA Conservation Education Standards were adopted in 2001; EAZA Research Statutes in 2003; EAZA Conservation Standards in 2016 (based on information provided by EAZA).

³⁰³ Based on the results of the public consultation and the interviews with zoos and zoos' federations (See Section 5.2.1.2, on the benefits associated with the Zoos Directive). In particular, in the public consultation, 63% of respondents (1,457 out of 2,297) considered the Directive to have brought significant or crucial benefits in that respect, 19% (426) attributed no benefit or minor benefits to the Directive, and 18% (414) had no opinion.

³⁰⁴ See Workshop Report, May 2017, available at:

http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

³⁰⁵ In the public consultation, 60% of respondents (1,391 out of 2,297) considered the Directive to have brought significant or crucial benefits in terms of coherent legal framework for zoos, 22% (508) attributed no benefit or minor benefits to the Directive, and 18% (408) had no opinion.

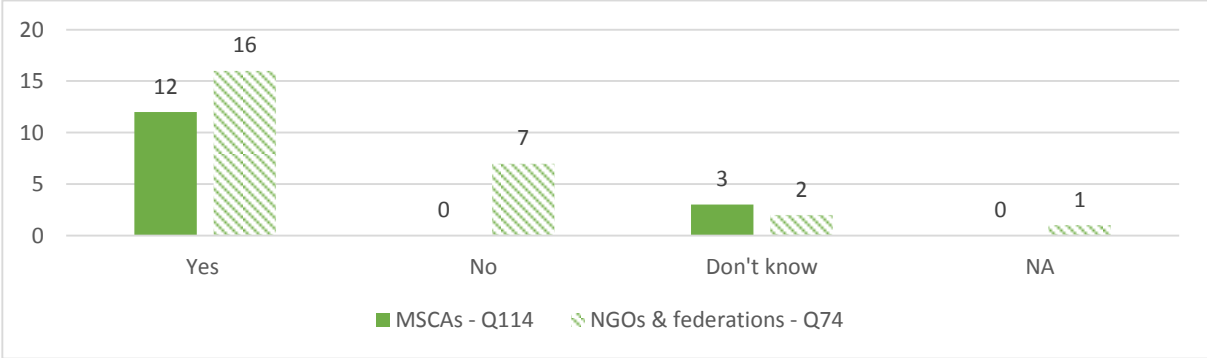
³⁰⁶ See Workshop Report, June 2017, available at:

http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

vation measures, have set up written conservation and education strategies, and ensure high standards of animal husbandry. However, the Directive is not necessarily perceived by the zoos as the main driver behind the adoption of those measures. According to the results of the survey (and confirmed in interviews), many zoos that are members of federations were already engaged in conservation activities, or would have undertaken those measures, in the absence of the Directive. In particular, looking at the analysis of the costs implied by the Zoos Directive, only a few zoos attributed the costs occurred (investment and recurring expenses) directly to the Zoos Directive, as in most cases these were considered part of their operating costs and commitments (Section 5.2.1.1).

These elements are mirrored in the opinions expressed by stakeholders in the targeted consultations. Broadly speaking, the majority of MSCAs and NGOs agreed that EU intervention (i.e. the Zoos Directive) contributed to a more efficient and faster implementation of the conservation measures, as required by Article 3, compared to national law and non-legal initiatives (such as zoos’ federations’ requirements) (Figure 36).

Figure 36: Online responses to the question ‘Do you think that the EU intervention has contributed to make zoos adopt or implement the Article 3 conservation measures more efficiently or more quickly as compared to national law or non-legal initiatives?’ (Total number of respondents = 111)

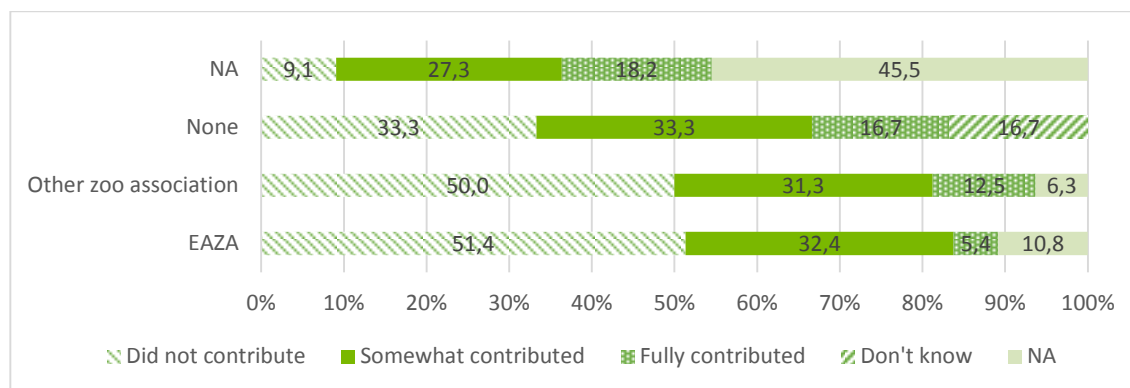


Source: Present survey of MSCAs, federations, NGOS and experts.

Zoos give a more mixed picture, with most stating that the Zoos Directive has contributed to the implementation of conservation measures **only partly, or not at all**. This trend is highly influenced by many of the responding zoos’ membership of a zoo organisation (national and/or European/international, including EAZA). As Figure 37 shows, half of zoos that are members of zoos’ associations indicated that the Directive did not contribute to implementing new conservation measures in their zoo. Apparently, zoos that are members of such organisations implement conservation measures notwithstanding the national requirements introduced in compliance with the Zoos Directive.

The effects of the legislation on inducing the implementation of conservation measures by zoos appear to be notable for those zoos not belonging to a zoos’ association (six respondents in this category).

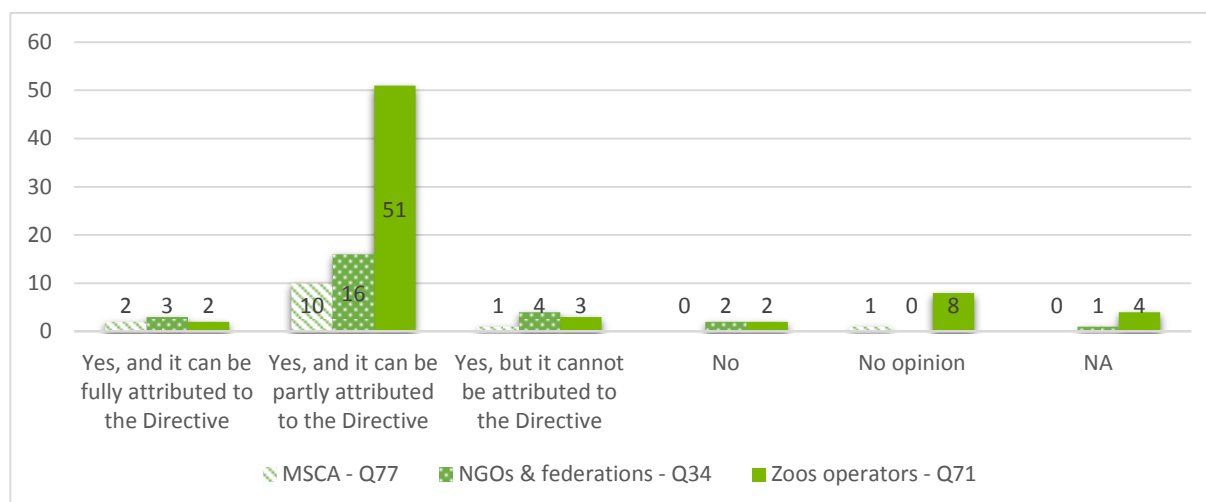
Figure 37: Zoos' online responses to question 108 'In your zoo, to what extent has the Zoos Directive contributed to implementing new conservation measures or improving the existing ones?' (in %, out of 70 responding zoos in total; 37 EAZA members; 16 other zoos' federations; six no zoos' federations; 11 undetermined)³⁰⁷



Source: Present survey of zoos

The consultation reveals similar results in relation to the strengthened role of zoos. Although progress has generally been achieved towards the general and specific objectives of the Zoos Directive (as argued in Section 5.1.1), most of the stakeholders, across all groups, agreed that the Directive has only partly contributed to improving the role of zoos in conservation of biodiversity (see Figure 38 below).

Figure 38: Online responses to the question 'In your opinion, has the role of zoos in the conservation of biodiversity been strengthened over the last 15 years? Can this be attributed to the Zoos Directive?'



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

In general terms, the results of the consultation point to a contribution, although limited, of the Directive in relation to the implementation of Article 3 measures and to the strengthened role of zoos. This aspect emerged from the survey (as described), but also very often during the interviews with all stakeholder categories.

This judgement is explained by several factors that have hindered or contributed to enhancing the conservation role of zoos, already discussed in Section 5.1.3, and briefly outlined below.

On the one hand, two main factors appear to have partly diminished the contribution of the Zoos Directive to a strengthened role of zoos. These factors are related to the **design of the Directive itself**

³⁰⁷ Article 3, first indent, 'Participation in research and training, exchange of information, captive breeding, repopulation, or reintroduction of species into the wild'; Article 3, second indent, 'Promotion of public education and awareness'; Article 3, third indent, 'Animal accommodation that satisfy biological requirements and high standards of animal husbandry'; Article 3, fourth indent, 'Preventing the escape of the animals and the intrusion of outside pests and vermin'; Article 3, fifth indent, 'Keep appropriate records of the zoo's collection'.

and its provisions and, in turn, to the limits observed in its implementation.

As highlighted by the literature, the first factor that might limit the impact of the Zoos Directive on biodiversity conservation is the **alternative means of compliance offered by Article 3**, first indent, of the Directive (P. Rees 2005) (Born Free 2012) (Born Free 2016). Article 3, first indent, of the Zoos Directive obliges ‘participating in research from which conservation benefits accrue to the species and/or training in relevant conservation skills, and/or the exchange of information relating to species conservation and/or where appropriate, captive breeding, repopulation or reintroduction of species in the wild’. As underlined in the ‘Effectiveness’ analysis, the alternative wording of the Zoos Directive answers to the need to take into account the varied landscape of EU zoos and accommodate differences in capacities (see also Section 5.1.3.1). This wording, however, diminishes the potential of the Directive to force a shift in zoos, from entertainment facilities to centres more focused on biodiversity.

A second factor is related to the absence of prioritisation for local, national or regional protected and threatened species (Born Free 2012) (Born Free 2016)³⁰⁸. It was reported that zoos devote only a small proportion of their capacity to conserving the most threatened species (D. F. Conde 2011). The lack of specific provisions on this aspect in the Zoos Directive does not ensure the commitment of zoos to prioritising threatened species and their conservation.

Thirdly, other factors (independent from the Directive) have contributed to the shift in the role of zoos. It has been often argued that zoos contributing most significantly to wider conservation activities follow either their **individual ambitions or the requirements of zoos’ organisations** of which they are members. In particular, as mentioned several times in this report, affiliation with zoos’ organisations such as EAZA, EAAM or national organisations, is a key aspect in the implementation of conservation measures.

EAZA guidelines for the care and accommodation of animals in zoos were already in place before the implementation of the Directive (and are mentioned in its preamble), as well as captive breeding programmes (such as the EEP and ESB). The work of this organisation has evolved over the years, supporting the implementation of the Directive through standards, training, breeding programmes, awareness-raising activities campaigns, etc. Similarly, international stakeholders (e.g. WAZA) have long been engaged in the definition of standards and guidelines related to the management of *ex situ* conservation³⁰⁹. Currently, EAZA standards are generally more detailed than Article 3 of the Zoos Directive for conservation measures taken by zoos, as illustrated in Annex III.

As mentioned and further discussed in EQ 16, this does not mean that the same results would have been achieved on the basis of the work done by zoos’ organisations or under international agreements, in the absence of the Zoos Directive. Affiliation with a zoo organisation remains voluntary, and only a limited number of zoos are part of federations (for example, the estimated share of EAZA zoos is 17% at EU level³¹⁰). It has been pointed out that, by encouraging participation in research, captive breeding, repopulation and reintroduction, the Directive also had a role in extending the participation in programmes promoted by zoos’ federations (i.e. in the EAZA ESB and EEP programmes) beyond associated zoos³¹¹. Therefore, at least in some cases, it can be argued that the Zoos Directive and the standards and guidelines promoted by zoo’ federations have had a mutually reinforcing effect.

The work done by zoo federations remains an important factor supporting increased attention to conservation activities among zoos, along with the requirements of the Zoos Directive.

Finally, at the time of the adoption of the Directive, progressive zoos were already engaged in an important shift away from being entertainment centres towards taking a more active role in biodiversity conservation. There was also a change in visitors’ attitude and, in turn, in the perceptions of many zoo

³⁰⁸ Further details in Section 5.1.3.

³⁰⁹ For example, WAZA published its first Conservation Strategy in 1993.

³¹⁰ See Section 4.1 above.

³¹¹ See Section 5.1.1.3.

owners (who take public opinion very seriously), leading to an increased focus on biodiversity conservation and husbandry standards. By providing a common legal framework applicable to all zoos, the Directive followed and encouraged an emerging trend, at least to some extent.

5.5.1.3 Summary and conclusions

The analysis highlighted the following points in respect of the EU Added Value of the Directive:

- The Zoos Directive's main EU added value lies in the fact that it provides a common legislative framework, with minimum requirements applicable to all zoos. It triggered, in most Member States, the adoption of legislation specific to zoos, which were previously unregulated, and established licensing and inspection schemes. Even in Member States where previous legislation existed, the adoption of the Directive triggered amendments to the regulatory framework which brought about further emphasis on the conservation role of zoos.
- According to the results of the targeted consultation, the Zoos Directive mainly impacted facilities that are not members of zoos' federations. Zoos that are not members of zoos' associations reported a stronger impact of the Directive on the conservation activities that they lead or participate in. For zoos that are members of zoos' associations with stricter requirements than the European or national legislation, the national legislation had limited or no impact. However, the requirements (e.g. codes of conducts, standards, etc.) of international, national and regional zoos organisations alone would not have achieved the same results, because of their limited coverage of the total number of zoos and their non-binding nature. Moreover, although EAZA guidelines for the care and accommodation of animals in zoos were already in place before the implementation of the Directive, they gradually evolved, increasingly supporting the implementation of the Directive. In other words, the Zoos Directive also had an effect on the work carried out by zoo federations
- Strictly related to the point above, it is argued that both affiliation to zoos' associations and the more general developments ongoing at international level in terms of *ex situ* conservation have contributed to the changes occurred.
- Finally, other factors related to the design and implementation of the Zoos Directive, might limit its effects in terms of the strengthened role of zoos: the alternative wording of Article 3, first intent, limiting the extent of conservation measures to be undertaken by zoos; and the fact that threatened species are not prioritised in the Directive and are, therefore, not necessarily in EU ZOOS.

5.5.2 EU Added Value – EQ 15

To what extent do the issues addressed by the Directive continue to require action at EU level?

This question focuses on the implementation of the Zoos Directive at national level and the harmonisation achieved across EU Member States. The question of the relevance of EU action in the light of international commitments, EU and global biodiversity needs is addressed under the relevance section. Drawing on the findings related to the effectiveness of the Directive and its implementation, the objective of this section is to highlight whether or not the provisions of the Zoos Directive have been translated into stricter requirements at national level, if they are considered necessary for the full achievement of the objectives, and whether EU action is still needed to overcome discrepancies among Member States in addressing biodiversity issues.

5.5.2.1 Additional requirements implemented in the Member States and harmonisation achieved

Some Member States did not limit their transposition to the wording of the Directive. As described under Section 5.1.3, additional requirements were included by several Member States in their transposing legislation to remedy the ambiguities experienced in interpreting the Directive.

Examples of national transposition that differs from the framework of the Directive are provided in Table 6 of the Annex III to this report. The analysis looks at three key aspects on which Member

States' transposition tended to depart from the wording of the Directive:

- Understanding of 'significant number of animals' under the definition of zoos (Article 2).
- Application of more stringent rules on the establishment and enforcement of conservation measures as listed under Article 3, first indent.
- Establishment of more specific requirements on animal accommodations under Article 3, third indent.

As shown in Annex III, five out of 14 Member States covered by this study (Bulgaria, Czech Republic, Germany, Ireland and the Netherlands) highlighted that their national legislation lays down **specific requirements on the 'significant number of animals'** which determines whether or not a facility falls within the scope of the legislation.

No country reported including **substantial exemptions** under Article 2 of the Directive³¹², while eight of the 14 (Belgium, Bulgaria, Cyprus, France, Italy, Portugal, Poland and Spain) underlined that their national legislation goes further than the requirements of the Zoos Directive on the establishment and enforcement of **conservation measures as listed under Article 3, first indent**³¹³. Most notably, for five Member States (Bulgaria, France³¹⁴, Italy, Poland and Portugal), zoos must implement more than one of the alternative options of Article 3, first indent.

Finally, five of the 14 selected Member States (Belgium, Bulgaria, Italy, Lithuania and Poland) have adopted national legislation that sets out specific requirements for **animal accommodation**, while a few others have adopted non-binding requirements (Ireland and Germany). It appears that the most common specifications in national legislations relate to accommodation requirements concerning **enclosure sizes** for some species (e.g. dolphins in Italy and elephants in Ireland) or group of species (e.g. Belgium, Bulgaria, Lithuania and Poland).

In addition to those aspects, the national legislation of Member States provided **practical precisions to ensure the enforcement of the applicable rules**, such as the definition of penalties, frequency of inspections, validity of the licence or, as in the case of France, requirements related to zoo personnel (see the example in Box 16 below)

Box 16: More stringent requirements - France

The French transposing legislation goes further than the requirements of the Directive, particularly on requirements of conservation measures mentioned in Article 3, first indent. Under the French legislation³¹⁵, besides the alternative measures required by Article 3, first indent, zoos are required to:

- Participate in the exchange of animals that promote the conservation and management of captive animal populations, in order to ensure the genetic quality of hosted species.
- Contribute to national and international breeding programmes and to keep animals of species involved in these programmes.
- Contribute to the breeding of non-domestic species, or organisations involved in the conservation of biodiversity, by sharing information concerning the breeding techniques of wild animals in captivity, and knowledge of their biology or knowledge relevant to the conservation of biological diversity.
- Keep the corpses of animals at the disposal of scientific or training institutes, unless these are used for

³¹² Article 2: 'For the purpose of this Directive, "zoos" means all permanent establishments where animals of wild species are kept for exhibition to the public for seven or more days a year, with the exception of circuses, pet shops and establishments which Member States exempt from the requirements of this Directive on the grounds that they do not exhibit a significant number of animals or species to the public and that the exemption will not jeopardise the objectives of the Directive'.

³¹³ Article 3, first indent: 'Member States shall take measures under Articles 4, 5, 6 and 7 to ensure all zoos implement the following conservation measures: - participating in research from which conservation benefits accrue to the species, and/or training in relevant conservation skills, and/or the exchange of information relating to species conservation, and/or, where appropriate, captive breeding, repopulation or reintroduction of species into the wild [...]'

³¹⁴ For zoos that keep 'conservation-sensitive' species.

³¹⁵ Order of 25 March 2004.

the needs of the zoo.

Qualifications and professional experience of zoo managers is also enshrined in the French legislation. The French Environmental Code requires zoo managers to hold a certificate of capacity (*certificat de capacité*) for the proper care of non-domestic animals (Article L413-2 Environmental Code). The conditions for granting the certificate are laid down in legislation and further specified in a circular issued by the Ministry³¹⁶. The certificate requires that the applicant has successfully passed the tests on ‘applied sciences and technologies’ and ‘professional practices’ of the technical bachelor degree for ‘technician advisor in animal sales’.

This implies that a significant number of Member States went beyond the requirements of the Directive, with specific provisions introduced to ensure the actual enforcement of the Directive and, in some cases, to specify the size of enclosures. This conclusion was also drawn by the Born Free 2011 Zoo Inquiry (Born Free 2012). The broad requirements of the Zoos Directive, coupled with the introduction of specific requirements by Member States, hindered the achievement of harmonisation and consistent implementation across the Member States. For example, as shown above, there are various degrees of interpretation in the different national legislations of the terms ‘significant number of species’ considered by the Zoos Directive as a threshold for facilities to be qualified as ‘zoos’.

For enclosure sizes, no harmonisation took place under the framework of the Directive beyond the non-binding guidelines of the Good Practices Document (European Commission 2015). While it would be unlikely to achieve consensus on this matter between the different groups of stakeholders, some stakeholders acknowledged that harmonisation of species-specific requirements for animal accommodation and husbandry would be valuable³¹⁷.

The lack of monitoring or reporting requirements and the absence of coordinated action at EU level also affected the level of harmonization achieved. The Good Practices Document mentioned above has been issued in order to promote the sharing of experience across EU zoos, but its late publication and lack of translation in national languages have diminished the possible impacts in terms of coordinated implementation.

The ultimate consequence of the open framework provided by the Directive is that substantial differences still exist across zoos, depending on their sizes, their affiliation to zoos’ organisations and their geographical location (‘nationalities’). Therefore, although the creation of one common legislative framework applicable to all EU zoos is recognised by stakeholders as the key added value of the Directive (see Section 5.5.1.1), harmonisation has been limited to minimum requirements, and the implementation of conservation measures by zoos is expected to remain inconsistent across the EU. This has an impact on the level of protection of biodiversity which varies from a Member State to the other.

Finally, cooperation and exchange of information on species conservation among zoos and across Member States is an important aspect that the EU Directive can boost with greater effect than initiatives at national level. Sixty-five out of 70 respondent zoos (92.8%) are engaged in the exchange of information, usually by communicating with other zoos, or through participation in meetings with other regional or national stakeholders (e.g. zoos’ federations, national authorities), or with international stakeholders (e.g. IUCN, EAZA). It is also worth mentioning that a significant share of zoos (40, or 57.1%) uses ‘Species360’, a tool developed to facilitate international collaboration in the collection and sharing of knowledge on wild animals in zoos and aquariums (counting around 1,000 members across 90 countries³¹⁸) (see Section 5.1.1.3). The participation in the survey of many zoos that are members of EAZA or other national federations explains this high share of zoos, which is likely to be more limited among other zoos. This understanding was confirmed by stakeholders during the Workshop on the REFIT evaluation of the Zoos Directive (Brussels, 16 May 2017): most conser-

³¹⁶ Order of 2 July 2009 on the simplified conditions in the context of which the certificate of capacity for the care of non-domestic animals can be delivered; Circulaire DNP/CFF N° 2008-03 of 11th of April 2008.

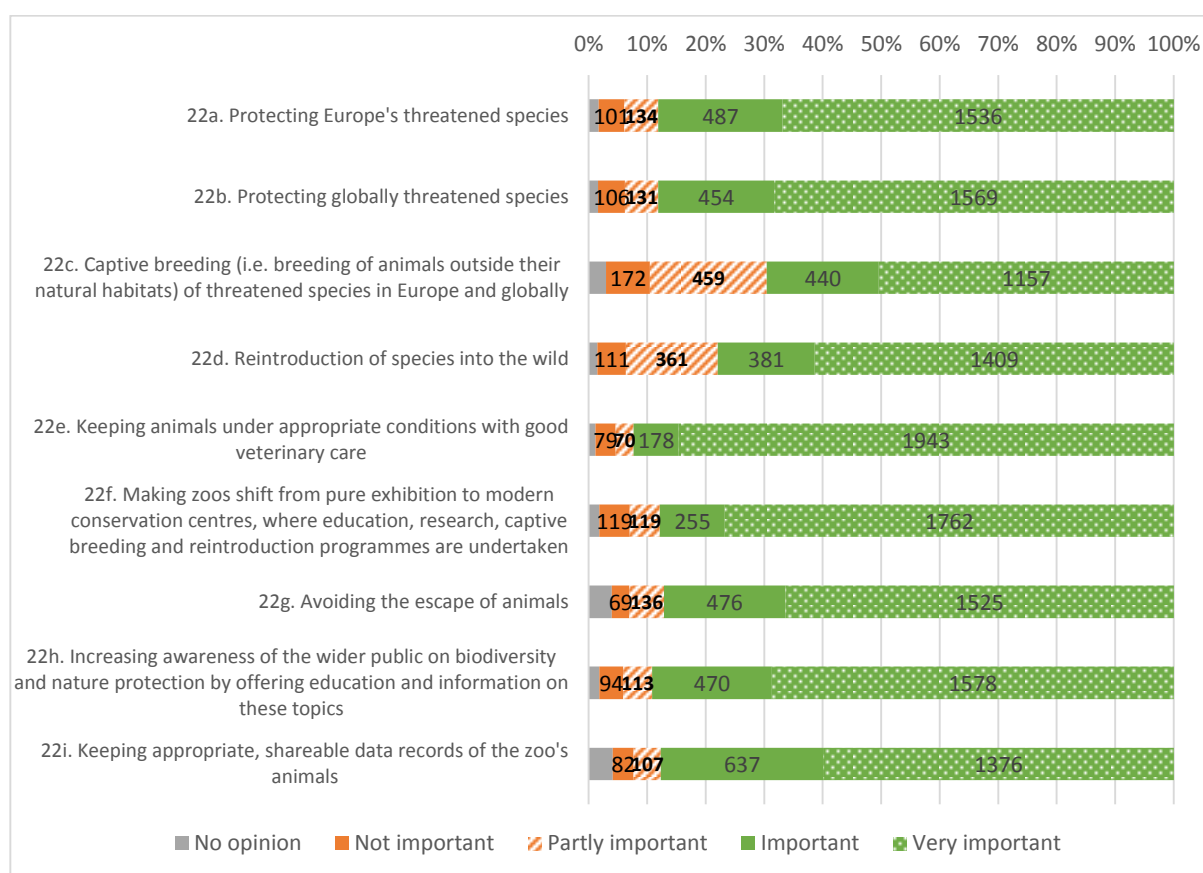
³¹⁷ Interviews and surveys addressed to federations, NGOs, zoos.

³¹⁸ <http://www.species360.org/about-us/mission-history/>

vation and coordination activities were reported to take place through EAZA and other associations. A tremendous gap exists between zoos that are members of zoos' associations and non-member zoos. In this respect, the Directive was reported as a critical instrument for bridging this gap by setting common minimum standards across all EU zoos³¹⁹.

Against this background, the public consultation highlighted a strong consensus that EU-wide rules are needed on all matters currently regulated by the Zoos Directive (Figure 39).

Figure 39: Answers to question 22 of the public consultation ‘How important do you think EU-wide rules on zoos are on the following matters?’ (in absolute numbers of respondents)



The strongest consensus relates to ‘Keeping animals under appropriate conditions with good veterinary care’, which 1,943 respondents out of 2,297 (85%) consider to be very important and 178 (8%) important to have EU-wide rules on the subject. EU-wide rules are also considered important for other objectives, such as protecting European and global threatened species, as well as for increasing public awareness of biodiversity and nature protection. Zoos that participated in the public consultation demonstrated especially strong support for the existence of an EU framework in relation to all of the aspects listed above.

5.5.2.2 Summary and conclusions

This analysis highlights certain points in respect of the continued need for action at EU level:

- The Directive sets minimum requirements that have been further specified at national level to ensure the implementation and enforcement of the EU legislation. Standards across the EU are harmonised in a minimum manner. As a consequence, although the Directive was instrumental in

³¹⁹ See Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf.

bridging gaps between members of zoos' organisations and non-members, differences in the level of protection offered by zoos in different Member States are expected to remain.

- Cooperation and exchange of information is an important element of the Directive that can be more effectively achieved through action at the EU level. The extent to which such cooperation happens among EU zoos that are not members of European organisations such as EAZA, remains unclear.
- A strong consensus exists across all stakeholder groups that EU-wide rules are necessary for all topics currently regulated by the Directive.

5.5.3 EU Added Value – EQ 16

What would be the consequences of not having the Directive?

The EU added value of the Directive should reside in the fact that its general and specific objectives (protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity; ensure that zoos implement conservation measures) could not be achieved under other frameworks such as national legislation, participation in international agreements or memberships to zoos' associations. This section examines the consequences of the removal of the Directive.

5.5.3.1 Contribution of other pieces of legislation, policies or international agreements to achieve the Directive's objectives, as well as membership of zoos' associations

The Zoos Directive is interlinked with several European and international conventions (CBD and CITES), as well as with other EU legislative acts (such as the Nature Directives, Council Regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade, and the IAS Regulation)³²⁰.

The Zoos Directive is the key implementation measure of the CBD, undertaken by the EU to fulfil its own obligations under Article 9 of the Convention. As mentioned in Section 5.1.2.2, the Zoos Directive provides more detailed and practical requirements to strengthen the role of zoos as conservation centres through the conditions that zoos must fulfil to be granted a licence. The added value of the Directive compared to the CBD is thus twofold. Firstly, the Zoos Directive establishes a more precise framework with minimum requirements applicable to all zoos, thereby narrowing the margin of EU Member States when implementing their obligations under the CBD. Secondly, the Zoos Directive establishes enforceable obligations through the compulsory granting of a licence for zoo operators.

In parallel, the Zoos Directive contributes to achieving the overarching objectives pursued by CITES, in relation to the prohibition on displaying to the public certain species for commercial reasons, except if research and education purposes are pursued. In turn, it has been noted (Section 5.1.2.2) that CITES is also expected to contribute to the implementation of the Zoos Directive in relation to record-keeping systems³²¹. However, overall, the Zoos Directive appears instrumental in ensuring the fulfilment of the EU's commitments at international level, while, conversely, international conventions such as the CBD and CITES alone do not appear sufficient to ensure the practical implementation and enforcement of measures for *ex situ* conservation across the EU.

Individual membership of zoos' associations is another critical factor contributing to an enhanced role of zoos in biodiversity conservation. EAZA guidelines and standards were explicitly mentioned in the Zoos Directive as an instrument that could 'assist in the development and adoption of national standards', and offer zoos a point of reference for the development of conservation measures by detailing practical requirements. For each element listed in Article 3 of the Directive, EAZA has developed more extensive standards, namely on animal accommodation standards, husbandry, enclosures and

³²⁰ See EQ 2, Section 5.1.2.

³²¹ In some countries (e.g. Spain), the database of CITES is also to be used for record-keeping in zoos.

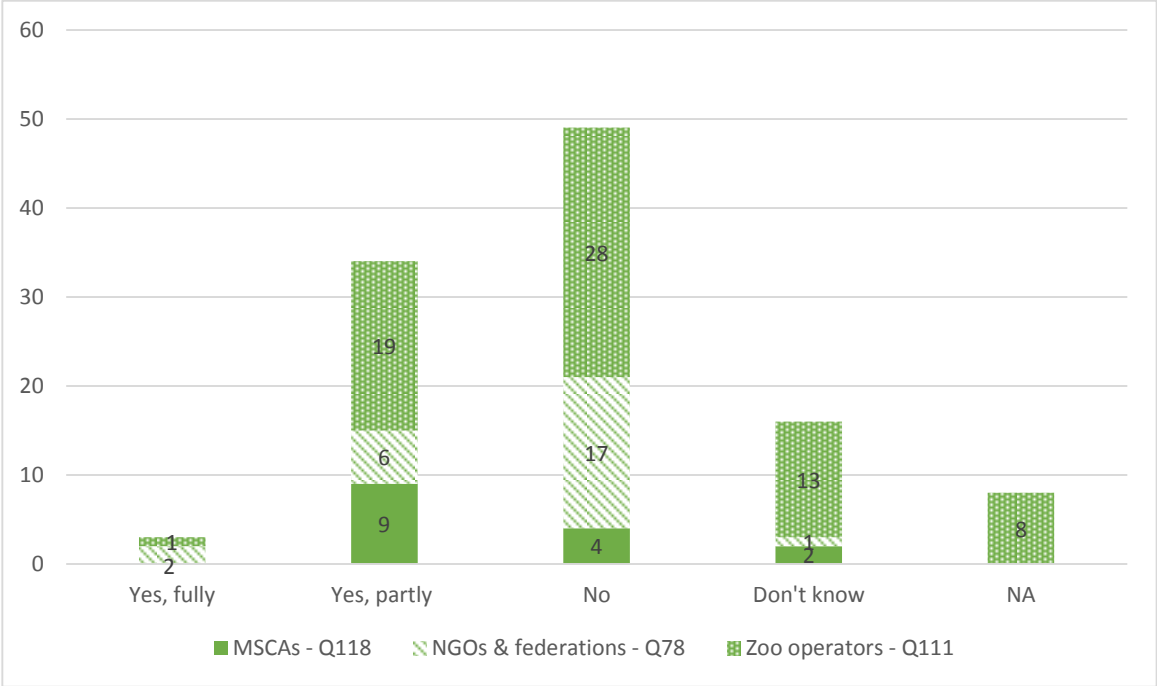
safety requirements, as well as education, conservation and research standards (see Annex III). EAZA and equivalent national associations are also instrumental in the creation, participation and management of breeding programmes (EEPs and ESBs) followed by EAZA members and other zoos, under the conditions established by EAZA.

Nevertheless, it remains questionable if membership requirements alone could ensure the application of conservation measures among EU zoos at a comparable scale. The share of EAZA zoos reaches only around 17% (346) of licensed zoos in the EU-28³²², although this share is expected to be higher if national (and global) zoos' federations are also included. Equally importantly, membership of zoos' federations, and therefore application of their requirements, remains fully voluntary. These factors represent limitations to the impact that could be achieved, should standards and guidelines from zoos federations be the only instrument promoting conservation efforts across EU zoos.

Overall, although the principles of the Zoos Directive are common to other instruments, the binding nature of the Directive makes it an essential means of promoting the role of zoos in biodiversity conservation across the EU.

The results from the stakeholder targeted surveys indicate that international conventions and/or membership of zoos' federations could not (or could only partly) replace the Zoos Directive and achieve the same objectives (Figure 40)³²³. The main reasons for this assessment were probed during the interviews with stakeholders and revealed a strong consensus that the main EU added value of the legislation relates to its binding nature on all zoos, in contrast with all other international conventions and voluntary schemes.

Figure 40: Online responses to the question ‘In your opinion, could the same objectives be partly or entirely achieved with the relevant existing international conventions, programmes or other instruments?’³²⁴



³²² See Section 4.1 above.

³²³ See EAZA Standards on Education, Training, Breeding, Conservation Programmes.

³²⁴ Such instruments include the CBD with the Aichi Targets; the Birds Directive (Council Directive 79/409/EEC) and Habitats Directive (Council Directive 92/43/EEC); CITES; Council Regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade; IAS Regulation; National species action plans in EU Member States; European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA); European Endangered Species Programmes (EEP); IUCN technical guidelines for the management of *ex situ* populations for conservation; WAZA World Zoo and Aquarium Conservation Strategy.

Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

Additional elements were explicitly mentioned by a substantially smaller number of stakeholders, namely increased trust and expectations of the public, increased awareness of the zoo community given the higher visibility and political engagement due to an EU intervention, improved animal welfare, and action on the prevention of escapes which would otherwise not be regulated at all. Furthermore, the Zoos Directive has promoted the uptake of programmes such as EEP and ESB (supported by EAZA) among establishments that are not part of the federation: participation of non-EAZA zoos in these programmes has increased in recent years with almost 50% of zoos participating in these programmes in 2015 being non-EAZA facilities (see Section 5.1.1.3).

5.5.3.2 Stakeholder opinion on the expected developments in the legislation at Member State level

Stakeholders underlined during the Workshop on the REFIT evaluation of the Zoos Directive (Brussels, 16 May 2017) that removing the Directive would have largely unpredictable outcomes³²⁵. The most commonly expected outcome reported by EU stakeholders and NGOs is that Member States would abandon the regulation of zoos, and those zoos that are not members of associations would then lose the incentives (i.e. granting of a licence) to engage in conservation, cooperation and educational activities³²⁶. Born Free assessed that only those Member States that limited their transposition to the minimum requirements of the Directive might abandon the regulation of zoos. The expected consequences of such a development would be that the gaps between zoos would widen, illegal trade of species (and species products) would increase and animal welfare would decrease³²⁷. This forecast however was not reflected in the answers from CAs, none of whom explicitly stated their expectation that their country would repeal its transposing legislation. The position of the interviewed CAs points more to the idea that the situation would, in practice, remain unchanged, although the consequences of the political message of repealing the Directive would be uncertain³²⁸.

In general, stakeholders supported the opinion that not having the Zoos Directive would create negative effects. They considered that the EU level remains the most appropriate level of regulation. In contrast with the mixed picture of the contribution of the Directive to the implementation of its Article 3 measures (see Section 5.5.1.2), over half of responding zoos (39 out of 70) agree that an EU legislative act is necessary to ensure the implementation of the measures listed in Article 3. Similarly, NGOs are strongly in favour of an EU legislative act: 20 out of 26 (77%) answered that the EU legislative act is necessary. MSCAs displayed lower support for the need for an EU legislative act, with six out of 14 stating that such act is not necessary (Figure 41).

³²⁵ See Workshop Report, June 2017, available at:

http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

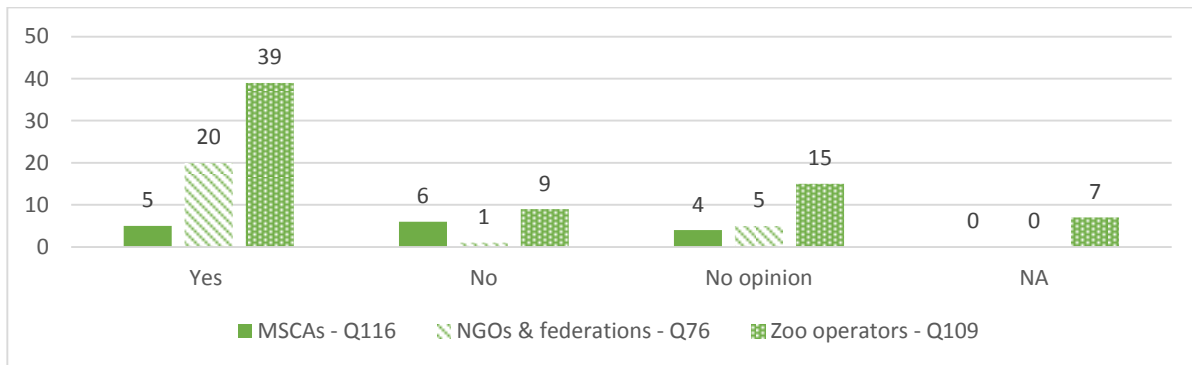
³²⁶ Interviews with zoo association, international and national NGOs.

³²⁷ See Workshop Report, June 2017, available at:

http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

³²⁸ Interviews with MSCAs.

Figure 41: Online responses to the question ‘Do you think an EU legislative act is necessary to ensure that zoos implement Article 3 measures?’



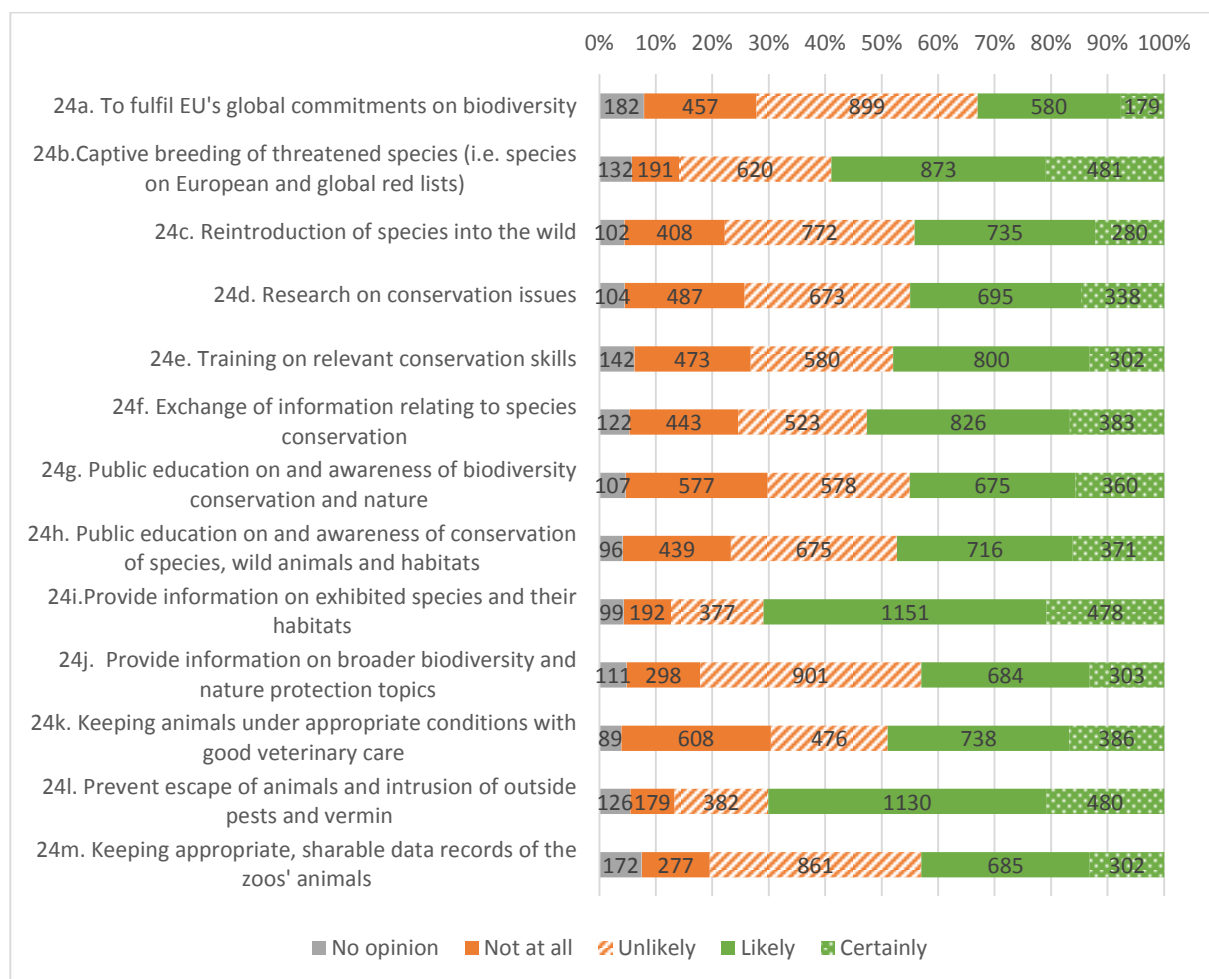
Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

No explicit explanation was provided by respondents to bridge the apparent inconsistencies between the responses of MSCAs and zoos to the question on the contribution of the Directive to the implementation of Article 3 measures and responses to the question on the necessity of a Directive. While, overall, MSCAs considered the Directive to contribute to the implementation of Article 3 measures, the majority stated that EU legislation is not necessary for this implementation. The reverse is true for zoos: a large share (between 30 and 35 out of 70 responding zoos) considered that the Directive did not contribute to the implementation of the Article 3 measures in their zoo, yet 39 out of 70 stated that an EU legislative act is necessary. A potential explanation is that a significant share of respondents interpreted the question on the ‘necessity of an EU legislative act’ as the need for an **additional** EU legislative act or **modified** Directive. Another explanation of the answers from zoos is that an unrepresentative share of zoos’ that are members of zoos’ associations replied to the survey, zoos for which the existence of a Directive did not particularly impact the implementation of measures such as those in Article 3, given that such measures are required for their voluntary membership to those zoos’ associations (see Annex III on EAZA Standards). Open fields questions and interviews, however, showed that these zoos believe that EU legislation is necessary to force more zoos to shift their focus from entertainment to conservation.

The results of the public consultation showed that the public believes that the EU is unlikely to fulfil its global commitments on biodiversity without the Zoos Directive: 1,356 out of 2,297 respondents (59%) shared that opinion³²⁹. As Figure 42 illustrates, the public generally doubts that many activities induced by the Zoos Directive would take place without EU legislation on the matter.

³²⁹ Public consultation, Answers to question 24 of the public consultation, ‘In your opinion, would the following activities take place without EU legislation on zoos? 24a. To fulfil EU’s global commitments on biodiversity’.

Figure 42: Answers to question 24 of the public consultation ‘In your opinion, would the following activities take place without EU legislation on zoos?’ (in absolute numbers of respondents)



For nine points out of thirteen, more than 50% of respondents believed that activities are unlikely to take place without EU legislation. According to the public, the four activities that are likely to continue to be carried out are: (i) captive breeding of threatened species; (ii) exchange of information relating to species conservation; (iii) provision of information on exhibited species and their habitats; and (iv) prevention of escape of animals and intrusion of outside pests and vermin.

The few **public authorities** (seven) that took part in the survey tended to have higher confidence than all other stakeholder groups in the continuation of these activities even in the absence of EU-wide rules on the matter.

Zoo operators, overall, shared the views of public authorities, albeit with some exceptions³³⁰. They thought it more likely than the public authorities that, without EU rules, activities would take place on: (i) captive breeding of threatened species (i.e. species on European and global red lists); (ii) training on relevant conservation skills; (iii) preventing escape of animals and intrusion of outside pests and vermin; and (iv) keeping appropriate, sharable data records of the zoos' animals. Conversely, zoo operators think it less likely than public authorities that, without EU rules, activities would take place on all other points.

NGOs demonstrated the least confidence that those activities would take place without EU-rules³³¹.

³³⁰ Public Consultation Report (Annex VIII).

³³¹ *Ibid.*

Nine out of 36 NGOs (25%) think it certain that the EU's global commitments on biodiversity would not be achieved, with an additional 19 out of 36 (52%) thinking it unlikely. For training on relevant conservation skills, 12 out of 35 NGOs (34%) think that these would not place at all without EU rules, with another 13 (37%) thinking it unlikely. On activities on public education on and awareness of conservation of species, wild animals and habitats, eight out of 35 NGOs (23%) think that these would not take place at all without EU rules, with another 14 (40%) thinking it unlikely.

5.5.3.3 Summary and conclusions

Analysis of the desk research, public consultation, online surveys and interviews highlighted that:

- The added value of binding EU legislation compared to other schemes (international agreements or voluntary memberships) is twofold. Firstly, compared to voluntary memberships to zoos associations, the scope and binding nature of the Zoos Directive ensures the application of minimum requirements to all zoos. Secondly, compared to international agreements, the Zoos Directive provides precision and enforceability of standards.
- Stakeholders who responded to the targeted surveys and to the interviews indicated that the EU level is the most appropriate level of regulation. International conventions and memberships of zoos' federations would not enable achievement of the same objectives because of their non-binding nature and/or of the lack of specifics and detailed requirements.
- EU stakeholders and NGOs fear that without the Directive, Member States would repeal their national legislations and deregulate their zoos. This was reported as potentially leading to widening the gaps between zoos, increasing the possibilities of illegal trade of species (and species products) and decreasing animal welfare. However, no CA expected such a repeal of their national legislation, instead highlighting the uncertain consequences of such a repeal message at EU level.

6 CONCLUSIONS

6.1 The Zoos Directive and its intervention logic

Adopted in 1999, the Zoos Directive pursues the following objectives:

- Protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity (general objective).
- Ensure that zoos implement Article 3 conservation measures (i.e. research and training on conservation; exchange of information; captive breeding; repopulation or reintroduction into the wild; promotion of public education and awareness; accommodation of animals satisfying biological and conservation requirements and a high standard of animal husbandry; prevent escapes in order to avoid threats to indigenous species and of intrusion of outside pest and vermin; keep appropriate records of the zoo's collection) and that closures of zoos are appropriately handled (specific objectives).

Based on the intervention logic of the Zoos Directive (Section 2.2), these objectives are expected to be achieved through obligations placed on the MSCAs, which are required to set up inspection and licensing systems and thus ensure that all zoos implement Article 3 conservation measures as a condition of their operation and opening to the public. The setting up of adequate licensing and inspection systems and the implementation of conservation measures by zoos are expected to result in a strengthened role for zoos in biodiversity conservation, increased knowledge and public awareness of biodiversity conservation, and, ultimately, in the protection of wild species and prevention of biodiversity loss.

The assessment of the performance of the Zoos Directive against each evaluation criterion was carried out in line with this intervention logic.

6.2 Limitations of the Analysis

The analysis was constrained by the limited availability of information, in part due to the lack of reporting obligations for Member States (Section 3.5.1). Despite the extensive consultations with stakeholders, which closed the main information gaps, some of the remaining issues limited the analysis:

- The lack of information on the baseline scenario (i.e. the situation before the adoption of the Zoos Directive), which prevented the possibility for carrying out a quantitative analysis of the changes induced by the Zoos Directive;
- The lack of reliable data on the performance of the licensing and inspection system (including the lack of historical data), which has only been partly offset through the targeted consultation with MSCAs;
- The high representation of zoos belonging to zoos' federations (particularly to EAZA) among the respondents to the targeted survey, which can lead to bias in the evidence collected on application of conservation measures by zoos;
- The lack of independent analyses on the costs and benefits of the Zoos Directive, the paucity and low quality of information provided by stakeholders, and the difficulty of attributing costs and benefits to the Zoos Directive (rather than to other factors). These limitations hindered the possibility of quantifying the costs and benefits;
- The influence of interest groups in the targeted and public consultations, although the impact on the overall results was limited.

These issues limited the analysis especially in relation to 'Effectiveness', 'Efficiency' and 'EU Added Value'. Nevertheless, the involvement of stakeholders, the combination of sources and triangulation of information allowed for general conclusions to be drawn.

6.3 Main Findings

6.3.1 Effectiveness

Effectiveness assessed the extent to which the general and specific objectives of the Zoos Directive have been achieved.

Progress made in achieving the objectives of the Zoos Directive and remaining issues

The Zoos Directive introduced a comprehensive approach to *ex situ* conservation and systems for licensing and inspection, which were absent in most of the Member States before its entry into force. Prior to the adoption of the Zoos Directive, only five of the twelve Member States had relevant legislation on the subject, although not focused on conservation objectives³³² and, according to available evidence, only few zoos broadly met ‘the standards required by international guidelines of modern zoo practice in the areas of animal husbandry, species conservation and public education’³³³ (Section 2.1). In this context, the Zoos Directive represented an innovation.

There were initial delays in transposing the Zoos Directive into national legislation and in the setting up of operational licensing and inspection systems. Nearly all of the 14 Member States selected as case studies licensed most or all of their existing zoos only after the four-year transitional period established by the Zoos Directive. In three cases, no licence was issued within the four-year period (Section 5.1.1.2). These delays can be explained by the introduction of a completely new system for most Member States, which implied a certain effort for setting up the inspection regime, identifying the entities to be subject to the legislation and actually applying new rules. In some cases, a number of other factors contributed to slow down the process of licensing and inspection, notably the difficulty of mobilising the resources during the financial crisis, burdensome procedures and the tendency to favour dialogue with zoos and allow them to redeem deficiencies.

However, Member States have gradually overcome their initial difficulties and have now established **functional licensing and inspection systems in order to ensure that zoos implement Article 3 conservation measures** (in line with the intervention logic, and the expected **activities and output** of the Zoos Directive³³⁴). Moreover, although not required by the Zoos Directive, in most of the 14 Member States, inspection forms are used. They cover the conservation measures of Article 3 and enable a structured inspection, or offer detailed guidance for inspections in the legislation. Member States also often defer to external experts to ensure specialised knowledge during the inspection process. A few Member States have also issued guidance documents for inspections, or are active in the organisation of workshops and training for inspectors³³⁵.

The actions taken by the Member States are expected to translate into the implementation of Article 3 conservation measures by all zoos (**specific objectives** of the Zoos Directive³³⁶). From that perspective, in practice, **significant progress** has been made over the implementation period in establishing operational licensing and inspection systems so as to ensure that all EU zoos implement all Article 3 measures. However, several **implementation and enforcement issues** remain.

Firstly, **national licensing and inspection systems differ widely** in their overall organisation (e.g. frequency of inspections, bodies in charge of inspecting zoos and granting the licence) and requirements (e.g. a few Member States require that all the conservation measures listed in Article 3 are ap-

³³² Data referred to 1993. European Parliament. 1993. Second report of the Committee on the Environment, Public Health and Consumer Protection on the Commission proposal for a Council Directive laying down minimum standards for the keeping of animals in zoos (COM (91) 0177 final-C3-0340/91). Strasbourg: European Parliament.

³³³ W Travers, et R Straton. 1988. European Survey of Zoological Collections. Zoo Check contract for EEC (contract 6681 (87) 07).

³³⁴ See Section 2.2.

³³⁵ The use of inspection forms, external experts and guidance documents by MSCAs are not requirements of the Zoos Directive. However, these elements have been investigated during the supporting study, as indicators to assess the adequacy of the licensing and inspection systems set up (Section 5.1.1.1).

³³⁶ Specific Objectives from A to E (see Section 2.2).

plied, while most of the Member States consider these to be alternative options; a number of Member States have defined standards for animal accommodation to be respected by zoos). The Zoos Directive provides a framework for the implementation of conservation measures but it does not provide detailed indications of the conservation measures listed in Article 3. Although most of the Member States use inspection forms or provide details in the national legislation, in most cases there are no detailed criteria or indicators to assess zoos' fulfilment of the requirements. Where criteria are defined, they are mainly related to animal accommodation and other aspects (such as safety of visitors) that do not have a direct relevance to the conservation objectives of the Zoos Directive. This approach is explained by the need to consider the wide differences among zoo collections, which make it difficult to define and apply standard criteria. However, there is the risk of **inconsistent application of the requirements on conservation measures**, both across Member States and within each Member State (when the inspection system is managed at local or regional level).

Secondly, in the absence of detailed criteria, the quality of the inspection greatly depends on the level of knowledge of the inspectors; in that regard, the lack of specialised knowledge among MSCAs appears to be an important issue. More generally, evidence suggests that the full effectiveness of the licensing and inspection system is hindered by **lack of resources and capacity**. Zoo inspectors are usually responsible for the enforcement of different pieces of legislation related to animal welfare, trade of wild animals and endangered species (e.g. CITES). This broad range of responsibilities limits the resources that can be mobilised for zoo inspections, as well as has implications for the knowledge and understanding of the specifics of zoo establishments.

Finally, **closures of zoos** represent a challenge for Member State authorities and have been rare in the 14 Member States analysed for this study. Concerns have been raised by stakeholders about the actual closure of non-compliant zoos. The latest Born Free EU Zoo Inquiry 2016 (publication pending) argues that unlicensed, although operational, zoos remain and 'a number of registered "exempt" facilities appear to warrant a zoo license'³³⁷. These concerns are echoed by stakeholders consulted during the study, who pointed out that progress here should not be overestimated. The implementation of licensing and inspection requirements remains challenging for MSCAs in terms of the resources and knowledge that must be mobilised, and there are still many non-compliant zoos in the EU, leading to unfair and unacceptable competition for high-performing and dedicated zoos³³⁸ (Section 5.1.1.2).

These shortcomings in the implementation and enforcement of the Directive's requirements are likely to hinder the achievement of the specific objectives of the Zoos Directive. This is reflected by evidence presented in the report (Section 5.1.1), showing that **zoos apply Article 3 conservation measures in a variable way**. On one hand, the targeted survey for instance shows that a majority of replying zoos is engaged in all Article 3 conservation measures. Also the public consultation indicates a predominantly positive perception among the general public of the promotion of conservation measures by zoos. On the other hand, not all conservation measures are equally well implemented: zoos' activities focus mostly on information exchange, captive breeding, education activities for the general public and keeping of animals under appropriate conditions. Other conservation measures, such as research that benefits conservation, training activities and measures preventing the escape of IAS appear to receive less attention. Moreover, despite the focus of Member States on requirements for animal accommodation, the public consultation indicates a negative perception on the conditions of animals kept in zoos: 53% of the respondents disagree with the fact that animals live in conditions that satisfy their needs (Section 5.1.1.3 and Section 5.1.1.4).

In summary, although certain progress has been achieved, the **specific objectives** of ensuring that all EU zoos implement all Article 3 conservation measures are not yet fully achieved.

³³⁷ Born Free 2016.

³³⁸ See Workshop Report, June 2017, available at: http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf.

Now, looking at the **general objective** of the Zoos Directive (protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity), evidence suggests that the role of zoos has been strengthened, as compared with the situation before the entry into force of the Directive, when no comprehensive legislation pursuing this objective was in place³³⁹. The impact of this strengthened role was analysed as part of Section 5.1.2 on EQ2.

Contribution of the Zoos Directive to the protection of biodiversity

The analysis carried out on that point demonstrates that, while it can be safely assumed that zoos' conservation activities triggered by the Zoos Directive have a positive impact on the protection of wild fauna and conservation of biodiversity, it is not possible to assess the extent of these impacts. As demonstrated in Section 5.1.2.1, there is no consensus on the contribution of zoos' conservation activities to biodiversity among the sources analysed (literature and stakeholders consulted for the study), and **there is no evidence to allow for clear conclusions to be drawn on the magnitude of the impact** of zoos' actions on biodiversity conservation.

In spite these limitations, the Zoos Directive, within the wider framework of EU legislation on biodiversity conservation, contributes to the achievement the EU's Biodiversity Strategy (Section 5.1.2.3) and CBD goals. The Directive exerts its strongest positive effects on Aichi Targets 1³⁴⁰ through its education programmes and on Target 12³⁴¹ which is supported by all Article 3 activities (Section 5.1.2.2).

Factors contributing to, or impeding, the achievement of the Directive's objectives

Several main factors were found to have influenced, either positively or negatively, the achievement of the Directive's objectives (see Section 5.1.3 on EQ 3).

Contributing factors

Firstly, and most importantly, the approach to transposition, implementation and enforcement of the legislation by the **Member States' authorities** has played a crucial role in the achievement of the Directive's objectives.

In relation to **transposition**, pre-existing legislation in some Member States facilitated the implementation of the Directive's requirements. Similarly, additional requirements were provided in the transposing legislation in some cases, to remedy the ambiguities experienced in interpreting the Directive (Section 5.5.2.1). In terms of **implementation**, the proactive attitude of MSCAs, in particular the preparation of guidance documents and organisation of training and workshops, has significantly contributed to achieving the Directive's objectives. In respect of **enforcement**, additional enforcement activities, the use of external experts, guidance documents, training and the use of synergies with other acts, have all positively contributed to enforcement.

In addition to Member States' authorities, other **key stakeholders active in the field** have contributed, through their activities³⁴², to the achievement of the Directive's objectives:

- Enforcement activities of the **European Commission** and its Good Practices Document, despite unsatisfactory distribution of the latter (low awareness and not translated) have played a positive role.

³³⁹ See also Section 5.5.1 (Eu Added Value), about the opinion of stakeholders on strengthened role of zoos and the contribution of the Zoos Directive.

³⁴⁰ By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

³⁴¹ By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

³⁴² It should be mentioned that these activities has been driven not only by the Zoos Directive, but also by a general, global trend, towards a more conservation-oriented approach.

- **Zoos' and aquarium federations** have taken a very active role in the implementation of the Directive, through their stringent membership requirements and standards, by educating and disseminating information via the training offered to their members, the organisation of workshops and conferences, and other public awareness-raising activities, but also through other activities, such as coordinating breeding programmes.
- **EU and national NGOs** have been instrumental in monitoring the implementation of the Directive, flagging issues to the authorities, and informing the public (even though animal welfare NGOs put the focus on animal welfare rather than conservation).
- **International stakeholders** (the IUCN, WAZA) have published key documents assisting the implementation of the Directive.
- **Zoos** themselves have played a key role in implementation, as have **academia**, practitioners (**veterinarians**) through research, and to a certain extent, the **media** in terms of awareness-raising.

Hindering factors

The **nature of the Directive**, and in particular the formulation in broad terms of Directive's requirements, has in some instances prevented consistent, and effective implementation of the Directive across the Member States. Difficulties relate mainly to the definition of zoos, the alternative options provided under Article 3, first indent, (and/or) and the lack of detail and breadth of the requirements of Article 3.

While the MSCAs generally played a positive role in the transposition, implementation and enforcement of the Directive, problems were also observed in each of these various steps. For instance, issues in relation to **transposition** have negatively influenced the proper achievement of the Directive's goals. Late transposition and non-conformity in a few countries (Section 5.1.3.1) resulted in delayed or poor implementation of the Directive.

Implementation of the Article 3 and Article 6 measures in the Member States have proved to be particularly challenging for the stakeholders. Issues were identified primarily in relation to the:

- Organisation of the Member States' administration (division of competence, portfolio of MSCAs, absence of communication).
- Identification and inventory of establishments regulated under the Directive.
- Closure of zoos, which represents a major difficulty due to the lack of rehoming possibilities or structures provided by the MSCAs.

Some factors have also impeded proper **enforcement**. In particular, the lack of knowledge and training of enforcement authorities, the lack of resources (human and financial) to carry out enforcement effectively, and inconsistencies in the level of enforcement across regions (see Section 5.1.1.2).

Evidence also suggests that the **Commission's** actions have contributed only to a limited extent to the achievement of the Directive's objectives. The Commission does not have the legal means to monitor implementation, nor does it provide for a forum for exchange between the MSCAs. Its enforcement activity is limited, funding difficult to obtain, and training nearly non-existent and non-inclusive.

Finally, in relation to the role of zoos as economic actors, the impact of the 2008 **economic crisis** was mentioned as a negative factor impeding the proper implementation of the Directive by several zoos, especially southern ones³⁴³. In addition, it was observed by various stakeholders that the **economic weight of zoos at local level** renders enforcement by local authorities more difficult (Section 5.1.3.3).

Other positive and negative changes linked to the Directive

³⁴³ Zoos questionnaire, answer provided by Spanish and Portuguese zoos.

According to the information collected, the Directive did not bring about significant negative effects. The only exception related to the lack of proper enforcement at national level, i.e. the Directive risks giving legitimacy to zoos that are not in line with the requirements and/or only bring a limited contribution to conservation of biodiversity (Section 5.1.4).

Additional positive effects, going beyond the stated objectives, have been identified in relation to:

- **Increased public awareness** of the role played by zoos in conserving biodiversity: the Zoos Directive has created a common framework among the Member States and, as such, has contributed to increasing public awareness of the role of zoos in conserving biodiversity. The establishment of EU legislation in this field, combined with changing attitudes among visitors, has also amplified the possibility for NGOs to mobilise public opinion and other players, at both EU and national levels, in order to make sure that the improved role of zoos is actually achieved (Section 5.1.4.1).
- **Increased standards for the welfare of animals** kept in zoos, not covered by EU legislation on animal welfare: Article 3, third indent, of the Zoos Directive requires zoos to accommodate animals under conditions which ‘aim to satisfy the biological and conservation requirements of the individual species’. This provision represents a conservation rather than a welfare measure, but it has contributed to increased attention by Member State authorities and better conditions for animals kept in captivity (Section 5.1.4.2).

6.3.2 Efficiency

Efficiency assessed the extent to which the range of regulatory costs implied by the implementation of the Directive is reasonable and proportionate to the benefits delivered. The analysis was based on the information collected through stakeholder consultations (targeted surveys and interviews, and public consultation) in the selected 14 Member States.

Costs and benefits of the Zoos Directive

The Directive’s requirement for an inspection and licensing system resulted in new **costs** for both MSCAs and for zoos. The requirement for **MSCAs** to enforce national level legislation that implements the Directive has resulted in new or higher costs for all aspects of the licencing and inspection process (i.e. new enforcement costs for treating licence applications, preparing, carrying out and following-up on inspections). The extent to which individual MSCAs have experienced an increase in their costs varies and, although information is limited and quantification not possible, this appears to be influenced by several factors. These include whether or not there was a licensing system or some relevant infrastructure in place (e.g. for IAS Regulation, CITES enforcement), and the nature of the licensing system now put in place. All of this means that inspectors have varying degrees of expertise and requirements placed upon them. Interestingly, only half of the Member States that provided information reported an increase in training costs. These data might be linked with the issues raised by stakeholders (including MSCAs) of the lack of appropriate knowledge of zoo inspectors, and the need for better, targeted training activities (Section 5.2.1.1, paragraph a).

Regarding **zoos**, in most cases it was not possible to separate costs that were necessary under the Zoos Directive from costs that would have been incurred anyway as part of routine business expenditure. Apparently, zoos found it difficult to disentangle the costs directly due to the requirements of the Zoos Directive from the developments they had financed as an essential part of their evolution as ‘modern zoos’. Only a minority of zoos that reported an increase stated that they considered these costs as directly attributable to the Directive. Between 21 and 30 zoos (out of 70 that supplied information) indicated that they had increased capital investment, recurring expenditure or administrative costs because of the requirements of the Directive.. Where estimates of the costs attributable to the Zoos Directive are reported, the amount spent can be significant, especially where investments related to the renovation of enclosures or annual expenditure for the education of staff are concerned. In other words,.. The Zoos Directive has triggered only part of the increase in costs recorded. Zoos’ federations and other

stakeholders supported these findings during both surveys and interviews.

Administrative costs have also been introduced along with the licensing and inspection system. The introduction of the Zoos Directive has implied new efforts for zoos in relation to licensing and inspection procedures (i.e. preparing an application for the licence, preparatory work for the inspection, sending documents to authorities, completing pre-inspection questionnaires, taking part in the visit of the MSCAs, providing answers to the inspection report). The administrative costs arising from the inspection process that are incurred by zoos appear to vary between zoos and Member States, because of differences in the size of the zoos and their collection and differences in the national systems adopted (e.g. steps followed during the licensing and inspection process, use of inspection protocols/forms, involvement of zoos' federations and/or other external experts, detail of Article 3 inspections) (Section 5.2.1.1, paragraph b). The responses obtained to both surveys and interviews from all stakeholders, as well as the analysis carried out under 'Effectiveness' (Section 5.1.1), suggest that these differences can be considerable. However, zoos did not suggest that the requirements of Article 3 were overly burdensome.

Regarding the benefits, as discussed under Section 6.3.1, the analysis has been mainly based on stakeholder opinions, and it has been constrained by the difficulty of expressing the benefits in quantitative or monetary terms. Although implementation and enforcement issues remain, the Zoos Directive has ensured the setting up of the legal framework for licensing and inspection, has triggered the implementation of conservation measures among EU zoos and represents a key instrument for the achievement of the general objectives in terms of protection of wild fauna and conservation of biodiversity set at European and international level.

In parallel, most stakeholders agreed that the Zoos Directive had brought **benefits** in terms of the contribution of zoos to biodiversity conservation. These benefits arose from both direct conservation of species and the raising of public awareness of biodiversity conservation issues, as well as improving the husbandry of animals. Some zoos and zoos' federations felt that the Zoos Directive gave legal support to their efforts to participate in species (and wider) biodiversity conservation in a more focused way (Section 5.2.1.2).

Whilst these positive perceptions were widely held and were consistent across all stakeholder groups, it remains difficult to demonstrate the extent to which these benefits can be attributed to the implementation of the Zoos Directive as other external factors were involved (the evolution of zoos as institutions, the change in expectations of the general public, the work of various stakeholders). Further to this, the extent of the Directive's impact on species and wider biodiversity conservation was impossible to measure.

Despite this, the perceptions were strong, with neither MSCAs nor zoos suggesting that the costs of implementing the Directive were disproportionate to the benefits (Section 5.2.2.1). Some of the smaller zoos did suggest that their more limited resources (funds and personnel) challenged their capacity to comply, but no strong evidence that smaller zoos have faced higher difficulties emerged (Section 5.2.1.3).

In conclusion, although a comparison of costs and benefits in quantitative or monetary terms has not been feasible nor appropriate, the findings of the analysis suggest that the Directive has triggered limited costs, while benefits brought appear to be significant and encompass several dimensions: public education and knowledge of biodiversity, improved standards for animal accommodation, establishment of a coherent legal framework across the EU, implementation of conservations by zoos which contribute to the protection of biodiversity. As such, in absence of evidence on disproportionate costs and as pointed out in the public consultation, a purely qualitative comparison suggests that there is a positive balance, with important benefits brought about by the Zoos Directive exceeding its rather limited costs.

Unnecessary burden and best practices

Overall, there was no evidence of unnecessary regulatory burden on either the zoos themselves or the regulatory bodies responsible for implementing the Directive. Administrative costs related to the Zoos Directive appear strictly related to the necessary procedures for obtaining (from the point of view of zoos) or issuing (from the point of view of MSCAs) the licence. Stakeholders consulted did not raise any specific issues of burdensome or complex requirements and/or procedures that could be avoided or reduced (Section 5.2.4.1).

Significant variations exist between Member States in a wide range of factors, including legal, executive and operational, that seem likely to influence the implementation of the Directive, its costs and benefits. This has resulted in a complex picture, where the variation between Member States means that definitive conclusions cannot be drawn about each aspect of the implementation of the Directive and its attendant costs and benefits. Insights on possible best practices and needs for simplification were drawn from responses to the survey. These suggested that variation between Member States in the licensing and inspection system are mainly associated with the capacity of the national inspectorates (resources, skills and competences) rather than with specific requirements of the national legislation. Moreover, stakeholders suggested that the licensing process works well in countries where the lines of responsibility are clear and all available expertise is used. Best practices suggested by stakeholders related to improved guidance and involvement of external experts in the inspection process (in order to provide specialised expertise during the inspections)³⁴⁴, and elimination of possible duplications due to controls carried out under different legislative acts (i.e. under Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, and Directive 92/65/EEC on animal health requirements for trade in and imports into the EU) (Section 5.2.3.1).

6.3.3 Relevance

The Zoos Directive was adopted in 1999 and has been in force for 16 years without further amendments. Relevance assessed the extent to which the objectives set at the time of adoption of the Directive still correspond to the current legal, policy and scientific situation.

The analysis relied mostly on scientific sources and relevant legal and policy documents. This was completed by information gathered through the stakeholders' consultations (survey, interviews and public consultation).

In answer to EQ 9 (Section 5.3.1), the analysis demonstrated that the objectives of the Directive still support the **current needs** in terms of **protection of biodiversity conservation** within the EU and globally.

Scientific evidence attests to the deteriorating status of conservation (both in terms of species and habitats). For instance, whereas in 2000 8,5 % of species were listed as threatened, this share increased to nearly 30% of the 80,000 species assessed on the IUCN red list in 2016 (see Section 5.3.3.1). It also shows improvements in understanding the status of conservation, especially in terms of **protection of threatened species** and of **public awareness** of biodiversity conservation issues (Section 5.3.1.2).

Therefore, the priority given to biodiversity conservation in the Directive is still relevant.

Relevance of the Directive's objectives against current objectives at EU and global level

The need to protect biodiversity conservation is significantly greater now than at the time of the adoption of the Directive, and this evolution is reflected in the **changes in policy objectives at EU and international level** (Section 5.3.2 - EQ 10). The Zoos Directive was framed as a response to the CBD but the targets set to achieve the Convention's objectives have evolved markedly over the past decade, as have other EU and international instruments. The global biodiversity conservation community's

³⁴⁴ The involvement of external experts and multidisciplinary teams in the inspection process is also consistent with the findings of the EC Good Practices Document (VetEffect 2015).

understanding of both the scale of biodiversity deterioration and the pressures driving it is now much sharper and there is a clear emphasis on halting extinctions and reducing threats. This is, for instance, demonstrated by the EU Biodiversity Strategy (Section 5.3.2.1).

Policy, scientific and technical developments now provide a **more structured context** for zoos to contribute to the needs of biodiversity that have been identified, and to offer guidance on how this can be done. In policy terms, there are now quite specific targets for biodiversity in both the CBD and the UN SDGs and they include both halting extinctions and raising public awareness of the importance of biodiversity. They also demonstrate the importance of biodiversity to the attainment of other development targets established in the SDGs.

These elements are **well covered in the Directive**, and the targeted survey showed that a majority of respondents consider the Directive to contribute to CBD Aichi Targets relating to public awareness (Target 1) and avoiding species extinctions (Target 12) (see graphs in Section 5.3.2.2).

The evolution of international instruments from general aspirations to focused targets has resulted in more specific objectives in relation to the conservation of biodiversity, to which *ex situ* management can contribute. While these more specific objectives and indicators facilitate the implementation of the Zoos Directive's framework provisions, there is a general need to be more explicit about where *ex situ* management is most needed and could have the biggest impact in achieving conservation objectives. This criticism is supported by previous reports³⁴⁵ and stakeholders in the present survey (zoo operators, federations) pointed to the need for a more targeted approach to *ex situ* conservation to meet the new, more specific objectives set at EU and international level.

Scientific and technical developments

There have been many scientific and technical developments in the field of biodiversity conservation since 1999, in particular in the areas of population management, identification of species in need of conservation action, and determination of the actions needed for threatened species (Section 5.3.3.1).

More specifically, in relation to scientific and technical developments in the field of *ex situ* management, considerable progress has been made since the adoption of the Directive in relation to the **interaction between *in situ* and *ex situ* conservation** (Section 5.3.3.2). This interaction is for instance illustrated by the increasing participation of EU zoos to *in situ* conservation projects (Section 5.1.2.1 and 5.1.2.2).

Due to its broad scope and formulation, the Directive does not contain any outdated requirements in relation to these developments, and the results of stakeholders' consultations supported this conclusion. The majority of stakeholders responding to the targeted surveys (82%) considered that the **Directive remains appropriate** in light of subsequent technical and scientific developments. There is a strong sense that it is particularly well adapted given scientific and technical progress in the field of biodiversity generally.

Stakeholders nevertheless also indicated that the interaction between *in situ* and *ex situ* conservation could be significantly enhanced in the Directive. Indeed, some respondents to the survey felt that such strengthening is happening outside of the Directive, such as through the WAZA (Section 5.3.3.3).

6.3.4 Coherence

The coherence analysis focused on the role of the Zoos Directive in the wider EU policy and legal framework in relation to biodiversity conservation and animal welfare issues. It evaluated how well

³⁴⁵ LIFE preventing species extinction, Safeguarding endangered flora and fauna through *ex situ* conservation, European Commission 2011, at: <http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/reintroduction.pdf>

the Directive works with the other instruments existing at EU level, by providing evidence of synergies and complementarities that could reinforce the achievement of common objectives, but also by looking at potential inconsistencies and overlapping obligations that could lead to inefficiencies. The evaluation of coherence also sought to examine the extent to which the Directive supported the EU internal market and the creation of a level playing field for zoos across the EU.

The results of the supporting study in relation to coherence relied primarily on legal analysis, but were also complemented by stakeholders' consultations.

Complementarity and interactions with other EU instruments

As demonstrated in Section 5.4.1 in relation to EQ 12, the Directive is coherent with the EU legal and policy framework on biodiversity conservation and animal welfare. The coherence analysis focused on the legal examination of the strategic objectives and specific provisions of the targeted legislation, with a view to assessing their consistency with the Zoos Directive. The legislation examined includes:

- Directive 2009/147/EC on the conservation of wild birds (Birds Directive) and Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) (together, the Nature Directives).
- Regulation (EC) No 338/07 on the protection of species of wild fauna and flora by regulating trade therein (EU Wildlife Regulation).
- Regulation (EU) 1143/2014 on invasive alien species.
- Directive 92/65/EEC laying down animal health requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to other specific rules.
- Regulation (EC) 1739/2005 laying down animal health requirements for the movement of circus animals between Member States.

The legal analysis revealed no inconsistencies between the Zoos Directive and the legislation examined. On the contrary, there are examples of positive interactions that strengthen the achievement of their shared objectives. Biodiversity conservation is not only the primary objective of the Zoos Directive, but also of the Nature Directives, the EU Wildlife Regulation and the IAS Regulation. The mechanisms are well articulated, for instance with the use of cross-references (EU Wildlife Trade Regulation and Nature Directives) and derogations (EU Wildlife Trade Regulation). The requirements are also consistent, as illustrated by the regulatory requirements regarding the escape of animals in the IAS Regulation, or the record-keeping required under Directive 92/65/EEC. Synergies can also be observed in the implementation of the Zoos Directive and other EU instruments, for instance in the field of education (e.g. zoos informing the public on invasive alien species), but also in the use of funding (in particular via LIFE funding for conservation projects carried out by zoos (see Section 5.1.2.3)).

Taken together, these instruments establish a comprehensive system for biodiversity conservation in the EU, and contribute to the compliance of the Union with its obligations under the CBD.

At the same time, there is scope for further synergies in order to reinforce the effectiveness of the legal framework applicable to zoos and their contribution to biodiversity conservation. For instance, the **organisation of joint inspection procedures** to ensure compliance with the different pieces of legislation applicable to zoos was observed as a good practice to prevent inefficiencies and the duplication of the work required from zoos and CAs to prepare and carry out the inspections.

Certain stakeholders and members of the wider public participating in the public consultation pointed to some inconsistencies between the Zoos Directive and Regulation No. 1739/2005 on the movement of circus animals (Circus Regulation), as well as the IAS Regulation. However, the legal analysis found no coherence issues. With regard to the Circus Regulation, it should be noted that given the **clear exclusion of circuses from the scope of the Zoos Directive**, there is no interaction between the two acts. Concerning the IAS Regulation, even though zoos are required to ban the keeping and breed-

ing of IAS, this is fully in line with the **biodiversity conservation objectives embodied in the Zoos Directive and the IAS Regulation**, in view of the particularly negative impact that a spread of invasive alien species may have on local biodiversity. While it is acknowledged that zoos are not the main pathways for invasive alien species, there is evidence that they can operate as such pathways, thereby justifying the strict approach of the IAS Regulation. There are, therefore, no inconsistencies between the two acts.

Level playing field among EU economic operators

In answer to EQ 13 (see Section 5.4.2), the coherence analysis also examined the extent to which the Zoos Directive has supported the EU internal market and the creation of a level playing field for zoos across the EU, which is particularly important with regard to SMEs. Prior to the adoption of the Directive, not all Member States had legislation in place to regulate the activities of zoos. By making zoos in the EU subject to certain harmonised requirements, such as the obligation to hold a licence, to be subject to inspections, and to adopt the conservation measures provided in Article 3, **the Zoos Directive established a coherent legal framework for all EU zoos.**

However, there are still significant discrepancies both in the obligations imposed on zoos (see Section 5.1.3.1 and Section 5.5.2.1) and in the level of enforcement in the different Member States (see Section 5.1.1). These **discrepancies prevent the full achievement of a level playing field** among European zoos.

This partial completion of the level playing field is reflected in the nuanced results of the targeted consultation, where 53% of stakeholders who expressed an opinion believed that the Directive has brought no benefits or only minor benefits through establishing a level playing field between zoos in different Member States.

6.3.5 EU added value

The criterion of EU Added Value aims to examine, from a qualitative perspective, the extent to which the Zoos Directive has contributed to strengthening the role of zoos and promoting the adoption of conservation measures in a way that could not have been achieved by Member States on their own and/or by other stakeholders. It also examined the need for continued EU action.

Analysing the added value of the Directive in line with the intervention logic of the Directive (Section 2.2) and the evaluation framework (Section 3.2) was impaired by two critical limitations in the data available. Firstly, due to the absence of an impact assessment prior to the adoption of the Directive, only limited information was available to understand the situation in the Member States before entry into force of the Directive. To overcome this lack of information, a baseline was defined by analysing the legislative frameworks applicable in Member States in 1992, by reviewing the 1988 European Survey of Zoological Collections, and by interviewing experts in biodiversity conservation involved in the adoption of the Zoos Directive. The second data limitation concerned the lack of monitoring and reporting requirements under the Directive. Such data would have helped to provide a full picture of the evolution in the implementation of the Directive across Member States. Information to understand this evolution was instead gathered through the targeted surveys, in-depth interviews and the public consultation.

The results of the analysis indicate that the Zoos Directive has, to some extent, achieved more than could have been reasonably expected to occur from individual actions of Member States, and is perceived as a necessary instrument for continued EU action in the field of *ex situ* conservation.

Creation of a common legal framework

The EU added value of the Directive mainly resides in the creation of a common legal framework at the EU level, setting binding rules and, as such, prompting the adoption of conservation measures

among all zoos (see Section 5.5.1.1 on the added value of the Directive compared to what could be achieved by Member States at national and/or regional level). It is unlikely that this overall result would have been achieved under national legislation, through participation in international agreements, or based on the membership requirements of zoos' federations. Before the adoption of the Zoos Directive, national legislation was absent in most Member States. Where national rules were in place (Belgium, Denmark, France, Spain, and the UK), they included requirements for licensing and inspection, but were mainly concerned with conditions for animal accommodation and animal welfare, without any wider focus on conservation objectives.

Standards and guidelines were provided by zoos' federations (such as EAZA) prior to the adoption of the Directive. Still, the limitations in terms of coverage (approximately 17% of licensed zoos are part of EAZA), scope (in the early 90s, mainly focused on accommodation and care of animals) and their non-binding nature are all factors that would have hindered the promotion of conservation measures among EU zoos, at least at a scale comparable with the Directive's objectives. The Zoos Directive has, therefore, played a crucial role in setting the legal framework for the implementation of conservation measures among *all* zoos.

However, the Zoos Directive has contributed only partly, and jointly with other external factors, to the implementation of conservation measures and to a strengthened role of zoos as revealed by the results of the consultation targeting zoo operators. Also, the extent of the Directive's contribution to the conservation of biodiversity and protection of wild fauna remains unclear.

On the other hand, **factors** independent from the Directive have **contributed to the uptake of conservation measures** among some zoos. As already mentioned, **the work done by zoos' federations** (i.e. definition of guidance and standards) remains an important element behind the increased efforts in conservation activities among zoos. Not surprisingly, around 50% of zoos (26 out of 53) replying to the targeted consultation and belonging to a zoo federation, declared that the Zoos Directive did not contribute to implementing new conservation measures or improving the existing ones. The message given is that these zoos would have implemented conservation measures in any case, as part of federations' membership requirements. In parallel, the broader **changes concerning the role of zoos and the attitude of visitors** ongoing at global level, and the **ambitions of zoo owners**, taking public opinions seriously, had a role in shaping the shift towards an increased conservation focus. Unlike the Zoos Directive that prompted changes applicable to all zoos, these factors apply mainly to zoos that are either part of zoos' federations or led by conservation-oriented managers. This aspect is corroborated by survey answers from zoo operators and discussions held during the Workshop on the REFIT evaluation of the Zoos Directive (Brussels, 16 May 2017), which reflected that the Zoos Directive mainly impacted facilities that are not members of zoos' federations, thus contributing to bridging the gap between members and non-members of zoos' federations.

Overall, the **Zoos Directive has prompted** the establishment of a **legislative framework applicable to all zoos** although, in practice, the adoption of conservation measures by all zoos is still hampered by implementation issues. While the **concurrence of other factors** and **broader trends** should also be considered when examining the general changes observed, the same results would not have been achieved on the basis of national legislation or of other instruments of non-binding nature (e.g. standards of zoo federations). The Directive has therefore **demonstrated added value** in promoting the adoption of conservation measures among zoos, although with limitations in the realisation of its potential, and together with other and interlinked factors.

Need for continued EU intervention

Looking onwards to the need for EU action (EQ 15, see Section 5.5.2), several elements suggest that **there is still a need for EU intervention**. Firstly, the objectives of the Directive have only been partly achieved (see section 5.1). Secondly, harmonisation across EU Member States only happened to a limited extent. The minimum requirements set by the Directive have been further specified at national level to ensure the implementation and enforcement of the EU legislation. As a consequence, **differ-**

ences in national systems for implementation and enforcement exist, but also **inconsistencies between zoos** in different Member States remain and hinder overall harmonisation. More coordinated implementation supported by initiatives at EU level (such as the translation of the Good Practices Document) was reported as desirable by stakeholders during the Workshop on the REFIT evaluation of the Zoos Directive.

In parallel, it has been recognised that existing international conventions (CBD and CITES) and non-legislative instruments (standards and guidelines of zoos' federations) could contribute to enhancing the role of zoos as conservation centres. However, these instruments would not enable the full achievement of the objectives of the Zoos Directive. Firstly, the Zoos Directive is instrumental to the practical implementation of the principles enshrined in international agreements such as the CBD and CITES. Secondly, standards and guidelines defined by zoos' federations can contribute only to a certain extent. These instruments lack the key feature of the Zoos Directive: its binding value. As such, the Directive remains important for promoting and ensuring the implementation of conservation measures by zoos.

The need for continued EU action in this field has been largely recognised by stakeholders. EU-wide rules in relation to different aspects of *ex situ* conservation (e.g. keeping animals under appropriate conditions, promoting education, protecting threatened species) are considered important by a large majority of the respondents to the public consultation (on average, more than 80% of the respondents). While zoos and public authorities agreed that most of the activities currently promoted by zoos would continue even in the absence of the Directive, other stakeholder categories (including individuals and NGOs) were less confident (on average, less than half of the respondents believed that activities would continue).

Finally, as considered under EQ 16 (Section 5.5.3), should the Zoos Directive be removed, although CAs would not expect national legislation to be repealed, concerns remain about the consequences of such a message at EU level. Additional concerns highlighted in stakeholders' consultations were the risks of widening existing gaps between zoos that are members of organisations and zoos that are not, as well as an increase in illegal trade and a decrease in animal welfare.

ANNEX I – EVALUATION FRAMEWORK

Table 34: Effectiveness

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
<p>EQ 1 What progress has been made over time towards achieving the objectives set out in the Directive? To what extent is this progress in line with initial expectations? In particular, what progress has been made to achieve the conservation measures set out in Article 3? To what extent have adequate licencing and inspection systems been put in place?</p>	<p>EQ 1.1 What progress has been made to ensure that zoos implement the conservation measures set out in Article 3, in relation to the following requirements:</p> <p>A. To participate in research, training, exchange of information, captive breeding, repopulation and/or reintroduction of species into the wild</p> <p>B. To promote public education and awareness/provide information about species exhibited and their habitats</p> <p>C. To accommodate animals under conditions which aim to satisfy the biological and conservation requirements and maintain high standard of ani-</p>	<p>Indicators related to the specific objective A:</p> <ul style="list-style-type: none"> • Proportion of zoos surveyed (in the selected MS) involved in research projects. • Main areas of research. • Proportion of zoos surveyed (in the selected MS) involved in training programmes on conservation skills, by type of target audience (zoo staff, veterinarians, volunteers, etc.) over the implementation period. • Proportion of zoos surveyed (in the selected MS) participating in information sharing activities, between zoos and with other stakeholders, over the implementation period. • Proportion of zoos surveyed (in the selected MS) participating in conservation programmes/projects, such as EEPs and ESBs. 	<ul style="list-style-type: none"> • Majority of surveyed zoos participating in activities related to objective A. • Animals bred in surveyed zoos re-introduced into the wild. • Species downgraded in red lists/taken off red lists because of zoos conservation projects. 	<ul style="list-style-type: none"> • Literature • 'Grey literature' • Interviews with CAs and zoos' representatives • Targeted survey • Annual reports of zoos 	<p>Zoos Questionnaire: Question 25 – 44.</p> <p>Interview questions: 1,2,4.</p>
		<p>Indicators related to the specific objective B:</p>	<ul style="list-style-type: none"> • Adoption of information strategies and awareness 	<ul style="list-style-type: none"> • Literature • 'Grey literature' 	

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
	mal husbandry D. To prevent escape of animals and intrusion of outside pests and vermin E. To keep records of the zoo's collection?	<ul style="list-style-type: none"> Proportion of zoos surveyed (in the selected MS)undertaking public education programmes. Proportion of zoos surveyed (in the selected MS)having defined an and awareness raising activities. 	<ul style="list-style-type: none"> raising activities in surveyed zoos. Majority of zoos visitors who participated in the public consultation confirm they're well informed, take part in education activities, improve their knowledge on biodiversity. 	<ul style="list-style-type: none"> Interviews with CAs and zoos' representatives Targeted survey Public consultation Annual reports of zoos 	Interview questions : 1,2,4.
		<ul style="list-style-type: none"> Indicators related to the specific objective C: Number of Member State authorities having established mandatory minimum standards for animals' accommodation, species specific. Proportion of zoos surveyed (in the selected MS)investing in environmental enrichment measures. Proportion of zoos surveyed (in the selected MS)applying minimum standards for accommodation of animals issued by authorities or other organisations. Proportion of zoos surveyed (in the selected MS)with special educational requirements for animal caretakers. Proportion of zoos surveyed (in the selected 	<ul style="list-style-type: none"> Majority of the Member States in the sample have established mandatory minimum standards. Majority of surveyed zoos investing in environmental enrichment measures. Majority of surveyed zoos applying minimum standards for accommodation of animals issued by authorities or other organisations. Majority of surveyed zoos with special educational requirements for animal caretakers. Capacity to ensure preventive and curative health programmes generally in place. 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Annual reports of zoos 	<p>Zoos Questionnaire: Question 54 – 61.</p> <p>Interview questions : 1,2,4.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
		MS) with preventive and curative health capabilities (e.g. hygiene plans, nutrition and health programmes, in-house or external qualified veterinarians).			
		<p>Indicators related to the specific objective D:</p> <ul style="list-style-type: none"> Number of escapes of species hazardous to indigenous species from zoos over the implementation period. Proportion of zoos having established a formal plan to prevent intrusion of outside pests and vermin. 	<ul style="list-style-type: none"> Limited number of escapes from zoos over the implementation period. Majority of surveyed zoos have plans to prevent both intrusion of outside pests and vermin.. 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Annual reports of zoos 	<p>Zoos Questionnaire: Question 62 - 64.</p> <p>Interview questions : 1,2,4.</p>
		<p>Indicators related to the specific objective E:</p> <ul style="list-style-type: none"> Proportion of zoos that established a record keeping system with the following features: Electronic record keeping, collection of individual records, complete coverage of the zoo collection, in line with main national and international trade regulations (e.g. Council Regulation 338/97, and Commission Regulation 865/2006). 	<ul style="list-style-type: none"> Majority of surveyed zoos in the sample have established a record keeping system with the minimum features described. Majority of EU and international stakeholders agree on the improved availability and quality (or accuracy) of available records. 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Annual reports of zoos 	<p>Zoos Questionnaire: Question 65-67.</p> <p>Interview questions: 1,2,4.</p>
	EQ 1.2 To what extent have adequate licensing and inspec-	<ul style="list-style-type: none"> Number of MS in the sample that have designated a competent authority for 	<ul style="list-style-type: none"> MS in the sample have designated and clearly identified a competent 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with 	<p>MSCAs Questionnaire: Question 7 – 73.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
	tion systems been put in place in the Member States?	<p>the implementation of the Directive.</p> <ul style="list-style-type: none"> • Number of zoos licensed within four years since the entering into force of the Directive, in relation to the number of zoos licensed after the four years period, in the selected MS. • Estimated number, and trend over the implementation period, of licensed and unlicensed zoos in the selected MS (if available), by status of the procedure. • Proportion of MS that defined specific criteria and guidelines to verify the implementation of Article 3 measures by zoos. • Frequency of regular inspections in the selected MS. • Proportion of MS in the sample having established rules for the effective re-location of animals under appropriate conditions, following the closure of a zoos (specific objective F). • Proportion of Member States in the sample having established national action plans, rescue centres/sanctuaries, and/or collaboration projects with NGOs, in case of closure 	<p>authority for the implementation and application of the Directive.</p> <ul style="list-style-type: none"> • Most of the zoos in the selected MS have been licensed within the four years transition period. • Increasing number of licensed zoos over the implementation period, compared to the estimated number of unlicensed zoos (including pending procedures). • Most of the MS in the sample conduct inspections on the basis of defined criteria and guidelines. • Inspections planned at regular intervals and in line with the good practices identified during the evaluation. • Majority of Member States in the sample have established specific procedures, action plans and projects in case of closure of a zoo/relocation of animals. • The majority of stakeholders consider penalties effective, proportionate and dissuasive. • Breaches are detected and closures are enacted. 	<p>CAs and zoos' representatives</p> <ul style="list-style-type: none"> • Targeted survey • Annual reports of zoos • Records of number of licenses • Records of number of inspections and frequency of the inspections in the MS • Records of zoo closures 	<p>NGOs&Federation Questionnaire: Question 39 – 43.</p> <p>Zoos: 76 - 77.</p> <p>Interview questions: 7-8.</p> <p>Public consultation: Question 25</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
		<p>of a zoo/relocation of animals (specific objective F).</p> <ul style="list-style-type: none"> Number of breaches to the legislation detected in the selected MS. Number of closures of zoos as a sanction as per Article 6 of the Zoos Directive, in the selected MS. Share of stakeholders considering that the penalties defined are effective, proportionate and dissuasive. Level of quality of the staff in charge of zoo licensing and inspections. Number of MS having taken actions to improve the licensing and inspection system. 	<p>ed.</p> <ul style="list-style-type: none"> The staff dedicated to inspections is considered to have an adequate background, and multi-disciplinary teams are established. Majority of the selected MS have taken action to reinforce the licensing and inspection system. 		
	<p>EQ 1.3 Is progress in line with expectations of a strengthened role of zoos in the conservation of biodiversity?</p>	<ul style="list-style-type: none"> Perception of the adequacy of the systems set up by the MS to ensure that the zoos meet the requirements of the Zoos Directive (Art. 3). Perception of the role of zoos in the conservation of biodiversity. 	<ul style="list-style-type: none"> A majority of respondents considers the systems set by the MS as effective in ensuring the implementation of the legislation. A majority of respondents considers that contribution of the programmes to the improved protection of wild fauna and biodiversity is high. A majority of respondents 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Public consultation Annual reports of zoos Statistics/records collected by the zoos 	<p>Zoos questionnaire: Question 68-72.</p> <p>MSCAs Questionnaire: Question 74 – 78.</p> <p>NGOs&Federation Questionnaire: Question 31 – 35.</p> <p>Public consultation: Q.20, 21, 22.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
			<p>ents has a positive perception of the role of zoos in the conservation of biodiversity.</p> <ul style="list-style-type: none"> A majority of respondents considers that animals are accommodated under satisfactory conditions. 		Interview questions: 1,2,4.
<p>EQ 2 What is the contribution of the Directive towards ensuring the protection of wild fauna and the conservation of biodiversity in the EU and globally (including its contribution to implementing the EU Biodiversity Strategy and EU commitments under international conventions such as the Convention on Biological Diversity)?</p>	<p>EQ 2.1 Does <i>ex situ</i> conservation contribute to conservation of biodiversity?</p>	<ul style="list-style-type: none"> Evidence of the role of zoos in biodiversity conservation and protection of wild fauna. Proportion of species exhibited that are on Global and/or European Red Lists. Impact of measures of Article 3 undertaken by zoos in conservation. 	<ul style="list-style-type: none"> Zoos activities contribute to the conservation of biodiversity. 	<ul style="list-style-type: none"> Analysis of the relevant international documents Interviews with CA, EU and international stakeholders Literature review Public consultation 	Mainly based on desk research, and Zoos questionnaire: Question 20-28, ; Question 36-39.
	<p>EQ 2.2 What is the contribution of the Zoos Directive towards ensuring the protection of wild fauna and the conservation of biodiversity in the EU, in relation to implementing:</p> <ul style="list-style-type: none"> the EU biodiversity strategy Council Regulation No 338/97 on the protection of species and wild 	<ul style="list-style-type: none"> Mapping of the links between the Zoos Directive and relevant strategies, policies and regulations. Indicators related to the effectiveness of the Zoos Directive in achieving its specific objectives (in particular, specific objective A- E), in areas also addressed by other EU policies. 	<ul style="list-style-type: none"> There are positive interactions between the Zoos Directive and relevant strategies, policies and regulations. Indicators on the achievements in relevant areas of the Zoos Directive show a positive trend. 	<ul style="list-style-type: none"> Analysis of the relevant international documents Interviews with CA, EU and international stakeholders Targeted survey 	Mainly based on desk research. See EQ. 12 and EQ. 13.

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
	fauna and flora ³⁴⁶ <ul style="list-style-type: none"> If relevant, other EU biodiversity related policies and legislation? 				
	EQ 2.3 What is the contribution of the Zoos Directive towards ensuring the protection of wild fauna and the conservation of biodiversity at the international level in relation to the implementation of: <ul style="list-style-type: none"> the Convention on Biological Diversity (and the Aichi Target 1) the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)³⁴⁷ If relevant, other international agreements? 	<ul style="list-style-type: none"> Mapping of the interactions between the Zoos Directive and other international agreements. Level of collaboration between CAs for zoos and CAs implementing the other international agreements. Indicators related to the effectiveness of the Zoos Directive in achieving its specific objectives (in particular, specific objective A- E), in areas also addressed by other international agreements. 	<ul style="list-style-type: none"> There are positive interactions between the Zoos Directive and other international agreements. Collaboration between CAs is observed. Indicators related to the effectiveness of the Zoos Directive in achieving its specific objectives (in particular, specific objective A- E) in areas addressed by other EU policies. 	<ul style="list-style-type: none"> Analysis of the relevant international documents Interviews with CA, EU and international stakeholders T	Mainly based on desk research and interviews.
EQ3 Which main factors (e.g. implementation by Member	EQ 3.1 How transposition, implementation and enforcement by	<ul style="list-style-type: none"> Number of EU court cases related to Member States infringements in relation to 	<ul style="list-style-type: none"> Correct transposition, effective implementation and enforcement of the 	<ul style="list-style-type: none"> Interviews with CA and national and EU stakeholders 	Zoos Questionnaire: Questions 76 - 78.

³⁴⁶ Requiring the availability of adequate facilities for the accommodation and care of live specimens before their importation into the Community is authorised (Article 4 of the Council Regulation No. 338/97).

³⁴⁷ Findings will be mainly extrapolated on the basis of the analysis of the contribution of the Zoos Directive to the Council Regulation No 338/97 on the protection of species and wild fauna and flora (mentioned above).

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
States, action by stakeholders) have contributed to or stood in the way of achieving these objectives?	Member States contributed to/impeded the achievement of the objectives of the Zoos Directive?	<p>the transposition, implementation and enforcement of the Zoos Directive, and underlying reasons.</p> <ul style="list-style-type: none"> • Number of issues raised by stakeholders in relation to the implementation of the Zoos Directive. • Number of guidance documents by MSCAs in relation to the Zoos Directive. • Effective system for licensing and inspection (indicators under EQ 1.2). 	<p>Zoos Directive.</p> <ul style="list-style-type: none"> • Clear provisions of the Zoos Directives/ no or limited difficulties linked to the implementation of the Zoos Directive and corresponding factors. • Guidance documents have been adopted and used by MSCAs in relation to the Zoos Directive. • Effective system for licensing and inspection. 	<ul style="list-style-type: none"> • Targeted survey • Public consultation • Analysis of case law • Literature 	<p>MSCAs Questionnaire: Question 9-10 ; Question 17 ; Questions 23-24 ; Question 123 – 125.</p> <p>NGOs&Federation Questionnaire: Question 39-43 ; Question 44-45.</p> <p>Public consultation: Q. 25</p> <p>Interview questions: 6, 10.</p>
	EQ 3.2 Have specific actions by the stakeholders contributed to/impeded the achievement of the objectives of the Zoos Directive? Which other factors had a positive or negative effect?	<ul style="list-style-type: none"> • Adequate conservation measures implemented by zoos and appropriate management (indicators under EQ 1.1). • Number of education programmes and public awareness campaigns (B) developed with the involvement of stakeholders. • Number of guidance documents by stakeholders in relation to the Zoos Directive. 	<ul style="list-style-type: none"> • Adequate measures and appropriate management adopted by zoos. • Stakeholder involvement, e.g. in education programmes and public awareness campaigns (B). • Guidance documents have been adopted and used by stakeholders in relation to the Zoos Directive. 	<ul style="list-style-type: none"> • Interviews with CA and national and EU stakeholders • Targeted survey • Literature • Analysis of relevant policies and legislations 	<p>Zoos Questionnaire: Question 25 – 42 ; Question 107 – 115.</p> <p>MSCAs Questionnaire: Question 112 – 126.</p> <p>Interview question: 3.</p>
EQ4 Beyond these objectives, what, if any, other significant changes both posi-	EQ 4.1 Are there significant environmental, social or economic changes (positive,	Stakeholder's opinion on the changes linked to the Zoos Directive.	Stakeholders identify positive/negative/neutral changes linked to the Zoos Directive.	<ul style="list-style-type: none"> • Interviews with CAs and practitioners • Targeted survey 	<p>Zoos Questionnaire: Question 73 - 75.</p> <p>MSCAs Question-</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
five and negative can be linked to the Directive?	neutral or negative) not intended or foreseen?			<ul style="list-style-type: none"> Public consultation 	<p>naire: Question 79-81.</p> <p>NGOs&Federation Question 36 - 38.</p> <p>Public consultation: 25</p> <p>Interview question: 5, 26.</p>

Table 35: Efficiency

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
EQ 5 What are the costs and benefits (monetary and non-monetary) associated with the implementation of the Directive for the different stakeholders, at local, national and EU level? Where possible, an estimate of costs broken down by size of enterprises (micro/small/medium-sized enterprises) should be provided.	EQ 5.1 What are the costs for zoos and MS authorities associated with the implementation of the Directive?	<p>Estimates of regulatory costs (where available), broken-down according to the following categories:</p> <p>I. Substantive Compliance costs for zoos (recurrent and/or one-off), associated with:</p> <ul style="list-style-type: none"> Overall implementation, management and monitoring of the compliance with legislation (e.g. human resources to manage, plan and monitor the application of the EU Directive); Recurrent costs or one-off investments 	To be assessed in relation to the benefits of the Directive (EQ 5.2) and in terms of differences between small and large zoos (EQ 5.3).	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Public consultation Annual reports of zoos 	<p>Zoos Questionnaire: Question 80-99.</p> <p>MSCAs Questionnaire: Question 86 – 100.</p> <p>NGOs&Federation Questionnaire: Question 48-58.</p> <p>Public consultation: Q. 27</p> <p>Interview question : 11-13.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
		<p>for the implementation of measures as per Article 3 of the Directive (a) conservation research and training; b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping).</p> <p>II. Administrative burdens for:</p> <ul style="list-style-type: none"> • zoos (reporting on the compliance to the legislation, information obligations to MS and related data collection, stocking of documentation) and • MS authorities (e.g. costs for maintaining management bodies, preparation and review of strategies, management plans, reporting to the EC; costs for licencing procedures including costs for personnel, training) due to the Directive. <p>III. Costs of enforcement</p>			

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
		by MS authorities (costs of inspections including costs for personnel, training, costs related to the closure of zoos).			
	EQ 5.2 What are the benefits associated with the implementation of the Directive?	<ul style="list-style-type: none"> Trends in educational visits to zoos. Positive impact of zoo programmes on biodiversity (number of zoo conservation programmes in situ and ex situ, amount spent on conservation in situ and ex situ, staff involvement in conservation) and animal conditions. Recreation opportunities/wellbeing. Positive impacts on economic aspects, such as creation of employment, attraction of increase numbers of visitors. 	<ul style="list-style-type: none"> Increasing number of educational visits (e.g. school children). Stakeholders agreeing on the fact that major or significant benefits have been created by the Zoos Directive, including economic benefits. Increasing trends in the number of education and awareness programmes. Increased engagement in conservation programmes over the implementation period. Better accommodation conditions for animals. Increased wellbeing of citizens because of better quality of recreation opportunities (qualitative assessment). 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' representatives Targeted survey Public consultation Annual reports of zoos Records of visitors and different programmes. 	<p>Zoos Questionnaire: Question 80 - 99.</p> <p>MSCAs Questionnaire: Question 86 – 100.</p> <p>NGOs&Federation Questionnaire: Question 48-58.</p> <p>Public consultation: Q. 25</p> <p>Interview question : 14 - 15.</p>
	EQ 5.3 Are costs and benefits associated with the implementation of the Directive propor-	<ul style="list-style-type: none"> Relative differences between small and large zoos in terms of costs and benefits. 	<ul style="list-style-type: none"> The extent of benefits achieved by small and large zoos is comparable/ 	<ul style="list-style-type: none"> Literature 'Grey literature' Interviews with CAs and zoos' repre- 	<p>Zoos Questionnaire: Question 94-95.</p> <p>MSCAs Questionnaire:</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
	tionate to the size or kind of zoos?		deemed not significantly different.	representatives <ul style="list-style-type: none"> Targeted survey Annual reports of zoos 	Question 98-99. NGOs&Federation Questionnaire: Question 54-55. Interview question : 14 - 15.
EQ 6 To what extent are the costs associated with the Directive proportionate to the benefits that it has brought?	EQ 6.1 Are the costs proportionate to the benefits?	<ul style="list-style-type: none"> Proportion between costs and benefits estimated (qualitative comparison). Perception of stakeholders regarding the proportionality of costs vs benefits relation to the implementation of the Directive. 	<ul style="list-style-type: none"> Costs do not exceed benefits incurred by the implementation of the Directive (qualitative comparison). A majority of stakeholders consider costs proportionate to benefits. 	<ul style="list-style-type: none"> Outcome of EQ 5 Interviews with CAs and zoos' representatives Targeted survey 	Zoos Questionnaire: Question 91-93. MSCAs Questionnaire: Question 92-94. NGOs&Federation Questionnaire: Question 51-52. Public consultation: Q. 27 Interview question : 16.
EQ 7 What factors influenced the efficiency with which the achievements observed were obtained? In particular, what, if any, good or bad practices can be identified? If there are significant cost/benefit differences between Member States, what is causing them?	EQ 7.1 What factors influenced the efficiency with which the achievements of the Zoos Directive were obtained? EQ 7.2 In particular what, if any, good or bad practices can be identified? If there are significant cost/benefit differences between Member States, what is causing them?	<ul style="list-style-type: none"> Level of discrepancies/ differences in cost drivers across the selected MS. Identification by stakeholders of good and bad practices relating to (variations in) efficiency levels. 	<ul style="list-style-type: none"> Identification of good practices that may be replicated across MS and of bad practices that should be avoided to enhance efficiency. 	<ul style="list-style-type: none"> Interviews with CAs and zoos' representatives Targeted survey Annual reports of zoos 	Zoos Questionnaire: Question 96. MSCAs Questionnaire: Question 100. NGOs&Federation Questionnaire : Question 53. Interview question : 14 - 15 ; 17.
EQ 8 Taking account of	EQ 8.1 Is there evidence	<ul style="list-style-type: none"> Qualitative compari- 	<ul style="list-style-type: none"> All provisions of the 	<ul style="list-style-type: none"> Interviews with CAs 	Zoos Questionnaire:

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
the objectives and benefits of the Directive, what evidence is there that it has caused unnecessary regulatory burden or complexity? What factors identify this burden or complexity as unnecessary or excessive?	that the Zoos Directive has caused unnecessary regulatory burden or complexity? EQ 8.2 What factors identify this burden or complexity as unnecessary or excessive?	son between the elements that create administrative burden and the benefits brought. <ul style="list-style-type: none"> • Overlaps in requirements between the legislation transposing this Directive and other legal requirements in the selected Member States resulting in increased administrative burden. • Stakeholder views on factors that identify an excessive burden of the Directive. 	Directive are needed to achieve the benefits that it seeks. <ul style="list-style-type: none"> • Elements that create a regulatory burden have a precise rationale behind and directly contribute to producing benefits for stakeholders. • No or limited instances of excessive burden observed by stakeholders. 	and zoos' representatives <ul style="list-style-type: none"> • Targeted survey 	Question 94-96. MSCAs Questionnaire: Question 98-100. NGOs&Federation Questionnaire: Question 53-55. Interview question : 16.

Table 36: Relevance

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
EQ 9 How well do the (original) objectives (still) correspond to the needs within the EU and globally?	EQ 9.1 Do the objectives of protection of wild fauna and conservation of biodiversity correspond to the current EU and global needs?	<ul style="list-style-type: none"> • Degree of alignment between the current trends and issues in terms of biodiversity conservation, and the issues addressed by the Directive. • Exception of the adequacy between the objectives of the Directive and the current needs in 	<ul style="list-style-type: none"> • The scope of the Directive matches with the current issues arising from the evidence available on biodiversity and zoos role, and the stakeholders' opinions. • A majority of stakeholders/the public perceive(s) the objectives as ade- 	<ul style="list-style-type: none"> • Literature • 'grey literature' • Interviews with CAs and zoos' representatives • Targeted survey • Public consultation 	Zoos Questionnaire: Question 102-103. MSCAs Questionnaire: Question 109. NGOs&Federation Questionnaire: Question 65-66. Public consultation: Q. 22

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation tools
		terms of e) record keeping.	quate to the needs.		Interview question: 18.
EQ 10 How relevant is the Directive to achieving legal and policy biodiversity objectives at EU and global levels?	<p>EQ 10.1 Have EU and global biodiversity objectives and targets evolved since the adoption of the Directive?</p> <p>EQ 10.2 How has implementation of the Directive kept pace with the evolution of relevant objectives and targets?</p>	<ul style="list-style-type: none"> • Level of evolution of EU and global biodiversity objectives and targets, i.e. adoption of new legislation at EU/global level. • The relevance of the Directive to current priorities of global conventions, goals and targets. 	<ul style="list-style-type: none"> • Evidence of evolution of EU and global biodiversity objectives and targets, i.e. adoption of new legislation at EU/global level. • The Directive still has a value in contributing to global biodiversity targets (e.g. Aichi targets and the SDG targets) and supporting other policy processes. 	<ul style="list-style-type: none"> • Analysis of documents (EU and global policies) • Literature • 'grey literature' • Annual reports of zoos • Interviews with CA and zoos' representatives Public consultation	As above.
EQ 11 How well adapted is the Directive to (subsequent) technical and scientific progress?	EQ 11.1 Is the Zoos Directive adapted to technical and scientific progress?	<ul style="list-style-type: none"> • Observation of technical and scientific progress over the implementation period and level of adequacy between progress observed and requirements of the Directive. • Stakeholders perception on the level of adequacy between progress observed and requirements of the Directive. 	Evidence of adaptation to scientific progress contained in the Zoos Directive.	<ul style="list-style-type: none"> • Literature • 'Grey literature' • Interviews with CAs and zoos' representatives • Targeted survey 	Zoos Questionnaire: Question 104-106. MSCAs Questionnaire : Question 107-108. NGOs&Federation Questionnaire: Question 67-69. Interview question: 19.

Table 37: Coherence

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation
<p>EQ 12 To what extent does the Zoos Directive complement or interact with other EU sectoral policies affecting biodiversity conservation and relevant animal welfare issues at Member States and EU levels, in particular as regards wild animals kept in captivity for commercial reasons (notably circuses) and how do these policies affect positively or negatively the implementation of the Zoos Directive?</p>	<p>EQ 12.1 To what extent does the Zoos Directive complement or interact with other EU sectoral policies affecting biodiversity conservation and relevant animal welfare issues at Member States and EU levels?</p> <p>EQ 12.2 Are there conflicting requirements that prevent the achievement of the objectives of the Zoos Directive, or synergies for further reinforcing the Zoos Directive's objectives (e.g. LIFE programmes)?</p>	<ul style="list-style-type: none"> • Main interactions between the Zoos Directive and key sectoral EU policies. • Number of cases of conflicts and/or synergies. 	<ul style="list-style-type: none"> • Examples of positive interactions with the other sectoral policies. • Limited examples of cases of conflicts and/or several cases of synergies. 	<ul style="list-style-type: none"> • Literature review • Interviews with CAs and zoos' representatives (including at EU level) • Targeted survey • Public consultation • Policy analysis 	<p>Zoos Questionnaire: Question 100-101.</p> <p>MSCAs Questionnaire: 101 – 106.</p> <p>NGOs&Federation Questionnaire: Question 59-63.</p> <p>Public consultation: Q. 28</p> <p>Interview questions : 20 - 21.</p>
<p>EQ 13 To what extent does the Directive support the EU internal market and the creation of a level playing field for economic operators, especially SMEs?</p>	<p>EQ 13.1 To what extent the Zoos Directive created a level playing field among zoos in different Member States, and particularly among smaller zoos?</p> <p>EQ 13.2 If obstacles are observed, what are the stakeholders affected?</p>	<ul style="list-style-type: none"> • Degree of harmonization brought by the Zoos Directive across the Member States. • Level of discrepancies/ differences in the costs and benefits observed across Member States and/or zoos of different size (based on EQ 5.3 and EQ 7.1). • Stakeholders' and SMEs perception on 	<ul style="list-style-type: none"> • The Zoos Directive has been implemented in a harmonized manner among Member States (in terms of: definition of zoos; exemptions as per Article 2; definition of additional provisions/requirements; licencing fees; extent of the penalties). • Low differentiation among Member States in terms of costs and benefits. 	<ul style="list-style-type: none"> • Literature review • Interviews with CAs and zoos' representatives (including at EU level) • Targeted survey • Public consultation • Policy analysis 	<p>Zoos Questionnaire: Question 79, 97-99.</p> <p>MSCAs Questionnaire: Question 88-89.</p> <p>NGOs&Federation Questionnaire: Question 56-58.</p> <p>Public consultation: Q. 25</p> <p>Interview question: 22.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation
		level of support of the Zoos Directive to the EU internal market and the creation of a level playing field.	<ul style="list-style-type: none"> • Low differentiation between small and large zoos in terms of costs and benefits. • Positive perception of stakeholders in general /SMEs in particular on the level of support of Zoos Directive to the EU internal market and the creation of a level playing field for economic operators. 		

Table 38: EU Added Value

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation
EQ 14 What has been the EU added value of the Zoos Directive compared to what could be achieved by Member States at national and/or regional levels?	<p>EQ 14.1 How and to what extent the Zoos Directive contributed to strengthen the role of zoos in the conservation of biodiversity, through the objectives stated in Art. 3 thereof?</p> <p>EQ 14.2 Could these objectives be achieved by Member States through national legislation? Are there certain aspects or instances where MS-level regulation would provide bet-</p>	<ul style="list-style-type: none"> • Number and share of the interviewed stakeholders stating the Zoos Directive contributed to the implementation of conservation measures and to a strengthened the role of zoos. • Number of other factors that, according to the stakeholders, have contributed to achieve the changed observed. • Number of Member 	<ul style="list-style-type: none"> • Majority of zoos state that the Directive strongly contributed to the implementation of the conservation measures and to a strengthened role of zoos, more than any other factors. • The Zoos Directive prompted the adoption of national legislations related to the role of zoos in the conservation of biodiversity. 	<ul style="list-style-type: none"> • Literature • 'grey literature' • Interviews with CAs and zoos' representatives • Targeted survey • Public consultation • Annual reports of zoos • National reports to the CBD on ex-situ conservation. 	<p>Zoos Questionnaire: Question 71; Question 107 – 108.</p> <p>MSCAs Questionnaire: Question 77; Question 112 - 115.</p> <p>NGOs&Federation Questionnaire: Question 34; Question 70 – 75.</p> <p>Public consultation: Q 22, 23, 24</p> <p>Interview question: 1,2,4, 23.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation
	<p>ter results with respect to the objectives stated in Art. 3 of the Zoos Directive?</p>	<p>States that had a national legislation recognising the role of zoos in protecting biodiversity before the entering into force of the Zoos Directive.</p> <ul style="list-style-type: none"> Number and share of the interviewed stakeholders stating that the EU level is the most appropriate level to regulate ex-situ biodiversity conservation and reasons for such an opinion (also addressed in EQ16.3). 	<ul style="list-style-type: none"> EU level seen as the most appropriate level for regulation of biodiversity conservation ex-situ. (also addressed in EQ16.3). 		
<p>EQ 15 To what extent do the issues addressed by the Directive continue to require action at EU level?</p>	<p>EQ 15.1 Are there substantial derogations from the Zoos Directive in the Member States? Are there specific and/or additional requirements, and/or more stringent rules than those envisaged by the Directive? What are they – do they lead to achievement of better results in terms of effectiveness or efficiency of achievement of the objectives as stated in Art. 3 of the Zoos Directive?</p>	<ul style="list-style-type: none"> Number of MS with substantial derogations, additional or specific requirements and/or more stringent rules. Degree of differentiation among Member States in the implementation of the Directive. Degree of differentiation among EU Member States and issues implied for economic operators, if any (see indicators under EQ 13). 	<ul style="list-style-type: none"> Low number of cases where MS introduced derogations or implemented more stringent regulations than the rules envisaged by the Zoos Directive indicating that the Member State legislation largely relies on the Zoos Directive. The Zoos Directive has been implemented in a harmonized manner across Member States. 	<ul style="list-style-type: none"> Literature 'grey literature' Interviews with CA, zoos' representatives and NGOs Targeted survey Public consultation Results of monitoring of zoos 	<p>MSCAs Questionnaire: Question 7 – 23.</p>

Evaluation question	Sub-questions	Indicators	Success criteria	Sources of information	Questions of the consultation
	<p>EQ 15.2 Which are the remaining discrepancies among Member States? Is there a level playing field among economic operators or is further action needed?</p>				
<p>EQ 16 What would be the consequences of not having the Directive?</p>	<p>EQ 16.1 Which would be the expected developments in the legislation at Member States level? What would be the consequences in terms of ex situ biodiversity conservation?</p> <p>EQ 16.2 To what extent the objectives of the Zoos Directive could be achieved through the participation in international agreements and/or requirements of international, national and regional zoos organizations?</p> <p>EQ 16.3 What would be the consequences at EU level of not having the Directive, in particular with regards the obligation of the EU under Article 9 of the Convention of Biological Diversity?</p>	<ul style="list-style-type: none"> • Synergies and overlaps with other legal acts, policies or international agreements. • Feedback of stakeholders about consequences that the absence of the EU legislation would bring. • Number and share of the interviewed stakeholders stating that the EU level is the most appropriate level to regulate ex-situ biodiversity conservation and reasons for such an opinion. 	<ul style="list-style-type: none"> • Not having the Zoos Directive leading to negative effects in at least some MS in relation to the objectives stated in the Art. 3 of the Zoos Directive. • The objectives pursued with the Zoos Directive would not be covered/addressed at EU level with other pieces of legislation, policies or international agreements. • Positive and negative effects of not having the Zoos Directive reported by the stakeholders. • EU level seen as the most appropriate level for regulation of biodiversity conservation ex-situ. 	<ul style="list-style-type: none"> • Literature • 'grey literature' • Interviews with CAs, zoos' representatives and NGOs • Targeted survey • Public consultation • Results of monitoring of zoos 	<p>Zoos Questionnaire: Question 111-116.</p> <p>MSCAs Questionnaire: Question 7 – 23 ; Question 114 -122.</p> <p>NGOs&Federation Questionnaire: Question 76 – 82.</p> <p>Public consultation: Q 22, 23, 24</p> <p>Interview question: 24 - 25.</p>

ANNEX II – COUNTRY FICHES

Country fiche – Belgium

National system

- Prior to the entry into force of Directive 1999/22/EC, four legislative measures on zoos were in place at federal level (see section 2 on transposition of the Directive). This legislation has been enacted by the Federal Public Service for Public Health, Food Safety and Environment (Service Public Fédéral Belge 2016). Even though the legislative competence has been transferred to the Regions (Flemish Region, Walloon Region, Region of Brussels Capital) in 2014, federal legislation remains in place until the regional governments have adopted new legislation on the matter (Agentschap Informatie Vlaanderen n.d.) (Service public de Wallonie n.d.). At the time of the drafting of this fiche, it seems that none of the Regions has adopted such rules. The legislation has not been modified after the entry into force of the Directive. According to the Born Free 2011 Zoo Inquiry the federal law does not transpose all concepts of Directive 2014/17/EU (Born Free Foundation 2011, 39).
- Definitions of ‘circuses’, ‘travelling expositions’ and ‘commercial establishments for animals’ are not included in the federal law, meaning these establishments fall outside the scope of transposing legislation (Born Free Foundation 2011, 5).
- The procedure to obtain a Zoo permit is as follows. One must send an application to the Service Animal welfare. After being inspected by the Zoo commission, Service Animal welfare will advise the Minister of the Department Environment, Nature and Energy on whether or not to provide a license. This procedure costs €250 for collection displaying either mammals or birds and €125 if the collection contains only animals other than mammals or birds. The Minister can revoke, partly or wholly, the Zoo permit, when the establishment does not meet the legal requirements anymore (Agentschap Informatie Vlaanderen n.d.). The Zoo Commission is the expert board, which will also be consulted on drafting zoo-specific legislation (Dienst Dierenwelzijn n.d.). If an applicant has not been informed regarding the status of the application for a zoo permit within 180 days after application thereof, he/she will obtain the permit automatically (“laissez-faire” approach). Furthermore, the permit is issued for an unlimited period, but has restrictions regarding the number of animals kept (Born Free Foundation 2011, 15).

Main achievements (successes reported in literature and/or by stakeholders contacted):

- Belgium has adopted legislation concerning minimum standards for the keeping of animals in zoos (Born Free Foundation 2012, 19). This also includes minimum standards for keeping cetaceans (Born Free Foundation 2012, 5 and 32).
- Two Belgian zoos have adopted a ‘no kill-policy’, namely the zoos Antwerp and Planckendael. This means that surplus animals, which do not fit in the zoo and cannot be placed at another facility, may not be killed (BELGA 2016).

Main challenges that remain to be addressed/ key issues

The Born Free 2011 Zoo Inquiry reported that Belgium had incorrectly transposed Directive 1999/22/EC on several points:

- The Belgian Government did not adopt the objective ‘the role of zoos in the conservation of biodiversity’, as referred to in Art. 1 of the Directive.
- The Belgian Government has adopted only one conservation option, namely ‘the participation in international cooperative captive breeding’ of Art. 3 of the Directive.
- Art. 4(4) of Directive 1999/22/EC concerning on-site inspection of zoos prior to a renewal of the license or changed condition, has not been transposed in Belgian legal order.
- Art. 4 of Directive 1999/22/EC regarding the regularity or procedures of zoo inspections, appears

- not to be transposed (Born Free Foundation 2011, 40).
- Art. 6 of the Directive on zoo closures and contingency plans for the animals, has not been transposed (Born Free Foundation 2012, 17 and 40).

The Born Free 2011 Zoo Inquiry underlined additional issues:

- The laissez-faire approach implies that zoos are considered licensed without systematically requiring that any checks or inspections are carried out. This may be in violation of Art. 4 of Directive 1999/22/EC.
- The enforcement of Directive 1999/22/EC might be ineffective: the Belgian authority acknowledges that zoo inspectorates need more resources. Furthermore, zoo inspectorates act, due to workload, in accordance with complaints and notifications rather than inspecting zoos on a regular basis, as required by Directive 1999/22/EC.
- It appears that Belgian zoos and dolphinariums in general fail to comply with national legislation (Born Free Foundation 2011, 20-31). To point out a few issues: Belgian zoos are not committed to contribute to species conservation (Born Free Foundation 2011, 5-6 and 43-44), the public could come in direct contact with animals and no behavioural (Born Free Foundation 2011, 5-6 and 42-43) or the enclosures were not suitable for the animals (Born Free Foundation 2011, 5-6 and 46-47).

MAPPING OF NATIONAL CONTEXT	
1.1 Total number of zoos	There are 40 zoos in Belgium, further details on the evolution of the number of zoo was not available.
1.2 Types of zoos in the country	Private: <ol style="list-style-type: none"> 1. Aquarium de Bruxelles 2. NV Plopsaland S.A. 3. Boudewijn Seapark 4. Serpentarium (NGO) 5. National Sealife Blankenberge 6. N.V. Bellewaerde Park S.A. 7. Familiepark Harry Malter 8. Olmense Zoo 9. Zoo Antwerpen (NGO) 10. Dierenpark Planckendael (NGO) 11. Aquatopia 12. Noordzeeaquarium (given the e-mail address it might be public. Not sure at all, since the website does not appear to be made by the authorities) 13. De Zonnegloed 14. Parc "Les Onays" 15. La grange à papillons 16. Parc animalier de Bouillon "La Crête des cerfs" 17. Parc animalier de La Ried 18. Parc Mont Mosan 19. Pairi Daiza 20. Parc à Gibier de La Roche 21. Télécoo 22. Wolf Conservation Association 23. Entre Ferme et Forêt 24. Monde sauvage Public <ol style="list-style-type: none"> 1. Recreatiedomein "De Brielmeersen" (since 01-01-2015) 2. Domein Eendenkooi (not sure) 3. Provinciedomein Huizingen 4. NAVIGO - Nationaal Visserijmuseum 5. Musée d'Histoire Naturelle 6. Aquarium - Museum de l'Université de Liège 7. Réserve d'Animaux sauvages de Han-sur-Lesse 8. Parc à Gibier de Saint-Hubert 9. Museum des Sciences Naturelles

	<p>10. Domaine de Champalle (given the name)</p> <p>11. Le parc zoologique du Castel Saint Pierre</p> <p>12. Hexapoda insectarium (at a uni)</p> <p>Not identified:</p> <ol style="list-style-type: none"> 1. Centre Carapace 2. Base 1 Wing (military plane) 3. Crusoe 4. BIAVA (Pêcheurie)
1.3 NGOs active at national level	<p>The main NGOs active in the field:</p> <ul style="list-style-type: none"> • GAIA (animal welfare) ; • Dauphin libre (against captivity of dolphins). <p>Natuurpunt and Natagora are two NGOs active on environmental matters in general.</p>
1.4 Associations of zoos professionals	<p>IVDB - Flemish association of veterinarians³⁴⁸</p> <p>Savab - Flemish association of veterinarians (for domestic animals)³⁴⁹</p> <p>VDV - Flemish Association of veterinarians³⁵⁰</p> <p>Ordre vétérinaires - Walloon Association of veterinarians³⁵¹</p> <p>UPV - Walloon association of veterinarians³⁵²</p>
1.5 Brief market overview	<p>In 2015, Belgium had 11,209,044 inhabitants_(Algemene Directie Statistiek 2015, 6).</p> <p>No aggregate information was publicly available regarding the total number of visitors or the turnover of Belgian zoos. Some information was nonetheless collected from certain big zoos or institutions:</p> <ul style="list-style-type: none"> • Aquarium - Museum de l'Université de Liège mentions the amount of visitors until 2010 of the Aquarium Museum (Aquarium-Museum van Luik n.d.).³⁵³ • A general overview of tourism in Flanders is available. It states the amount of visitors over the years 2011-2015 (reports of previous years are also available).³⁵⁴ Please note: zoos and amusement parks are one category, so the figure includes both visitors. This report does not include all zoos. In the province of Antwerp, 2,930,391 people visited zoos, fun fairs and amusement parks (Vlaanderen is toerisme n.d., 14). In the province of West-Flanders, 2,488,258 people visited zoos, fun fairs and amusement parks (Vlaanderen is toerisme n.d., 26). • Annual reports for the Zoos of Antwerpen and Planckendael from 2012-2015 are available³⁵⁵. The reports mention the amount of visitors and revenues. In 2015, ZOO Antwerpen welcomed 862,000 visitors and Planckendael was visited by 911,000 people (Koninklijke Maatschappij Dierkunde Antwerpen vzw n.d., 14). Together the two zoos have a turn-over of €36,700,00 (Koninklijke Maatschappij Dierkunde Antwerpen vzw n.d., 14).
TRANSPOSITION OF THE DIRECTIVE	
1.1 Transposition of the directive	<p>Competence to enact legislation is no longer a federal matter. Federal legislation will apply, until other regional legislation has been enacted. None of the Regions have yet adopted such rules. The following federal legislation is hence still applicable:</p>

³⁴⁸ <http://www.ivdb.be/>

³⁴⁹ <http://www.savab.be/>

³⁵⁰ <http://www.vladiver.org/>

³⁵¹ <http://www.ordre-veterinaires.be/>

³⁵² <http://www.upv.be/>

³⁵³ The amount of visitors are: 500,000 in May 1981, 1,000,000 visitors in October 1991, 1,500,000 in August 1998 and 2,000,000 visitors in October 2004.

³⁵⁴ http://www.toerismevlaanderen.be/sites/toerismevlaanderen.be/files/assets/documents_KENNIS/cijfers/2011-2015_attractieaanbod.pdf.

³⁵⁵ <http://www.zooantwerpen.be/nl/jaarverslag>.

		<ul style="list-style-type: none"> • Law of 14 August 1986 on the protection and the well-being of animals (Loi du 14 aout 1986 relative à la protection et au bien-être des animaux), 14.08.1986, 01.01.1988, M.B. 03.12.1986. • Royal Order of 10 August 1998 on the recognition of zoos (10 Août 1998 - Arrêté royal relative à l'agrément des parc zoologiques / 10 augustus 1998. – Koninklijk besluit betreffende de erkenning van dierentuinen), 10.08.1998, 01.01.1999– 01 January 1999, M.B. 13.11.1998, (“Royal Order 1998”). • Ministerial Order of 3 May 1999 on setting minimum criteria for keeping mammals in zoos (Arrêté ministériel fixant des norms minimales pour la detention de mammifères dans les parcs zoologiques /Ministerieel besluit tot vaststelling van minimumnormen voor het houden van zoogdieren in dierentuinen), 3.05.1999– – 19.08.1999, M.B. 19.08.1999, (“Royal Order 1999”). • Ministerial Order of 7 June 2000 on setting minimum criteria for keeping birds in zoos (Arrêté ministériel fixant des norms minimaux pour la detention des oiseaux dans les parcs zoologiques / Ministerieel besluit tot vaststelling van minimumnormen voor het houden van vogels in dierentuinen), 7.06.2000 – 5.09.2000, 5.09.2000, (“Royal Order 2000”). • Ministerial Order of 23 June 2004 on setting minimum criteria for keeping reptiles in zoos (23 Juin 2004 – Arrêté ministériel fixant les norms minimales pour la detention des reptiles dans les parcs zoologiques / Ministerieel besluit tot vaststelling vna minimumnormen voor het houden van reptielen in dierentuinen), 23.06.2004, 1.02.2005, 27.07.2004, (“Royal Order 2004”).
1.2	Eu infringement cases	There are no infringement cases against Belgium on the basis of Directive 1999/22/EC.
1.3	National case-law	There is no case law on the transposing measures of Directive 1999/22/EC.

Country fiche – Bulgaria

Key features of the national system:

- The Directive has been effectively transposed through the Biodiversity Act (SG 77/09.08.2002 Amended), which is implemented through secondary legislation: Regulation No.1 (SG 43/26.05.2006) and Ordinance No.6 (SG 105 / 2.12.2003, amended by SG 44 / 12.07.2009). The Directive came into force in Bulgaria in January 2007 (Bornfree, 2011)(our study)
- The competent authority is the Ministry of Environment and water.
- According to the CA, the number of zoos in Bulgaria is as follows. There were 20 licensed and not licensed zoos in 2010 , and 21 in 2015 (MS CA Survey). According to Born Free, in 2011, there were 19 zoos in Bulgaria, of which 16 were licensed and 3 were closed (Born Free Foundation 2011).
- Municipalities own and operate all the licensed zoos in Bulgaria. They do not appear to have sufficient resources for ensuring the effective implementation and enforcement of the Biodiversity Act. Mayors defend the existence of local zoos yet were reported to take little action to ensure that the zoos meet the required standards (Born Free Foundation 2011)(our survey)
- No official data is available on the number of visitors for all Bulgarian zoos. As a means of illustration, the Sofia Zoo, which is the largest zoo in the country, attracts annually around 400.000-500.000 visitors (Focus 2011).
- According to the Supplementary provisions to the Biodiversity Act, a zoo “shall be any permanent establishment where animals of wild species are kept for exhibition to the public for seven or

more days a year, with the exception of circuses, pet shops and other establishments which do not exhibit a significant number of animals or species to the public”.

- Exemptions in line with Article 2 of the Directive are provided in the Supplementary Provisions of Regulation No 1 from 9 May 2006 2 as follows "Significant number of animals or species" are more than 5 wild species with more than 5 specimens of each species.
- Concerning costs, there is no official data on costs related to the implementation of the Zoos Directive. Two full time (equivalent) staff in the Ministry and one in each Regional inspection are dedicated to zoos inspections. The duration of one inspection procedure (including reviewing documents, inspection form, inspection visit, and inspection report) is estimated to be 1-5 days, depending on the zoo. Regional inspectors are doing at least 1 inspection per year and 1 or max. 2 zoos annually (our study).
- The BG CA issues guidelines for keeping animals in zoos as described in Regulation No 6 from 23 October 2003. These guidelines contain minimum requirements for keeping animals in zoos and in the keeping and breeding centers for protected animal species. The Annexes of the regulation are laying down standards and special conditions of each animal group or species concerned (our study).
- Licences are issued by the Ministry of Environment and water, with support of the Institute of Biodiversity and Ecosystem Researches of the Bulgarian Academy of Science. The Institute contributes to the assessment of animals' enclosures. Zoos are inspected by the Ministry of Environment and Water, the Ministry of Agriculture and Food Regional Inspectorate of Environment and Water, the Regional Veterinary Office and a representative of the Bulgarian Academy of Sciences are members of the Commission for license. After the licensing, the Regional Inspectorates of Environment and Water are responsible for conducting regular inspections in zoos. The representatives of Ministry of Agriculture and Food and Regional Veterinary Office are responsible for the veterinary legislation, the representative of the Bulgarian Academy of Sciences contributes to the process as an external expert.
- The first license has a set duration of 5 years. Every consecutive license could be issued under certain conditions for a 5 year period or for 10 years. The cost of applying for a 5-years-license is 500 euro. In case of non-compliance, Art. 126, (3) of the Biodiversity Act provides penalties for running a zoo without an appropriate license. The penalties range from 500 to 5.000 euro for individuals and between 1.000 to 12.500 euro in the cases of legal persons sole traders (our study).
- Bulgaria has no national zoo association and only 1 of its 19 zoos (Sofia Zoo) is a candidate for EAZA membership. This illustrates that BG zoos are likely not meet the standards required for EAZA membership (our study).
- There is one NGO active at national level, called: 'Four Paws Bulgaria' (Vier Pfofen International). This NGO is actively promoting animal welfare and has raised concern about big cats in captivity in Eastern Europe (Four Paws Bulgaria 2016)
- Zoos in Bulgaria have a history of regular escape of wild animals. In the period 2006 – 2016, a total of 6 escapes (i.e. jaguar, tiger, bear, golden Jackal, wolf) occurred (our study) . As example, in 2014 a tiger has escaped from its cage from the Sofia zoo. Visitors were evacuated and the zoo was closed. A veterinarian was called to sedate and catch the animal³⁵⁶. In 2015, a wolf fled the zoo in Blagoevgrad, Southwestern Bulgaria. Visitors were immediately evacuated after staff members noticed the animal's cage was empty. Police and fire brigade teams were sent to the site. This was the second incident with an animal escaping the zoo, after two bears did the same ten years ago. Also in 2015, a bear managed to leave its cage in the zoo of Pleven, northern Bulgaria³⁵⁷. A paper on escape of wolves illustrates bad housing conditions as frequent cause for escapes (Mihaylov 2015).

Main achievements:

- The licensing system is operational, and many zoos are licensed (our study).

In 2015: ³⁵⁶ <http://www.novinite.com/articles/165259/Tiger+Flees+Cage+at+Sofia+Zoo>

³⁵⁷ <http://www.novinite.com/articles/170914/Wolf+Flees+Zoo+in+Bulgaria's+Blagoevgrad>

- Two zoos (Sofia Zoo and Dorich Zoo) are involved in in-situ conservation projects regarding the European Lynx and European birds of prey. Other Zoos in Bulgaria are not involved in conservation or biodiversity and cannot do rehabilitation for wild fauna (our study, NGO Interview).
- A good example can be seen regarding a breeding center for bears, which had no license. The zoo was closed and all the bears were trans-located to other EU countries. Also, the ministry facilitated and organized workshops for zookeepers to educate and help them take better care of their animals (NGO Interview).
- In the beginning, the licensing went very slowly but with time the situation gradually improved, especially during the last 2-3 years (NGO Interview).
- Before the EU Zoo Directive, the zoos in Bulgaria were very bad. The Directive had a good impact and helped guiding the zoo and ministry.

Main challenges:

- Almost all zoos in Bulgaria are publicly owned and lack the money to be involved in research, conservation or education programs. After the Directive was implemented in national law, zoos attempted and many started to (re)build better enclosures in order to retain their license.
- The lack of resources keeps limiting the progress to provide adequate housing conditions in many of the municipal zoos in Bulgaria. Better housing conditions require large investments given the need for complete renovation and modernization of current facilities. As an example, Sofia zoo required a 700.000 euros investment for renovating and enlarging carnivores' enclosures, and a 900.000 euros investment for renovating and enlarging the primates' enclosures. Those changes are planned for early 2017. Another 150.000 - 200.000 euros was spent in bringing up to date some zoo alleys, benches, the mesh in some fences around enclosures, etc. (Zoo interview).
- Only one zoo (Sofia zoo) is a candidate to EAZA. Most zoos lack support and guidance for improving their facilities and animals' accommodations (our study).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	In 2010: 20 licensed and not licensed zoos (MS CA Survey) In 2015: 21 licensed and not licensed zoos (MS CA Survey) In 2011, there were 19 zoos in Bulgaria, of which 16 were licensed and 3 were closed (Born Free Foundation 2011). No information could be obtained with regards to the number of zoos in Bulgaria when the EU Directive entered into force.
1.2 Types of zoos in the country	All zoos in Bulgaria are publicly owned zoos (Bornfree, 2011)
1.3 NGOs active at national level	There is one NGO active at national level, called: 'Four Paws Bulgaria' (Vier Pfofen International). This NGO is actively promoting animal welfare and has raised concern about big cast in captivity in Eastern Europe (Four Paws Bulgaria 2016)
1.4 Associations of zoos professionals	No associations of zoo professionals could be identified.
1.5 Brief market overview	In 2015, the total population of Bulgaria was 7,1 million inhabitants. (Country Meters 2016) With regards to the number of zoo visitors each year, no information could be found with regards to the total number of visitors. However, Sofia Zoo, which is the largest zoo in the country, attracts annually around 800,000 visitors. (Focus 2011)

TRANSPOSITION OF THE DIRECTIVE

1.1 List of national transposing legislation	The Zoos Directive was transposed in the Biodiversity Act (Закон за биологичното разнообразие) published in the Official Gazette; Number: 77; 2002-08-09 (Biodiversity Act). Adoption: 9 August 2002 Entry into force: 9 August 2002. The Biodiversity Act was amended by Ordinance № 6, October 23, 2003 (НАРЕДБА № 6 ОТ 23 ОКТОМВРИ 2003 Г. ЗА МИНИМАЛНИТЕ ИЗИСКВАНИЯ И УСЛОВИЯ ЗА ОТГЛЕЖДАНЕ НА ЖИВО) describing minimum requirements and conditions for keeping animals in zoos, which was published in the Official
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		Gazette; Number: 105 on 2003-12-02.
		The Biodiversity Act was further amended by Ordinance No 1 from 9 May 2006 issuing conditions for zoo licensing [Наредба № 1 от 9.05.2006 г. за условията и реда за лицензиране на зоологическите градини, издадена от министъра на околната среда и водите (ДВ, бр. 43 от 26.05.2006) (Ordinance Nr 1) Adoption: 26.05.2006. Entry into force: 26.05.2006; amended by SG 44 / 12.07.2009)
1.2	Eu infringement cases	None identified
1.3	National case-law	None identified

Country fiche – Cyprus

Key features of the national system:

- In Cyprus, zoos existed before 1999, but no zoo-specific legislation was in place. In Cyprus the Zoos Directive is transposed in Regulation 81/2002 on Animal Protection and Welfare (Keeping of Wild Animals in Zoos). This law entered into force on 11 February 2002.
- In 2010 and 2015, there were 4 licensed zoos in Cyprus (this survey). According to Born Free, there were about 10 zoos in 2011, of which only one was licensed (BornFree, 2011). The number of annual visitors is not published. None of the zoos are member of EAZA.
- The responsibility for the implementation of the Zoos Directive lies within the Ministry of Agriculture, Natural Resources and Environment, and its Department of Veterinary Services. There is neither a zoo directorate nor full time staff specifically dedicated to zoos inspections. The responsibilities of the zoo inspector vary depending on the District Veterinary Office where he/she is located. Because zoo inspectors are regular Veterinary Officers or Veterinary Inspectors, they have various other responsibilities such as animal welfare (farms, transport, slaughter, pets, etc) or food safety, animal health, etc. According to the CA, the workload for inspection is one day for one zoo inspection (routine inspection) which is carried out once per year (per zoo) (our survey).
- There is a central zoo database with results/documents of licencing/inspections. It however cannot be accessed by all local and regional authorities dealing with the Zoos Directive.
- Cyprus has no national legislation defining exemption according to Article 2 of the Zoos Directive defining a “significant number of animals”: criteria on determining the term “significant” have not been established. Each case is examined individually on the basis of the number and the species (this survey).
- Provisions in national law that go beyond those of the Zoos Directive are: 1. The applicant for a zoo license must not be convicted for animal abuse; 2. The zoo license is valid for 5 years; 3. The facilities must be built following a town planning permit; 4. Before amending either the number of animals or the animal species or the enclosures, the zoo must obtain an approval by the competent authority; and 5. Zoos must be inspected twice per year.
- Costs of a license are 34,17 euro for the examination of the application and 512,58 euro for the issuance of the license. Administrative fine imposed by the Director of Veterinary Services which can be up to 5.000 euros per non compliance. Furthermore, in case of conviction by the court, the sanctions can be a monetary penalty up to 1.700 euros and/or imprisonment up to one year (in the case of a first conviction) or a monetary penalty up to 3.400 euros and/or imprisonment up to two years (in case of a second or subsequent convictions). (this survey). According to the local NGO ARC zoos are licensed but do not meet requirements of Art 3 of the Zoos Directive.
- There are two NGOs active at national level. Animal Party Cyprus (Κόμμα για τα Ζώα Κύπρου) promotes animal protection in general. The organisation is a political party promoting animal welfare. ARC (Animal Responsibility Cyprus), is actively promoting animal welfare, and has been involved in the closure of the Limassol Zoo.
- The CA considers that there should be a clearer definition of zoo and wild species (Article 2) and clearer criteria for exemption from the requirements of the Directive (Article 2). The Zoo Directive is considered too general. There are overlaps regarding the approval of bodies, institutes

or centres (Directive 92/65/EEC) and zoos (Directive 1999/22/EC). Although not legally based, a new practice is currently in place in Cyprus, which requires zoos to provide the Veterinary Services with the standards they will apply for the accommodation of new species added to the zoo collection. The standards must be based on available scientific material (e.g. husbandry manuals). Furthermore, a centralised system of record keeping on inspections has been put in place. Also, following the publication of the EU Zoos Good Practices Document, new legislation has been drafted aimed to address many problematic areas of the current legislation (e.g. zoo closure, establishment of an advisory committee, use of expert advice, clarification of the current legal requirements, increased penalties, etc). The new legislation is currently under discussion (our study).

Main achievements:

- The licensing system in Cyprus is operational and zoos are licensed. However, the Born Free Foundation and ARC heavily criticised the implementation of the licensing and inspection system by the CA, arguing that severe deficiencies exist regarding compliance with Art. 3 requirements (Born Free Foundation 2010)(this survey).
- The closure of the Limassol Zoo, and reopening after it improved animal housing conditions, is considered the main effect of the Zoos Directive in Cyprus (our survey).

Main challenges:

- In 2004 and 2009, the European Commission opened infringement procedures against Cyprus following a series of complaints about the inconsistent application of the Zoos Directive, in relation to the Limassol Zoo.
- The implementation of the Zoos Directive in Cyprus is facing challenges, in particular concerning licensing, and there are no records of the contribution of the zoos regarding biodiversity or conservation (Born Free Foundation 2010)(interview with NGO)

MAPPING OF NATIONAL CONTEXT	
1.1 Total number of zoos	2010: 4 (licensed and not licensed)(our survey) 2015: 4 (licensed and not licensed) (our survey) There is no public register of zoos in Cyprus. According to NGOs, there are more zoos. The estimated number of zoos in the country was 10 (Born Free Foundation 2010)
1.2 Types of zoos in the country	There are 4 zoos licensed by the competent authority in the country, which are privately owned zoos (our survey).
1.3 NGOs active at national level	There are two NGOs active at national level. Firstly, Animal Party Cyprus (Κόμμα για τα Ζώα Κύπρου), which promotes animal protection in general. The organisation is a political party promoting animal welfare. Secondly, ARC (Animal Responsibility Cyprus), is actively promoting animal welfare, and has been involved in the closure of Limassol Zoo.
1.4 Associations of zoos professionals	No associations of zoo professionals could be identified.
1.5 Brief market overview	In 2015, the overall population in Cyprus was 847.008 (EU sd). With regards to the number of zoo visitors each year, no information could be found concerning the total number of visitors.
TRANSPOSITION OF THE DIRECTIVE	
1.1 List of national transposing legislation	– Cyprus Animal Protection and Welfare Act (46(1), 1994; 94(1), 1997; 75(1), 2000) under Article 32, which is referred to as Regulation 81/2002: the Animal Protection and Welfare Act (Keeping of Wild Animals in Zoos) (Οι περί Προστασίας και Ευημερίας των Ζώων (Διατήρηση Αγριων Ζώων σε Ζωολογικούς Κήπους) Κανονισμοί του 2002), Adoption: 11/2/2002 Entry into force: 11/2/2002 (Veterinary Services Cyprus sd)

1.2	Eu infringement cases	Case 2004/164: due to malfunctioning of Limassol Zoo infringement procedure was started. Case 2009/2285: As Limassol Zoo was not closed but expanded, a new infringement procedure was opened. In 2012, the case was closed.
1.3	National case-law	None identified

Country fiche – Czech Republic

Key features of the national system:

- The Czech Republic entered the EU in May 2004, in this regard. The special National Act No. 162/2003 Coll. (hereafter the “Act on Zoological Gardens”), transposing the EU Zoo Directive, was adopted in 2003 (our study).
- Data on zoos is only available in paper-version of administrative documents.
- The first zoological garden was established in 1919 in the city of Liberec. Since this time until the year 2003, 15 zoological gardens were established. All of these zoos were (and still are) owned and operated by the municipalities or regional governments. There was no private zoo until 2004. In 2004, all of these “older” zoos were considered in line with the conditions for issuing licenses for the operation of zoological gardens that have been set by the Act. Followed this process, a licence for an indeterminate period of time has been issued to all of these zoos. Regular checks (inspections) are carried out by the Ministry (our study). All of these 15 zoos are members of the Union of Czech and Slovak Zoological Gardens (member of IUCN), members of EAZA, as well as members of the World Association of Zoos and Aquaria (WAZA) and of many other federations.
- In 2006, there were 16 zoos (licensed and not licensed), in 2010, this number increased to 19 and to 25 in 2015 (MS CA Survey). Half-way during the implementation period of EU Directive 1999/22/EC there were 16 zoos in the country (Eurogroup for Wildlife & Laboratory Animals 2006).
- With regards to the number of zoo visitors each year, no official information could be found concerning the total number of visitors. However, the biggest zoos in CZ, i.e. Prague Zoo, had more than 1,3 million visitors in 2011 (Zoo Prague 2016).
- The responsible competent authority for zoological gardens is the Ministry of the Environment, more specifically the Department of the Species Protection and the Implementation of the International Commitments. This Department has the responsibility for the issuing of licenses and for the following checks to verify whether zoos comply with their obligations. In this purpose, the special advisory body called the Commission for Zoos is established under the Ministry of the Environment (our study).
- The Competent Authority for the area of animal welfare and for the proper checks of its conditions is the State Veterinary Administration within the Ministry of the Agriculture. Both of the above mentioned Competent Authorities work together with the members of the Commission for Zoological gardens and for other relevant stakeholders and professional associations (our study).
- The Commission for Zoological gardens operates as an advisory body of the Ministry of the Environment. Members of the Commission are nominated by the Ministry of Agriculture, the State Veterinary Administration, the Union of Czech and Slovak Zoological Gardens and the Czech Environmental Inspectorate. The Commission plays an essential role in the process of issuing the licence, especially during the inspection check of the facility. All findings and recommendations are described in the Commission’s Report that provides key input to the whole licence granting procedure. Other key inputs are the reports of the Regional Veterinary Administration and the Regional Department of the Czech Environment Inspectorate that carry out regular controls in line with other relevant national law (veterinary, CITES)(our study).
- Staff involved with licensing and inspections is as follows: 1 full staff and, 2 inspectors at the central level (who are responsible for all ZOOs and who are members of the Commission for ZOOs) and 1 or 2 inspectors in the each region, who are responsible for regular checks of the CITES regulations). The duration of one inspection procedure including reviewing documents, inspection form, inspection visit, report is usually one day for on-site inspection and a few days for the report. Regular inspection is covered by one or two experts from the Ministry of the Envi-

ronment, the members of the Commission for ZOOs, an invitation to participate in the inspection is also sent to the local municipality, regional veterinary administration, regional department of the Czech Environmental Inspectorate and regional government. Usually 12 - 18 people from these institutions are present (MS CA interview).

- The CA supports zoos as follows: operators of licensed zoos can apply for subsidies from the state budget or from the budgets of the territorial self-governing units, in particular for a) breeding species of wild animals protected pursuant to the special legal regulations; b) keeping breeding registers of species of wild animals protected pursuant to the special legal regulations and processing information on the breeding thereof in electronic form and providing access thereto; c) support for the participation of the operator in nature conservation projects in the Czech Republic; d) support for cooperation of the operator in the framework of international programs; e) support for care for animals that are protected and taken according to the special legal regulations; f) scientific and research projects; and g) projects in the area of enlightenment, educational and cultural activities. The Ministry of the Environment provides specific program “Subsidy for Zoological Gardens” supporting all of above mentioned activities and providing in total more than 15 mil CZK (approx. 500.000 euro) per year (our study).
- The definition of zoos as in Act on Zoological Gardens is as follows: ‘zoological garden means a permanent facility in which wild animals and/or also domestic animals are bred and exhibited to the public for 7 or more days in the calendar year.’ The definition of ‘animal of wild species’ is : ‘a domestic animal means an animal that belongs to a biological species that arose as a result of human activity through domestication and that lives primarily in direct relation to human care, and/or secondarily wild animals that were originally a domesticated species or subspecies, a wild animal means an individual of an animal species whose population is maintained or was maintained, for animals that are missing or extinct in nature, naturally in nature; this may consist in an individual bred in human care or dependent on human care, a species means a systematic species or subspecies or geographically separated population (our study).
- There are exemptions according to Article 2 as follows: A zoological garden shall not mean: the aquariums and terrariums and other exhibition facilities that do not keep more than 20 species of wild mammals and birds and whose main activity does not consist in exhibition of wild animals for the public; facilities for breeding and maintenance of wild animals, that keep less than 20 species of wild mammals and birds, where these animals are exhibited to the public free-of-charge, particularly for the purpose of public education (our study).
- Provisions in national law that go beyond those of the Zoos Directive are the more precise definitions of zoological garden ; Conditions for the Operation of Zoological Gardens; Application for a License and related obligations; License including the Cancelling and Expiry of the License; Control; Support for Operators; Closing Zoological Gardens to the Public; Misdemeanours and Other Administrative Torts; Authorizing and Transitory Provisions.
- Since 2004, new zoos operated by private subjects have been established. The operators of these zoos (owners) have a different legal subjectivity (e.g. corporate body, private business body). According to the Act, a license shall be issued for an indeterminate period of time or, in line with § 6(3), for a limited period of two years. Most of these new zoos got a licence for a limited period and then, after a new licence proceeding, a license for an indeterminate period was issued.
- The Act implemented all the requirements of licensing and control (inspection) and also solve other issues related to the zoos management .
- Inspections are done by the Ministry of the Environment within the Commission for Zoological gardens, the Czech Environmental Inspectorate, State Veterinary Administration (and/or Regional Veterinary Administration). The Czech Environmental Inspectorate, as well as State Veterinary Administration, has regional departments, coordinated by the central authority. Regarding the Zoo legislation and related licencing, each of these institutions has one specialist/person who coordinates all related matters.
- The CZ CA does not issue minimum standards, for animal accommodation/enclosure (our study)
- On licensing: when an applicant is not capable of fulfilling any of the conditions pursuant to paragraph 2 (a), (4) and (5) of the National Act as of the date of submitting the application, but demonstrates that he will be capable of fulfilling these conditions at the latest two years from the date of submitting the application, and failure to fulfil these conditions does not endanger the

purpose of zoological gardens, a license may be issued to him, however for a maximum of two years. According to the Act, licenses are issued for an indeterminate period of time or, in line with § 6(3), for a limited period of two years. Re-inspections are carried out after a licence is granted once per two years (biennial regular inspections). The costs of zoo license is 10.000 CZK (370 euro) (our study).

- There is one association of zoos professionals: The Union of Czech and Slovak Zoological Gardens (UCSZOO - Unie českých a slovenských zoologických zahrad z.s.; UCSZOO. They defend the interest of the 19 members (2016) which are zoos in Slovakia and Czech Republic. The UCSZOO is member of IUCN, EAZA and WAZA (Unie českých a slovenských zoologických zahrad z.s 2016).
- There are three NGOs active at national level. Svoboda zvířat (Freedom for Animals), founded in 1994 is a nation-wide nonprofit organization engaged in protection of animals and associating people who support its aims (Svoboda zvířat 2016). Nadace na ochranu zvířat (Foundation for the Protection of Animals), is a non-profit, non-governmental organisation with the statutes of a foundation. Aiming at the protection of animals predominantly in the Czech Republic. They are members of international organisations such as RSPCA (Royal Society for the Prevention of Cruelty to Animals), WSPA (World Society for the Protection of Animals), and Eurogroup for Animal Welfare and also participate at international projects and campaigns to improve animal welfare globally (Nadace na ochranu zvířat 2016).
- A third NGO is the Derbianus Czech Society for African Wildlife (Derbianus Conservation (former Derbianus CSAW), founded by a group of experts from the Institute of Tropics and Subtropics, Czech University of Live Sciences Prague, in 2010 to continue a series of the projects of Czech-Senegalese cooperation running from 2000. The main activities of Derbianus Conservation are focused on the conservation programme of Western Derby Eland (*Taurotragus derbianus*) in Senegal. (Derbianus Conservation 2016).

Main achievements:

- For CZ, the Zoos Directive helps to set specific conditions and standards resulting in, together with appropriate conditions set in national act and with system of zoos licencing, better provisions for zoos management, including the programmes regarding the conservation of biodiversity (our study).
- The Ministry of the Environment has set up a working system of licensing and inspection (our study).
- The Ministry of the Environment consider the Zoos Directive and the following national legislation as a useful tool for improving the standards of ZOOs and therefore for creating of better conditions for conservation programmes and ex-situ conservation (our study).

Main challenges

For CZ, the number of zoos is limited to 25 licensed zoos (2015), and the inspection and licensing system is well established, with inspection forms, and guidance materials for inspectors and zoos. The main challenge is the gap observed by the CA between the Zoos Directive and the new EU IAS regulation, meaning that some species on the IAS list may not be kept in zoos. However, at the national level the adaptation of the national law on the EU Regulation is in progress and it is not possible at this moment to assess properly what the implication might be.

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	In 2010: 19 licensed and not licensed zoos (MS CA Survey) In 2015: 25 licensed and not licensed zoos (MS CA Survey) Half-way during the implementation period of EU Directive 1999/22/EC there were 16 zoos in the country (Eurogroup for Wildlife & Laboratory Animals 2006).
1.2 Types of zoos in the country	The majority of zoos in CZ are public zoos. In June 2014 there were 24 governmentally licensed ZOOs in the country. Only 15 of them were the members of The Association of Czech and

	Slovak Zoological Gardens (ACSZG, now called USCOO) (ACSZG Annual Report, 2012). These zoological gardens were supported and dependent on the public sector, being it city, regional or national budgets. The other 9 zoos in the Czech Republic were private ones (Martina Chalupova 2014).
1.3 NGOs active at national level	Svoboda zvířat (Freedom for Animals) Nadace na ochranu zvířat (Foundation for the Protection of Animals) Derbianus Czech Society for African Wildlife (Derbianus Conservation (former Derbianus CSAW)
1.4 Associations of zoos professionals	Union of Czech and Slovak Zoological Gardens (UCSZOO - Unie českých a slovenských zoologických zahrad z.s.; UCSZOO. The UCSZOO is member of IUCN, EAZA and WAZA (Unie českých a slovenských zoologických zahrad z.s 2016).
1.5 Brief market overview	In 2015, the total population of Czech Republic was 10,5 million inhabitants (Country Meters 2016) With regards to the number of zoo visitors each year, no information could be found concerning the total number of visitors. However, the biggest zoos in CZ, Prague Zoo, had more than 1,3 million visitors in 2011 (Zoo Prague 2016).
TRANSPOSITION OF THE DIRECTIVE	
1.1 List of national transposing legislation	Act on Conditions for the Operation of Zoological Gardens and amending some Acts (Zákon č. 162/2003 Sb., o podmínkách provozování zoologických zahrad a o změně některých zákonů (zákon o zoologických zahradách), (Act on Zoological Gardens) No. 162/2003 Coll. Adoption: 18 April 2003. Entry into force: July 1, 2003.
1.2 Eu infringement cases	None identified
1.3 National case-law	None identified

Country fiche – Denmark

Key features of the national system:

- In Denmark, the Zoos Directive was adopted with slight delay in 2003. Later the law was changed and the Zoos Directive is now contained under Order 1397 (2015). However, in Denmark conservation and biodiversity were already incorporated in national policies, and the Zoos Directive did not particularly add to that. The national law provides for exemption for circuses, pet shops and pet kennels. In Denmark, zoos already needed a government approval before adoption of the Zoos Directive, and there were about 55 approved zoos at that time. Many of the zoos that were closed were very small zoos, that mainly needed a government approval to be able to trade wild animals. The Zoos Directive imposed more requirements, which the small zoos were not willing to adopt. A consequence of the transposition of the Zoos Directive in Denmark is that only bigger zoos remained (DAZA 2016) (Eurogroup for Wildlife & Laboratory Animals 2006).
- In 2010, there were 21 zoos, and in 2015 there were 31 Zoos in Denmark, which are all licensed (Danish Veterinary and Food Administration 2016). The yearly number of visitors to Danish zoos is estimated at min. 4 million (DAZA 2016).
- The responsible competent authority for implementation is the Danish Veterinary and Food Administration, that also executes the inspection of zoos and issues the licenses. The focus is on animal welfare and prevention of escape.
- There is no information about costs during the initial period when the Zoos Directive was adopted. Inspections take place every year on 32 licensed zoos. In 2016, costs for the MS CA in Denmark is related to 5-6 staff that part-time work on zoo inspection and licensing. One inspector may be responsible for 3 hours per zoo license for 11 applications or amendments per year. In total for 32 zoos, staff inputs are equal to approximately 32 x 4 hours with in addition a few new

applications and thus mount at 150 hours per year of MS CA office hours spent or 4 weeks for 1 fte (0,07 fte/year) (DK MS CA Consultation).

- A zoo license has an indefinite validity. There are no charges for zoos to obtain a license in DK. The Denmark CA makes use of external experts for licensing. Initially in Denmark there was a council of zoo experts paid by the MS CA to assist officials in licensing processes. However, since 2016 zoos need to present an expert report for licensing procedures, and pay for that themselves. This mounts to approximately 5000 DK (675 euro). For smaller zoos this can be a burden. DAZA members have no such costs as DAZA supports their members with expert assistance (DAZA 2016).
- The MS CA has no evidence of synergies between the Zoos Directive and other EU legislation, other than the relevance of the Balai Directive for Zoos (DK MS CA Consultation).
- In Denmark there is a zoo federation DAZA (Danish Association of Zoological Gardens and Aquaria). DAZA has 16 members which represent the biggest zoos in Denmark (DAZA 2016).
- Noteworthy, Denmark attracted the world attention in 2014 by publicly killing and dissecting a young Giraffe at Copenhagen Zoo (Huffington Post 2015). One year later, the same happened by publicly killing and dissecting a lion in Odense Zoo. In both cases this provoked international debate on zoos killing animals that were considered redundant, where several animal welfare groups fiercely opposed the killing, and EAZA explained that due to lack of space or risk of inbreeding not all animals could be kept in the zoos (New York Times 2015).

Main achievements:

- Key benefits of the Zoos Directive in Denmark are the competences of the CA to prevent escape of wild animals, and improved animal accommodations. The directive has strengthened the position of “good” zoos with proper housing and animal welfare conditions, and led to closure of “bad” zoos (DK CA Consultation).
- According to the DK CA, licensing works properly, at the time of drafting (Nov 2016) 32 zoos were licensed, the register is available on-line. DK legislation requires zoos also to become approved under the Balai Directive when they apply for a zoo license (checked are own procedures, animal welfare, public education, participation research, and annex A-B and C in EU Directive 92/65) (DK MS CA Consultation).

Main challenges:

- According to the DK CA an issue is the alternative wording of Article 3, first indent, of the Zoos Directive. This allows zoos to choose which topic they will take up. "Exchange of information" seems the easiest topic which will allow zoos to fulfill the requirements. The DK MS CA did not set more stringent requirements, because there are already many zoos who are very active in the field of conservation programmes, supported by (inter-)national zoo federations (DK MS CA Consultation).
- The CA considers that its staff does not have sufficient knowledge in all related fields. It requires that zoos involve external experts when they apply for a license or want to amend the license (for new housing facilities etc). Before January 2016 external advice was born as expense by the CA, since then the zoos have to pay for the external expertise. The experts are advising the zoos inter alia on accommodating their animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and on providing species specific enrichment of the enclosures (DK MS CA Consultation).
- According to the CA, there is a clear discrepancy between IAS and the Zoos Directive: zoos are not considered as ex-situ conservation sites under IAS, however, under the Zoos Directive Zoos are expressly required to act as an ex-situ conservation site. This is considered to be utterly contradictory. Also, exhibition of IAS species to the public can greatly increase awareness of the public for the issues of IAS, and exhibition of such species is in line with the requirements of the Zoos Directive but is now forbidden under the IAS (DAZA 2016).
- There is an issue with zoo size: small zoos have less visitors and therefore less financial means to contribute in wildlife conservation. Another issue is the documentation of ex-situ activities. This

is difficult to control for authorities (DK MS CA Consultation).

MAPPING OF NATIONAL CONTEXT	
1.1 Total number of zoos	2010: total 21, licensed 21 2015: total 31, licensed 31 (Danish Veterinary and Food Administration 2016)
1.2 Types of zoos in the country	Nearly all private owned
1.3 NGOs active at national level	–
1.4 Associations of zoos professionals	– Danish Association of Zoological Gardens and Aquaria (DAZA)
1.5 Brief market overview	Overall population in the country: 5,7 million Visitors 2015: 4 million (of which 175000 children) in all DAZA zoos covering 16 major DK zoos (DAZA 2016)
TRANSPOSITION OF THE DIRECTIVE	
1.1 List of national transposing legislation	-Zoo Order (Bekendtgørelse om zoologiske haver; Order no. 1023; 1/1/2003 (Retsinformation DK sd), followed by Zoos Order 1397 on zoos; 02/12/2015 (Zoos Order 1397) -Related laws: Order no. 1494 of 10/12/2015 on holding and showing of animals in circuses (Bekendtgørelse om hold og fremvisning af dyr i cirkus mv) (Retsinformation DK sd) -Order no. 1365 of 30/11/2015 on commercial trade with animals (Bekendtgørelse om erhvervsmæssig handel med dyr) (Retsinformation DK sd) -Order no. 1463 of 07/12/2015 on commercial trade with and breeding of dogs, and dog kennels (Bekendtgørelse om erhvervsmæssig handel med og opdræt af hunde samt hundepensioner og hundeeinternater) (Retsinformation DK sd)
1.2 Eu infringement cases	In June 2002, the European Commission issued a letter of formal notice for Denmark's failure to notify its transposing measures within the timeframe imposed by the Directive. It was followed by a Reasoned Opinion in October 2002. In January 2003 Denmark notified its transposing measure and the case was closed.
1.3 National case-law	NA

Country fiche – France

Key features of the national system:

- France transposed the provisions of Directive 1999/22/EC. However, the national measures effectively implementing the Directive were adopted after the official transposition deadline (9 April 2002).
- The main national implementing measure is the Order of 25 March 2004. This Order has been amended several times since its adoption. Overall, it covers all the provisions of Directive 1999/22/EC.
- Other national measures have completed the Order of 25 March 2004, most notably the Order of 10 August 2004 establishing the conditions for the detention of animals of certain non-domestic species in establishments practicing the breeding, sale, rental, transit or public presentation of non-domestic animal species. Since zoos are also establishments practicing the breeding of non-domestic animals, they enter in the scope of the Order of 10 August 2004.
- In order to operate, zoos must obtain an authorization (autorisation d'ouverture) (Art L413-3 of Environmental Code) and a competence certificate (certificat de capacité) (Art L413-2 of Environmental Code). The competence certificate is personal. The local authorities (Prefect at French department level) issue the authorization and the competence certificate.
- The non-respect of these requirements can lead to both criminal and administrative penalties (including the closure of the zoo) (see Art L413-5, Art L415-3 of Environmental Code).
- Local authorities are competent to ensure the enforcement of the rules applying to zoos. Inspections of zoos are done by regional veterinary services (*Directions départementales de la protec-*

tion des populations), in coordination with the national office of hunting and wildlife (*Office national de la chasse et de la faune sauvage*).

- Although there is no formal information on the exact number of zoos in France, there seems to be between 300 (info of Ministry of Environment) and 400 zoos in France (info of *Les Zoos dans le Monde*)³⁵⁸ as of October 2016. Furthermore, the number of visitors of zoos was of approximately 20 million in 2010 (for a population of 66 million as of 1st January 2016).
- France has both associations defending the interests of French zoos (eg *Association Française des Parcs Zoologiques*) or zoo workers (eg *Association Française des Vétérinaires de Parcs Zoologiques*), and NGOs focusing on nature conservation and animal welfare (eg *One Voice ; Fondation Droit Animal, Ethique et Science*). Code Animal deals specifically with animals in captivity (zoo; circus).

Main achievements:

- Overall, all the provisions of Directive 1999/22/EC are covered by French law. Relevant provisions can be found in the Environmental Code and the Rural Code (Born Free 2010, 32).
- Directive 1999/22/EC has contributed to the modernisation of zoos structures and activities, switching the focus of zoos from entertainment to public education on biodiversity.

Main challenges:

- It is difficult to estimate the number of zoos in France. In 2010, the French Ministry of Environment estimated that there were 300 licenced French zoos. However, another source found that 943 zoos operated in France, a higher number than the one provided by the French Ministry of Environment. French NGOs believe that a majority of zoos operate without licencing and are therefore not regulated by French law (Born Free 2010, 32).
- French NGOs have pointed out that the French law applying to zoos is not specific enough. As a result, French zoos would have much leeway to implement conservation activities or animal welfare measures (Garric 2012).
- French NGOs have pointed out that there is a lack of consistency in the implementation of the French law applying to zoos on the French territory. The French law transposing Directive 1999/22/EC is implemented mainly by local actors. For instance, the Prefect, at the department level, is the competent authority to issue zoos' authorization and competence certificate (Art L 413-3 Environmental Code). Despite the regular publication of circulars by the French Ministry of Environment, the French law applying to zoos is unequally applied throughout the country (Born Free 2010, 33).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	<p>There is no exact data on the number of zoos in France. Several sources (French Ministry of Environment, NGOs, and websites) cite different numbers.</p> <p>In 2010, the NGO Born Free inventoried three sources of information, each offering different numbers (Born Free 2010, 13;19):³⁵⁹</p> <ul style="list-style-type: none"> - French Ministry of Environment: 300 licenced zoos;³⁶⁰ - Zoonaute: 233 zoos; - Eurogroup: 417 zoos; - Les Zoos dans le Monde: 943 zoos. <p>In 2016, the author found the following numbers:</p> <ul style="list-style-type: none"> - French Ministry of Environment: 300 zoos (Ministère de l'Environnement, de l'Energie et de la Mer 2016);
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³⁵⁸ However, this number could be much higher depending on the criteria used to search for zoos.

³⁵⁹ Born Free explains that this discrepancy is the result of general inconsistency in the implementation of the relevant French law at local level (departmental). This discrepancy can also be explained by other factors, such as the absence of definition of "zoos" under French law; the criteria used by different stakeholders to define "zoos"; or whether the census of zoos include non-licenced zoos.

³⁶⁰ Born Free cited that, according to the French Ministry of Environment, there were 300 licenced zoos in France in 2010.

	<ul style="list-style-type: none"> - Code Animal: 200 zoos (Code Animal s.d.); - Les Zoos dans le Monde: 347 zoos (Les Zoos dans le Monde 2016).³⁶¹
1.2 Types of zoos in the country	According to Born Free, most French zoos appear to be privately owned (Born Free 2010, 19). Out of 10 zoos that responded to the questionnaire, 5 were private zoos, 3 were public zoos, 1 was a charity, and 1 was another type of establishment.
1.3 NGOs active at national level	<p>The following NGOs are active in the fields of nature conservation and biodiversity:</p> <ul style="list-style-type: none"> - Société Nationale de Protection de la Nature - Noé - Conservation Nature <p>The following NGOs are active in the field of animal welfare:</p> <ul style="list-style-type: none"> - Code Animal - One Voice - Animal Cross - Fondation Droit Animal, Ethique et Science (LFDA) - Fondation Brigitte Bardot <p>Some of the abovementioned animal welfare NGOs have lead campaigns and/or activities on animal welfare in zoos (eg Animal Cross). Code Animal deals specifically with animals in captivity (zoo; circus) (Code Animal s.d.).</p> <p>NGOs have different roles/activities:</p> <ul style="list-style-type: none"> - advocacy (political lobbying ; consultation with policy-makers); - public education and awareness raising (spreading information about specific animal welfare issues); - targeted individual actions.
1.4 Associations of zoos professionals	<p>The following associations defend the interests of French zoos:</p> <ul style="list-style-type: none"> - Association Française des Parcs Zoologiques (AfdPZ) - Union des Conservateurs d'Aquarium <p>The following associations defend the interests of zoo workers:</p> <ul style="list-style-type: none"> - Association Francophone des Soigneurs Animaliers - Association Française des Vétérinaires de Parcs Zoologiques (AFVPZ) <p>These associations have different roles :</p> <ul style="list-style-type: none"> - protection of their members' interests ; - representation before national and international instances ; - consultation on ethical or legal issues; - exchange of knowledge (AFVPZ 2008).³⁶²
1.5 Brief market overview	As of 1 st of January 2016, according to INSEE, the overall population in France was 66 627 602 inhabitants (INSEE 2016). There is no official data on the number of zoo visitors in France. However, according to Zoonaute, approximately 20 million visitors went to zoos in France in 2010 (Zoonaute 2016). INSEE provides for the turnover value index (indice de chiffre d'affaires en valeur) for botanical and zoological gardens as well as natural reserves. In 1999, the average index was 52.4 (INSEE 1999); in 2006, the average index was 74.6 (INSEE 2006); and in 2015, the average index was 123.6 (INSEE 2015).
TRANSPPOSITION OF THE DIRECTIVE	
1.1 List of national transposing legislation	On Eur-Lex :

³⁶¹ The author's research of zoos in France in 2016 included zoos, aquariums, specialized parks (although farms were excluded), and mono-specific parks.

³⁶² For instance, Article 2 of the Statuts de l'Association Française des Vétérinaires de Parcs Zoologiques provides that the "association aims to gather veterinaries working in zoos to promote technical professional exchanges, ensure their representation before national and international instances and intervene on an advisory basis in areas that are under its competency (ethics, regulation, protection of non-domestic animals...). Its means of action are to organise periodic working meetings and assemblies, organise events and any other initiatives which support the realization of the purpose of the organisation." (author's translation)

Order of 25 March 2004 laying down the rules of operation and the general characteristics of facilities of zoological establishments of fixed and permanent nature, presenting the public with live specimens of local or foreign wildlife under heading 21-40 of the nomenclature of facilities classified for environmental protection (Arrêté du 25/3/2004 fixant les règles générales de fonctionnement et les caractéristiques générales des installations des établissements zoologiques à caractère fixe et permanent, présentant au public des spécimens vivants de la faune locale ou étrangère et relevant de la rubrique 21-40 de la nomenclature des installations classées pour la protection de l'environnement), Adoption : 25 March 2004, Entry into force : 2 April 2004, JORF n°78 of 1 April 2004, pp. 6401-6408, text n°68 (Order of 25 March 2004)

Decree No. 2002/266 of 22 February 2002 on establishments holding non-domestic animal species and amending Article R 213 of the Rural Code (Décret n° 2002/266 du 22/02/2002 relatif aux établissements détenant des animaux d'espèces non domestiques et modifiant l'article R 213 du code rural), Adoption: 22 February 2002, Entry into force: 27 February 2002, JORF n°48, p. 3629, text n°54 (Decree of 22 February 2002)

Ministerial Order of 21 November 1997 defining two categories of establishments other than establishments practicing breeding, sale and transit of game species for which hunting is allowed, holding non-domestic animal species (Arrêté ministériel du 21 novembre 1997 définissant deux catégories d'établissements autres que les établissements d'élevage, de vente et de transit des espèces de gibier dont la chasse est autorisée, détenant des animaux d'espèces non domestiques), Adoption : 21 November 1997, Entry into force : 6 February 1998, JORF n°30 of 5 February 1998, p. 1866 (Ministerial Order of 21 November 1997)

Amended Ministerial Order of 25 October 1995 on the implementation of the control of establishments holding non-domestic animal species (Arrêté ministériel du 25 octobre 1995 modifié relatif à la mise en œuvre du contrôle des établissements détenant des animaux d'espèces non domestiques), Adoption : 25 October 1995, Entry into force : 11 November 1995, JORF n°262 of 10 November 1995, p. 16543 (Amended Ministerial Order of 25 October 1995)

Arrêté ministériel du 21 août 1978 fixant les caractéristiques auxquelles doivent satisfaire les installations fixes ou mobiles des établissements présentant au public des spécimens vivants de la faune locale ou étrangère (Abrogated by Order of 18 March 2011)

Arrêté ministériel du 21 août 1978 relatif aux règles générales de fonctionnement et contrôle des établissements présentant au public des spécimens vivants de la faune locale ou étrangère (Abrogated by Order of 18 March 2011)

Not on Eur-Lex :

Order of 19 May 2009 amending the Order of 25 March 2004 laying down the rules of operation and the general characteristics of facilities of zoological establishments of fixed and permanent nature, presenting the public with live specimens of local or foreign wildlife under heading 21-40 of the nomenclature of facilities classified for environmental protection

	<p>(Arrêté du 19 mai 2009 modifiant l'arrêté du 25 mars 2004 fixant les règles de fonctionnement et les caractéristiques générales des installations des établissements zoologiques à caractère fixe et permanent, présentant au public des spécimens vivants de la faune locale ou étrangère et relevant de la rubrique 2140 de la nomenclature des installations classées pour la protection de l'environnement), Adoption : 19 May 2009, Entry into force : 14 June 2009, JORF n°0135 of 13 June 2009, p. 9708, text n°11 (Order of 19 May 2009)</p> <p>Order of 10 August 2004 establishing the conditions for the detention of animals of certain non-domestic species in establishments practicing the breeding, sale, rental, transit or public presentation of non-domestic animal species (Arrêté du 10 août 2004 fixant les conditions d'autorisation de détention d'animaux de certaines espèces non domestiques dans les établissements d'élevage, de vente, de location, de transit ou de présentation au public d'animaux d'espèces non domestiques), Adoption : 10 August 2004, Entry into force : 1 October 2004, JORF n°228 of 30/09/2004, text n°36, p. 16821 (Order of 10 August 2004)</p> <p>Amended by :</p> <p>Order of 5 March 2008 amending the orders of 10 August 2004 laying down general rules for the functioning of accredited breeding establishments of non-domestic animal species and of 10 August 2004 establishing the conditions for the detention of animals of certain non-domestic species in establishments practicing the breeding, sale, rental, transit or public presentation of non-domestic animal species (Arrêté du 5 mars 2008 modifiant les arrêtés du 10 août 2004 fixant les règles générales de fonctionnement des installations d'élevage d'agrément d'animaux d'espèces non domestiques et du 10 août 2004 fixant les conditions d'autorisation de détention d'animaux de certaines espèces non domestiques dans les établissements d'élevage, de vente, de location, de transit ou de présentation au public d'animaux d'espèces non domestiques), Adoption : 5 March 2008, Entry into force : 19 May 2008, JORF n°0115 of 18 May 2008, text n°5, p. 8105 (Order of 5 March 2008)</p> <p>AND</p> <p>Order of 24 March 2005 amending the order of 10 August 2004 laying down general rules for the functioning of accredited breeding establishments of non-domestic animal species and the order of 10 August 2004 establishing the conditions for the detention of animals of certain non-domestic species in establishments practicing the breeding, sale, rental, transit or public presentation of non-domestic animal species (Arrêté du 24 mars 2005 modifiant l'arrêté du 10 août 2004 fixant les règles générales de fonctionnement des installations d'élevage d'agrément d'animaux d'espèces non domestiques et l'arrêté du 10 août 2004 fixant les conditions d'autorisation de détention d'animaux de certaines espèces non domestiques dans les établissements d'élevage, de vente, de location, de transit ou de présentation au public d'animaux d'espèces non domestiques), Adoption : 24 March 2005, Entry into force : 24 April 2005, JORF n°95 of 23 April 2005, text n°43, p. 7117 (Order of 24 March 2005)</p>
1.2 Eu infringement cases	On 6 June 2002, the Commission sent a letter of formal notice to France for non-communication of the national implementing measures transposing Directive 1999/22/EC. On 31 July 2002 and 5 August 2002, France sent the list of transposing measures. This list revealed that transposition had been com-

	<p>pleted by the time of the transposition deadline (9 April 2002). The infringement case was therefore closed (European Commission 2002).</p> <p>However, it should be pointed out that the main national implementing law effectively transposing Directive 1999/22/EC was enacted in 2004, meaning 2 years after the official transposition deadline (see Order of 25 March 2004)</p>
1.3 National case-law	<ul style="list-style-type: none"> • Cass (crim), 4 October 2011, n°11-80198 (Jaworski 2012) • Criminal complaint against the Strasbourg Zoo for violation of Order of 25 March 2004 and Directive 1999/22/E (2013) (Code Animal 2013) • CAA Nancy, 22 January 2015, <i>Société coopérative de production à responsabilité limitée « Parc Zoo d'Amnéville »</i> (Régime fiscal d'un abri pour orangs-outans 2015) • Tribunal Administratif de Limoges, 11 February 2016, M. A..., n° 130085

Country fiche – Germany

Key features of the national system:

- The Zoos Directive has been transposed with a framework provision: Art 10 para 2 No. 19 and Art. 51 of the Federal Nature Conservation Act (Gesetz über Naturschutz und Landschaftspflege). Adoption: 2002 Entry into force: 2002. Subsequently the Federal States enacted implementing laws in their States (see Table below). Full transposition and implementation of the Directive in all 16 Federal States was not fully achieved until 2004, following intervention by the European Commission (legal case C-339/03). In 2009 a new Federal Nature Conservation Act was established after Federal Reform in which the framework provisions were replaced with a set of provisions on the Federal Level which were directly applicable without additional Federal States regulations Adoption: 29 July 2009 (BGBl. IS.2542). Entry into force: 1 March 2010 (BNatSchG). Article 42 (Zoos) and 43 (Tiergehege) refer in particular to the transposition of the Zoos Directive (our Study, (Born Free Foundation 2011).
- The Federal Government does not maintain a central register of licensed zoos in Germany. Official information on the number of licensed zoos in the country is however derived from information from the federal states. In 2015, there were 364 licensed and unlicensed zoos (MS CA survey). From other sources, the estimated number of zoos in Germany differs from 600 (Born Free Foundation 2011), to 865 (zoo-infos.de 2016). There are more than 200 zoos, animal and wildlife parks member of the Association of Zoological Gardens (VdZ), the German Animal Park Society (DTG) and the German Game Reserve Association (DWV). In addition, there are more than 500 publicly available establishments for wild animals, such as small zoos, animal enclosures, bird parks, aviaries, reptile zoos, aquaria, of which about 400 may be considered as "zoo" according to the definition of the EU Zoos Directive (Verband der Zoologischen Gärten VdZ 2016).
- There are no official figures on zoos visitors in Germany. The estimated number of visitors in Germany are visitors to zoos that are member of the zoos federations: visitors to zoos that are members of the Association of Zoological Gardens (Verband der Zoologischen Gärten-VdZ) were 33.4 million (2014); visitors to the animal and wildlife parks that are member of the German Animal Park Society (Deutschen Tierpark-Gesellschaft-(DTG) and of the German Game Reserve Association (Deutschen Wildgehege-Verband-DWV) counted 12 to 13 million visitors. With visitors of the other institutions estimated at 20 million, in total, the number of visitors to German zoos mount to more than 65 million per year (zoo-infos.de 2016) (Verband der Zoologischen Gärten VdZ 2016)
- Germany is a Federal State and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety is responsible for the Zoos Directive at the Federal Level. The Zoo

Directive is transposed into national law by the Federal Nature Conservation Act, which is applicable throughout Germany. The implementation of the relevant provisions on the ground rest with the Federal States. It is also for the Federal States to determine the competent authorities for decisions and inspections with regard to the rules of the Directive as well as the procedures (our survey).

- In the German law zoos are defined as ‘permanent facilities in which living animals of species that live in the wild are kept for purposes of display, for a period of at least seven days of a year’.
- Exemptions according to Article 2 exist for: 1.circuses; 2.pet shops, and 3.enclosures for keeping no more than five species of hoofed game listed in the Federal Hunting Act (Bundesjagdgesetz) or facilities in which no more than 20 animals of other wild species are kept (our study).
- There is no information about CA costs during the initial period when the Zoos Directive was adopted or for today’s expenditure. The number of zoos is limited and does not justify full time staff dedicated to zoos inspections. The duration of one inspection is subject to the relevant circumstances. It varies from several hours to a few days per zoo, depending on the size and complexity of the zoo (our study). Generally the number of zoos to be covered by one inspector (per year) varies from one to three zoos (our study).
- The CA issues guidelines for housing and accommodation **Invalid source specified..** The EU Zoos Directive Good Practice document is useful, but would have a wider impact when available in German (our study).
- According to the German central CA, the validity of a zoo license in most cases is unlimited. However, the licence can be repealed if the conditions are not met or the conditions changes. The intervals between inspections vary subject to the numbers of animals kept and specific circumstances (e.g. shortcomings or other irregularities have been observed). They may take place once or several times per year. Anyone who establishes a zoo without permission, expands it, or significantly changes its operation, commits an administrative offense (§ 69 para. 3 no. 18 of the BNatSchG) and may receive in accordance with section § 69 a fine of maximum 10,000. euro (our study).
- Costs for licenses for zoos depend on the federal state (see table).
- There are many synergies between the Zoos Directive EAZA, WAZA, IUCN guidelines which are more important documents to guide large zoos towards conservation measures than the Zoos Directive (NGO interview).
- The following associations defend the interests of German zoos: Association of Zoological Gardens (Verband der Zoologischen Gärten -VdZ); German Animal Park Society (Deutschen Tierpark-Gesellschaft-(DTG); German Game Reserve Association (Deutschen Wildgehege-Verband -DWV).
- The following two association represent professionals from the zoo sector: German Zoo Educators Association VZP; Union of Zookeepers (Berufsverband der Zootierpfleger -BdZ).
- The following NGOs are active at national level in Germany: BMT (Bund gegen Missbrauch der Tiere) (BMT (Bund gegen Missbrauch der Tiere) 2016) The BMT carries out awareness and publishes opinion papers on animals in captivity, and contributes to the public debate. Animal Public e.V. carries out activities to improve animal protection and animal rights (our study).
- A remarkable event occurred in 2009 with the commercial success due to the birth of a polar bear (Knut) that boosted zoos visitor numbers. It indirectly caused a legal case between the Berlin Zoo, where the bear was born in 2006, and the Neumünster zoo, which claimed a share of the estimated 10 million euro in entrance fees and merchandising revenue that Knut has earned³⁶³.
- In 2016, escape of a lion from the Leipzig zoo attracted widespread attention as German zookeepers shot dead the animals after two escaped from their enclosure³⁶⁴.

Main achievements:

- With the implementation of the Directive the quality of the zoos has improved overall in Germa-

³⁶³ <https://www.theguardian.com/environment/2009/may/19/german-zoos-fight-over-knut>

³⁶⁴ <http://www.abc.net.au/news/2016-09-30/lion-motshegets-i-shot-dead-at-german-zoo-after-escape/7891472?pfmredir=sm>

ny. The Zoo directive has strengthened the efforts in Zoos to improve and satisfy especially the biological and requirements of the individual species. In practice, the implementation of the Zoo directive is mostly focused on animal welfare. Only in big zoos adequate conditions exist for significant ex-situ measures (our study, CA VdZ questionnaire).

- The increased impact of modern zoos in the conservation of global biodiversity, public education, research and animal husbandry is mainly due to the efforts of each individual zoo as well as the exchange with zoo associations, wildlife-experts from the zoo community and in-situ colleagues, scientists and other conservation related NGOs as well as donors. The EU Directive has been partly important by providing the legal framework for this impact. Furthermore, harmonising standards across Europe has been found helpful for the extensive cooperation between European zoos (Verband der Zoologischen Gärten VdZ 2016)³⁶⁵
- The Zoo directive achieved to some extent the greatest benefit in the field of species appropriate husbandry. Significant improvements were achieved in nearly all zoos. The smallest benefit seems to be gained in the field of biodiversity within the Zoos and in the attitude of the people (our study).
- For Zoos the certification implies a sort of Quality label More efforts of the facilities in respect to husbandry conditions, closure of Zoos with unfavourable husbandry conditions, improvement of education skills of different Zoos. Improvement of public education and awareness in relation to the conservation of biodiversity, providing information about the species exhibited and their natural habitats (our study).
- Many big zoos already were active in conservation of biodiversity before the Zoos Directive was adopted. Big Zoos also have the manpower, the financial capacities and the scientific knowhow, to meet the legal requirements of Art. 3 of the Zoo directive. For little zoos, it is the exact opposite. They hardly can cope with the implementation of the legal requirements mainly for financial reasons. In consequence they often lose their license (our study).

Main challenges:

- Because the implementation of the Zoos Directive is delegated to the Federal States and does not follow national guidelines, The Born Free study concluded that the inspection and licensing appeared not to be applied in a uniform manner across the country (Born Free Foundation 2011).
- Lack of financial capacities and space for smaller zoos and zoos in cities limit efforts for implementing the requirements of the zoo directive for smaller zoos notably on activities for conservation of biodiversity (our study).
- In view of the European Commission Zoos could hardly get an exemption from Art. 7 IAS regulation to hold and breed IAS of European concern; thus they cannot promote public education and awareness in relation to the danger to these animals (our study).
- The Directive refers to the state of the art of conservation. It has no procedure for adapting to technical and scientific progress (Verband der Zoologischen Gärten VdZ 2016).
- EAZA did not allow that her guidelines were used by the authorities in Bayern and also did not give access to non zoo experts working on the expert opinion on minimum requirements for the keeping of mammals of the Bundesministerium für Ernährung und Landwirtschaft. The new (2015) EU Good Practice document is useful, but would be better used if in German language. Access ought to be easier. At the moment a lot of searching is necessary to retrieve relevant documents (Regional CA Interview).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	There is no a central register of licensed zoos in Germany but official information on the number of licensed zoos in the country is derived from information from the federal states: 2010: 319 licensed and unlicensed zoos (MS CA survey) 2015: 364 licensed and unlicensed zoos (MS CA survey) From other sources, the estimated number of zoos in Germany
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³⁶⁵ The VDZ will come with a separate position paper via EAZA of which she is a member.

	differs from 600 (Born Free Foundation 2011), to 865 (zoo-infos.de 2016).
1.2 Types of zoos in the country	Nearly all zoos are privately owned, particularly smaller zoos (Born Free Foundation 2011)
1.3 NGOs active at national level	The following NGOs are active at national level in Germany: <ul style="list-style-type: none"> – BMT (Bund gegen Missbrauch der Tiere) (BMT (Bund gegen Missbrauch der Tiere) 2016) The BMT carries out awareness and publishes opinion papers on animals in captivity, and contributes to the public debate – Animal Public e.V. carries out activities to improve animal protection and animal rights.
1.4 Associations of zoos professionals	The following associations defend the interests of German zoos: <ul style="list-style-type: none"> – Association of Zoological Gardens (Verband der Zoologischen Gärten -VdZ) – German Animal Park Society (Deutschen Tierpark-Gesellschaft-(DTG) – German Game Reserve Association (Deutschen Wildgehege-Verband -DWV) The following two association represent professionals from the zoo sector: <ul style="list-style-type: none"> – German Zoo Educators Association VZP – Union of Zookeepers (Berufsverband der Zootierpfleger - BdZ)
1.5 Brief market overview	Overall population in the country: 81 million (Country Meters 2016)) There are no official figures on zoos visitors in Germany. The estimated number of visitors in Germany are visitors to zoos that are member of the Zoo Federations: visitors to zoos that are member of the Association of Zoological Gardens (Verband der Zoologischen Gärten-VdZ) were 33.4 million (2014); visitors to the animal and wildlife parks that are member of the German Animal Park Society (Deutschen Tierpark-Gesellschaft-(DTG) and of the German Game Reserve Association (Deutschen Wildgehege-Verband-DWV) counted 12 to 13 million visitors. With visitors of the other institutions estimated at 20 million, in total, the number of visitors to German zoos mount to more than 65 million per year (zoo-infos.de 2016) (Verband der Zoologischen Gärten VdZ 2016)
TRANSPOSITION OF THE DIRECTIVE	
1.1 List of national transposing legislation	The Directive has been transposed with a framework provision (Art 10 para 2 No. 19 and Art. 51 of the Federal Nature Conservation Act (Gesetz über Naturschutz und Landschaftspflege) ('BNatSchG'). Adoption: 2002 Entry into force: 2002. Subsequently the Federal States enacted implementing laws in their States. Full transposition and implementation of the Directive in all 16 Federal States was not fully achieved until 2004, following intervention by the European Commission (legal case C-339/03)(see Table below). In 2009 a new Federal Nature Conservation Act was established after Federal Reform in which the framework provisions were replaced with a set of provisions on the Federal Level which were directly applicable without additional Federal States regulations Adoption: 29 July 2009 (BGBl. IS.2542). Entry into force: 1 March 2010 (BNatSchG). Article 42 (Zoos) and 43 (Tiergehege) refer in particular to the transposition of the Zoos Directive (our Study, (Born Free Foundation 2011).
1.2 Eu infringement cases	On June 2002 the Commission issued a letter of formal notice to the German Government regarding its transposition of the Directive. A main act was already in place (ie BNatSchG) transposing Articles 3(4), 3(5) and 4. The other articles had to be transposed by the different Landers. Only three (out of 16)

	landers had done so. In October 2002 the Commission issued a Reasoned Opinion. Two other landers transposed the legislation. In August 2003 the Commission referred the case to the ECJ. In the course of the procedure additional eight landers transposed the Directive. On 14 October 2004 the Court ruled in Case C-339/03 that Germany had failed to transpose the Directive (Commission v. Germany 2004). In January 2005 only Bavarian transposition was missing. Before the Commission issued Letter of Formal notice for failure to comply with the judgment of the Court (Art. 260 TFEU), Germany informed the Commission that Bavaria had transposed the legislation in August 2005. Transposition was hence considered complete and the case closed.
1.3 National case-law	NA

Country fiche – Ireland

Key features of the national system:

- The competent authority for zoos in Ireland is the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs. The application of the Directive is carried out by the National Parks and Wildlife Service which is a Division of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (our study).
- The Republic of Ireland did not have any statutory licensing and inspection arrangements on zoos. The Zoos Directive was transposed as European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003 of 19/09/2003. Irish Statute Book (Office of the Attorney General 2016). Adopted: 19th September, 2003 Entry into force: April 2005 (Licensing and Inspection of Zoos)
- There was one EU Court case when in June 2002 a Letter of formal notice was sent to Ireland concerning the non-transposition of the Directive into national law. This was followed by a Reasoned Opinion in October 2002, which in turn was followed by Saisine in June 2003. Ireland responded in September 2003 with European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003. The case was then withdrawn.
- There are no official records of the number of zoos in Ireland. In 2010 the EU Zoo Inquiry report for Ireland inventoried 10 licensed zoos, although the report considered that there were 27 collections that may satisfy the Directive's definition of a zoo (BornFree 2011). For the present study, 17 zoos were identified by the authors. According to the MS CA, the number of zoos was unknown in 2010, and mounted to approximately 30 in 2015, pending assessment of unlicensed premises (our study)
- There are no official records of the number of visitors. As an indication, Dublin Zoo, Fota Wildlife Park and Dingle Oceanworld present the following information on visitor numbers. Dublin Zoo attracts more than 1 million visitors a year **Invalid source specified.**; Fota Wildlife Park attracts 440,000 visitors a year **Invalid source specified.**
- The National Parks and Wildlife Service issues licences for the Minister for the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs who is the sole competent authority for the Zoos Directive in Ireland. The zoo licence inspectorate is appointed on a contract basis by the National Parks and Wildlife Service of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
- Zoos are defined as in the Zoos Directive. In addition, the Irish Zoo Licence Guidance notes - GN03 contains exemption criteria and application advises that a collection will be considered exempt from the zoos legislation if, among other things which are also set out in the guidance document, it does not normally exceed 100 specimens.
- The CA does issue guidelines as minimum standards set by law, for animal accommodation/enclosure size, mentioned in Appendix 9 of the Irish Standards of Modern Zoo Practice that sets out specific sizes for elephant enclosures both indoor and outdoor. Enclosure sizes are not specified for any other animal or category of animal or species **Invalid source specified.**(our sur-

- vey).
- A first licence lasts 2 years and subsequent licences for 3 years. Legislation allows for up to 5 years for a licence. Inspections are carried out annually of licenced zoos. No charge applies for a zoo licence in Ireland. Zoos are scheduled to be inspected once a year after a licence is granted. Summary offences can be penalised in the Courts with a fine of up to 3000 euro or 6 months imprisonment or both (our study).
 - The British and Irish Association of Zoos and Aquariums (BIAZA), presents IAZA and is the British and Irish Association of Zoos and Aquariums; the professional body representing the best zoos and aquariums in Britain and Ireland. The Federation implemented a zoo inspection process to ensure the highest levels of animal welfare were achieved, and created a community that encouraged its members to share expertise and best practice with the aim of continuously improving standards **Invalid source specified.**
 - The Association of British and Irish Wild Animal Keepers (ABWAK) is a membership organisation for those interested and involved in the keeping and conservation of wild animals, which seeks to achieve the highest standards of excellence in animal welfare through communication, cooperation, training and development **Invalid source specified.**

Main achievements:

- Born Free consider that the transposing legislation is largely good, with some (relatively minor) issues (BornFree 2011).
- The MS CA has produced a Zoos Standards document and enhanced the licensing process, including questionnaires and allows stronger interaction between zoos and inspectors. Inspection teams have a greater breadth of experience. Absence of ZD would not have given the framework to go through this (Zoo Federation Interview)
- Especially husbandry in zoos has improved, that can be attributed to the Zoos Directive (Zoo Federation Interview).
- The Directive required that a law was implemented for the education and conservation of biodiversity. Operators understand the potential role they can play and as such have grown responsibly in the most part (MS CA interview)
- The approach in IE has been to encourage zoos to comply rather than take a confrontational approach and force compliance. The emphasis, therefore, has been on raising standards in zoos over a number of years, from a situation where, pre-Zoos Directive, there were no agreed standards. The context within zoos operate in the country is now strengthened and there is publicly available guidance in existence that spells out expectations. There was no zoo licensing regime in IE before the Zoos Directive entered into force. Bringing a consistent approach to the regulation of this sector across the Union is a worthy aim and is being successfully achieved in this Member State (MS CA interview)

Main challenges:

- Challenging issues are: the application of the definition of zoos and, therefore, the number of establishments to which the Directive applies; the extent of enforcement requires clarification; and although it has only just appeared (ie 13 years after the transposing legislation and 17 years after the Directive), Irish Standards of Modern Zoo Practice **Invalid source specified.** appears to be a strong guide to the application of the Directive, based in large part on the UK framework for zoo standards and licensing.
- There is little analysis of the wider context within zoos operate and so there appears little synthesis of either the achievements or of the challenges that remain to be faced (apart from understanding enforcement) from the literature consulted. Ireland has only three zoos that are members of BIAZA and two of those are also members of EAZA. Therefore, the national contribution of zoos to conservation programmes must be understood within that context.
- Definition of zoos is tricky. In UK, definition is very broad and includes many institutions that many would not see as zoos, Some other organisations are not covered e.g mobile zoos. IE is exploring how to include these as zoos. Definition of zoo is barrier (Zoo Federation Interview)

- IAS is a real issue and zoos recognize that this is a significant concern, but there should be a more thoughtful and systematic approach to understanding which are the problem species. Zoos are regulated and have to adjust their practices in the light of IAS. Pet ownership is not regulated, however, and is, perhaps not adjusting to the concerns of IAS as readily. Zoo license already says that animals are not allowed to escape (our study).
- The most frequent complaint about the Directive comes from small operators who have difficulty with all the administrative paperwork and zoo inspection process which is time consuming for them and a drain on often scarce resources (our study).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	In 2010 the EU Zoo Inquiry report for Ireland inventoried 10 licensed zoos, although the report considered that there were 27 collections that may satisfy the Directive's definition of a zoo (BornFree 2011). For the present study, 17 zoos were identified by the authors. According to the MS CA, the number of zoos was unknown in 2010, and mounts to approximately 30 in 2015, pending assessment of unlicensed premises (our study)
1.2 Types of zoos in the country	Zoos appear to be a mixture of public ownership, with charitable status, and privately owned, some as commercial enterprises, others as scientific establishments (BornFree 2011).
1.3 NGOs active at national level	No NGOs identified that are in particular active for Zoo animals
1.4 Associations of zoos professionals	The British and Irish Association of Zoos and Aquariums (BIAZA), presents IAZA and is the British and Irish Association of Zoos and Aquariums; the professional body representing the best zoos and aquariums in Britain and Ireland. The Federation implemented a zoo inspection process to ensure the highest levels of animal welfare were achieved, and created a community that encouraged its members to share expertise and best practice with the aim of continuously improving standards Invalid source specified. The Association of British and Irish Wild Animal Keepers (ABWAK) is a membership organisation for those interested and involved in the keeping and conservation of wild animals, which seeks to achieve the highest standards of excellence in animal welfare through communication, cooperation, training and development Invalid source specified.
1.5 Brief market overview	According to the most recent national statistics, Ireland has 4,797,476 inhabitants Invalid source specified. Dublin Zoo, Fota Wildlife Park and Dingle Oceanworld are members of BIAZA and the first two are also members of EAZA (BornFree 2011). They present the following information on visitor numbers. Dublin Zoo attracts more than 1 million visitors a year Invalid source specified. Fota Wildlife Park attracts 440,000 visitors a year Invalid source specified. Invalid source specified. contains no information on visitor numbers for Dingle Oceanworld.
TRANSPOSITION OF THE DIRECTIVE	
1.4 List of national transposing legislation	European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003 of 19/09/2003. Irish Statute Book (Office of the Attorney General 2016). Adopted: 19th September, 2003 Entry into force: April 2005 (Licensing and Inspection of Zoos)
1.5 Eu infringement cases	June 2002: a Letter of formal notice was sent to Ireland concerning the non-transposition of the Directive into na-

	tional law. This was followed by a Reasoned Opinion in October 2002, which in turn was followed by Saisine in June 2003. Ireland responded in September 2003 with European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003. The case was then withdrawn.
1.6 National case-law	None identified

Country fiche – Italy

Key features of the national system:

- The EU Directive 1999/22/EC (hereinafter ‘Zoo Directive’) was transposed in Italy **only in 2005** through the **Legislative Decree 21 March 2005 n. 73**³⁶⁶.
- In 2006, the Legislative Decree 73/2005 (implementing the Zoo Directive) was amended twice, firstly by the Decree of the Ministry of the Environment 4/2006, and subsequently by the Legislative Decree n. 192/2006. In particular, the first modification brought by the Decree of the Ministry of the Environment 4/2006³⁶⁷ abolished a specific requirement related to the timing for the request of a license. This objective was obtained by deleting the sentence "within 180 days from the date of entry into force of this Regulation" from the Annex 4 A) 1 of the Italian Legislative Decree 73/2005. The second modification, which was brought by the Legislative Decree n. 192 of 4 April 2006³⁶⁸, modified the definition of zoos as originally contained in the Article 2 of Italian Legislative Decree n. 73/2005.
- Combined together, the two modifications of the Legislative Decree 73/2005 (implementing the zoo Directive), had the effect of discouraging the zoos to protect the fauna and safeguard the biological diversity, as well as requesting a license. This scenario was considered as a breach of the Zoo Directive by the European Commission which started an infringement procedure against the Italian Republic (Infringement procedure 2007/2179).
- In order to comply with the request of the European Commission the Italian Republic amended the Legislative Decree 73/2005 with the Law n. 101/2008³⁶⁹. The Law n. 101/2008 in fact re-established the original definition of zoo (as it was written in the first version of art. 2 of the Legislative Decree n. 73/2005) and the system of licenses.
- The Italian Ministry of Environment is the Competent Authority in charge of implementing the Directive, 1999/22/EC and the Italian Legislative Decree 73/2005 which give effects to the Directive. The Ministry of Health and the Ministry of Agriculture and Forestry cooperate with the Ministry of Environment in the implementation of the Directive (particularly, in relation to the inspection for the issuance of the license and for subsequent controls). The State Forestry Corps act as enforcement authority by detecting, and referring to the Competent Authority, establishments that could qualify as zoos and should be, therefore, subject to the legislation³⁷⁰.

Main achievements:

³⁶⁶ Decreto Legislativo 21 marzo 2005, n. 73, ‘Attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici’, (GU n. 100 del 2-5-2005), available at:

http://www.minambiente.it/sites/default/files/archivio/allegati/biodiversita/dlgs_21_03_05_n73.pdf (accessed October 2016).

³⁶⁷ Decreto 18 gennaio 2006 del Ministero dell’ambiente e della tutela del territorio, Modifica all’allegato 4 del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici (GU n. 26 del 1-2-2006), available at:

http://www.ambientediritto.it/Legislazione/Fauna%20e%20Flora/2006/dm_18gen2006.htm (accessed October 2016).

³⁶⁸ Decreto Legislativo 4 aprile 2006, n. 192, ‘Disposizioni correttive del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici’, (GU n. 121 del 26 -5 -2006), available at:

<http://www.camera.it/parlam/leggi/deleghe/06192dl.htm> (accessed October 2016).

³⁶⁹ Legge 6 giugno 2008, n. 101, ‘Conversione in legge, con modificazioni, del decreto-legge 8 aprile 2008, n. 59, recante disposizioni urgenti per l’attuazione di obblighi comunitari e l’esecuzione di sentenze della Corte di giustizia delle Comunità europee’, (GU n. 132 del 7-6-2008), available at: <http://www.camera.it/parlam/leggi/081011.htm> (accessed October 2016).

³⁷⁰ Italian Legislative Decree n. 73/2005, art. 6, available at:

http://www.minambiente.it/sites/default/files/archivio/allegati/biodiversita/dlgs_21_03_05_n73.pdf (accessed October 2016).

http://www.minambiente.it/sites/default/files/archivio/allegati/biodiversita/dlgs_21_03_05_n73.pdf (accessed October 2016).

- Some of the requirements applicable to zoos in Italy are more stringent than those required by the Directive³⁷¹. Additional minimum standards concerning animal care, welfare, health and hygiene, include:
 - ‘The health conditions of animals should be checked daily by zoo staff’;
 - ‘Shows, concerts, art exhibitions and amusements can only be sited in special areas, away from animal enclosures (...) so as not to disturb the animals’;
 - ‘Animals should be housed in an enclosure (or tanks if aquatic animals) that provide appropriate space and environment, allowing the animals to exercise, according to the requirements of the species’;
 - ‘Animals may not be induced to perform unnatural behaviours for the interest of the audience’;
 - ‘The temperature, light and ventilation of the enclosures shall be suitable for the comfort and welfare of animals at all times.’
 - ‘The outdoor enclosures must be prepared to protect animals from excessive rain or sun’;
 - ‘The animal enclosures or tanks must be enriched depending on the needs of the host species, with bedding materials, branches, rope, dens, nest boxes, baths and in the case of aquatic species, materials such as plants, small stones or other suitable furnishings’;
 - ‘Food and drink must meet, both in terms of nutritional value and quantity, the needs of each single species and every individual of that species’³⁷²
- Specific minimum standards are defined for the keeping of Dolphins (*Tursiops truncatus*) in zoos. The standards deal with the size of the pools, medical treatments, food, the prohibition of contact with the visitors, prohibition of training to unnatural behaviour.
- The majority of zoos appear to participate in educational activities³⁷³.

Main challenges:

- Before the entering into force of the Directive (and the related national legislation), there were no rules specifically addressed to zoos and no licensing and inspection system was set up. Moreover, the EU Directive was transposed in the national legislation with some delays, and subsequent reviews have further delayed the actual establishment of an operational system³⁷⁴.
- Other issues raised by stakeholders are related to the effective enforcement of the legislation. Stakeholders have argued that it should be ensured, through effective enforcement, that all zoos (as defined by the Directive) abide by the requirements of national zoo law, the minimum standards in the Annexes to LD73/2005. Furthermore, existing available penalties (Articles 4(2)b and 8 of LD73/2005) should be applied to zoos that fail to meet their legal obligations³⁷⁵.
- The capacity of inspectors appear another element to be improved, in order to ensure that all national and regional enforcement personnel and veterinarians involved in the inspection and regulation of zoos are equipped with relevant, regular training and skills pertaining to the care and welfare of wild animals in captivity³⁷⁶.

MAPPING OF NATIONAL CONTEXT	
1.1 Total number of zoos	In Italy there are currently 23 licensed zoos ³⁷⁷ . Further details on the evolution of the number of zoo were not easily available.
1.2 Types of zoos in the country	98% of zoos are estimated to be private (interview with UIZA)

³⁷¹ Born Free Foundation, 2011, ‘The EU Zoo Inquiry, An evaluation of the implementation and enforcement of the EC Directive 1999/22, relating to the keeping of wild animals in zoos – ITALY’, p.2 available at: http://www.bornfree.org.uk/zooreports/Italy-en/pages/ITALY_SUMMARY_AND_RECOMMENDATIONS_ENGLISH.pdf (accessed October 2016).

³⁷² Italian Legislative Decree n. 73/2005, annex I, available at: http://www.minambiente.it/sites/default/files/archivio/allegati/biodiversita/dlgs_21_03_05_n73.pdf (accessed October 2016).

³⁷³ Born Free Foundation, op. cit.

³⁷⁴ Based on interviews with national stakeholders.

³⁷⁵ Born Free Foundation, op. cit.

³⁷⁶ Born Free Foundation, op. cit.

³⁷⁷ Information provided by the Competent Authority.

	and national competent authority).
1.3 NGOs active at national level	<ol style="list-style-type: none"> 1. LIDA (Lega Italiana dei Diritti dell'Animale) → aim: protecting the rights of the animals. 2. OIPA Italia (Organizzazione Internazionale Protezione Animali) → aim: protecting the rights of the environment and animals 3. Borne Free Italia - non-profit organization → aim: offering specialized care and the right habitats for animals. 4. Associazione Animalisti Italiani - non-profit organisation → aim: defending the rights of animals. 5. LAV (Lega Anti Vivisezione) non-profit organisation → aim: defending the rights of animals.
1.4 Brief market overview	Overall population in Italy: 59,801, 906 ³⁷⁸ . Information concerning the number of zoos visitors per year in Italy seems not available.

TRANSPPOSITION OF THE DIRECTIVE

1.7 List of national transposing legislation	<p>1. The EU Directive 1999/22/EC has been transposed in Italy only in 2005 through the Legislative Decree 21 March 2005 n. 73 (published on the Official Gazette n. 100, 02/05/2005): "Implementation of the Directive 1999/22/ EC relating to the keeping of wild animals in zoos"</p> <p><u>English translation:</u> Legislative Decree 21 March 2005 n. 73 (Official Gazette n. 100, 02/05/2005): 'Implementation of the Directive 1999/22/ EC relating to the keeping of wild animals in zoos'.</p> <p><u>Act in original language:</u> Decreto Legislativo 21 Marzo 2005, n.73 (pubblicato nella Gazzetta Ufficiale n. 100 del 2 maggio 2005) "Attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici"³⁷⁹.</p> <p>The legislative Decree 73/2005 has been subsequently modified and integrated:</p> <p>2. English translation: Decree of the Ministry of Environment 18 January 2006 (Official Gazette n. 26, 01/02/2006) "Amendment of Annex 4 of the Legislative Decree 21 March 2005 n. 73 implementing the Directive 1999/22/ EC relating to the keeping of wild animals in zoos"</p> <p><u>Act in original language:</u> Decreto del Ministero dell'Ambiente 18 gennaio 2006 (pubblicato nella Gazzetta Ufficiale n. 26 del 1° febbraio 2006), "Modifica all'allegato 4 del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici"³⁸⁰.</p> <p>3. English translation: Legislative Decree 4 April 2006 n. 192 (Official Gazette n. 121, 26/05/2006) "Amending provisions of the Legislative Decree 21 March 2005 n. 73, implementing the Directive 1999/22/ EC relating to the keeping of wild animals in zoos "</p> <p><u>Act in original language:</u> Decreto Legislativo 4 aprile 2006, n. 192 (pubblicato nella Gazzetta Ufficiale n. 121 del 26 maggio 2006) "Disposizioni correttive del decreto legislativo</p>
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³⁷⁸ <http://www.worldometers.info/world-population/italy-population/> (accessed October 2016).

³⁷⁹ Decreto Legislativo 21 marzo 2005, n. 73, 'Attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici', (GU n. 100 del 2-5-2005), available at:

http://www.minambiente.it/sites/default/files/archivio/allegati/biodiversita/dlgs_21_03_05_n73.pdf (accessed October 2016).

³⁸⁰ Decreto 18 gennaio 2006 del Ministero dell'ambiente e della tutela del territorio, Modifica all'allegato 4 del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici (GU n. 26 del 1-2-2006), available at:

http://www.ambientediritto.it/Legislazione/Fauna%20e%20Flora/2006/dm_18gen2006.htm (accessed October 2016).

	<p>21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici"³⁸¹.</p> <p>4. English translation: Law n. 101 June 2008 (Official Gazette n.132, 07/06/2008), "Converting into law with amendments the law decree 8 April 2008 n. 59, concerning urgent measures for the implementation of EU obligations and execution of judgments of the European Court of Justice".</p> <p>Act in original language: Legge n. 101 del 6 giugno 2008 (pubblicata nella Gazzetta Ufficiale n. 132 del 7 giugno 2008), "Conversione in legge, con modificazioni, del decreto-legge 8 aprile 2008, n. 59, recante disposizioni urgenti per l'attuazione di obblighi comunitari e l'esecuzione di sentenze della Corte di giustizia delle Comunità europee"³⁸².</p>
<p>1.8 Eu infringement cases</p>	<p>Case C-302/03 (Commission v. Italy), 07/08/2004</p> <p>On 10 June 2004, the Court found that the Italian Republic failed to adopt the laws, regulations and administrative provisions necessary to implement Directive 1999/22, and was ordered to pay the costs of the trials³⁸³.</p> <p>Infringement Procedure 2179/2007</p> <p>The European Commission initiated in 2007 an infringement procedure against the Italy as the latter, having modified the Legislative Decree n. 73/2005 through the Ministerial Decree of 18 January 2006 and the Legislative Decree 192/2006 had breached the Directive 1999/22/CE.</p> <p>In order to solve the situation, the Italian Republic changed again its legislation by issuing in 2008 the Law n. 101 which re-establishes the original definition of zoo as it was written in the first version of art. 2, legislative decree n. 73/ 2005.</p>
<p>1.9 National case-law</p>	<p>2 case law concerning the transposition of the have been found:</p> <ol style="list-style-type: none"> 1. Case 220/2008 – Italian Government (representing the Italian State) vs Valle d'Aosta Region³⁸⁴ <p>Dispute: In Italy the Directive 1999/22 has been transposed and implemented by the legislative decree 21 March n. 73/2005.</p> <p>The Valle d'Aosta Region - which is an autonomous region with special statute and powers - was also implementing the Directive 1999/22 with a regional act: The regional act n. 34/2006.</p> <p>The issue at stake was to verify whether the Valle d'Aosta, being a special region, had a competence to also implement a European piece of legislation.</p> <p>According to the Italian government, the Valle d'Aosta Region, despite the special powers recognised by the Italian constitution, had no competences to implement a European directive whose general aim is the protection of the</p>

³⁸¹ Decreto Legislativo 4 aprile 2006, n. 192, 'Disposizioni correttive del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici', (GU n. 121 del 26 -5 -2006), available at: <http://www.camera.it/parlam/leggi/deleghe/06192dl.htm> (accessed October 2016).

³⁸² Legge 6 giugno 2008, n. 101, 'Conversione in legge, con modificazioni, del decreto-legge 8 aprile 2008, n. 59, recante disposizioni urgenti per l'attuazione di obblighi comunitari e l'esecuzione di sentenze della Corte di giustizia delle Comunità europee', (GU n. 132 del 7-6-2008), available at: <http://www.camera.it/parlam/leggi/081011.htm> (accessed October 2016).

³⁸³ ECLI:EU:C:2004:368, <http://curia.europa.eu/juris/document/document.jsf?text=&docid=49283&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=1394853> (accessed October 2016).

³⁸⁴ Corte Costituzionale Italiana, Sentenza n. 220/2008, Pubblicazione in G. U. 25/06/2008 n. 27, available at: <http://www.cortecostituzionale.it/actionSchedaPronuncia.do?anno=2008&numero=220> (accessed October 2016).

environment. The latter being in fact a state competence, and not a regional one.

In the end, the constitutional judge did not decide on the matter, since the Italian government failed to specify which division of powers between state and regions were breached by the regional act of Valle d' Aosta.

2. Case 25 November 2008, n. 387 - Italian government vs Provincia di Bolzano³⁸⁵

Dispute:

In Italy the Directive 1999/22 has been transposed and implemented by the Italian legislative decree 21 march n. 73/2005. The province of Bolzano - which is an autonomous province with special statute and powers - was also implementing the Directive 1999/22 with a provincial act: the provincial act n. 10/2007.

According to the Italian government, some articles of the act issued by the province of Bolzano were not in line with the provisions of the Italian legislative decree n.73/2005, and consequently with the Directive.

The issue at stake was to verify whether the province of Bolzano, being a special region, had a competence to legislate in matters such as environment and zoos.

According to the constitutional judge, the State is the only territorial entity which has competence to legislate in matter of environment and zoos, therefore the articles of the provincial act n. 20/2007 not in line with the Italian legislative decree 73/2005 were declared invalid.

Country fiche – Lithuania

Key features of the national system:

- The Zoos Directive was mainly transposed by the 2002 Law of the Republic of Lithuania on Wild Fauna Rules on licences to establish the zoos and on management and control of zoos
- Lithuania has only one major Zoo –Lithuanian Zoo (formerly: Kaunas Zoo), which is an EAZA member and as such is obliged to comply with EAZA standards. The total number of zoos was reportedly 6 (Eurogroup for Wildlife & Laboratory Animals 2006). From the MS CA survey, in 2010 2 licensed zoos existed, and in 2015 5 licensed zoos (MS CA survey).
- The responsible competent authority is the Ministry of Environment of the Republic of Lithuania.
- The zoo definition provided in the Law on Wild Fauna is: ‘a place with permanent and special facilities, where wild animals forming a zoological collection are regularly kept for exhibition to the public for 7 or more days a year with the exception of circuses, pet shops and establishments.
- The national law does include exemptions according to Article 2 of the Directive for establishments with less than 10 species of wild animals and not more than 50 animals and when the zoo does not raise a threat to wildlife and biodiversity.’ (our study)
- Licenses are granted by the Nature Protection Agency. The authorization has no time limit (expiration time). cost of a license for an applicant is 145 euro. After a license is granted, re-inspections are scheduled to take place once in two years or when a complaint is received. Non-compliances may lead to penalties from 28 to 579 euro (our study).
- Zoo inspections are performed by staff of the Nature Protection Agency and the Regional Environmental Protection Department.
- An advisory body (Zoos inspection commission) supports the licensing and inspections.

³⁸⁵ Corte Costituzionale Italiana, Sentenza n. 387/2008, Pubblicazione in G. U. 03/12/2008 n. 50, available at: <http://www.cortecostituzionale.it/actionSchedaPronuncia.do?anno=2008&numero=387> (accessed October 2016).

- Guidelines in the form of minimum standards for animal accommodation/enclosure that are species specific are set in the Annex 4 in the Rules on Use of Wild Animals, approved by Order No D1-533/B1-310; Order No. 346, 27/06/02 (Keeping Wild Animals in Zoos) of the Minister of Environment and the Director of State Food and Veterinary Service , as last amended on 24 .4.2014 (our study)

Main achievements:

- The following achievements were noted by the MS CA: the requirement for providing information about animals was strengthened for educational purpose; legal acts on minimal standards for keeping wild animals in captivity were improved; and public awareness was raised

Main challenges:

- The definition of the “zoo” the Directive is not very clear because of the term “significant number” which leaves much discretion.
- The Born Free Foundation investigated five zoos in Lithuania in 2011. Despite a largely accurate transposition of the Directive into the Wildlife Protection Act, overall findings revealed inconsistency in its application, failure to identify facilities that require a zoo licence, ineffective enforcement of the legislation and substandard conditions in all zoos included in the investigation. The findings of this investigation revealed significant inconsistencies in the application of the Lithuanian zoo law, particularly in relation to the definition and identification of a ‘zoo’ (Born Free Foundation 2011)

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	2010:2 licensed zoos (MS CA survey) 2015:5 licensed zoos (MS CA survey) There are 6 zoos reported in Lithuania – half-way during the implementation period of EU Directive 1999/22/EC there were 4 zoos in the country (Eurogroup for Wildlife & Laboratory Animals 2006).
1.2 Types of zoos in the country	The zoos in Lithuania are a mix of publicly and privately owned zoos (Born Free Foundation 2011)
1.3 NGOs active at national level	There are no NGOs active at national level with regards to animals in zoos.
1.4 Associations of zoos professionals	No associations of zoo professionals could be identified.
1.5 Brief market overview	The total population of Lithuania was 2,8 million inhabitants (Country Meters 2016) With regards to the number of zoo visitors each year, no information could be found concerning the total number of visitors. As an indication, Kaunas Zoo had 13,5 million visitors since its start in 1938 ((Way 2 Lithuania 2016).

TRANSPOSITION OF THE DIRECTIVE

1.10 List of national transposing legislation	The Zoos Directive was transposed by following legislations: Law of the Republic of Lithuania on Wild Fauna Rules on licences to establish the zoos and on management and control of zoos, approved by Order No 298 of the Minister of Environment (DĖL LIETUVOS RESPUBLIKOS APLINKOS MINISTRO 2002 M. BIRŽELIO 4 D. ĮSAKYMO NR. 298 „DĖL LEIDIMŲ ZOOLOGIJOS SODAMS ĮKURTI IŠDAVIMO IR ZOOLOGIJOS SODŲ TVARKYMO IR KONTROLĖS TVARKOS PATVIRTINIMO“ PAKĖITIMO), as last amended on 18.2.2014. Adoption: 4 June 2002. Entry into force: 4 June 2002. (Wild Fauna Rules) Order No. 346, 27/06/02 (Keeping Wild Animals in Zoos)(SAKYMASDĖL LAUKINIŲ GYVŪNŲ LAIKYMO ZOOLOGIJOS SODUOSE STANDARTIZAVIMO PROGRAMOS PATVIRTINIMO) Adoption: 27 June 2002 Entry into force: 21 Aug 2002 (Keep-
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	ing Wild Animals in Zoos) Order No. 250/224, 16/05/02 (Taking of Wild Animals from the Wild to Form Zoological Collections and on Registration of Zoological Collections) (DĒL LAUKINIŲ GYVŪNŲ NAUDOJIMO TAIŠYKLIŲ PATVIRTINIMO) Adoption: 30 June 2011 Entry into force: 30 June 2011
1.11 Eu infringement cases	None identified
1.12 National case-law	None identified

Country fiche – Netherlands

Key features of the national system:

- Prior to the adoption of measures transposing the Directive in 2002 through the Animal Act (Dierentuinbesluit), there were no licensing or inspection procedures for zoos. Subsequently the law has been incorporated in 2011 in the Article 4.1-4.13 in the new Animal Law (Wet Dieren) (Overheid.nl 2015).
- The policy-legislation is under responsibility of the Ministry of Economic Affairs. The Secretary of State of Economic Affairs grants the licenses. The Netherlands Enterprise Agency (RVO.nl) is appointed to grant the license on behalf of the Secretary of State. Inspection and enforcement is under responsibility of the Food and Consumer Product Safety Authority (NVWA). The licensed zoos are published on internet³⁸⁶; it contains application nr., license nr, zoo name and date of license.
- The Dutch legal definition of zoos is “a permanent establishment where animals of wild species are kept for exhibition to the public for at least seven days a year, with exception of circuses and petshops.” Under the definition, dolphinariums are included in the national zoo law. Exemptions according to Art. 2 of the Zoos Directive are included in the law and related to the number of species exhibited: at least 10 species must be exhibited, with exception of species that are protected under the Flora and fauna act. There are no minimum standards set by law for animal accommodation or enclosures size. Dutch law beyond the Zoos Directive regulates trade of animals by zoos, according to Directive 92/65/EEG.
- According to national law, zoos can choose from Article 3 requirements of the Zoos Directive between captive breeding and research/training, in order to obtain a license.
- A Dutch zoo license has an indefinite duration, and no costs are charged for a zoo to apply for a license. Inspections carried out after a licence is granted about once every three years, and are risk based. Main reasons for inspections are: open for the public without a license and exhibiting species without approval of this alteration in the license. EAZA/NVD members are inspected by EAZA/NVD inspectors, which is a private initiative. They send the reports to RVO.nl. RVO.nl decides if NVWA inspectors need to do further inspections. In 2016, 22 inspectors were full-time available for nature conservation/CITES, 10 inspectors carry out zoo inspections part-time. They also carry out inspections at animal shelters. About 20 zoos are inspected yearly. When inspecting zoos also animal welfare, animal identification and registration, Regulation 1143/2014 (invasive alien species), and CITES is addressed.
- Initially a large team of inspectors (exact figures unknown) was set up to start with licensing of 33 zoos present after adoption of the Zoos Directive, in 2010 there were 85 zoos, of which 47 were licensed and 37 for which a license was refused, and in 2015 there were 107 zoos, of which 54 were licensed and 47 for which a license was refused, due to non-compliance with the law. In such cases, the authorities instruct the zoos to redeem the observed shortcomings. Today the licensing team is small and also involves external support: The Netherlands Enterprise Agency (RVO.nl) works with an advisory board (visitatiecommissie dierentuinen). The role of the board is to advise in granting licenses. The chairman and the secretary are staff of the Netherlands En-

³⁸⁶ <http://www.rvo.nl/sites/default/files/2015/05/Overzicht%20verleende%20vergunningen%20dierentuinen.pdf>

terprise Agency (RVO.nl). Other members are veterinarians of the NVWA (Netherlands Food and Consumer Products Safety Authority) and external zoo experts. For each visit the chairman appoints a team of two, three or four persons. Also members can be asked for advice in case of single issues. This addresses the fact that the government staff has insufficient knowledge and experience across the enormous wide variety of issues related to the many different animals species housed in zoos and aquaria. The costs involved for external zoo expert advice in licensing are born by the government. The Dutch Association of Zoos and Aquaria (Nederlandse Vereniging van Dierentuinen, NVD) is involved in this provision of professional zoo expertise.

- For cases of non compliance, there are monetary penalties: 1. administrative fine; € 1500,- for non compliances in rules and restrictions, way of keeping animals, way of caring for animals, monthly administration, transfer documents, saving documents for five years, information about species and habitat, in case of transfer of animals information about the new situation, policy protocol; 2. administrating fine € 2500,- for non compliance in administration of the adequate information of the animals in the zoo; 3. penalties, in case of non-compliance is a possibility in case of recidive.
- Zoo closure is the ultimate penalty that however occurs seldom: between 1998-2016 in the Netherlands only one zoo was closed in 2014. The MS CA cannot easily decide to close a zoo, mainly because it is difficult to relocate animals. If a zoo is forced to close, the onus of relocating the animals remains with the zoo. In situations where immediate action is necessary, i.e. neglect of animals, animals will be placed in licenced shelters. All costs will be hailed on the perpetrator.
- Art 3 issues from the Zoos Directive are also addressed by other non-legal instruments: the EAZA Standards for the Accommodation and Care of Animals in Zoos and Aquaria; EAZA Research Standards; EAZA Conservation Standards; EAZA Conservation Education Standards; and EAZA Best Practice Guidelines (formerly called Husbandry Guidelines), support these aspects for EAZA members fully in line with the Zoos Directive (Zoo and Zoo Federation Consultation).
- The Zoos Directive only sets as objective to participate in research on biodiversity and/or captive breeding programmes, but does not specify any objective of those programmes. That is done by CITES; Convention on Biodiversity (MS CA, Zoos and Zoos federation consultation).

Main achievements:

- The Zoos Directive in the Netherlands improved housing conditions for the animals, and stimulated better education and awareness activities for the public. According to the Dutch CA the main concerns for licensing zoos are safety for the visitors (and therefore there is special attention for proper biosecurity and prevention of escape), and good welfare for the animals (and therefore there is special attention for adequate housing conditions). This is also the main interest for animal welfare organisations. However, it is difficult to assess to what extent the improved housing conditions and animal welfare can be attributed to the Zoo Directive, as it is a requirement from many zoo federations, and animal welfare is addressed by the national laws and supported by active NGOs. In the Netherlands education and information of the public is a very important demand when licensing a zoo, together with exhibiting animals in the natural context, as far as possible. The aim is to improve awareness of the people for the importance of wild life (MS CA consultation).
- Costs were studied in 2008 (Panteia Research voor beleid 2008). Estimated costs for administrative burden for zoos were estimated at €4537 for applying for zoo license, and €1361 annual costs; and costs for CA were estimated at €2807 per zoo per year. Costs for closure are not known, closures occur seldom.
- Public attention is mostly directed on animal welfare: there have been several protests, especially by the NGO Dolphinmotion³⁸⁷, against the Dolphinarium in Harderwijk, where animal welfare groups asked to close the site³⁸⁸. Also noteworthy, the Secretary of State in the Netherlands decided in 2015 that circuses were no longer allowed to keep, display and use wild animals for en-

³⁸⁷ <http://www.dolphinmotion.nl/home/>

³⁸⁸ http://buitenland.eenvandaag.nl/tv-items/65491/nieuwstrend_dolfinarium_harderwijk_onder_vuur

tainment any longer, as the adequate animal welfare could not be ensured³⁸⁹.

- In the Netherlands there is Dutch Association of Zoos and Aquaria (Nederlandse Vereniging van Dierentuinen, NVD). They had 13 members in 2016, and all NVD members and NVD itself are members of the world wide database Species360; the global zoo animal database. All NVD members are members of EAZA and they follow the EAZA guidelines. According to the NVD, the Zoos Directive has been important as it provided the legal framework for strengthening the role of zoos in biodiversity conservation. The Directive creates an environment for zoos across the Union to harmonise their conservation focus, standards and routines (Zoo Federation Consultation). Examples of positive changes that can be attributed to the Directive are that the quality of the zoos in some countries in the EU has improved, international cooperation is easier and the EAZA has even more reason to be. The recently published 'EU Zoos Directive Good Practices Document' they consider a good example in this regard. However, concerning the licensing and inspection system, it has taken a long time for some Member States to implement the Directive and some have not implemented it at all. For the NVD, they are able to link and relate their membership conditions to the Directive, thereby helping to make the Directive accessible and understood by its members. The NVD is also using the guidance provided in the Directive to be pro-active in achieving the requirements, for example developing conservation standards, running biodiversity campaigns, EEPs, etc. The NVD has also a role in supporting the licensing by the CA in providing professional zoo expertise. In that respect, current standards of professional zoo associations are often more progressive than national legal standards based on the Zoo Directive. Sector driven standards would achieve better implementation than ones set in national legislation. National Authorities should put more pressure on zoos that fail to meet the standards of professional zoo associations (Zoos and Zoo Federation Consultation)
- In the Netherlands there also is an organisation for Dutch and Belgian zoo workers: Stichting De Harpij³⁹⁰. She has no members, but issues every quarter a journal with mostly information related to housing and animal welfare conditions for zoo animals. The Stichting Aap³⁹¹ is a rescue centre, that adopts animals from different sources, including from zoos that are close, and aims to provide long-term solutions for improving the welfare of exotic, non-domesticated animals.

Main challenges:

- The Zoos Directive is considered useful to ensure that licensing and inspection of zoos is done by the CA, and regularly new zoos are applying for a license. However, participation in breeding programmes can be difficult, especially for smaller zoos. All zoos can include education activities do in some form. Although not all zoos have the ability to be engaged in breeding programmes for biodiversity, most can instead engage in education and research programmes.
- According to consulted stakeholders, an inconsistency exists between the Zoos Directive and the Regulation of Invasive Alien Species (IAS) (1143/2014): the IAS regulation does not appropriately address the conservation role of zoos and makes a direct -but unfounded and disproportionate-connection between animals held in zoos and the problems with Invasive Alien Species. One of the major problems is the lack of scientific process and appropriate risk analyses. Species belonging on the list (e.g. American mink) are politically banned from being listed whilst zoos can no longer keep species that are listed for which there is no connection between zoos and the IAS issue in place. This hampers conservation, education programmes tailored to the IAS problem and, as species continue to be listed, will negatively impact the biodiversity of zoo collections (MS CA, Zoo and Zoos federation consultation).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	2010: total 85, licensed 47 2015: total 107, licensed 54
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³⁸⁹ <http://nos.nl/artikel/2008752-wilde-dieren-in-het-circus-binnenkort-verboden.html>

³⁹⁰ <http://www.deharpij.com/>

³⁹¹ <https://www.aap.nl/nl>

1.2 Types of zoos in the country	Nearly all private owned
1.3 NGOs active at national level	The following NGOs are active at national level in the Netherlands: – Stichting Aap ("Monkey Foundation")-Rescue centre
1.4 Associations of zoos professionals	– Nederlandse Dierentuin Vereniging (Dutch Association of Zoos and Aquaria) – Stichting de Harpij (The Harpy Foundation) (organization for Dutch and Belgian zoo employees)
1.5 Brief market overview	Overall population in the country: 17 million (CBS) 1999: 10,4 million visitors 2013: 10 million 2015: 9,8 million (Rides 2014)
TRANSPOSITION OF THE DIRECTIVE	
1.13 List of national transposing legislation	Zoos Law (Dierentuinenbesluit) 19 April 2002; amended in 2014 in new regulation: Animal Act (Wet Dieren) (Overheid.nl 2015). The Animal Act is a law comprising all previous animal laws, including the Zoos law. Animal Act (Wet Dieren) Animal holders, and Governmental decree (Besluit houders van Dieren), July 2014; The zoo has to include in the protocol the aim of breeding and of education. Also the Flora- en fauna Act (Flora- en fauna Wet) is applicable to Zoos.
1.14 Eu infringement cases	In 2002 the European Commission issued a Letter of Formal Notice to the Netherlands regarding its failure to notify the measures transposing the Directive. Later in 2002 the Netherlands notified the transposing measures. The case was closed.
1.15 National case-law	NA

Country fiche – Poland

Key features of the national system:

- In Poland, the Zoos Directive was adopted in 16 April 2004 with the Nature Protection Act. The current definition for zoos is: ‘Zoo is an organised, managed area with technical infrastructure and functionally related buildings where living animals of wild species are kept and displayed publicly for at least 7 days per year, excluding circuses, pet shops and establishments where no more than 15 such species and no more than 50 individuals of reptiles, birds or mammals are displayed.’ (our survey). Poland has introduced exemptions according to Article 2 by amending the Nature Protection Act in 2011 defining "significant number of animals" as follows: “no more than 15 species and no more than 50 individuals of reptiles, birds or mammals.”
- Poland has set minimum standards by law, for animal accommodation/enclosure (RZ12/2004): Animals kept in zoos should be provided with conditions appropriate for their biological needs. The conditions for breeding and keeping animals in zoos are specified in the ordinance of the Minister of the Environment of 20 December 2004 on the conditions for breeding and keeping particular groups of animal species in zoos (Dz.U. of 2005 No. 5, item 32). The ordinance specifies the necessary rooms and technical equipment for the places where animals stay, as well as minimum spatial conditions for breeding and keeping animals of particular species or groups of species, as well as the necessary conditions for reproducing animals (our survey).
- The number of licensed zoos was 18 in 2010 and 24 in 2015, which are a mix of publicly and privately owned zoos (our survey). Apart from the licensed zoos there are at least about 10 other animal enclosures (Born Free Foundation 2011). Poland has 11 Zoos that are member of EAZA and also the Board of Directors of Polish Zoos and Aquariums is an EAZA Associate Member, which helps to regulate and apply the legislation (eaza.net). The yearly number of visitors mounts

- to at least 4 million (Angelika Habel 2015)
- In Poland, the authority responsible for the implementation of the Zoos Directive is the Minister of the Environment. However the authority responsible for licensing of zoological gardens and supervision of regional directorates for environmental protection (competent to carry out a zoo inspection) is the General Director for the Environmental Protection. Zoo inspections are administered by the Regional Directorate for Environmental Protection (our survey, Born Free, 2011). Zoos are licensed through the General Directorate for Environmental Protection, in consultation with the Regional Directorate for Environmental Protection, the relevant municipality and representatives of an association of zoos (Zoos Council) (Article 67(2) NPA). The permit is issued after consultation with the Regional Director for Environmental Protection competent for the location of the zoo and after an opinion from the association of representatives of zoos is obtained. In Poland, the zoo representatives are associated under the Council of Directors of Polish Zoos and Aquaria. Licences have an indefinite duration (our survey). The costs of obtaining a license is 76 PLN (approx. 17 euro). There might be additional costs for the applicant originating from obtaining documentation required to be presented along with the application for a licence, but these can vary greatly and depend on a number of factors, thus no total cost or approximation can be provided. After a license is granted, inspections should not take place less frequently than every 3 years (our survey).
- The non-respect of these requirements can lead to detention or a fine (20-5000 PLN; approx. 5-1000 euro) (our survey).
- Recent studies and NGO report occurrence of animal welfare problems in Polish zoos. This remains an area of increased public concern (Teresa Gardocka, Agnieszka Gruszczyńska, Robert Maślak, Agnieszka Sergiel 2014) (BASTA! 2016)

Main achievements:

- In Poland the licensing and inspection has a solid legislative basis, and provisions are included in the legislation on minimal standards for housing and accommodation. The Council of Directors of Polish Zoos and Aquaria, of which most members are also EAZA Member, is involved in licensing which helps the CA. Inspection and licensing are implemented
- Some Polish zoos contribute to conservation of biodiversity and research programmes, and this is particularly the case for zoos of the EAZA-associated zoos (our survey).

Main challenges:

- In 2011, Born Free Foundation and EndCap presented in the European Parliament the results of a report based on observations in eight zoos in Poland, none of which did meet the conditions of the Zoo Directive. According to this report, 59% of zoos do not meet even the basic requirements of the Polish zoo law (which is much less restrictive than the EU rules) relating to animal welfare (Born Free Foundation 2011). These findings not only raise serious concerns about the enforcement of NPA but, further but also question the level of activities by national and regional enforcement personnel to effectively identify and license zoos, apply the law and penalize substandard zoos (Bornfree, 2011). Also recently animal welfare problems in zoos are identified (BASTA! 2016), this seems the main issue at the moment.
- The role of Polish zoos in conservation of biodiversity is an area to developed, as there was no clear evidence found of a strong contribution of Polish zoos in that field.

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	2010: 18 licensed zoos 2015: 24 licensed zoos (our survey) In 2016, there are 25 zoos listed on the website of the (<u>Generalna Dyrekcja Ochrony Środowiska</u>) (General Directorate for Environmental Protection 2016). There are about 10 wild parks that operate without a zoo license (BASTA! 2016)
1.2 Types of zoos in the country	According to Born Free, the majority of zoos in Poland are

	privately owned zoos, but several are owned by the municipality (Leszno, Warsaw and Braniewo zoos) (Born Free Foundation 2011).
1.3 NGOs active at national level	There is one NGO active on zoos at national level, called: 'Basta!'. They runned a campaign entitled "I don't go to a zoo (nie chodze do zoo) (BASTA! 2016).
1.4 Associations of zoos professionals	One relevant association has been identified: 'Board of Directors of Polish Zoos and Aquariums'. The Board is an association and forms a network for Polish zoos to share knowledge, and discuss any zoos issues (Board of Directors of Polish Zoos and Aquariums 2016)
1.5 Brief market overview	In 2015, the overall population in Poland was 38,6 million inhabitants (Country Meters 2016). The number of visitors in Polish zoos mount to nearly 4 million / year (Angelika Habel 2015)

TRANSPOSITION OF THE DIRECTIVE

1.16 List of national transposing legislation	<p>Nature Protection Act, 'NPA' (16/04/2004 amended on 16/06/2011) (ustawa z dnia 16 kwietnia 2004 r. o ochronie przyrody), Adoption: 16 April 2004, Entry into force: 16 April 2004, Journal of Laws No.92, item 880, publication date 30/04/2004 (Nature Protection Act 2004).</p> <p>In addition there are two relevant Regulations: Regulation of the Minister of the Environment of 16 April 2003 on the detailed conditions for the breeding and husbandry of respective groups of species in zoological gardens (Rozporządzenie Ministra Środowiska z dnia 16 kwietnia 2003 r. w sprawie szczegółowych warunków dla chowu i hodowli poszczególnych grup zwierząt w ogrodach zoologicznych) (RZ04/2003).</p> <p>Regulation of the Minister of the Environment of 20 December 2004 on the conditions for the husbandry and keeping of respective groups of species in zoological gardens (Rozporządzenie Ministra Środowiska z dnia 20 grudnia 2004 r. w sprawie warunków hodowli i utrzymywania poszczególnych grup gatunków zwierząt w ogrodzie zoologicznym) (RZ12/2004) (ISAP 2004).</p>
1.17 Eu infringement cases	None identified
1.18 National case-law	None identified

Country fiche – Portugal

Key elements of the national system:

- The main transposing legislation is the Decree-Law No 59/2003 of 1 April, rectified by Decree-Law 104/2012, mostly in terms of procedures and formal issues. Due to difficulties with the transposition the initial transposition was delayed until 28 June 2003. The competent authority responsible for the implementation of D59/2003 is the national veterinary authority – the Directorate General of Veterinary Medicine (Direção Geral de Alimentação e Veterinária; DGV). Zoo licenses are granted by the Direção Geral de Alimentação e Veterinária - D.G.A.V and Instituto da Conservação da Natureza e Florestas - I.C.N.F. They also inspect the zoos jointly using standard inspection lists. Shortly after the adoption of the Directive the licensing process was more difficult than today because it was new. According to national law, zoos can be involved but are not obliged to have captive breeding, repopulation, reintroduction of species into the wild. Instead, they are obliged to participate and made public awareness and related activities. Lack of specific expertise in zoo animal hampers implementation of the Zoos Directive, and despite trainings provided, more training of official staff would be welcomed. Small zoo establishments experience difficulties to hire staff able to fulfil all the necessary duties and sometimes experience financial

- constraints (ex: when municipal zoos) (our study).
- The law contains exemptions according to Article 2 of the Directive. The zoos definition in the Zoos Directive is considered not problematic by the CA, but in the national law the definition used is "All permanent establishments where animals are kept for exhibition to the public for 7 or more days a year"; but the PT national legislation has introduced exemptions as follows: Recovery centres, reserves and hunting wildlife ponds, with regard to pedagogical and scientific actions as referred to in Annex to chapter IV of Decree Law (DL) n.º 104/2003, as long as they are not open to the public; facilities where arising exclusively hunting activities, circuses, travelling exhibitions and pet shops. These establishments fall under other national legislation. In addition, has the following provisions that go beyond the Zoos Directive: Decree Law n.º 59/2003 and DL n.º 211/2009 that require necessity of CITES and marking of live specimens; Ordinance n.º 07/2010: that requires obligatory registration scheme in CITES Management Authority and updating animal data collection, scientific and education projects annually; Ordinance n.º 1226/2009: that requires obligatory registration scheme in CITES Management Authority of listed "dangerous" animals and updating data annually; and DL n.º 565/99 on keeping exotic species, notably Invasive Alien Species (our study).
 - The DGAV (Direção Geral de Alimentação e Veterinária) has 2 staff responsible for Zoos, but they also have other tasks and can be allocated on average approximately 1/4 of their time to Zoos. The ICNF (Instituto da Conservação da Natureza e Florestas) has also 2-3 staff members working on the Zoos Directive (part-time). They can ask external experts for assistance, but this is on a voluntary basis without payment. Extra costs for MS CA is related to inspectors costs. There are no specific data but approximate staff inputs can be estimated at 2 DGAV staff for 1/4 of their time and 2-3 ICNF staff at same inputs, or 5/4 FTE/year (our study).
 - In 2000, 26 zoos were reported, out of which six zoos were unlicensed and six were improperly licensed (Bron Free Foundation 2011). In 2010 there were 20 zoos licensed and for 6 zoos licensed were refused; and the same situation was reported for 2015: 25 licensed zoos and 6 licenses refused (our study). There is no official data on the number of zoo visitors in Portugal. As an indication, at Lisbon Zoo there are more than 500.000 visitors annually (Anthony D Sheridan 2010) (largest Zoo in Portugal) (Anthony D. Sheridan May 2010).

Main achievements:

- The PT CA considers that the Zoos Directive is necessary for a more harmonised approach to zoos in EU, and to support that zoos will contribute to the conservation of biodiversity. Without the Zoos Directive there would be a less harmonised approach.
- The key positive changes attributed to the Zoos Directive are the necessity for zoos to engage for a better management of the zoo's collection, for better enclosures and animal husbandry, and to have educational and scientific projects approved by the authorities according to established criteria.
- Benefits are that the Zoos Directive provides an instrument to limit unregulated zoos with insufficient resources to adequately provide good housing conditions for the animals. (Zoo federation Interview)
- The impact of the Zoos Directive on objectives set out in the Directive and the related transposed national legislations is mainly to control widespread growth of zoos, rather than improve biodiversity or conservation. But the input and impact of zoos in relation to biodiversity is higher with a collective EU focus standard and the Zoos directive has enabled more efficiency of cooperative efforts, and helps to focus development of zoos towards a common goal of biodiversity conservation, so partly contribution. (Zoo federation Interview)
- Several of the zoos that replied to the questionnaire have submitted conservation programmes, education programmes, and enrichment programmes (our survey).
- In the literature, there are examples of Portuguese zoos being engaged in conservation and research programmes, as evidence for contributions to biodiversity (Claudia Faria 2010) (Carla Sousa-Santos 2013).

Main challenges:

- Lack of specific expertise in zoo animal hampers implementation of the Zoos Directive, and despite trainings provided, more training of official staff would be welcomed. Small zoo establishments experience difficulties to hire staff able to fulfil all the necessary duties and sometimes experience financial constraints (MSCA interview).
- For zoos belonging to International Associations, there were no costs to comply with the Zoos Directive to obtain a license when the Zoos Directive was adopted (2003), but for smaller zoos this was more difficult, however there are no economic data to support this (Zoos federation Interview).
- According to stakeholders, the IAS directive conflicts with the Zoos Directive: IAS forbids to house certain IA species, but some IAS species are candidates for conservation or biodiversity programmes whereas the Zoos Directive requires to contribute to that. Licenced Zoos are able to guarantee security provisions to prevent escape of animal, and so they should be allowed to accommodate IA species (MSCA ; Zoo Federation interview).
- According to stakeholders the Zoos Directive overlaps with CITES and many EAZA guidelines (MSCA ; Zoo Federation interview)
- Only in the last few years official inspectors received training from Zoos Federation members. MS CA might save resources by recognising screening and accreditation of zoos by EAZA and focus on smaller non-EAZA members where problems mostly are bigger (Zoos federation Interview).
- According to BornFree (2011), the findings from the EU Zoo Inquiry indicate that licensed zoos in Portugal are not fully compliant with either the Directive or D59/2003, whilst others are operating, unlicensed. Individually, there is much variance between the zoos, with some meeting the majority of requirements whilst others do not (Bron Free Foundation 2011).
- BornFree considers that zoos in Portugal do not appear to be making a significant contribution to species conservation. The majority of species exhibited being of low conservation priority. Of the Threatened species exhibited, 57% were participating in European captive breeding programmes. Findings appear to contravene the requirements of Chapter III, Article 19(2) in the Annex to D59/2003 (Bron Free Foundation 2011).

MAPPING OF NATIONAL CONTEXT

1.1 Total number of zoos	In 2000, 26 zoos were reported, out of which six zoos were unlicensed and six were improperly licensed (Bron Free Foundation 2011). 2010: 20 licensed and 6 licenses refused (our study) 2015: 25 licensed and 6 licenses refused (our study)
1.2 Types of zoos in the country	Mixed – public and private, in the Born Free Zoo Inquiry, four of ten zoos studied were managed by municipalities and 6 were privately owned (Bron Free Foundation 2011)
1.3 NGOs active at national level	None identified
1.4 Associations of zoos professionals	The Association of Zoos and Aquariums (Associação Portuguesa De Zoos E Aquaria ; APZA) represents 5 major zoos in Portugal and supports their representation, management, promotion and defence, in the economic, scientific, educational and conservation activities (Associação Portuguesa de Zoos e Aquários 2016).
1.5 Brief market overview	Total population (2016) 10.32 mil. (Country Meters 2016) There is no official data on the number of zoo visitors in Portugal. As an indication, at Lisbon Zoo there are more than 500.000 visitors annually (Anthony D Sheridan 2010) (largest Zoo in Portugal) (Anthony D. Sheridan May 2010)

TRANSPOSITION OF THE DIRECTIVE

1.19 List of national transposing legislation	<ul style="list-style-type: none"> – Decree-Law No. 59/2003 (Diário da República I série-A No. 77), (D59/2003) Adopted: 1st of in April 2003. Entry into force 28/06/2003 – Decree-Law 104/2012 rectified (D59/2003). Adopted: 16 May 2012. Entry into force: 16 May 2012 (Decree-Law 104/2012) (DRE 2016) .
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1.20 Eu infringement cases	Case 2002/0306 - June 2002: a Letter of formal notice was sent to Portugal concerning the non-transposition of the Directive into national law. This was followed by a Reasoned Opinion in October 2002, which in turn was followed by Saisine in April 2003. Portugal communicated the transposing decree-law in April 2003. The case was then withdrawn. A pilot case that was launched in 2009 (PT-Pilot 278-09-ENVI).
1.21 National case-law	None identified

Country fiche – Spain

Key elements of the national system:

- Directive 1999/22/EC was transposed into Spanish legislation by Law 31/2003. The transposition deadline was April 2002. However, Spain did not adopt the corresponding legislation until 29 October 2003. Therefore, the lack of adoption of transposition measures by the Spanish authorities led to the launch of the first infringement procedure by the European Commission against Spain related to the Directive 1999/22/EC. There was also a complaint filed on the same basis which was joined to the infringement procedure of the Commission.³⁹² This procedure was dismissed as Spain adopted Law 31/2003 as transposition measure.

Main challenges:

- Despite the entry into force of Law 31/2003, there have been reports on the no-compliance of legal obligations and undue treatment or mistreatment of animals in Spanish zoos.³⁹³ In fact, the European Commission filed a case against Spain before the CJEU³⁹⁴ concerning the non-fulfilment of the obligations of licensing and inspection set in Article 4, sections 2 and 3, in certain zoos of several Autonomous Communities.³⁹⁵ Although Spain alleged that such zoos were subject to alternative licensing procedures under the legislation previous to Law 31/2003, it was not sufficiently proven that such procedures met the requirements of the Directive. Consequently, the CJEU found Spain to be in breach of Article 4 of the Directive and condemned it to pay the costs of the proceedings. As a consequence of this procedure, since 2010 the affected zoos should have adopted the necessary measures to meet the requirements of the Directive or be closed. According to one of the interviewed stakeholders, some of the infringing zoos were closed. However, it is unsure how many closures were due to the ruling of the CJEU.³⁹⁶
- No relevant case-law has been identified at national level. However, different newspaper articles report on investigations carried out by the Service for the Protection of Nature of the ‘Guardia Civil’ (SEPRONA).³⁹⁷ This Service was created in 1988 after Organic Law 2/1986 on National Security Forces³⁹⁸ entrusted the ‘Guardia Civil’ to ensure the preservation of na-

³⁹² Infringement procedure A- 2002/0299 (see above point 2.2 in Table 2 in this document).

³⁹³ For example, La Vanguardia, ‘The most reported zoos of Spain’ (*Los zoos más denunciados de España*), available at <http://www.lavanguardia.com/natural/20160127/301708936926/denuncias-zoologicos-animales.html>, 27 January 2016 (last accessed 11 October 2016); Ecologistas en Acción, ‘Shameful state of zoos in Almuñecar’ (*Lamentable estado de los zoológicos de Almuñecar*), available at <http://www.ecologistasenaccion.org/article7751.html>, April 2007 (last accessed 11 October 2016), 20minutos, ‘Spain will be reported [to the European Commission] for the state of its zoological gardens’ (*Denunciarán a España por el mal estado de sus parques zoológicos*), available at <http://www.20minutos.es/noticia/165465/0/estado/parques/zoologicos/>, 25 October 2006 (last accessed 11 October 2016).

³⁹⁴ Judgment of the Court (Fifth Chamber) of 9 December 2010, Case C-340/09 *European Commission vs. Kingdom of Spain*, ECLI:EU:C:2010:758, available in Spanish at

<http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d2dc30d51218a8ce6d5c4beea013905d3fe16b15.e34KaxiLc3qMb40Rch0SaxyKax50?text=&docid=83863&pageIndex=0&doclang=ES&mode=lst&dir=&occ=first&part=1&cid=1429980>.

³⁹⁵ Aragon, Asturias, Balearic Islands, Canary Islands, Cantabria, Castilla-Leon, Extremadura, Galicia and Valencian Community.

³⁹⁶ Information collected through interview with national stakeholder (MAGRAMA, 17 October 2016).

³⁹⁷ See Table 2, point 2.3 at the beginning of this document.

³⁹⁸ Organic Law 2/1986, of 13 March, on National Security Forces (*Ley Orgánica 2/1986, de 13 de marzo, de Fuerzas y Cuerpos de Seguridad*), State Gazette BOE-A-1986-6859, available in Spanish at <https://boe.es/buscar/act.php?id=BOE-A-1986-6859>.

ture and the environment.³⁹⁹ As part of this function, the SEPRONA has launched several investigations regarding, mainly, the illegal trade of protected species or the mistreatment of animals in different zoological centres in Spain.

- One of the root causes of the implementation problems in Spain is linked to the lack of proper definition of zoos. While the Law 2003 reinstates the Directive's definition, it is too general and does not clarify the situation in Spain which suffers from the influence of the old law 75 on zoological centres which involves zoos, species recovery centres and even farms. This has led to the development of a registry of zoological centres including farms. For example, Adventure Park has an exhibition of predators and thus it is considered a zoo.
- Another problem is related to the split of competences between the State and the Regions in Spain. The Spanish Ministry of Environment does not execute a real control of the level of compliance of the Directive's objectives by the regions. Its role is limited to coordination and technical assistance. There are no minimum standards for the implementation of the Directive (except for those established by the Federation of Zoos Aiza). Further there is no information gathered on the number of inspectors and the inspection reports delivered.
- The Directives is the reason for requiring for the first time *ex situ* conservation objectives in zoos. This has prompted authorities to take into account the zoos when developing the national strategies on endangered species conservation. Although there are species recovery centres and centres for captive breeding of the species, some specimens are sent to zoos to promote awareness raising activities (i.e. Jerez de la Frontera or Madrid)
- Furthermore, according to the report of the NGO 'Vidas Enjauladas',⁴⁰⁰ presenting the situation in eight Spanish zoos,⁴⁰¹ the enclosures where animals were kept were inappropriate, either in size or in their maintenance conditions. The report found that, in general, the zoos had done little efforts to try to imitate the natural habitat of animals. This unsuitable conditions may have an impact in the health of animals and in the propagation of diseases.⁴⁰² For instance, the investigation concluded that most of the wild animals in captivity suffer psychological disorders evidenced by the repetitive, compulsive or monotonous conduct of animals (such as those observed in the zoos of Barcelona and Seville.⁴⁰³ Another evidence of the poor health of animals is the hair or plumage loss and "contact injuries" (e.g. fractures or wounds probably resulting from contact with other animals, the cage or the furnishing). Fights among caged animals seem to be frequent due to the inappropriate conditions of the entourages, which should keep animals under control and safe. Investigators also observed specimens suffering weight loss or loss of dental pieces, as well as ectoparasites.⁴⁰⁴
- As to the educational work zoos should be carrying out, the investigators judged the quality of the explanatory notices of animals displayed in zoos on the basis of four pieces of information: common name, scientific name, natural habitat and biological features. The report showed that most zoos provide insufficient or no information at all. Furthermore, in some cases, even when there are explanatory notices, these are old and have suffered such an erosion that they are almost illegible.⁴⁰⁵
- In addition, no control of public behaviour or actions addressed to public education or awareness regarding some negative attitude of visitors was also reported. In most zoos, visitors feed and/or touch the animals, tap or hit the glassed windows of animal cages, smoke and throw objects to animals. This has an impact in the psychological state of animals, who can suffer from stress due to these conducts.⁴⁰⁶

³⁹⁹ Website of the 'Guardia Civil', 'Institutional Information', 'Functions', 'Environment', available in Spanish at

http://www.guardiacivil.es/es/institucional/Conocenos/especialidades/Medio_ambiente/index.html (last accessed 17 October 2016).

⁴⁰⁰ Vidas Enjauladas, 2011, 'The zoos of Spain investigated by Igualdad Animal' (*Los Zoos de España investigados por Igualdad Animal*), available in Spanish at http://www.vidasenjauladas.org/resumen_informe_zoos_2011.pdf (last accessed 20 October 2016).

⁴⁰¹ Zoo of Madrid (Madrid), zoo of Barcelona (Catalonia), Biopark (Valencian Community), Río Safari Park (Valencian Community), zoo of Castellar (Andalusia), zoo of Cordoba (Andalusia), zoo of Seville (Andalusia) and Botanic zoo of Jerez (Andalusia).

⁴⁰² Vidas Enjauladas, 2011, 'The zoos of Spain investigated by Igualdad Animal' (*Los Zoos de España investigados por Igualdad Animal*), pp. 9-10, available in Spanish at http://www.vidasenjauladas.org/resumen_informe_zoos_2011.pdf (last accessed 20 October 2016).

⁴⁰³ *Ibidem*, pp. 21-22.

⁴⁰⁴ *Ibidem*, pp. 34-35.

⁴⁰⁵ *Ibidem*, p. 37.

⁴⁰⁶ *Ibidem*, p. 40.

- In an investigation carried out in 2012 covering 60 out of 83 Spanish zoos⁴⁰⁷ it was shown that only around 17% of the zoos meet the requirements of Article 3 of the Zoos Directive. These compliant zoos tend to be privately owned, with large zoological collections, located within or nearby metropolitan areas, and members of a zoo association (i.e. AIZA in Spain).⁴⁰⁸ According to the referred study, this could be due to the higher budget of those zoos and their membership to an association.⁴⁰⁹ The report also concluded that the main problem in the reviewed zoos was related to appropriate record keeping, which is lacking in around 70% of the zoos. This could be due to the fact that many of the sampled smaller centres need to update or set up an appropriate management system of their zoological collections. Software such as the International Species Information System (ISIS) or the Zoological Information Management System (ZIMS) could help zoos to attain such purpose. The investigators also recommend that professional zoo associations become stricter in their inspections regarding record keeping.⁴¹⁰
- The 2012 study also highlights the main problems for zoos achieving their conservation objectives. Conservation is not the mere sustenance of wild animals in captivity.⁴¹¹ It was recommended that local authorities in charge of inspection and authorization processes advise smaller and more inexperienced zoos in the ways they can contribute to conservation. Zoo associations also play a relevant role to this regard.⁴¹²
- Another study, also from 2012 and by the same investigators,⁴¹³ examined 63 out of 83 Spanish zoos to evaluate the benefits of naturalistic enclosures. A total 1,381 enclosures were evaluated, being classified between ‘naturalistic’ and ‘non-naturalistic’ depending on whether the enclosure simulates identifiable parts of the landscape of the species’ habitat, frequently through the use of natural elements in its design, including the simulation of physical and botanical surroundings similar to those found in the landscape of the species’ natural distribution (‘naturalistic’) or not (‘non-naturalistic’).⁴¹⁴ The study concludes that such naturalistic enclosures provide suitable housing conditions for the animals providing them with the necessary environmental resources to satisfy some of their main biological requirements. However, naturalistic designs are not strictly indispensable to provide appropriate housing conditions for animals.⁴¹⁵ The report reveals that on the basis of the measurement aspects defined to assess the enclosures,⁴¹⁶ less of half of the examined enclosures provide a suitable environment for their inhabitants.⁴¹⁷ The study presents for the first time empirical data that confirms the adequateness of naturalistic designs in providing environmental resources that enable the animals to fulfil some of their main biological needs, instead of examining the welfare of the animals held within.⁴¹⁸
- The same authors published a paper in 2010⁴¹⁹ examining the appropriateness of the security measures of 63 Spanish zoos to assess the impact that zoos have on the release of non-indigenous species. To evaluate the security of enclosures, two factors were analysed: the physical barriers of the enclosures and the impossibility for the public to release the animals⁴²⁰. The study revealed that 221 (14%) out of 1,568 of the total examined animal enclosures were found to be non-secure against animal escape. A deficiency in the suitability of the physical barrier was the main cause for lack of security.⁴²¹ 21 non-secure enclosures were

⁴⁰⁷ Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2010, *The risk of zoological parks as potential pathways for the introduction of non-indigenous species*, Biological Invasions 12(10), pp. 55-70.

⁴⁰⁸ *Ibidem*, p. 63.

⁴⁰⁹ *Ibidem*, pp. 64-65.

⁴¹⁰ *Ibidem*, p. 66.

⁴¹¹ *Ibidem*, pp. 66-67.

⁴¹² *Ibidem*, p. 67.

⁴¹³ Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2012, *Do naturalistic enclosures provide suitable environments for zoo animals?*, Zoo Biology 31(3), pp. 362-73.

⁴¹⁴ *Ibidem*, pp. 364-365.

⁴¹⁵ *Ibidem*, p. 368.

⁴¹⁶ *Ibidem*, Appendix 1.

⁴¹⁷ *Ibidem*, p. 365.

⁴¹⁸ *Ibidem*, p. 367.

⁴¹⁹ Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2010, *The risk of zoological parks as potential pathways for the introduction of non-indigenous species*, Biological Invasions 12(10), pp. 3627-3636.

⁴²⁰ *Ibidem*, pp. 3629-3630.

⁴²¹ *Ibidem*, p. 3630.

found to hold 17 species listed in the European Inventory of Alien Invasive Species. However, ten of those species had already established in some Spanish areas.⁴²² The fact that these invasive alien species (IAS) are not recognised as harmful for the human being could explain the lack of security.⁴²³ The study also revealed that zoos belonging to a professional association (i.e. AIZA in the case of Spain) were found to have less non-secure enclosures than non-members. This could be explained by the commitment of professional associations to global conservation goals and the thorough evaluation that zoos that apply to become a member of the association have to undergo. However, the paper recommends establishing stricter accreditation processes to reduce the potential risk of zoos as introduction routes for non-indigenous species.⁴²⁴

- It could be concluded that zoos and the competent authorities should reinforce their licensing and inspection procedures, as well as improve their record keeping systems.

MAPPING OF STAKEHOLDERS	
1.1 Total number of zoos	There are currently 119 zoos in Spain. ⁴²⁵ No information was available on the number of zoos at the date of: (1) time of entry into force of the Directive; (2) half-way of the implementation period; (3) current time.
1.2 Types of zoos in the country	This information is not available. However, from the name of the parks, ⁴²⁶ it can be deemed that the majority are public.
1.3 NGOs active at national level	<ul style="list-style-type: none"> • Animal Equality (Igualdad Animal) (www.igualdadanimal.org) • Info zoos (www.infozoos.org)⁴²⁷ • Action for the Animals (Acción por los Animales) (FAADA) (www.faada.org) • Ecologists in action (Ecologistas en acción) (www.ecologistasenaccion.org)
1.4 Associations of zoos professionals	<ul style="list-style-type: none"> • Iberian Association of Zoos and Aquaria (www.aiza.org.es) • National Association for the Defence of Animals (Asociación Nacional para la Defensa de los Animales) (ANDA) (www.andacentral.org) • Iberian Zookeepers Association (Asociación Ibérica de Cuidadores de Animales Salvajes) (AICAS) (www.aicas.org)
1.5 Brief market overview	The overall population in the country is 46.4 million. ⁴²⁸ Information on the number of zoos visitors per year in the country is not available.
TRANSPOSITION OF THE DIRECTIVE	
1.22 List of national transposing legislation	<ul style="list-style-type: none"> • Main transposing legislation: Law 31/2003, of 27 October, of wild fauna preservation in zoological parks (Ley 31/2003, de 27 de octubre, de conservación de la fauna silvestre en los parques zoológicos), Law 31/2003, published on 28 October 2003, entered into force on 29 October 2003, State Gazette BOE-A-2003-19800.⁴²⁹ • Also relevant:

⁴²² *Ibidem*, p. 3631.

⁴²³ *Ibidem*, p. 3633.

⁴²⁴ *Ibidem*, pp. 3633-3634.

⁴²⁵ Website of the Ministry of Agriculture and Environment (*Ministerio de Agricultura y Medioambiente*, MAGRAMA) available at <http://www.magrama.gob.es/es/biodiversidad/temas/conservacion-de-especies/conservacion-ex-situ/ce-exsitu-zoos-informacion.aspx> (last accessed on 10 October 2016).

⁴²⁶ The name zoo, natural park or reserve (*parque o reserva natural*), research centre (*centro de estudios*), aquarium, museum is, in practice, only granted to public establishments.

⁴²⁷ It has to be noted that Infozoos is a common project of three NGOs: ANDA, FAADA and Born Free.

⁴²⁸ Data from 2016. Website of the National Statistics Institute (*Instituto Nacional de Estadística*, INE) available at http://www.ine.es/inebaseDYN/cp30321/cp_inicio.htm (last accessed on 10 October 2016).

⁴²⁹ Available at <https://www.boe.es/buscar/act.php?id=BOE-A-2003-19800&p=20031028&tn=1#> (last accessed on 10 October 2016).

	<p>- Law 42/2007, of 13 December, of Natural Heritage and Biodiversity (Ley 42/2007, de 13 de diciembre, del Patrimonio Natural y de la Biodiversidad), Law 42/2007, published on 14 December 2007, entered into force on 15 December 2007, State Gazette BOE-A-2007-21490.⁴³⁰</p> <p>- Royal Decree 1333/2006, of 21 November, regulating the destination of the seized specimens of wild fauna and flora protected through the control of their trade (Real Decreto 1333/2006, de 21 de noviembre, por el que se regula el destino de los especímenes decomisados de las especies amenazadas de fauna y flora silvestres protegidas mediante el control de su comercio), RD 1333/2006, published on 30 November 2006, entered into force 1 December 2006, State Gazette BOE-A-2006-20847.⁴³¹</p> <p>- Royal Decree 479/2004 establishing and regulating the general register of livestock farms (Real Decreto 479/2004 por el que se establece y regula el registro general de explotaciones ganaderas)⁴³²</p> <p>- Decree 1119/1975, of 24 April, on the authorisation and registration of zoological centres, establishments to practice horse riding, centres for the enhancement and care of companion animals and other similar centres (Decreto 1119/1975, de 24 de abril, sobre autorización y registro de núcleos zoológicos, establecimientos para la práctica de la equitación, centros para el fomento y cuidado de animales de compañía y similares), D 1119/1975, published on 29 May 1975, entered into force the same day, State Gazette BOE-A-1975-11042.⁴³³ Developed by Order of 28 July 1980.⁴³⁴</p>
1.23 Eu infringement cases	<ul style="list-style-type: none"> • Case 2002/0299: The European Commission opened an investigation against Spain due to the failure to transpose Directive 1999/22/EC into Spanish legislation. After requiring the Court of Justice to launch a case against Spain (Case C-298/03), Spanish authorities notified Law 31/2003 as transposing legislation. The case was dismissed. • Case 2002/2086: MP Ms Sornosa Martinez raised to the European Commission written question E-513/02 on the failure to comply Article 2 of Directive 1999/22/EC in the Zoo of Valencia. Due to the lack of sufficient evidence, the case was archived. • Case 2002/4621: Complaint based on the failure of Spanish authorities to adopt measures to transpose Directive 1999/22/EC. Re-directed to case 2002/0299 (see above). • Case 2006/4947: Claim of the ECJ (Case C-340/09) that Spain failed to fulfil its obligations under Articles 4(2), (3), (4) and (5) of Directive 1999/22/EC in respect of certain zoos in certain Autonomous Communities.⁴³⁵ Spain executed the decision of the ECJ, adopting the necessary measures for compliance and the case was closed.
1.24 National case-law	<ul style="list-style-type: none"> • The Service for the Protection of Nature of the 'Guardia Civil' (SEPRONA) investigated between February and July

⁴³⁰ Available at <https://www.boe.es/buscar/act.php?id=BOE-A-2007-21490&p=20150922&tn=1#> (last accessed on 10 October 2016).

⁴³¹ Available at <https://www.boe.es/buscar/act.php?id=BOE-A-2006-20847&p=20061130&tn=1> (last accessed on 10 October 2016).

⁴³² Available at https://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-710 (last accessed on 17 October 2016)

⁴³³ Available at https://www.boe.es/diario_boe/txt.php?id=BOE-A-1975-11042 (last accessed on 20 October 2016).

⁴³⁴ Order of 28 July 1980 providing rules on zoological centres, establishments to practice horse riding, centres for the enhancement and care of companion animals and other similar centres (*Orden de 28 de julio de 1980 por la que se dan normas sobre núcleos zoológicos, establecimientos para la equitación, centros para el fomento y cuidado de animales de compañía y similares*) published and entered into force 11 September 1980, State Gazette BOE-A-1980-19645, available at https://www.boe.es/diario_boe/txt.php?id=BOE-A-1980-19645 (last accessed on 20 October 2016).

⁴³⁵ Aragon, Asturias, Balearic Islands, Canary Islands, Cantabria, Castilla-Leon, Extremadura, Galicia and Valencian Community.

2016 in Zaragoza the mistreatment of animals in the zoo of Fraga (Huesca).⁴³⁶

- The SEPRONA arrested two people in August 2011 for the alleged commission of a crime of illegal trade of protected animals.⁴³⁷
- In 2009, the SEPRONA dismantled a small private zoo in Castilla-León where 91 animals were being held.⁴³⁸
- In July 2003, the SEPRONA investigated a man for the alleged commission of illegal trade in a zoo in Tenerife (Canary Islands).⁴³⁹

⁴³⁶ Ministry of Interior (*Ministerio de Interior*), ‘The ‘Guardia Civil’ investigates five people as alleged perpetrators of a crime of animal mistreatment’ (*La Guardia Civil investiga a cinco personas como presuntas autoras de un delito de maltrato animal*), available at http://www.magrama.gob.es/es/actuaciones-seprona/noticias/opchiraseprona_tcm7-426282.pdf (last accessed 10 October 2016).

⁴³⁷ Diario de Cádiz, ‘The SEPRONA investigates a zoo for a supposed illegal sale of primates’ (*El Seprona investiga un zoo por una supuesta venta ilegal de primates*), 9 August 2011, available at <http://www.diariodecadiz.es/article/provincia/1038750/seprona/investiga/zoo/por/una/supuesta/venta/ilegal/primates.html> (last accessed 10 October 2016).

⁴³⁸ Infozoos, ‘The Guardia Civil dismantles a small private zoo in a ranch’ (*La Guardia Civil desmantela un pequeño zoo privado en una finca*), 28 September 2009, available at http://www.infozoos.org/ver_noticia.php?not_id=48 (last accessed 10 October 2016).

⁴³⁹ El Dia.es, ‘SEPRONA locates 23 protected animals in a zoo in Los Cristianos’ (*El Seprona localiza 23 animales protegidos en un zoo de Los Cristianos*), 5 July 2003, available at <http://web.eldia.es/sucesos/2003-07-05/0-Seprona-localiza-animales-protegidos-zoo-Cristianos.htm> (last accessed 10 October 2016).

ANNEX III – ADDITIONAL INFORMATION

EFFECTIVENESS

Table 39: Overview of the definition of zoos in the 14 selected Member States⁴⁴⁰

MS	Definition of 'zoo'	Criteria for exemptions
BE	A 'zoo' is defined as 'all establishments open to the public, where live animals of non-domesticated species are kept and exhibited, that include animal parks, safari parks, dolphinariums, aquariums and specialized collections, but exclude circuses, travelling expositions and commercial establishments for animals' (Chapter I, Article 1, royal Decree of 10 August 1998 on the authorization of zoos).	NA
BG	§ 1 (point 21) of the Supplementary provisions of the Biodiversity Act: 21. "Zoo" shall be any permanent establishment where animals of wild species are kept for exhibition to the public for seven or more days a year, with the exception of circuses, pet shops and other establishments which do not exhibit a significant number of animals or species to the public.	According to Supplementary Provisions of Regulation No 1 from 9 May 2006 2. "Significant number of animals or species" are more than 5 wild species with more than 5 specimens of each species.
CY	Zoo means a permanent establishment where animals of wild species are kept for exhibition to the public for 7 or more days a year	Criteria on determining the term 'significant' have not been established. Each case is examined individually on the basis of the number and the species of animals concerned.
CZ	A zoological garden means a permanent facility in which wild animals and/or also domestic animals are bred and exhibited to the public for 7 or more days in the calendar year (see the definition in the national Act)	A zoological garden shall not mean: - aquariums and terrariums and other exhibition facilities that do not keep more than 20 species of wild mammals and birds and whose main activity does not consist in exhibition of wild animals for the public; - facilities for breeding and maintenance of wild animals, that keep less than 20 species of wild mammals and birds , where these animals are exhibited to the public free-of-charge , particularly for the purpose of public education
DE	Zoos are permanent facilities in which living animals of species that live in the wild are kept for purposes of display, for a period of at least seven days of a year. The following are not considered as Zoos: Circuses, pet Shops, and enclosures for keeping no more than species of hoofed game listed in the federal hunting act or facilities in which no more than 20 animals of other wild species are kept.	The following are not considered zoos: 1. circuses, 2. pet shops, and 3. enclosures for keeping no more than five species of hoofed game listed in the Federal Hunting Act (Bundesjagdgesetz) or

⁴⁴⁰ On the basis of information provided in the MSCAs survey.

		facilities in which no more than 20 animals of other wild species are kept.
DK	'zoos' means all permanent establishments where animals of wild species are kept for exhibition to the public for 7 or more days a year, and which is own by a legal or individual person.	NA
ES	Article 2 of Law 31/2003 reads: "zoos mean: public or private establishments, that regardless of the days that are open to the public, are permanent and maintain wildlife live animals for exhibition. the provisions of this law are not applicable to the circus or establishments engaged in the purchase or sale of animals".	NA
FR	Zoological establishments which stay on the spot and present to the public alive specimens of the local or foreign fauna during at least 7 days a year	NA
IE	The term "zoo" has the same meaning in the Irish Transposing Regulations as it has in the Zoos Directive	Irish Zoo Licence Guidance notes - GN03 - Exemption criteria and application advises that a collection will be considered exempt from the zoos legislation if, among other things which are also set out in the guidance document, it does not normally exceed 100 specimens
IT	Article 2, paragraph 1, of the Legislative Decree 21 March 2005, n. 73 "Attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici": Zoos: all permanent establishments, public or private, open and administered to the public at least 7 days a year, that keeps and exhibits live animal of wild species, also animals born and breed in captivity, that belong in particular, but not only, to the animal species object of the Annexes to the Council Regulation (EC) n. 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein, of the law n. 157 of the 11th February 1992, of the Decree of the President of the Italian Republic n. 357 of the 8th September 1997.	The significant number of animals is not defined, but evaluated case by case , in strong relation with the species of the animals and their conservation status .
LT	Definition of the zoo provided in the Law on Wild Fauna: Zoo - a place with permanent and special facilities, where wild animals forming zoological collection are regularly kept for exhibition to the public for 7 or more days a year with the exception of circuses, pet shops and establishments covered by the exemption because they keep for exhibition to the public less than 10 species of wild animals and not more than 50 animals, and it does not raise a threat to wildlife and biodiversity (un official translation).	NA
NL	Zoo: permanent establishment where animals of wild species are kept for exhibition to the public for at least seven days a year, with exception of circusses and petshops.	10 species with exception of species that are protected under the Flora and fauna act.
PL	Zoo is an organised, managed area with technical infrastructure and functionally related buildings where living animals of wild species are kept and displayed publicly for at least 7 days per year, excluding circuses, pet shops and establishments where no more than 15 such species and no more than 50 individuals of reptiles, birds or mammals are displayed.	No more than 15 species and no more than 50 individuals of reptiles, birds or mammals.

PT	All permanent establishments where animals are kept for exhibition to the public for 7 or more days a year.	Recovery centers, reserves and hunting wildlife ponds, with regard to pedagogical and scientific actions as referred to in chapter IV DLn.º 104/2003 annex , as long as they are not open to the public; facilities where arising exclusively hunting activities, circuses, travelling exhibitions and pet shops - they have own legislation.
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Table 40: Existing definition of ‘animal of wild species’ provided by national law in the 14 selected Member States⁴⁴¹

MS	Definition of ‘animal of wild species’
CY	The national law provides for a definition of "wild animal" instead of "animal of wild species", as follows: "Wild animal" means an animal which due to its nature is destined to live in a free state without restriction or guidance imposed by man.
CZ	- a wild animal means an individual of an animal species whose population is maintained or was maintained, for animals that are missing or extinct in nature, naturally in nature ; this may consist in an individual bred in human care or dependent on human care - a species means a systematic species or subspecies or geographically separated population,
DK	Wild species: animals, which are not domesticated .
FR	Specimens of local or foreign fauna
IE	The Irish Standards of Modern Zoo Practice (ISMZP) define "wild animal" as any animal not normally domesticated in Ireland https://www.npws.ie/sites/default/files/publications/pdf/ISMZP%202016.pdf
LT	Wild animal - free-living or kept in captivity , wild animal species at any stage of the biological evolution of the individual. Animals under this act shall also be considered parts of animal or products made from them, as well as copies of the dead animals' specimen. (Non official translation).
NL	Wild animals: animals of species or categories of species which live in the wild by nature, with exception of species or categories of species, mentioned in annex II of this act, and dogs and cats.
PL	Wild animal – animal: a) not from breeding , b) introduced into the environment to rebuild or restock a population.

Table 41: Comparison of requirements under Article 3 of the Directive and EAZA Standards

Article 3 Zoos Directive	EAZA Standards
Member State shall take measures under Articles 4, 5, 6 and 7 to ensure all zoos implement the following conservation measures:	EAZA Research standards ⁴⁴² In relation to this project the Zoo agrees to fulfil the following obligations: 1. to keep requested conditions constant (e.g. not to change the study group(s) of animals unless this is part of the study). Where circumstance render this impossible, the Zoo will ensure that the researcher/Institute is informed as soon

⁴⁴¹ On the basis of information provided in the MSCAs survey.

⁴⁴² EAZA, EAZA Research Standards, <http://www.eaza.net/assets/Uploads/Standards-and-policies/EAZA-Research-Standards-2003.pdf>? (last accessed on 07.03.2017).

<p>Participating in research from which conservation benefits accrue to the species [...],</p>	<p>as possible.</p> <ol style="list-style-type: none"> 2. to carry out the manipulations of the enclosure/animal/group of animals as in accordance with the agreed experimental protocol. The Zoo will ensure that the animal keepers and all other relevant parties are informed about this project and will cooperate as required. 3. to supply the investigators with the necessary support for their project in the form of (circle as appropriate): information about animal/exhibit/diet etc.; maps/diagrams of enclosure; history of animal/exhibit; work space/computer; photocopy facilities; supervision of staff biologists. 4. In relation to the same project, the Institute agrees to the following obligations: 5. to ensure that the study is completed or to inform the Zoo as early as possible in the event that this is not possible. 6. to inform and, where appropriate, discuss with the Zoo any changes to the study protocol which are deemed necessary on the basis of on-going results. to ensure that the Zoo is provided with at least one copy of the report and any other publications arising out of the project. 7. to inform the Zoo if the results of the study are to be published and to allow the above-named representative of the Zoo to see the manuscript prior to publication. 8. to guarantee anonymity to the Zoo in any reports/publications if so requested. 9. to acknowledge the Zoo in any publications resulting from the project (unless anonymity is requested) and, if appropriate, to include a zoo-representative as author to the publication. 10. to ensure that its representative observed the dress and behaviour codes of the Zoo.
<p>Participating in [...] training in relevant conservation skills, and/or the exchange of information relating to species conservation and/or, where appropriate, captive breeding, repopulation or reintroduction of species into the wild</p>	<p><i>EAZA Conservation Standards</i>⁴⁴³</p> <p>Recognising that the furtherance of wildlife conservation is one of the main objectives of the Association, members of EAZA:</p> <ol style="list-style-type: none"> 1. Engage in and support conservation endeavours that contribute to the long-term survival of species in natural ecosystems and habitats, and allocate appropriate resources to such endeavours (refer to the 'EAZA Guidelines on the definition of a direct contribution to conservation (2015) for examples of such activities); 2. Document their conservation efforts through the EAZA Conservation Database; 3. Implement the WAZA Conservation Strategy (2015) to the best of their abilities. 4. Assist the wider conservation community including wildlife agencies, conservation organisations, governments and research institutions in maintaining global biodiversity, 5. Have a special responsibility towards the conservation of species native to the EAZA region and participate in local or regional conservation initiatives wherever possible, in cooperation with relevant stakeholders. 6. Are encouraged to inform the relevant zoo and aquarium association(s) when leading conservation activities outside the EAZA region. 7. Attempt to evaluate conservation activities, to measure their impact and demonstrate their on-going effectiveness and make that information available; 8. Ensure that conservation activities take relevant guidelines into account (for example the IUCN SSC Guidelines for Reintroductions and other Conservation Translocations (2013), IUCN Guidelines for the Placement of Confiscated Animals (2000), IUCN Species Survival Commission Guidelines on the Use of Ex-situ Management for Species Conserva-

⁴⁴³ <http://www.eaza.net/assets/Uploads/Standards-and-policies/EAZA-Conservation-Standards-2016.pdf>

	<p>tion (2014), etc.) and are endorsed by the relevant wildlife management agencies.</p> <ol style="list-style-type: none"> 9. Communicate and promote the interest of wildlife conservation, biodiversity and animal welfare to colleagues and to society as a whole. 10. Participate as much as possible in EAZA Conservation Campaigns, to promote zoos as conservation-oriented institutions 11. Proactively engage visitors in a range of conservation issues and projects; 12. Promote sustainable use of natural resources and will work towards reducing their carbon footprint.
<p>Promoting public education and awareness in relation to the conservation of biodiversity in particular by providing information about the species exhibited and their natural habitats.</p>	<p><i>EAZA Conservation Education Standards</i>⁴⁴⁴</p> <p>There is no single way to fulfil either EAZA's or an individual zoo's conservation education mission. Conservation education includes a broad range of purposes, methods of delivery, unique resources and messages. EAZA also acknowledges the diversity of zoos within its membership, and recognises that the scale of conservation education in each EAZA zoo should be proportional to the size of its operations and in line with individual country's cultural expectations around conservation education in zoos. A summary of the Standards is listed below, followed by each of the Standards with further explanation to help guide Members.</p> <ol style="list-style-type: none"> 1. The conservation education role of the zoo must be reflected in its written mission statement. 2. The zoo must have a written conservation education plan. This plan must outline the zoo's conservation education activities, how they apply to different types of audiences and the strategic thinking behind the plan's design. 3. The zoo's conservation education plan must make specific reference to how the zoo has integrated their mission and vision, as well as applicable national, regional and international policies into its conservation education programmes. 4. The zoo must have at least one member of staff with the necessary experience and qualifications that are responsible for leading and implementing the zoo's conservation education plan. 5. The zoo must provide opportunities to learn about conservation within and outside the zoo site and online. 6. Conservation education in zoos should aim to raise awareness of biodiversity loss, connect people to nature and encourage sustainable behaviours 7. Conservation education in zoos should aspire to make conservation issues relevant to visitors' own lives and experiences in order to inspire people to take action locally that can make a difference globally. 8. The zoo must have appropriate facilities to deliver its conservation educational programmes. 9. Conservation education must be an integral part of exhibit design. 10. In the conservation education plan, there must be specific reference to applying measurable learning outcomes to all aspects of a zoo's conservation education programmes. 11. The zoo should be able to demonstrate a range of delivery approaches in their conservation education programmes to cater for different zoo audiences and needs. 12. The zoo's conservation education messages must be based on scientific facts. Where cultural, religious or alternative ideas are represented they must be clearly indicated as such. 13. The zoo must present accurate and relevant information about the species exhibited. 14. The zoo should educate their audiences about their own conservation work by demonstrating how their zoo makes direct and indirect contributions to conservation.

⁴⁴⁴ EAZA, EAZA Conservation Education Standards, <http://www.eaza.net/assets/Uploads/Standards-and-policies/EAZA-Conservation-Education-Standards-2016-09.pdf> (last accessed on 07.03.2017).

	<ol style="list-style-type: none"> 15. Zoos should support staff involved in conservation education in zoos to be actively involved in local, national, regional and international conservation education networks and meetings. 16. Zoos should support staff involved in conservation education in zoos with the appropriate continuous professional development and training to be able to meet the aims of the zoo's conservation education plan. 17. The zoo must have a range of evidence to demonstrate how it is carrying out its conservation education plan. 18. The zoo must evaluate its conservation education programmes using appropriate methods. 19. The zoo should aspire to conduct a range of evidence based research to demonstrate the effects of conservation education in zoos has on people's knowledge, attitude and behaviour towards the natural world. 20. The zoo should aspire to engage in partnerships with external organisations and academic institutions to conduct social research and evaluation projects.
<p>Accommodating their animals under conditions which aim to satisfy the biological and conservation requirements of the individual species, inter alia, by providing species specific enrichment of the enclosures; and maintaining a high standard of animal husbandry with a developed programme of preventive and curative veterinary care and nutrition</p>	<p><i>EAZA Standards for the Accommodation and Care of Animals in Zoos and Aquaria</i>⁴⁴⁵</p> <p>The 13-pages document contains key requirements on the following items:</p> <ol style="list-style-type: none"> 1. Animal care – welfare, health and hygiene <ol style="list-style-type: none"> 1.1 Routine observation of the animals 1.2 Accommodation – Space, Exercise and Grouping 1.3 Accommodation - Comfort and Well-being 1.4 Social group management 1.5 Encouragement of natural behaviour and minimising of unnatural behaviour 1.6 Furnishings within Enclosures 1.7 Mixed exhibits 1.8 Free ranging species 1.9 Hand rearing 1.10 Prevention of Stress or Harm to Animals 1.11 Training (including animal training for husbandry purposes, animal training for public demonstrations⁴⁴⁶) 1.12 Food and Drink 1.13 Sanitation and control of disease 2. Animal Care – Veterinary Aspects <ol style="list-style-type: none"> 2.1 General Veterinary care 2.2 Mutilation 2.3 Post-Mortem Facilities 3. Population Management <ol style="list-style-type: none"> 3.1 Reproduction 3.2 Transfer and disposition of animals 3.3 Euthanasia

⁴⁴⁵ EAZA, Standards for the Accommodation and Care of Animals in Zoos and Aquaria <http://www.eaza.net/assets/Uploads/Standards-and-policies/Standards-for-the-Accommodation-and-Care-of-Animals-2014.pdf> (last accessed on 07.03.2017).

⁴⁴⁶ Such training and use of animals in shows and demonstrations is supported by EAZA under several conditions, including that “1. The content of the display is educational and designed to demonstrate, and inspire respect for, the animals’ natural behaviour and abilities, 2. The content of the display does not demean or degrade the animal and is not detrimental to its welfare. [...]”.

	<ul style="list-style-type: none"> 4. Safety and security <ul style="list-style-type: none"> 4.1 General provisions 4.2 Enclosures 4.3 Enclosure barriers 4.4 Stand-off barriers 4.5 Perimeter boundaries 4.6 Warning signs 4.7 Exits 4.8 Drive-through enclosures 4.9 Removal of animals from enclosures 4.10 Escape of animals from their enclosures 4.11 Safety of access for the public 5. Miscellaneous <ul style="list-style-type: none"> 5.1 Insurance against liability for damage or injury caused by animals 5.2 Stock records 5.3 Transportation and Movement of Live Animals
<p>Preventing the escape of animals in order to avoid possible ecological threats to indigenous species and preventing intrusion of outside pests and vermin</p>	<p><i>EAZA Standards for the Accommodation and Care of Animals in Zoos and Aquaria</i>⁴⁴⁷</p> <ul style="list-style-type: none"> 1. Animal care – welfare, health and hygiene <ul style="list-style-type: none"> 1.8 Free ranging species <ul style="list-style-type: none"> 1. If animals are being kept free ranging in a zoo, the potential for containing them safely should always be available and the animals should be used to entering this enclosure for management purposes (e.g. veterinary examinations and collection management). 2. Escape into the wild and/or crossbreeding with local species must be avoided at all times. [...] 1.13 Sanitation and control of disease <ul style="list-style-type: none"> [...] 7. A safe and effective programme for the control of pests and, where necessary, predators to be established and maintained throughout the institution. Animals must not escape from the zoo or aquarium and create an ecological threat for native wild species. 4. Safety and security <ul style="list-style-type: none"> 4.2 Enclosures <ul style="list-style-type: none"> Other than when elsewhere in the control of authorised staff, animals kept for exhibition in the zoo to be kept at all times in enclosures or, in the case of free-running non-hazardous animals, within the perimeter of the zoo. 4.3 Enclosure barriers <ul style="list-style-type: none"> Enclosure barriers to be designed, constructed and maintained to contain animals within the desired enclosures. 4.10 Escape of animals from their enclosures <ul style="list-style-type: none"> 1. Zoo operators to assess whether any danger may arise in the event of an animal escaping from its enclosure and to consider the possible or likely attempted escape route within and from the institution if this were to happen.

⁴⁴⁷ EAZA, Standards for the Accommodation and Care of Animals in Zoos and Aquaria <http://www.eaza.net/assets/Uploads/Standards-and-policies/Standards-for-the-Accommodation-and-Care-of-Animals-2014.pdf> (last accessed on 07.03.2017).

	<p>2. In the case of the escape of animals emergency plans must be available and fully understood and practised by all staff.</p> <p>3. This emergency plan should include a member of staff to be readily available at all times to take decisions regarding escaped animals, including the use of firearms if needed.</p> <p>4. Every employee with tasks under the emergency procedures to undergo periodic refresher training and practice.</p>
<p>Keeping up-to-date records of the zoo's collection appropriate to the species recorded</p>	<p><i>EAZA Standards for the Accommodation and Care of Animals in Zoos and Aquaria</i>⁴⁴⁸</p> <p>5. Miscellaneous</p> <p>5.2 Stock records</p> <p>1. Animal records are to be kept on a computer system using the ARKS software, or Zoological Information Management System(ZIMS), and to be included on the global zoo animal database of ISIS, by means of which information can be quickly retrieved.</p> <p>2. Alternatively, records may be kept by means of an established and globally recognised and accepted record system and maintained in relation to all individually recognised animals and groups of animals.</p> <p>3. Where animals are disposed of or die, the records to be kept in the appropriate recording system as described in Article 95.</p> <p>4. The records should provide the following information -</p> <ol style="list-style-type: none"> the correct identification and scientific name; the origin (i.e. whether wild or captive born, including identification of parents, where known, and previous location/s, if any); the dates of entry into, and disposal from, the collection and to whom; the date, or estimated date, of birth; the sex of the animals (where known); any distinctive markings, including tattoo or freeze brands etc.; clinical data, including details of and dates when drugs, injections, and any other forms of treatment were given, and details of the health of the animal; the date of death and the result of any post-mortem examination; the reason, where an escape has taken place, or damage or injury has been caused to, or by, an animal to persons or property, for such escape, damage or injury and a summary of remedial measures taken to prevent recurrence of such incidents. <p>5. In addition to the individual records, an annual stock list of all animals to be kept preferably in the form given below. (Estimated numbers should be available for all fish and invertebrate species).</p> <ol style="list-style-type: none"> Common and scientific names of the species Total in the collection at 1 January Number of arrivals into the collection from all sources during the year Number of births into the collection during the year

⁴⁴⁸ EAZA, Standards for the Accommodation and Care of Animals in Zoos and Aquaria <http://www.eaza.net/assets/Uploads/Standards-and-policies/Standards-for-the-Accommodation-and-Care-of-Animals-2014.pdf> (last accessed on 07.03.2017).

	<p>e. Number which died within 30 days of birth</p> <p>f. Number which died older than 30 days after birth/hatching</p> <p>g. Number departed collection, including sales, breeding loans, etc.</p> <p>h. Total remaining in the collection at 31 December</p> <p>This record, giving details of male/female/unsexed animals as appropriate, to be set out in columns for ease of compilation and reference, e.g.: [example table]</p> <p>6. All records can be kept in the local language or in the English language (in order to facilitate the international exchange of information and cooperation).</p> <p>7. Surplus animal stock only to be passed on to responsible facilities which have the appropriate facilities and expertise).</p>
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EU ADDED VALUE

Table 42: National requirements diverging and/or going beyond the Directive’s requirements

MS	Exemption under Article 2 and definition of “significant number of animals”	Examples of more stringent rules on conservation measures	Examples of specific requirements on animal accommodation
BE ⁴⁴⁹	NA	National legislation is complemented by veterinary guidance; general legislation on animal welfare regarding the liability of the owner of animals.	Secondary legislation has been introduced, which stipulates specific requirements (enclosure sizes) for the keeping of mammals, birds and reptiles.
BG ⁴⁵⁰	A significant number of animals or species is more than 5 wild species with more than 5 specimens of each species .	Zoos are required to undertake all of the following requirements: participate in specific research and conservation (...) including those related to the introduction of wild species into the wild; participate in ex situ conservation programmes for threatened species to retain genetic diversity and probability for reintroduction into the wild and exchange information with likeminded institutions.	Minimum requirements on animal accommodation and husbandry in zoos and breeding centres apply.
CY ⁴⁵¹	The significant number of animals is not defined , but evaluated case by case, taking into account the specific species and their number.	<ol style="list-style-type: none"> 1. The applicant for a zoo license must not be convicted for animal abuse. 2. The zoo license is valid for 5 years. 3. Before amending either the number of animals or the animal species or the enclosures, the zoo 	NA

⁴⁴⁹ Royal Order of 10 August 1998 on the recognition of zoos (10 Août 1998 - Arrêté royal relative à l’agrément des parc zoologiques / 10 augustus 1998. – Koninklijk besluit betreffende de erkenning van dieren-tuinen), Ministerial order of 3 May 1999 laying down minimum standards for the keeping of mammals in zoos; Ministerial order of 7 June 2000 laying down minimum standards for the keeping of birds kept in zoos; Ministerial order of 23 June 2004 laying down minimum standards for the keeping of reptiles in zoos.

⁴⁵⁰ Biodiversity Act (Закон за биологичното разнообразие) 09 August 2002, Ordinance № 6, October 23, 2003 (НАРЕДБА № 6 ОТ 23 ОКТОМВРИ 2003 Г. ЗА МИНИМАЛНИТЕ ИЗИСКВАНИЯ И УСЛОВИЯ ЗА ОТГЛЕЖДАНЕ НА ЖИВО) describing minimum requirements and conditions for keeping animals in zoos.

⁴⁵¹ Animal Protection and Welfare Act (Keeping of Wild Animals in Zoos) (Οι περί Προστασίας και Ευημερίας των Ζώων (Διατήρηση Άγριων Ζώων σε Ζωολογικούς Κήπους) Κανονισμοί του 2002)

		must obtain an approval by the competent authority. 4. Zoos must be inspected twice per year.	
CZ ⁴⁵²	The exemption regards the aquariums and terrariums and other exhibition facilities that do not keep more than 20 species of wild mammals and birds and whose main activity does not consist in exhibition of wild animals for the public; facilities for breeding and maintenance of wild animals, that keep less than 20 species of wild mammals and birds, where these animals are exhibited to the public free-of-charge, particularly for the purpose of public education	NA	NA
DE ⁴⁵³	The following facilities are not considered as zoos: enclosures for keeping no more than five species of hoofed game ⁴⁵⁴ ; facilities in which no more than 20 animals of other wild species are kept.	NA	Although non-legally binding, federal guidelines ⁴⁵⁵ exist on a.o. the keeping of mammals, reptiles, birds and ornamental fishes, which support animal owners, competent authorities and courts in deciding whether animal husbandry meets the requirements of the legislation
ES ⁴⁵⁶	NA	More detailed requirements exist on animal welfare measures, preventive and environmental programs, specialized personnel and material resources, register of species and specimens ⁴⁵⁷ .	NA
FR ⁴⁵⁸	NA	Besides the alternative measures of Article 3, first indent, zoos must: - in order to ensure the genetic quality of	Zoos must ensure: -The composition of groups of animals is determined by the space available, and the behaviour and physi-

⁴⁵² Act on Conditions for the Operation of Zoological Gardens and amending some Acts (Zákon č. 162/2003 Sb., o podmínkách provozování zoologických zahrad a o změně některých zákonů (zákon o zoologických zahradách) No. 162/2003.

⁴⁵³ Federal Nature Conservation Act 29 July 2009 (BGBl. IS.2542).

⁴⁵⁴ As listed in the Federal Hunting Act (Bundesjagdgesetz).

⁴⁵⁵ BMEL, Animal Welfare Guidelines and Reports, <http://www.bmel.de/DE/Tier/Tierschutz/Tierschutzgutachten/texte/GutachtenDossier.html%20->

⁴⁵⁶ Chapter II (conservation measures) of Law 31/2003, of 27 October, of wild fauna preservation in zoological parks.

⁴⁵⁷ Chapter II (conservation measures) of Law 31/2003, of 27 October, of wild fauna preservation in zoological parks.

⁴⁵⁸ Order of 25 March 2004 laying down the rules of operation and the general characteristics of facilities of zoological establishments of fixed and permanent nature, presenting the public with live specimens of local or foreign wildlife under heading 21-40 of the nomenclature of facilities classified for environmental protection (Arrêté du 25/3/2004 fixant les règles générales de fonctionnement et les caractéristiques générales des installations des établissements zoologiques à caractère fixe et permanent, présentant au public des spécimens vivants de la faune locale ou étrangère et relevant de la rubrique 21-40 de la nomenclature des installations classées pour la protection de l'environnement).

		<p>hosted species, participate in the exchange of animals that promote the conservation and management of captive animal populations. Contribute to national and international breeding programmes and to keep animals of species involved in these programmes.</p> <ul style="list-style-type: none"> - Contribute to the breeding of non-domestic species, or organisations involved in the conservation of biodiversity, the sharing of information concerning the breeding techniques of wild animals in captivity, knowledge of their biology or knowledge relevant to the conservation of biological diversity. - Keep the corpses of animals at the disposal of scientific or training institutes, unless these are used for the needs of the zoo. <p>Certificate of capacity requested for zoo owners; qualification of the key staff.</p>	<p>ology of the animals.</p> <ul style="list-style-type: none"> - The welfare of animals and prevention of behavioural abnormalities are mainly addressed by relevant improvements to breeding conditions appropriate to the biological needs of each species. - Animals should be protected from predators from outside the establishment. - Caring for animals includes reducing sources of stress, discomfort and the risk of injury. Any interference or disruption needs to be banned. It is forbidden to provoke/agitate the animals, in presence or absence of the public.' - Enclosures and their enrichment should be adapted to the habits of each species, ensuring that the animals are safe and can express their natural behaviour. - The facilities must allow them to escape the hostile or aggressive behaviour of cage companions, allowing them to express normal behaviour relating to defence or escape. - Animals kept in outdoor enclosures should have access to shelters or other premises to allow them to avoid the negative effects of climate.
IE ⁴⁵⁹	Exemption criteria and application advises that a collection will be considered exempt from the zoos legislation if, among other things which are also set out in the guidance document, it does not normally exceed 100 specimens ⁴⁶⁰ .	NA	Appendix 9 of the Irish Standards of Modern Zoo Practice (ISMZP) ⁴⁶¹ set out specific sizes for elephant enclosures both indoor and outdoor. Enclosure sizes are not specified for any other animal or category of animal or species.
IT ⁴⁶²	The significant number of animals is not defined , but evaluated case by case, taking into account the specific species and their conservation status.	Additional minimum standards concerning animal care, welfare, health and hygiene. Specific requirements applicable to bottlenose dolphins are included in the Ministerial Decree n.469 (2001).	Minimum standards exist only for the keeping of dolphins (<i>Tursiops truncatus</i>) in zoos. The standards deal with the measures for the pools, medical treatments, food, the prohibition of contact with the visitors, prohibition of training to unnatural behaviour.

⁴⁵⁹ European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003 of 19/09/2003. Irish Statute Book (Office of the Attorney General, 2016). Adopted: 19th September, 2003 Entry into force: April 2005 (Licensing and Inspection of Zoos)

⁴⁶⁰ Irish Zoo License Guidance notes - GN03 <https://www.npws.ie/sites/default/files/publications/pdf/ZLGN%20GN03%20Exemptions%200516.pdf>

⁴⁶¹ <https://www.npws.ie/sites/default/files/publications/pdf/ISMZP%202016.pdf>

⁴⁶² Legislative Decree 21 March 2005 n. 73 (Decreto Legislativo 21 Marzo 2005, n.73).

LT ⁴⁶³	NA	NA	Minimum standards for animal accommodation/enclosure are set in legislation.
NL ⁴⁶⁴	A significant number of animals is defined as 10 species with exception of species that are protected under the legislation on the protection of fauna and flora.	NA	NA
PT ⁴⁶⁵	Are exempted from the licensing requirement establishments with no more than 15 species and no more than 50 individuals of reptiles, birds or mammals.	- The species threatened with extinction in the natural environment should be subject to ex situ conservation in zoos', with the objective 'to restore individuals of species to their natural habitat. The Minister of Environment also has the power to establish a list of species demanding additional protection in Poland, as well as establish ex situ programmes for endangered species. Further, zoos must: participate in scientific research, which benefits the species conservation; as well as keep and breed endangered species for their ex situ conservation and their introduction to the natural environment.	Zoos must only keep those animal species which can be provided conditions that meet their biological needs. The conditions for breeding and keeping animals in zoos are specified in law on necessary rooms and technical equipment for the places where animals stay, as well as minimum spatial conditions for breeding and keeping animals of particular species or groups of species, as well as the necessary conditions for reproducing animals. The regulation contains details on: the necessary facilities and equipment required for the animal by species and species groups; the minimum space conditions for breeding and keeping of animals of each species or species groups; and the necessary conditions for the reproduction of animals of species or species groups.
PT ⁴⁶⁶	NA	- Zoos are required to undertake all the following requirements: - participate in research that benefit the conservation of the species, without prejudice to the welfare of the animals involved; - captive breeding of species listed by IUCN as extinct or endangered in the wild should be, whenever possible, included within international, national or regional cooperative breeding programmes;	Zoos should ensure 'housing conditions, reproduction, breeding, maintenance, accommodation, travel and keeping of animals in zoos must safeguard the animals' welfare,' continuing with 'no animal shall be detained in a zoo if [these] conditions are not guaranteed...' Further requirements include: -Animals whose interrelationships are potential causes of excessive stress and disruption should not be kept in close proximity.

⁴⁶³ Annex 4 in the Rules on Use of Wild Animals, approved by Order No D1-533/B1-310 of the Minister of Environment and the Director of State Food and Veterinary Service, as last amended on 24 .4.2014

⁴⁶⁴ Zoos Law (Dierentuinbesluit) 19 April 2002; amended in 2014 in new regulation: Animal Act (Wet Dieren) (Overheid.nl, 2015); Animal Act (Wet Dieren) Animal holders, and Governmental decree (Besluit houders van Dieren), July 2014.

⁴⁶⁵ Nature Protection Act, 'NPA' (16/04/2004 amended on 16/06/2011) (ustawa z dnia 16 kwietnia 2004 r. o ochronie przyrody); Regulation of the Minister of the Environment of 20 December 2004 on the conditions for the husbandry and keeping of respective groups of species in zoological gardens (Rozporządzenie Ministra Środowiska z dnia 20 grudnia 2004 r. w sprawie warunków hodowli i utrzymywania poszczególnych grup gatunków zwierząt w ogrodzie zoologicznym) (RZ12/2004) (ISAP, 2004).

⁴⁶⁶ Decree-Law 104/2012

		<p>- zoos should also, where this is deemed appropriate, provide training in conservation techniques, exchange information related to the preservation of species, captive breeding, repopulation or reintroduction of species into the wild.</p>	<ul style="list-style-type: none"> - Any direct contact with the public should be done under the strict supervision of staff responsible...and subject to a rotation scheme. Always safeguarding public health, safety and welfare of people and animals. - The zoo can have structures for public recreation, providing these are not likely to disturb the well-being of the animals, and that they are located in areas well away from [animal] housing. - The animals must have adequate space to display natural behaviours and satisfy their physiological needs. - The handling of animals must be done so as not to cause them any pain, suffering or unnecessary disturbance. - The accommodation must be equipped according to the specific needs of the animals.
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ANNEX IV – BIBLIOGRAPHY

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ANNEX IVA – REFERENCE DATABASE

Information source	Weblink	Level of Source	Type of source	Effectiveness	Efficiency	Relevance	Coherence	EU-Added Value	Summary
Zoos Directive 1999/22/EC	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1999:094:0024:0026:EN:PDF	EU	Legally binding document	Y	Y	Y	Y	Y	Basis for the study
Council Directive 338/97 on protection of wild fauna and flora	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997R0338&from=EN	EU	Legally binding document				Y		Background information
Council Directive 79/409/EEC on conservation of wild birds	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31979R0409&from=EN	EU	Legally binding document				Y		Background information

	pa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31979L0409&from=EN		ment		
Council Directive 92/43/EEC on conservation of natural habitats and wild fauna and flora	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&from=en	EU	Legally binding document	Y	Background information
Commission Regulation (EC) No 1739/2005 laying down animal health requirements for the movement of circus animals between Member States	http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32005R1739	EU	Legally binding document	Y	Background information
Council Directive 92/65/EEC on Health requirements for the import and trade of animals in the EU	http://eur-lex.europa.eu/legal-	EU	Legally binding document	Y	Background information

	con- tent/EN /TXT/?ur i=URISER V%3A11 2012					
Council Directive 90/425/EEC on Veterinary and zootechnical checks of animals and products of animal origin for intra-Community trade	http://e ur- lex.euro pa.eu/l egal- con- tent/EN /TXT/?ur i=uriserv :112050	EU	Legally binding docu- ment	Y	Background information	
Balmford, A., Leader-Williams, N., Mace, G., Manica, A., Walter, O., West, C., Zimmerman, A., 2008, "Message received? Quantifying the impact of informal conservation education on adults visiting UK zoos" in Zoos in the 21st Century: catalysts for conservation?, Cambridge University Press, Cambridge. p 120–136.	http://w ww2.zo o.cam. ac.uk/ mani- ca/ms/ 2007_Zo o_educ ation_b ook_ch apt- er.pdf	National	Scientific literature	Y	Information on effectiveness of awareness raising action of zoos.	
Horsman, P.V., 1988, Captive Polar Bears in UK and Ireland.	http://w ww.zoo check.c om/wp- con- tent/upl oads/20 15/06/C ap- tive Pol ar Bear s_in UK	National	Scientific literature	Y	Information on the state of play regarding the keeping of polar bears in UK and IE zoos before the adoption of the Zoos Directive.	

	and Irel and P aul V H ors- man 1 988.pdf						
Born Free, 2001, UK Zoos: Fit for Life	http://www.bornfree.org.uk/fileadmin/user_upload/files/zoos_check/publications/UK_Zoos_Fit_For_Life.pdf	National	Reports and studies			Y	Information on the state of play regarding the keeping of wild animals in UK zoos before the adoption of the Zoos Directive.
BornFree. 2006, Zoo Health: An adaptation of Spanish zoos following the implementation of Act 31/2003.		National	Reports and studies	Y		Y	Information on the transposition measures adopted by Spain according to the Zoos Directive. Investigation pointed at the shortcomings of the Spanish transposition and ultimately contributed to the launch of Case C-340/09.
BornFree, 2007, Animal Ark or Sinking Ship? An Evaluation of conservation by UK zoos.	http://www.bornfree.org.uk/fileadmin/user_upload/files/zoos_check/publications/Infozoos_Report_-_pilot_st	National	Reports and studies	Y	Y	Y	Information on the effects of action of UK zoos on wider conservation of biodiversity.

	udy_E N_versio n.pdf								
InfoZoos, 2008, Zoo Health – The legal status of zoos in the Canary Islands in accordance to Spanish Law 31/2003.	http://www.borntfree.org.uk/fileadmin/user_upload/files/zoo_check/publications/Animal_Ark_or_sinking_ship.pdf	National	Reports and studies	Y		Y			Information on the transposition measures adopted by Spain (Canary Islands) according to the Zoos Directive.
InfoZoos, 2009, Investigation into the conditions in zoos in the Spanish Region of Valencia.	http://www.borntfree.org.uk/fileadmin/user_upload/files/zoo_check/publications/Infozoos_Report_-_zoos_in_the_Canaries_-_EN_version.pdf	National	Reports and studies	Y		Y			Information on the c transposition measures adopted by Spain (Canary Islands) according to the Zoos Directive.
EAZA, TAG reports 2013-14	http://w	National	Reports	Y	Y	Y	Y		Information on conservation research and training pro-

	ww.borntree.org.uk/fileadmin/user_upload/files/zoos_check/publications/Infozoos_Report_Valencia_zoos_report_2009_EN_version.pdf		and studies			grammes,
European Commission, LIFE and new partnerships for nature conservation, 2015	http://ec.europa.eu/environment/life/publications/life_publications/flipbook/life-new-partnershipsfor-nature/HTML/files/as	EU	Reports and studies	Y	Y	Example of (EU funded) conservation programmes

	sets/bas ic- html/pa ge- 1.html#							
Convention on Biological Diversity	https:// www.c bd.int/c onven- tion/text/ /	Intern- ational	Legally binding docu- ment		Y	Y		
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	https:// www.cit es.org/e ng/disc /text.ph p	Intern- ational	Legally binding docu- ment		Y	Y		
European Commission, 2015, EU Zoos Directive Good Practices Document	http://e c.europ a.eu/en viron- ment/n ature/p df/EU_Z oos_Dir ec- tive_Go od_Pra ctices.p df	EU	Reports and stu- dies	Y	Y	Y	Information on the current state of knowledge on good practices by zoos – in particular with regard to the implementation of measures pursuant to Article 3 of the Zoos Directive.	
European Commission, 2011, LIFE preventing species extinction: Safeguarding endangered flora and fauna through ex-situ conservation	http://e c.europ a.eu/en viron- ment/lif e/publi cati- ons/life publi- cati-	EU	Reports and stu- dies	Y	Y	Y	Information on LIFE 'ex-situ' projects and the benefits of 'ex-situ' conservation on the protection of biodiversity.	

	ons/lifefocus/documents/introduction.pdf						
Balmford, A., Kroshko, J., Leader-Williams, N., Mason, G., 2011. Zoos and captive breeding. Science 332:1149–1150.	https://www.researchgate.net/publication/261781154_Zoos_and_Captive_Breeding_Response	International	Scientific literature	Y	Y	Y	Criticism of the possible role of zoos in the setting and contribution to global targets to avoid species extinction.
Balmford, A., Mace, G.M. & Leader-Williams, N., 1996. “Designing the ark: setting priorities for captive breeding”, in Conserv. Biol., vol. 10, pp. 719–727.	https://www.gacade-mia.edu/19526482/Designing_the_Ark_Setting_Priorities_for_Captive_Breeding	International	Scientific literature	Y	Y	Y	Information on the importance of prioritization of ex situ conservation measures in order to optimize the role of zoos in preventing species extinction.
Barongi, R., Finken, F. A., Parker, M., & Gusset, M. (eds), 2015, Committing to Conservation: The World Zoo and Aquarium Conservation Strategy, Gland: WAZA	http://www.waza.org/files/web-con-	International	Scientific literature		Y		Information on the objectives of WAZA.

Executive Office, Switzerland.	tent/1public_site/5.conserva-tion/conservation_strategies/committing_to_conservation/WAZA%20Conservation%20Strategy%202015_Portrait.pdf							
BBC, 1994, State of the Ark – Perspectives on the Role of Zoos.	-	International	Scientific literature	Y	Y	Y		Information on the state of play regarding the quality of animal accommodations in zoos prior to the adoption of the Zoos Directive.
BornFree & WSPA, 1994, The Zoo Inquiry.	-	International	Scientific literature	Y	Y			Information on the state of play regarding the quality of animal accommodations in zoos prior to the adoption of the Zoos Directive.
BornFree. 2012, The EU Zoo Inquiry 2011. An implementation and enforcement of EC Directive 1999/22, relating to the keeping of animals in zoos. Report findings and recommendations, Born Free Foundation, UK.	http://endcap.eu/wp-content/uploads/2013/02/EU-Zoo-Inquiry-Report-Fin-	International	Scientific literature	Y	Y	Y	Y	Frequency, practice and costs of zoos licensing and inspection and information (costs/benefits; contributions) on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping

	dings-and-Recommendations.pdf						
BornFree, 2016, Identifying the Training Needs of Member State Competent Authorities. Survey to assess implementation of legislation and need for training: wild animals kept in captivity, Born Free Foundation, UK.	http://www.bornfree.org.uk/eu-trade/publication/	International	Scientific literature	Y	Y		Information on the existing gaps in the knowledge and training of MSCAs.
Bowkett A.E., 2009, "Recent Captive-Breeding Proposals and the Return of the Ark Concept to Global Species Conservation", in Conservation Biology, vol.23, no.3, pp. 773-776.	http://onlinelibrary.wiley.com/doi/10.1111/j.1523-1739.2008.01157.x/epdf?ref=work&tracking_action=preview_click&show_checkout=1&purchase_refer=www.google.be&pur-	International	Scientific literature	Y	Y	Y	Role of zoos in the setting and contribution to global targets to avoid species extinction.

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Bowkett, A.E., 2014, "Ex situ conservation planning is more complicated than prioritizing the keeping of threatened species in zoos", in Animal Conservation, vol.17, no.2, pp.101-103.	http://onlinelibrary.wiley.com/doi/10.1111/acv.12116/pdf	International	Scientific literature	Y			Information on whether threatened species held in zoos reflect the conservation impact.
Conde, D.A., Flesness, N., Colchero, F., Jones, O.R., & Scheuerlein, A., 2011, "An emerging role of zoos to conserve biodiversity" in Science, vol.331, pp 1390-1391.	https://www.gacademia.edu/600576/An_Emerging_Role_of_Zoos_to_Conserve_Biodiversity	International	Scientific literature	Y	Y	Y	Role of zoos in the setting and contribution to global targets to avoid species extinction.
Conde, D.A., Colchero, F., Gusset, M., Pearce-Kelly, P., Byers, O., Flesness, N., Browne, R.K. & Jones, O.R., 2013, "Zoos through the lens of the IUCN Red List: a global metapopulation approach to support conservation breeding programs", PLoS ONE.	http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0080311	International	Scientific literature	Y	Y	Y	Role of zoos in the setting and contribution to global targets to avoid species extinction.
Dawson, J., Patel, F., Griffiths, R.A. & Young, R.P., 2016, "Assessing the global zoo response to the	http://onlinelibrary.wiley.com	International	Scientific literature	Y	Y		Information on trends in global zoo amphibian holdings across species, zoo region, and species geographical region of origin from 1994 to 2014.

amphibian crisis through 20-year trends in captive collections", in Conservation Biology, vol.30, no.1, pp. 82 -91.	ey.com/doi/10.1111/consbi.12563/abstract								
EAZA, 2015. Annual Report 2013-2014.	http://www.eaza.net/assets/Uploads/Annual-report/EAZA-Annual-Report-2013-14.pdf	International	Scientific literature	Y	Y				Information on the actions of EAZA zoos for 2013-2014.
Eurogroup for Animals, 2006, Report on the implementation of the Zoos Directive	file:///C:/Users/afa/Downloads/Report%20on%20the%20the%20implimenta- tion%20 of%20th e%20EU %20zoo %20dire ctive%2 0(Eurogr oup%20 = %20EWL A%2020	International	Scientific literature	Y	Y	Y	Y		Report on the implementation of the Zoos Directive.

<p>Fa, J.E., Gusset, M., Flesness, N., & Conde, D.A., 2014, "Zoos have yet to unveil their full conservation potential", in Animal Conservation, vol.17, no.2, pp.97-100.</p>	<p>06).pdf http://onlinelibrary.wiley.com/doi/10.1111/ac.v.12115/full</p>	<p>International</p>	<p>Scientific literature</p>	<p>Y</p>	<p>Information on the potentially conflicting objectives of meeting zoo visitors expectations and committing resources to biodiversity conservation.</p>
<p>Falk, J.H., Reinhard, E., Vernon, C., Bronnenkant, K., Deans, N., Heimlich, J., 2007, Why zoos and aquariums matter: Assessing the impact of a visit, Association of Zoos and Aquariums, Silver Spring, MD.</p>	<p>https://www.researchgate.net/publication/253004933_Why_Zoos_Aquariums_Matter_Assessing_the_Impact_of_a_Visit_to_a_Zoo_or_Aquarium</p>	<p>International</p>	<p>Scientific literature</p>	<p>Y Y Y</p>	<p>Information on the benefits induced for visitors from a visit to the zoos.</p>
<p>Gross, M., 2015, "Can zoos offer more than entertainment?" in Current Biology, 25, R391-R408, 18 May 2015</p>	<p>http://www.sciencedirect.com/science/article/pii/S0960982215005382</p>	<p>International</p>	<p>Media</p>	<p>Y Y Y</p>	<p>Article questioning whether zoos and aquariums can adapt to a new role focused on conservation and education rather than just entertainment.</p>

Gusset, M. & Dick, G., 2011, "The global reach of zoos and aquariums in visitor numbers and conservation expenditures", in Zoo Biol., vol.30, no.5, pp. 566-569.	http://www.ncbi.nlm.nih.gov/pubmed/?term=The+global+reach+of+zoos+and+aquariums+in+visitor+numbers+and+conservation+expenditures	International	Scientific literature	Y	Y	Y	Y	Information on worldwide zoo visitor numbers and conservation expenditure.
Gusset, M., Fa, J.E., Sutherland, W.J., & the Horizon Scanners for Zoos and Aquariums, 2014, "A horizon scan for species conservation by zoos and aquariums." in Zoo Biol, vol.33, no.5, pp. 375-80.	http://cza.nic.in/Gusset%20et%20al%202014.pdf	International	Scientific literature		Y	Y		Horizon scan for zoos and aquariums to identify the 10 most important emerging issues for species conservation
Hoffmann et al, 2010, "The Impact of Conservation on the Status of the World's Vertebrates", in Science, vol.330, no.6010, pp.1503-9.	http://science.sciencemag.org/content/330/6010/1503.full.pdf+html	International	Scientific literature	Y		Y		Assessment of the status of the world's vertebrates using data for 25,780 species categorized on the International Union for Conservation of Nature (IUCN) Red List.
Hutchins, M., & Smith, B., 2003, "Characteristics of a world-class zoo or aquarium in the 21st cen-	http://online.library.wil	International	Scientific literature			Y		Information on the ideal role and actions of zoos and aquariums to optimize their impacts on biodiversity conservation.

<p>ture,” in <i>International Zoo Yearbook</i>, vol.38, pp.130-141.</p>	<p>www.eaz.com/doi/10.1111/j.1748-1090.2013.tb02073.x/e.pdf</p>					
<p>IUCN/SSC, 2014, Guidelines on the Use of Ex Situ Management for Species Conservation. Version 2.0, IUCN Species Survival Commission, Switzerland.</p>	<p>http://www.eaz.com/assets/Uploads/Position-statements/IUCN-Guidelines-on-the-Use-of-ex-situ-management-for-species.pdf</p>	<p>International</p>	<p>Scientific literature</p>	<p>Y</p>		<p>Information on the good practices to optimise the use of “captive/ex situ” and “wild/in situ” measures as part of a coherent species conservation programme.</p>
<p>IUDZG/CBSG (IUCN/SSC), 1993, Executive Summary, The World Zoo Conservation Strategy; The Role of the Zoos and Aquaria of the World in Global Conservation, Chicago Zoological Society, Illinois, U.S.A.</p>	<p>https://portals.iucn.org/library/sites/library/files/documents/1993-033_Ex_Sum.pdf</p>	<p>International</p>	<p>Scientific literature</p>	<p>Y</p>	<p>Y</p>	<p>First World Zoo Conservation Strategy.</p>

Kear, J., 1990), Man and Wild-fowl, T & A.D, Poyser, London.	-	International	Scientific literature	Y			Information on the key objectives of zoos and the prioritization between conservation, research, education and recreation.
Lacy, R.C., 2013, “Achieving true sustainability of zoo populations”, in Zoo Biology vol.32, no.1, pp. 19–26.	https://www.researchgate.net/publication/228104856_Achieving_True_Sustainability_of_Zoo_Populations	International	Scientific literature	Y	Y	Y	Information on the challenges faced by zoos in the setting and contributing to global targets to avoid species extinction.
Lees, C.M., & Wilcken, J., 2009, “Sustaining the Ark: the challenges faced by zoos in maintaining viable populations”, International Zoo Yearbook, vol.43, pp. 6–18.	http://onlinelibrary.wiley.com/doi/10.1111/j.1748-1090.2008.00066.x/epdf?ref=wo&tracking_action=preview_click&show_checkout=1&purchase_referer=www	International	Scientific literature	Y	Y		Information on the challenges faced by zoos in managing breeding programmes in a scientific manner.

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Information on species held in zoos compared to those not

J.B., & Mooers, A.O., 2014, "Mammal and bird species held in zoos are less endemic and less threatened than their close relatives not held in zoos", <i>Anim. Conserv.</i> , vol.17, no.2, pp. 89–96	onlinelibrary.wiley.com/doi/10.1111/acv.12069/abstract	International	literature				currently in captivity.
Mazur, N.A., & Clark, T.W., 2001, "Zoos and conservation: policy making and organizational challenges", in <i>Bulletin Series Yale School of Forestry and Environmental Studies</i> , vol.105, pp.185–201.	http://environment.yale.edu/publications/series/documents/downloads/09/105mazur.pdf	International	Scientific literature	Y	Y	Y	Information on zoo's effectiveness in endangered species restoration, public education, and policy and operations.
McGowan, P.J.K, Holzer-Taylor, K., & Leus, K., (in press), "IUCN guidelines for determining when and how ex situ management should be used in species conservation", in <i>Conservation Letters</i> .	http://onlinelibrary.wiley.com/doi/10.1111/conl.12285/epdf	International	Scientific literature			Y	Information on the good practices to optimise the use of "captive/ex situ" and "wild/in situ" measures as part of a coherent species conservation programme.
Moss, A., Jensen, E. & Gusset, M., 2015, "Evaluating the contribution of zoos and aquariums to Aichi Biodiversity Target 1", in <i>Conserv Biol.</i> , vol.29, no.2, pp.537-44.	http://www.ncbi.nlm.nih.gov/pubmed/?term=evaluating+the+contribution+of+	International	Scientific literature	Y		Y	Large-scale impact evaluation survey to evaluate biodiversity literacy of zoo and aquarium visitors worldwide.

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Penning, M., Reid, G. McG., Koldewey, H., Dick, G., Andrews, B., Arai, K., Garratt, P., Gendron, S., Lange, J., Tanner, K., Tonge, S., Van den Sande, P., Warmolts, D. and Gibson, C. (Eds), 2009, Turning the Tide: A Global Aquarium Strategy for Conservation and Sustainability. World Association of Zoos and Aquariums, Bern, Switzerland.	http://www.waza.org/files/web-content/1-public-site/5-conservation/conservation-strategies/turning-the-tide/Aquarium%20strategy%20EN.pdf	International	Reports and studies	Y	Information on the role of aquaria in the conservation of biodiversity
Pritchard, D.J., Fa, J.E., Oldfield, S. & Harrop, S.H., 2012, "Bring the captive closer to the wild: redefining the role of ex situ conservation", in Oryx, vol.46, no.1, pp.18-23.	http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8499086&fileId=S0030	International	Reports and studies	Y	Information on the increasingly narrower distinction between "wild", "captive", "in situ" and "ex situ".

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Redford, K.H., Jensen, D.B., Breheny, J.J., 2012, "Integrating the captive and the wild", in Science, vol.338, pp.1157–1158.		International	Reports and studies		Y				Information on the increasingly thinner distinction between "wild", "captive", "in situ" and "ex situ".
Rees, P.A., 2007, "The EC Zoos Directive: A Lost Opportunity to Implement the Convention on Biological Diversity", in International Wildlife Law & Policy, vol. 8, no.1, pp. 51-62.	https://www.researchgate.net/publication/233806251_Integrating_the_Captive_and_the_Wild	International	Reports and studies	Y	Y	Y	Y		Information on the possibilities left to zoos by the Directive to avoid compliance with its core obligations.
Snyder, N.F.R., Derrickson, S.R., Beissinger, S.R., Wiley, J.W., Smith, T.B., Toone, W.D., & Miller, B., 1996, "Limitations of Captive Breeding in Endangered Species Recovery", in Society for Conservation Biology, vol.10, no.2, p.338–348.	http://oceansam-ple.info/the-ec-zoos-directive-a-lost-opportunity-to-implement-the-convention-on-biological-diversity	International	Reports and studies	Y	Y				Information on the difficulties faced by zoos on ensuring a significant role of zoos in species recovery.

<p>Soulé, M., Gilpin, M., Conway, W., & Foose, T., 1986, "The millennium ark: how long a voyage, how many staterooms. how many passengers?" in Zoo Biology, vol.5, pp. 101–113.</p>	<p>https://www.jstor.org/stable/2386850?seq=1#page_scan_tab_contents</p>	<p>International</p>	<p>Reports and studies</p>	<p>Y</p>	<p>First study to propose the concept of zoo as an "ark of biodiversity" hence shifting the role of zoos from recreation to conservation.</p>	
<p>Therkelsen, A., & Lottrup, M., 2015, "Being together at the zoo: zoo experiences among families with children", in Leisure Studies, vol.34, no.3, pp. 354–37.</p>	<p>http://onlinelibrary.wiley.com/doi/10.1002/zoo.1430050205/e.pdf?r3_referer=wol&tracking_action=preview_click&show_checkout=1&purchase_referer=www.google.be&purchase_site_license=LICENSE_DE_NIED</p>	<p>International</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Y</p>	<p>Information on the quality of information provided to visitors at the zoos and its limited awareness raising and educational value.</p>

Travers, W., & Straton, R., 1988, European Survey of Zoological Collections.	http://idrottsforum.org/eisure-studies-volume-34-issue-3-june-2015/	International	Reports and studies			Y	Information on the state of play regarding the quality of animal accommodations in zoos prior to the adoption of the Zoos Directive.
Tribe, A., 2004, "Zoo tourism" in Wildlife Tourism impacts, management and planning, Ed. Higginbottom, K., Common Ground Publishing, pp. 35-56.	-	International	Reports and studies	Y	Y		Information on the benefits induced for visitors from visiting zoos.
Tribe, A., & Booth, R., 2006, "Assessing the role of zoos in wildlife conservation" in Human Dimensions of Wildlife, vol.8, no.1, pp.65-74.	http://sustain.pata.org/wp-content/uploads/2014/12/Wildlife-Tourism-impacts.pdf	International	Reports and studies	Y	Y		Information on the role of zoos on wider wildlife conservation objectives.
WAZA, 2005, Building a Future for Wildlife - The World Zoo and Aquarium Conservation Strategy, WAZA, Bern, Switzerland.	http://www.tandfonline.com/doi/abs/10.1080/10871200390180163?journalCode=uhdw20	International	Reports and studies	Y		Y	Zoo Conservation Strategy

<p>WAZA Magazine, 2013, Towards Integrated Species Conservation, WAZA, Gland, Switzerland, vol.13.</p>	<p>http://www.waza.org/files/web-content/1_public_site/5.consevation/conservation_strategies/building_a_future_for_wildlife/wza_conservation_28_July_2015</p>	<p>International</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Information on various conceptual approaches to integrated species conservation and several case studies of integrated species conservation - arguing that the ex situ and in situ conservation dichotomy is at an end.</p>	
<p>West, C, Dickie L.A., 2007, "Is there a conservation role for zoos in a natural world under fire?", in Zoos of the 21st century: catalysts for conservation? Cambridge University Press, Cambridge.</p>	<p>http://www.waza.org/files/web-content/1_public_site/5.consevation/integrated_species_consevation/WAZA%20M</p>	<p>International</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Y</p>	<p>Information on the role of zoos on wider wildlife conservation objectives.</p>

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Wheater R.J., 1995, "World Zoo Conservation Strategy: a blueprint for zoo development", in Biodiver. Conserv., Vol.4, pp.544–52.		International	Reports and studies	Y	Y			Information on the role of zoos on wider wildlife conservation objectives.
Zoo Check Charitable Trust (now BornFree), 1993, Zoochotic Report.	Book	International	Reports and studies	Y		Y		Information on the state of play before the adoption of the Zoos Directive.
Case C-302/03 (Commission v. Italy), 07/08/2004	http://curia.europa.eu/juris/liste.jsf?language=en&num=C-302/03	EU	Legally binding document	Y		Y	Y	Judgment
Case C-339/03 (Commission v. Germany), 20/09/2003	http://curia.europa.eu/juris/liste.jsf?language=en&num=C-339/03	EU	Legally binding document	Y		Y	Y	Judgment
Case C-340/09 (Commission v. Spain), 19/02/2011	http://curia.europa.eu/juris/liste.jsf?language=fr&num=C-340/09	EU	Legally binding document	Y		Y	Y	Judgment

WAZA Magazine, 2011, Towards Sustainable Population Management, (Vol. 12)	http://www.waza.org/files/web-content/1_public_site/6_march_ketting_and_media/publications/WAZA%20Magazine12.pdf	International	Reports and studies	Y	Y		Particularly, pag 26: Zoos Can Lead the Way with Ex Situ Conservation. The chapter investigates the role of zoos in protecting threatened species. Data on share of threatened species in European zoos are reported (however, data is too aggregated to be significant/useful).	
John Regan Associates, 2007, The EU and Europe's Zoos	http://www.johnreganassociates.com/wp-content/uploads/2013/08/the_eu_and_europes_zoos.pdf	EU	Reports and studies		Y	Y	Y	An investigation into the synergy between the policies and philosophy of the European Union, and the practice and potential of Europe's progressive zoos, aquaria and allied institutions.
EAZA, 2016, EAZA Conservation Database Snapshot – September 2016	http://www.eaza.net/assets/Uploads/CCC/Database-Snap-	EU	Reports and studies	Y				Examples of projects from the EAZA Conservation Database.

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EAZA, 2016, EAZA Conservation Database Snapshot – October 2016	http://www.eaza.net/assets/Uploads/CC/October-2016-Database-Snapshot-Archive-new.pdf	EU	Reports and studies	Y		Examples of projects from the EAZA Conservation Database.
EAZA, 2011, EAZA Response to the Evaluation Report of the EU Policy on Animal Welfare	https://ec.europa.eu/food/sites/food/files/animals/docs/aw_arch_p_eu_as_s_zoo_a_quar_ia_en.pdf	EU	Reports and studies	Y		Information on EAZA zoos including, for example, budget spent for research.
GHK in association with ADAS UK, on behalf of DG SANCO, 2010, Evaluation of the EU Policy on Animal Welfare and Possible Policy Options for the Future	http://www.eupaw.eu/docs/Final%20R	EU	Reports and studies	Y	Y	Assessment of animal welfare EU legislation, including review of the measures for animal welfare in the Directive 1999/22/EC. Estimates on the number of wild animals kept in zoos in selected EU MS.

	eport%20-20EUPAW%20Evaluation.pdf						
Dawson, J., Patel, F., Griffiths, R.A., Young, R.P., "Assessing the global zoo response to the amphibian crisis through 20-year trends in captive collections, in Conservation Biology 2016 (30)1, 82-91	https://www.ncbi.nlm.nih.gov/pubmed/26219401	International	Scientific literature	Y	Y		Contribution of captive breeding of amphibians to address decline of wild populations
Alroy J., "Limits to captive breeding of mammals in zoos", in Conservation Biology, 2015 (29) 3, 9526-31	https://www.ncbi.nlm.nih.gov/pubmed/25736919	International	Scientific literature	Y	Y		Captive breeding of endangered mammals in zoos is important, yet ensuring meaningful contribution of ex-situ conservation requires concerted effort
Gippoliti, S., "Ex-situ conservation programmes in European zoological gardens: can we afford to lose them" in Biodiversity Conservation", 2012 (21), 1359-1364	http://link.springer.com/article/10.1007/s10531-012-0256-8	EU	Scientific literature			Y	Highlights the conservation breeding potential of zoological gardens and aquaria in the European union, but it also recognises the lack of a convincing scientific and legal framework that encourages ex situ activities for 'exotic' species.
Keularts, J., "Captivity for Conservation? Zoos at a Crossroads", Agric Environ Ethics, 2015 (28), 335-351	http://link.springer.com/article/10.1007/s10806-015-9537-z	International	Scientific literature	Y	Y	Y	Examines the changes in zoo's core tasks from "noah's ark" to integrated approach of biodiversity conservation
Price, M.R., Fa, J.E., "Reintroductions from zoos: a conservation guiding light or a shooting star?" in Catalysts for conservation: a	book	International	Scientific literature	Y	Y	Y	Examines the potential and real contributions of zoos in biodiversity conservation through programmes of reintroduction of species in the wild

direction for zoos in the 21st Century, London, United-Kingdom, 2007, 155-177						
Marino, L., Lilienfeld, S.O., Malamud, R., Nobis, N., Broglio, R., "Do zoos and aquariums promote attitude change in visitors? A critical evaluation of the American and aquarium study", in Society and Animals 2010 (18) 2, 126-138	http://booksandjournals.brillonline.com/content/journals/10.1163/156853010x491980	National	Scientific literature	Y		Analysis the impacts of zoos and aquariums on visitors' behaviours and attitudes towards biodiversity conservation in the USA.
Mennen, F., Beumer, C., Martens, P., "The Sustainable Zoo: Mediating the sustainability message through education in Gaia Zoo Kerkrade", ICIS Maastricht Univerisyt, 2016	http://www.icis.unimaas.info/wp-content/uploads/2010/06/Mennen-Beumer-Martens-2015-REPORT.pdf	EU	Reports and studies	Y		Analysis the impacts of zoos and aquariums on visitors' education on biodiversity (conservation)
Luebke, J.F., Matiasek, J., "An exploratory study of zoo visitors' exhibit experiences and reactions" in Zoo Biology, 2013 (32)4, 407-16	https://www.ncbi.nlm.nih.gov/pubmed/23740472	EU	Scientific literature	Y	Y	Analysis the impacts of zoos and aquariums on visitors' behaviours and attitudes towards biodiversity conservation
Moss, A., Jensen, E., Gusset, M.,	http://o	Interna-	Scientific	Y	Y	Study highlighting that the knowledge gained by zoo visitors

"Probing the link between biodiversity-related knowledge and self-reported proconservation behavior in a Global Survey of Zoo Visitors", in Conservation Letter, 2016	nlinelibrary.wiley.com/doi/10.1111/conl.12233 /pdf	International literature				during their visits has little impact on specific proenvironment behaviour they could take, let alone whether behaviour changes would actually take place.
Moss, A., Jensen, E., Gusset, M., A Global Evaluation of Biodiversity Literacy in Zoo and Aquarium Visitors, 2014	http://www.waza.org/files/web-content/1_public_site/5.conserva-tion/un-decade-biodiversity/WAZA%20Visitor%20Survey%20Report.pdf	International Reports and studies	Y	Y		Evaluation of zoo visitors knowledge of biodiversity
Zoos and Aquariums of the World, Int. Zoo Yb, 2015 (49), 226-386	http://open-sample.info/zoos-and-aquariums-of-the-world	International Scientific literature	Y	Y		List of zoos
Browne, R.K, Wolfram, K., Garcia, G., Bagaturov, M.F., Pereboom, J.J.M., "Zoo-based amphibian	http://redlist-arc.org/	International Scientific literature	Y	Y		Good practices of research and conservation breeding programs on amphibians

research and conservation breeding programs" in Amphibian Reptile Conservation, 2011 (5) 3, 1-14	Article-PDFs/AR C_5(3)_01-14_e28_high_res.pdf						
Conway, W.G., "Buying time for wild animals with zoos", in Zoo Biol. 2011 (3), 1-8	https://www.ncbi.nlm.nih.gov/pubmed/20938970	International	Scientific literature	Y	Y		Importance of ex-situ conservation and criteria for prioritising species and programmes
Zimmerman, A., "The role of zoos in contributing to in situ conservation" in Kleiman, D.G., Thompson, K.V., and Baer, C.K., Wild mammals in captivity - Principle & Techniques for Zoo Management, 2010 (2nd ed.)	Book	International	Scientific literature	Y	Y		On the role of zoos in contributing to in situ conservation
Kierulff, M.C.M, Ruiz-Miranda, C.R., de Oliveira, P. P., Beck, B.B., Martins, A., Dietz, J.M., Rambaldi, D.M., Baker, A.J., "The Golden lion tamarin Leontopithecus rosalia: a conservation success story" in Int. Zoo Ub, 2012 (46), 36-45	http://onlinelibrary.wiley.com/doi/10.1111/j.1748-1090.2012.00170.x/abstract	International	Scientific literature	Y		Y	Example of successes of conservation programmes
Koldewey, H., Cliffe, A., Zimmerman, B., "Breeding programme priorities and management techniques for native and exotic freshwater fishes in Europe" in Int. Zoo Yb, 2013 (47), 93-101	http://onlinelibrary.wiley.com/doi/10.1111/j.1748-1090.2013.00170.x/abstract	EU	Scientific literature	Y		Y	Example of successes of conservation programmes

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Owen, A., Wilkinson, R., Sözer, R., "In situ conservation breeding and the role of zoological institutions and private breeders in the recovery of highly endangered Indonesia passerine birds" in Int. Zoo Yb, 2014(48), 199-211	http://onlinelibrary.wiley.com/doi/10.1111/izy.12052/abstract	International	Scientific literature	Y		Y	Example of successes of conservation programmes	
Ziegler, T., "In situ and ex situ reptile projects of the Cologne Zoo: implications for research and conservation of South East Asia's herpetodiversity" in Int. Zoo Yb., 2015 (49), 8-21	http://onlinelibrary.wiley.com/doi/10.1111/izy.12084/abstract	International	Scientific literature	Y		Y	Example of successes of conservation programmes	
BE (Belgium)								
Law of 14 August 1986 on the protection and the well-being of animals (Loi du 14 aout 1986 relative à la protection et au bien-être des animaux), 14.08.1986, 01.01.1988, M.B. 03.12.1986.	Law	National	Legally binding document	Y	Y	Y	National legislation on the well-being of animals. It mentions, among others, that the zoo keeper must do whatever it takes to ensure the animals' well-being during performances and the zoo keeper must take all necessary measures to satisfy the animals' needs.	
Royal Order of 10 August 1998 on the recognition of zoos (10 Août 1998 - Arrêté royal relative à l'agrément des parc zoologiques / 10 augustus 1998. – Koninklijk besluit betreffende de erkenning van dierentuinen), 10.08.1998, 01.01.1999– 01 January 1999, M.B. 13.11.1998.	Regulation	National	Legally binding document	Y	Y	Y	National legislation on requirements to obtain recognition license for running a zoo.	
Ministerial Order of 3 May 1999 on setting minimum criteria for	Regulation	National	Legally binding	Y	Y	Y	National legislation on requirements for keeping mammals in zoos.	

keeping mammals in zoos (Arrêté ministériel fixant des norms minimales pour la detention de mammifères dans les parcs zoologiques / Ministerieel besluit tot vaststelling van minimumnormen voor het houden van zoogdieren in dierentuinen), 3.05.1999– 19.08.1999, M.B. 19.08.1999.			document					
Ministerial Order of 7 June 2000 on setting minimum criteria for keeping birds in zoos (Arrêté ministériel fixant des norms minimales pour la detention des oiseaux dans les parcs zoologiques / Ministerieel besluit tot vaststelling van minimumnormen voor het houden van vogels in dierentuinen), 7.06.2000 – 5.09.2000, 5.09.2000.	Regulation	National	Legally binding document	Y	Y	Y	National legislation on requirements for keeping birds in zoos.	
Ministerial Order of 23 June 2004 on setting minimum criteria for keeping reptiles in zoos (23 Juin 2004 – Arrêté ministériel fixant les norms minimales pour la detention des reptiles dans les parcs zoologiques / Ministerieel besluit tot vaststelling vna minimumnormen voor het houden van reptielen in dierentuinen), 23.06.2004, 1.02.2005, 27.07.2004.	Regulation	National	Legally binding document	Y	Y	Y	National legislation on requirements for keeping reptiles in zoos.	
Raad voor Dierenwelzijn, Werkgroep: dolfijnen, Advies van de Raad voor Dierenwelzijn (10/12/2013). Betreffende het huisvesten van dolfijnen, Federal Public Service Public Health (Raad voor Dierenwelzijn. Werkgroep: dolfijnen, 2013).	https://www.ln.e.be/themas/dierenwelzijn/advies-dolfij-	National	Reports and studies	Y		Y	A working group of the federal government assessed the concerns of keeping captivated dolphins and the need to renew legislation accordingly. No measure was taken by the government on the basis of that report.	

	nen-dolfina-ria-2013-raad-voor-dieren-welzijn.pdf					
Born Free Foundation, The EU Zoo Inquiry 2011, An evaluation of the implementation and enforcement of the EC Directive 1999/22, relating to the keeping of wild animals in zoos, Belgium	http://www.bornfree.org.uk/uploads/media/BELGIUM_Zoo_Report_English.pdf	National	Reports and studies	Y	Y	Investigation of the enforcement of Directive 1999/22/EC and the transposing Belgian laws in Belgian Zoos. Six zoos were assessed for conformity with the Directive and national transposing legislation. The conclusions are as follows: 1) Belgian law has transposed Directive 1999/22/EC, although some gaps have been identified (such as the lack of reference to the conservation of biodiversity, details on zoo inspections and relocation of animals in case a zoo closes). 2) The Directive and the transposing legislation are ineffectively enforced. This could be due to the lack of expertise of the zoo inspectors and the fact that the zoo inspectors only react to complaints rather than proactively enforcing the legal requirements. 3) Some of the sample zoos encouraged contact between the public and the animals, even though this is prohibited by Belgian law. 4) All investigated zoos do seem to have 'conservation' as a priority, as the animals they predominantly hold are not listed as '(European) threatened species'. Nor do the zoos cooperate in breeding programmes. 5) The zoos tend to have limited educational value, as can be seen by the lack of information on the species exhibited and their natural habitats. 6) The living conditions for animals are unsustainable, since some enclosures were too small for the animals' spatial needs and birds of prey species were tethered by the leg. Furthermore, the enclosures lack environmental enrichment.
Born Free Foundation, The EU Zoo Inquiry 2011, An evaluation of the implementation and enforcement of EC Directive 1999/22, relating to the keeping of animals in zoos. Report findings and recommendations	http://endcap.eu/wp-content/uploads/2013/02/E	National	Reports and studies	Y	Y	Comparative analysis of the compliance of EU Member States with Directive 1999/22/EC (zoo and dolphinarium).

	U-Zoo-Inquiry-Report-Findings-and-Recommendations.pdf					
Whale and Dolphin Conservation, EU Zoo Inquiry, Dolphinarium, A review of the keeping of whales and dolphins in captivity in the European Union and EC Directive 1999/22, relating to the keeping of wild animals in zoos	http://endcap.eu/wp-content/uploads/2015/08/Dolphinarium-Report-en-financial.pdf	National	Reports and studies	Y	Y	Compliance of EU Member States with Directive 1999/22/EC regarding dolphinarium.
Planckendael slacht bedreigde anfilope als voedsel voor roofdieren, De Standaard (17 April 2015)	http://www.standaard.be/cnt/dmf20150417_01634510	National	Media	Y	Y	Press reports that the zoo of Planckendael had a kill policy for redundant animals. Now ZOO Antwerpen and Planckendael have a 'no kill-policy'.
and Gezonde surplusgiraf aan leeuw voeren? Nee: Zoo Antwerpen en Planckendael voeren "no kill-beleid" in, De Morgen (8 April 2016)	http://www.demorgen.be/wetenschap/gezonde-surplus-giraf-	National	Media	Y	Y	Press reports that the zoo of Planckendael had a kill policy for redundant animals. Now ZOO Antwerpen and Planckendael have a 'no kill-policy'.

	aan-leeuw-voederen-nee-zoo-antwerpen-en-plancken-dael-voeren-no-kill-beleid-in-b245ed0f/						
Het beheer van dierenpopulaties in ZOO Antwerpen en Planckendael, Press release website ZOO Antwerpen (11 April 2016)	http://www.zooantwerpen.be/nl/nieuws/het-beheer-van-dierenpopulaties-zoo-antwerpen-en-planckendael	National	Media	Y	Y	Press reports that the zoo of Planckendael had a kill policy for redundant animals. Now ZOO Antwerpen and Plankendael have a 'no kill-policy'.	
Following constructive dialogue with GAIA, the Antwerp Zoo and Planckendael opt for the ethical management of "surplus" animals, Press release GAIA	http://www.gaia.be/en/news/follow-	National	Media	Y	Y	Press release from GAIA on the 'no kill-policy' and a short description of the steps to be taken when dealing with a surplus animal.	

(14 April 2016).	ing-con-structive-dia-logue-gaia-ant-werp-zoo-and-plancke-ndael-opt-ethical-man-agement						
Pouillard, V., 2008, Les zoos et la conservation des espèces – Le cas du zoo d’Anvers	http://mem-en-vi.ulb.ac.be/Memoires_en_pdf/MFE_07_08/MFE_Pouillard_07_08.pdf	National	Scientific literature	Y	Y		Study (final year dissertation) on the link between zoos and biodiversity conservation, looking in particular at the situation of the Zoo of Antwerpen (BE).
BG (Bulgaria)							
Biodiversity Act (SG 77/09.08.2002 Amended)	Law	National	Legally binding document	Y	Y		Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Regulation No.6 (SG 105 / 2.12.2003, amended SG 44 /12.07.2009)	Regulation	National	Legally binding document	Y	Y		Regulation describing the minimum requirements and conditions for keeping animals in zoos

Regulation No.1 (SG 43/26.05.2006)	Regulation	National	Legally binding document	Y	Y	Regulation issuing conditions for zoo licensing
Mihaylov et. al. 2015 Cases of animal escapes from zoos. International Journal in Physical & Applied Sciences 6: 40-45	http://ijmr.net.in/download.php?filename=MD1aTCEVZIAbu.pdf&new=JPA55June3124.pdf	National	Scientific literature	Y	Y	Scientific article which describes research conducted within the territory of the zoo in the city of Stara Zagora from 20 May 2005 to 20 February 2015. In the spring of 2005, a wolf Gergana escaped from its cage.
BornFree, 2011, The EU Zoo inquiry, Bulgaria	http://www.bornfree.org.uk/zoo-reports/bulgaria/page/s/BFF_EZ_R_BULGARIA_FINAL_S.pdf	National	Reports and studies	Y	Y	NGO report evaluating the implementation and enforcement of the Zoos Directive in 10 zoos in Bulgaria. A total of ten zoos were selected. This included: eight of the 16 municipally-owned zoos, issued with a Conditional Licence; one dolphinarium and an unlicensed small animal collection in a restaurant. It describes deficiencies in prevention of escape, conservation activities, education and research and animal welfare issues
Bornfree, 2012, Limitations in animal welfare Delivery PROBLEMS IN THE BULGARIAN ZOOS	http://www.bornfree.org.uk/zoo-reports/bulgaria/page/s/BFF_EZ_R_BULG	National	Reports and studies	Y	Y	Information on the state of zoos in Bulgaria in 2012: 19 zoos in Bulgaria – 3 closed, 16 licensed under conditions; All zoos are owned and managed by the Municipal authorities; Facilities are too old and conditions are not up to the standards. The enclosures are not suitable for the biology and the ethology of the species. Most of the habitats are not meeting the requirements of the Ordinances.

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CY (Cyprus)							
Regulation 81/2002: the Animal Protection and Welfare Act (Keeping of Wild Animals in Zoos) (Οι περί Προστασίας και Ευημερίας των Ζώων (Διατήρηση Άγριων Ζώων σε Ζωολογικούς Κήπους) Κανονισμοί του 2002)	Regulation	National	Legally binding document	Y	Y		Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
The EU Zoo Inquiry 2011: Country Report Cyprus	http://www.borfree.org.uk/zoo-reports/ireland/	National	Reports and studies	Y		Y	Findings from zoo visits and country visits on licensing, legal follow-up and housing conditions of the animals . Cypriot zoos were assessed to evaluate the effectiveness and level of implementation and enforcement of the Zoos Directive 1999/22/EC Information was collected about a number of key aspects of each zoo's operation including: participation in conservation activities; public education; enclosure quality; public safety; and the welfare of the animals. These parameters were evaluated against the legal requirements of Directive 1999/22/EC and the Cypriot Animal Protection and Welfare (Keeping Wild Animals in Zoos) Regulation 81/2002.
Infringement case 2004/2164 (Commission v. Cyprus), 12/07/2004	Database	EU	Case law	Y		Y	Infringement against Cyprus regarding the illegal functioning of the Limassol Zoo (bad application of the Zoos Directive)
Infringement case 2009/2285 (Commission v. Cyprus), 23/09/2009	Database	EU	Case law	Y		Y	Infringement against Cyprus regarding the illegal functioning of the Limassol Zoo (bad application of the Zoos Directive)
CZ (Czech Republic)							
Zákon č. 162/2003 Sb., o podmínkách provozování zoologických zahrad a o změně některých zákonů (zákon o zoologických zahradách), (Act on Zoological Gardens) No. 162/2003	http://www.mzp.cz/www/w/platn_alegislativa.nsf/5F0999A1F25C74E7C1256E76003E400F/	National	Legally binding document	Y	Y	Y	Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping

	\$file/Z%20162_2003.pdf						
UCSZOO, Annual Report 2015	http://www.zoo.cz/media/files/vyrocnizprava-ucszoo-za-r-2015.pdf	National	Reports and studies	Y	Y	Y	Annual report containing collection updated, member information, economic data, visitor numbers, and activities
Martina Chalupova. 2014. Dynamic Modelling of ZOO Management: from Challenge to Opportunity. ECMLG Zagreb	https://www.researchgate.net/publication/273125985-Dynamic-Modelling-of-ZOO-Management-from-Challenge-to-Opportunity	National	Scientific literature	Y	Y	Y	Article focusing on managerial aspects of zoological gardens (ZOOs), using the data from ZOO Jihlava, middle sized ZOO in terms of the Czech ZOO market. ZOOs in the Czech Republic have undergone considerable quantitative and qualitative changes in the last two decades. Still, their management is frequently far from optimal, which may result in weak strategies, undeveloped standardized processes or ambiguous performance indicators.
Eurogroup for Animals, 2006, Report on the implementation of the EU zoo Directive	https://www.rspca.org.uk/ImageLoca	EU	Reports and studies	Y		Y	Report containing information on the implementation of the Zoos Directive in several European countries including Czech Republic. It refers to legislation, competent authorities, zoos and licenses, and use of guidelines.

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DE (Germany)

Federal Nature Conservation Act (BNatSchG)	https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html	National	Legally binding document	Y	Y	Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Animal Protection Act (18/05/2006) (BGBl. I S. 1206, 1313), amended by Act of 9 December 2010 (BGBl. I S. 1206, 1313) ('TierSchG')	https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html	National	Legally binding document	Y	Y	Act containing provisions on animal welfare
The EU Zoo Inquiry – Country Report Germany	http://www.borntfree.org.uk/zoo-re	National	Reports and studies	Y	Y	Study assessing 25 zoos selected from the 600 zoological collections thought to exist in Germany. Information was collected about a number of key aspects of each zoo's engagement including: participation in conservation activity, public education, public safety, enclosure quality and the welfare of the

	ports/Ge-many-En/					animals. These parameters were compared with the legal requirements of the European Directive 1999/22/EC, the German Federal Nature Conservation Act and the German Protection of Animals Act.
Guidelines published by the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). Tierschutz	http://www.bmel.de/DE/Tier/Tierschutzgutachten/texte/Gutachten-Dossier.html	National	Policy document	Y	Y	Horses: "Leitlinien zur Beurteilung von Pferdehaltungen unter Tierschutzgesichtspunkten" (09/06/2009). Game animals in enclosures: "Leitlinien für eine tierschutzgerechte Haltung von Wild in Gehegen" (26/10/2005). Freshwater fish: "Gutachten über die Anforderungen an die Haltung von Zierfischen, die mindestens eingehalten werden sollen" (30/12/1998). Reptiles: "Gutachten der Sachverständigengruppe über die Mindestanforderungen an die Haltung von Reptilien" (10/01/1997). Ostriches (accept kiwis): "Gutachten über Mindestanforderungen an die Haltung von -Straußenvögeln, außer Kiwis" (10/09/1996). Small birds: "Gutachten der Sachverständigengruppe über die tierschutzgerechte Haltung von Vögeln" (10/07/1996). Mammals: "Gutachten über die Mindestanforderungen an die Haltung von Säugetieren" (10/06/1996). Birds of prey and owls: "Gutachten über die tierschutzgerechte Haltung von Greifvögeln und Eulen" (10/01/1995). Parrots: "Gutachten der Sachverständigengruppe über die Mindestanforderungen an die Haltung von Papageien" (10/01/1995).
Guidelines published by the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). Haus -und Zootiere.	http://www.bmel.de/DE/Tier/Tierschutzgutachten/texte/HaltungSaeugetiere.html	National	Policy document	Y	Y	Gutachten über die Mindestanforderungen an die Haltung von Säugetieren
BEMMANN, I. et al. (2002): Recherchen zum Wiederansiedlungsvorhaben des Steinkauzes (Athene noctua SCOPOLI 1769)	http://www.deutscher-tier-	National	Scientific literature	Y	Y	Resettlement project for german screech owl supported by DTG members Animal Park Olderdisen Bielefeld, Tierpark Bischofswerda, Tiergarten Eisenberg, Tiergarten Halberstadt, Tierpark Hirschfeld, Opel Zoo Kronberg, Tierpark Petersberg, Tier-

<p>im nordöstlichen Harzvorland, Landkreis Quedlinburg.</p>	<p>parkgesellschaft.de/downloads/category/43-stein-kauz?download=137:recherchen-zum-wiederansiedlungsvorhaben-stein-kauz-2002</p>				<p>park Riesa, Tierpark Hexentanzplatz Thale, Heimatnaturgarten Weißfels and White water animal park.</p>
<p>ECJ, Commission v. Germany, Judgment of the Court (Fourth Chamber) on Case C-339-03, 14.10.2004.</p>	<p>http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d2dc30d5f928b5e4fb504415b8a8867d61724817.e34Kax-</p>	<p>EU</p>	<p>Case law</p>	<p>Y Y</p>	<p>On June 2002 the Commission issued a letter of formal notice to the German Government regarding its transposition of the Directive. A main act was already in place (ie BNatSchG) transposing Articles 3(4), 3(5) and 4. The other articles had to be transposed by the different Landers. Only three (out of 16) landers had done so. In October 2002 the Commission issued a Reasoned Opinion. Two other landers transposed the legislation. In August 2003 the Commission referred the case to the ECJ. In the course of the procedure additional eight landers transposed the Directive. On 14 October 2004 the Court ruled in Case C-339/03 that Germany had failed to transpose the Directive (Commission v. Germany, 2004).</p>

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Lion escape from Leipzig Zoo (2016)	http://www.abc.net.au/news/2016-09-30/lion-mot-shegetsj-shot-dead-at-german-zoo-after-escape/891472?pfmre_dir=sm	National	Media	Y	Y	Media article on German zookeepers who shot a lion after two animals escaped from their enclosure.
Zoos in court battle over Knut the polar bear	https://www.theguardian.com	National	Media	Y	Y	Media article on two German zoos who fought over rights to bear who has earned millions in revenue and merchandising

	ian.com/environment/2009/may/19/german-zoos-fight-over-knut					
DK (Denmark)						
Zoo Order (Bekendtgørelse om zoologiske haver; Order no. 1023; 1/1/2003 (Retsinformation DK, sd), followed by Zoos Order 1397 on zoos 02/12/2015	https://www.retsinformation.dk/Forms/R0710.aspx?id=175918	National	Legally binding document	Y	Y	Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Report on implementation of EU Zoo Directive EWLA 2006	file:///C:/Users/Gebruiker/Dropbox/162 DG%20ENV%20Zoos%20Directive/0 Documentation/ImplementationEU-zooDirective_Eurogroup_2006.p	National	Reports and studies	Y	Y	Legislation and implementation

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ES (Spain)										
Law 31/2003	https://www.boe.es/boe-us-car/act.php?id=BOE-A-2003-19800&p=20031028&tn=1	National	Legally binding document	Y	Y	Y	Y	Y	Y	Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Law 42/2007	https://www.boe.es/boe-us-car/act.php?id=BOE-A-2007-21490&p=20150922&tn=1	National	Legally binding document	Y	Y	Y	Y	Y	Y	This law establishes the legal framework for the preservation, sustainable use, improvement and restoration of the natural heritage and biodiversity. It creates the Spanish Inventory and Strategic Plan of Natural Heritage and Biodiversity. The Inventory includes sections on wild species, endangered species and zoos.
Royal Decree 1333/2006	https://www.boe.es/boe-us-car/act.php?id=BOE-A-2006-20847&p=20061130&tn=1	National	Legally binding document	Y	Y	Y	Y	Y	Y	This Royal Decree regulates the destination that should be given to seized specimens of endangered wild fauna and flora as part of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Among other measures, it determines the treatment that should be given to species in rescue centres (i.e. centres where seized species are taken to).
Royal Decree 479/2004	https://www.boe.es/boe-us-car/act.php?id=BOE-A-2004-20847&p=20041130&tn=1	National	Legally binding document	Y	Y	Y	Y	Y	Y	This Royal Decree was adopted after the Law 31/2003 establishing and regulating the general register of livestock farms.

	oe.es/diario_bosque/txt.php?id=BOE-A-2015-710		document							This register includes the zoos regulated under Law 31/2003.
Decree 1119/1975	https://www.boe.es/diario_bosque/txt.php?id=BOE-A-1975-11042	National	Legally binding document	Y	Y	Y	Y	Y		This Decree is prior to the Directive and regulates the authorisation and registration of zoological centres, establishments to practice horse riding, centres for the enhancement and care of companion animals and other similar centres. The procedures for authorisation and licensing of zoos follow the rules under this act.
Ministry of Environment, 2010. The zoo, a new ally of biodiversity. Guide to the implementation of law 31/2003 on the conservation of wildlife in zoos (2nd Edition) (El parque zoológico, un nuevo aliado de la biodiversidad. Guía para la aplicación de la ley 31/2003 de conservación de la fauna silvestre en los parques zoológicos (2º edición))		National	Policy document	Y	Y	Y	Y	Y		The aim of the guide is to explain the objectives of the recently adopted law 31/2003 and the measures to be taken in zoos to ensure its implementation. The document summarizes the relevant legislation, presents and discusses the concept of zoo, describes the measures to be taken to achieve the objectives. The measures described in the guide include species conservation programs and actions including species breeding in captivity, measures ensuring the animal welfare including the safety of their accommodation, planning conservation programs and education and public awareness measures, human resources requirements and the control and inspection of zoos.
Annual Report of the MAGRAMA on Natural Heritage and Biodiversity (Part 3b)	http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-	National	Reports and studies	Y	Y	Y	Y	Y		This Annual Report provides information on the state of preservation of wild species of fauna, including endangered species among others. Last report: 2013.

	es-panol-patrimonio-natural-bio-div/Informe_2013_IEPNB.aspx								
Junta de Andalucía, 2016, Andalusian Plan on Animal Health Controls and Inspections	http://www.juntadeandalucia.es/export/drupaljda/pc-nucleos-zoologicos-2016.pdf	National	Policy document	Y	Y	Y	Y		This document sets the procedures and indicators to carry out inspections in zoos in Andalucía.
Model form to be used when carrying out zoos inspections, Comunidad Autónoma de Galicia.		National	Policy document						Zoo inspection form
Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2012, Do naturalistic enclosures provide suitable environments for zoo animals?, Zoo Biology 31(3), pp. 362-73	https://www.researchgate.net/publication/51233707_Do_naturalistic_enclosures	National	Scientific literature	Y	Y	Y	Y	Y	Analysis of naturalistic and non-naturalistic enclosures in 63 Spanish zoological parks to assess the suitability of the environment provided.

	es provide suitable environments for zoo animals									
Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2012, Unravelling the complexity of the zoo community: identifying the variables related to conservation performance in zoological parks, Zoo Biology 31, pp. 55-70	https://www.researchgate.net/publication/51039274_Unravelling_the_Complexity_of_the_Zoo_Community_Identifying_the_Variables_Related_to_Conservation_Performance_in_Zoological_Parks	National	Scientific literature	Y	Y	Y	Y	Y	Assessment of the conservation performance of 60 Spanish zoos in accordance with the requirements set in Directive 1999/22/EC.	
Fàbregas, M.C., Garcés-Narro, C., Guillén-Salazar, G., 2010, The	https://www.researchgate.net/publication/478111167_Evaluation_of_the_Risk_of_Potential_Animal_Escape_at_Zoological_Parks_by_Assessing_the_Security_of_Animal_Enclosures_in_63_Spanish_Zoos	National	Scientific literature	Y	Y	Y	Y	Y	Evaluation of the risk of potential animal escape at zoological parks by assessing the security of animal enclosures in 63 Span-	

<p>risk of zoological parks as potential pathways for the introduction of non-indigenous species, <i>Biological Invasions</i> 12(10), pp. 3627-3636</p>	<p>searchgate.net/publication/225165010_The_risk_of_zoological_parks_as_potential_pathways_for_the_introduction_of_non-indigenous_species</p>						<p>ish zoological parks.</p>
<p>Infozoos, Reports of zoos in different Spanish Autonomous Communities (Valencia, Castilla-La-Mancha, Asturias, Galicia, Catalonia, Madrid) (2009-2015)</p>	<p>http://www.infozoos.org/proyecto.php</p>	<p>National</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Y</p>		<p>This website gathers the reports drafted in the framework of project Infozoos regarding different zoos in different Autonomous Communities based on the field visits carried out.</p>
<p>BornFree, 2006, Zoo Health: An adaptation of Spanish zoos following the implementation of Act 31/2003</p>	<p>http://www.bornfree.org.uk/fileadmin/user_upload/files/zoo_check/publications/Infozoos_Report.pdf</p>	<p>National</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Y</p>		<p>Information on the transposition measures adopted by Spain according to the Zoos Directive. Investigation pointed at the shortcomings of the Spanish transposition and ultimately contributed to the launch of Case C-340/09.</p>

	port - pilot study_EN version.pdf					
InfoZoos, 2008, Zoo Health – The legal status of zoos in the Canary Islands in accordance to Spanish Law 31/2003	http://www.borfnfree.org.uk/fileadmin/user_upload/files/zoo_check/publications/Infozoos_Report_-_zoos_in_the_Canaries_-_EN_version.pdf	National	Reports and studies	Y	Y	Information on the transposition measures adopted by Spain (Canary Islands) according to the Zoos Directive.
InfoZoos, 2009, Investigation into the conditions in zoos in the Spanish Region of Valencia	http://www.borfnfree.org.uk/fileadmin/user_upload/files/zoo_check/publications/Infozoos_Report_-_Valenc	National	Reports and studies	Y	Y	Information on the transposition measures adopted by Spain (Canary Islands) according to the Zoos Directive.

	ia_zoos_re-port_2009_EN_version.pdf								
EAZA, TAG reports 2013-14		EU	Reports and studies	Y	Y	Y		Y	Information on conservation research and training programmes.
AIZA, 2007, 'The zoological garden, a new ally for biodiversity' (El parque zoológico un nuevo aliado de la biodiversidad)	http://www.aiza.org.es/pdf/publicaciones/guia_aplicacion Ley 31_2007.pdf	National	Reports and studies	Y	Y	Y	Y	Y	Guide for the implementation of Law 31/2003 transposing Directive 1999/2002.
World Association of Zoos and Aquariums, 2005, 'Building a future for the Wild Fauna'	http://www.magrama.gob.es/es/biodiversidad/publicaciones/publicaciones/estrategia_mundial_zoos_acuarios_06_tcm7-20337.pdf	International	Reports and studies	Y	Y	Y	Y	Y	World Strategy for the preservation of wild species in zoos and aquariums.
Igualdad Animal, 2011, 'Lives in captivity' (Vidas enjauladas)	http://www.vid	National	Reports and stu-	Y		Y	Y	Y	Study on the field visits to 8 zoos in Spain (Madrid, Catalonia, Valencia and Andalucía. 226 animal enclosures were visited,

	asen-jaula-das.org/resume_informe_zoos_2011.pdf		dies					examining the situation of 271 specimens covering 155 terrestrial animal species.
Case C-340/09 (Commission v. Spain), 19/02/2011		EU	Case law	Y		Y	Y	Judgment
FR (France)								
Order of 25 March 2004	Regulation	National	Legally binding document	Y				This is the main French regulation transposing Directive 1999/22/EC (amended in 2009). This Ministerial Order contains rules applying to: the scope of the zoos to which the order applies (Art 1); the physical organisation of the zoos (type of buildings containing animals, height of enclosures, etc.) (Art 2); the zoo staff and their working conditions (Art 3 to 5); the prevention of accidents (Art 6 to 9); the well-being of animals (conditions satisfying the biological and conservation requirements of species, etc.) (Art 10 to 26); the public presentation of animals to visitors (Art 27 to 40); the sanitary prevention of illnesses amongst animals (Art 41 to 52); the participation in animal conservation activities (Art 53 to 56); the promotion of public education in relation to biodiversity (Art 57 to 63); the prevention of ecological risks (Art 64 to 68).
Order of 10 August 2004	Regulation	National	Legally binding document	Y				Zoos are considered establishments practicing the breeding of non-domestic animals. As a result, Order of 10 August 2004 applies to zoos. It contains various rules relevant to the application of Directive 1999/22/EC: conditions to obtain a licence (Art 1 to 5); identification and tagging of animals (Art 6 to 11); conditions for the practice of hunting by bird of prey (Art 12 to 15).
2012, Les parcs zoologiques et les aquariums, Ministère de l'Environnement, de l'Energie et de la Mer (2 July 2012)	http://www.developpement-durable.gouv.fr/P	National	Media	Y				Web page of the French Environment Ministry providing information on the licensing of zoos. Zoos must have an authorization to open (autorisation d'ouverture) and a competence certificate (certificat de capacité). In each French department, such licensing is overseen by the regional veterinary services (direction départementale de la protection des populations), under the authority of the Prefect.

	arcs-zoologiques-et-aquariums.html					
2012, Le suivi et le contrôle des établissements, Ministère de l'Environnement, de l'Energie et de la Mer (2 July 2012)	http://www.developpement-durable.gouv.fr/Suivi-et-contrôle-des.html	National	Media	Y		Web page of the French Environment Ministry providing information on administrative inspection of zoos. This inspection aims to control: the respect of licences, animal well-being, and the absence of risk to the security of persons ; the lawful origin of animals and the identification of species for which tagging is compulsory; the movement of animals; changes which took place and should have been communicated to the administrative authority, important changes that require a new licence; the need for administrative and criminal penalties according to the Environmental Code. Such inspection is done by regional veterinary services (directions départementales de la protection des populations), in coordination with the national office of hunting and wildlife (Office national de la chasse et de la faune sauvage).
Maillot, E. and others, 2010, Rapport: Conditions d'accueil des animaux d'espèces non domestiques saisis ou recueillis – Faune sauvage exotique, Ministère de l'Alimentation, de l'Agriculture et de la Pêche et Ministère de l'Ecologie, de l'Energie, du Développement Durable et de la Mer, La Documentation Française, Paris	http://www.ladocumentationfrancaise.fr/var/storage/rapports-publics/104000588.pdf	National	Reports and studies	Y	Y	This governmental report provides information on the law applying to seized or collected non-domestic animal species. It contains some information on the role zoos can play in sheltering these animals.
Fouché, A., 2009, Rapport d'information au premier Ministre relatif aux enjeux liés à l'évolution des parcs de loisirs en France, Premier Ministre, La Do-	http://www.ladocumentationfrancaise.fr/var/storage/rapports-publics/094000588.pdf	National	Reports and studies	Y	Y	This governmental report assesses the challenges arising from the evolution of entertainment parks, including zoos. The author points out a number of deficiencies of the French legal law applying to zoos. He argues that French rules neglect to take into account the different roles zoos play (eg biodiversity)

documentation Française, Paris	francaise.fr/ var/storage/ reports- pu- blics/09 4000267 .pdf						conservation) or that zoos contribute to a general interest mission (p. 29-30). The author calls for the creation of observatories fully dedicated to the activities of zoos (p. 43) and for the adoption of a national protocol of collaboration between zoos and regional environmental agencies to facilitate the funding of zoos (p. 65).
2008, Circulaire MEEDDAT DNP/CFF 2008/03 (11 April 2008)	http://www.calvados.gov.fr/IMG/pdf/CdC_et_AO_Etablissement_public.pdf	National	Policy document	Y			Example of guidance on how to apply for a competence certificate in Calvados
Laidebeure, S. and Lecu, A., 2014, 'Evolution du Concept de Parc Zoologique de Paris de 1934 à 2014 – Evolution of the Concept of Paris Zoo from 1934 to 2014', in Bull. Acad. Vét. France, Tome 167, No 4, pp. 349-354	http://documents.irdes.inist.fr/bitstream/handle/2042/56531/AVF_167_4_349.pdf?sequence=1&isAllowed=y	National	Scientific literature	Y	Y		This paper describes the evolution of the Paris zoo regarding various aspects of the organization and the operation of the zoo, such as taxonomic diversity of species, animal welfare, and participation in conservation and research programmes.
Lecu, A. and Petit, T., 2012, 'Cadres Réglementaires de l'Exercice Vétérinaire en Parc	http://documents.irdes.inist.fr/bitstream/handle/2042/56531/AVF_167_4_349.pdf?sequence=1&isAllowed=y	National	Scientific literature	Y	Y	Y	This paper describes the various international, European and national regulations applying to veterinarian practice in French zoos. The author underlines the complexity of European

<p>Zoologique - Regulatory Framework of Veterinary Practice in Zoos, in Bull. Acad. Vét. France, Tome 165, No 2, pp. 163-167</p>	<p>evues.inist.fr/bits/tream/han-dle/2042/48204/AVF_2012_2_163.pdf?s-equenc-e=1&isAllowed=y</p>	<p>National</p>	<p>Scientific literature</p>	<p>Y</p>	<p>Y</p>	<p>regulation, especially in relation to veterinary's healthcare duties. The paper also describes the interactions and/or linkages between Directive 1999/22/EC and other EU regulations and/or Directives.</p>
<p>Bourgeois, A. and Lecu, A., 2012, 'Travailler en Parc Zoologique: Dangers Physiques et Zoonotiques, Moyen de Prévention - Working in a Zoo: Physical and Zoonotic Hazards, Preventive Measures', in Bull. Acad. Vét. France, Tome 165, No 2, pp. 155-161</p>	<p>http://doku.ments.ir/evues.inist.fr/bits/tream/han-dle/2042/48203/AVF_2012_2_155.pdf?s-equenc-e=1&isAllowed=y</p>	<p>National</p>	<p>Scientific literature</p>	<p>Y</p>	<p>Y</p>	<p>This paper describes hazards for veterinarians and animal keepers working with zoo animals. The staff is exposed to a risk of injury, either directly due to the animals or indirectly due to the equipment used for their care. The broad range of species gathered in the same place, and daily contacts between the staff and the animals also constitute a zoonotic risk. The paper underlines that European and international safety norms tend to create a level playing field amongst zoos. Preventive measures may involve health and security measures, staff training, and communication with all the actors of animal and human health.</p>
<p>Petit, T., 2008, 'L'Activité Vétérinaire dans les Parcs Zoologiques de France - Veterinary Practice in Zoos in France', in Bull. Acad. Vét. France, Tome 161, No 2, pp. 139-144.</p>	<p>http://doku.ments.ir/evues.inist.fr/bits/tream/han-dle/2042/47936/AVF_2008_2_139.pdf?s-equenc-e=1&isAllowed=y</p>	<p>National</p>	<p>Scientific literature</p>	<p>Y</p>	<p>Y</p>	<p>This paper describes the work of veterinarians in zoos in France. It compares the rules laid down by both Directive 1999/22/EC and French law in relation to veterinarian practice in zoos. In France zoos started recruiting veterinarians relatively recently. Directive 1999/22/EC has played an important role in increasing the role of both veterinarians working in zoos and veterinarians in charge of inspecting zoos. In practice, the work of zoo veterinarians is not limited to medical activities and they may act successively as clinicians, pathologists, nutritionists, breeders, architects, etc. Although this paper is not critical, readers can, nonetheless, question whether the workload of veterinar-</p>

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Code Animal, 2013, Rapport d'Enquête Octobre 2013 Zoo de l'Orangerie, Strasbourg (Bas-Rhin)	http://www.zoo-de-france.com/sites/default/files/doc_a_tel/rapport_strasbourg.pdf	National	Reports and studies	Y				Investigation led by the animal welfare NGO Code Animal assessing the respect by the Strasbourg Zoo of various provisions under Order of 25 March 2004, Directive 1999/22/EC, French Rural Code and French Environmental Code. The report concludes that the Strasbourg Zoo does not respect the rules related to the biological and conservation requirements of animals, and to security.
Born Free, 2010, Enquête de 2011 sur les Zoos de l'Union Européenne : Une Evaluation de la Mise en Application et du Respect de la Directive CE 1999/22 Relative à la Détention d'Animaux Sauvages dans un Environnement Zoologique FRANCE, ENDCAP	http://www.bornfree.org.uk/zoo-reports/France/francefr/pages/BFF_EZR_FRANCE_FINALfr.pdf	National	Reports and studies	Y	Y	Y		Investigation on the application of Directive 1999/22/EC in French zoos. A sample of 25 zoos was inspected and evaluated against the legal requirements of Directive 1999/22/EC and French transposition measures. Analysis was undertaken on a number of key aspects of their operation including: participation in conservation activities, the acquisition of animals, public education, public safety and animal welfare. Investigators found that, although France transposed the Directive into French law, 13% of the sample did not conform to the rules of the French transposition measures. The following shortcomings were found: Lack of territorial uniformity in the application of licensing measures (power belonging to the local authority "préfet"); Living standards of animals were below the standards set up by Directive 1999/22/EC in 36% of the sample. The biological and conservation requirements of individual species were not respected; Lack of adequate measures to prevent the escape of animals, threatening the security of local species and of visitors; Contribution to the conservation of biodiversity was actually weak; The educational value of zoos was limited (64% of the sample appears to have an educational programme; at the same time, more than half of the sample offered wild animal shows).
Born Free, 2010, Enquête de 2011	http://e	EU	Reports	Y	Y	Y		Investigation on the application of Directive 1999/22/EC in 18

<p>sur les Zoos de l'Union Européenne. Les Delphinariums : Une Evaluation de la Détenion de Baleines et de Dauphins en Union européenne et de la Directive 1999/22/CE, Relative à la Détenion d'Animaux Sauvages dans un Environnement Zoologique, ENDCAP</p>	<p>ndcap.eu/eu-dolphinaria/</p>	<p>and studies</p>	<p>dolphinaria of EU Member States (including France). Analysis was undertaken on a number of key aspects of their operation including: participation in conservation activities, the acquisition of animals, public education, public safety and animal welfare. These parameters were evaluated against the legal requirements of EC Directive 1999/22, EU Council Regulation 338/97 and other relevant EU legislation. The report concluded that EU dolphinariums do not comply with the key objectives of the EC Zoos Directive (insignificant contribution to biodiversity conservation; live cetaceans importations in spite of prohibition under EU CITES Regulation; poor public education; significant risk of disease and injury; etc.).</p>
<p>Tribunal Administratif de Limoges, 11 February 2016, M. A..., n° 1300852</p>	<p>http://limoges.tribunal-administratif.fr/content/download/66680/606608/version/1/file/1300852_anon_compl%5B1%5D.pdf</p>	<p>National Case law Y</p>	<p>Ruling (Administrative Court. This case was related to a private owner of non-domestic animals, not a zoo. However, this ruling is relevant for zoos too. In this case, the owner of two emus had seen his request to keep these animals rejected by the Prefect on the grounds that the plaintiff did not hold, contrary to Article 1 of the Order of 10 August 2004, the competence certificate requested to keep non-domestic animals pursuant to Article L413-2 of the Environmental Code. The plaintiff challenged the applicability of Order of 10 August 2004, notably on the grounds that he had had emus since 2003. The Limoges Administrative Court rejected the plaintiff's argument. It held that, pursuant to Order of 10 August 2004, the possibility to keep emus was subject to Articles L413-2 and L413-3 of the Environmental Code and, as a result, to the detention of a competence certificate. More importantly, the Court held that the fact that the owner had the animals before the entry into force of Order of 10 August 2004 did not preclude the application of this Order. Furthermore, the Order could not provide for a different set of rules applicable to persons owning non-domestic animals before its entry into force.</p>
<p>CAA Nancy, 22 January 2015, Société coopérative de production à responsabilité limitée « Parc Zoo d'Amnéville »</p>	<p>https://www.lejgouv.fr/affichJurisAd-</p>	<p>National Case law Y</p>	<p>Ruling (Appeal Administrative Court). In this case, the Administrative Appeal Court of Nancy found that the Amnéville Zoo was liable to pay the preventive archaeology tax for buildings constructed to house orangutans. The Court held that these buildings were not farming premises since the main activity of the zoo is to show wild animals to the public. The construction of buildings to house animals, even though they are critically endangered and belong to a conservation programme for</p>

	min.do?oldAction=rechJurAdriAdmin&idTexte=CETATEXT000030171758&fastReqlid=745813752&fastPos=1				species in danger of extinction, cannot have a farming purpose and be exempted from tax.
2015, 'Régime fiscal d'un abri pour orangs-outans', La Lettre de La Justice Administrative, No 37	http://www.conseil-etat.fr/content/download/38228/332174/version/3/file/LJA-37-web.pdf	National	Case law	Y	Summary of case CAA Nancy, 22 January 2015, Société coopérative de production à responsabilité limitée « Parc Zoo d'Amnéville »
Cass (crim), 4 October 2011, n°11-80198	https://www.legifrance.gouv.fr/affichJurifuriJuridi.do?idTexte=J	National	Case law	Y	Ruling (Court of Cassation – Criminal Chamber). This case was related to a circus, not a zoo. However, this ruling is relevant for zoos too. The owner of a circus had the competence certificate required by Art L413-2 of the Environmental Code. However, he was not on the premises of the circus on the day of the inspection and was found criminally liable for his absence by the Appeal Court of Grenoble on the basis of Art L415-3 of the Environmental Code. However, the Court of Cassation struck down the appeal judgement. It held that Art L 415-3 did not require the owner of the certificate to be on the premises.

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Jaworski, V., 2012, 'Espèces protégées', in Revue juridique de l'environnement, Vol 37, No 4, pp. 730-731	http://www.cairn.info/revue-revue-juridique-de-l'environnement-2012-4-page-730.htm	National	Scientific literature	Y	Summary of criminal case Cass (crim), 4 October 2011, n°11-80198
AFdPZ, 2016, Commission Conservation	http://www.afdpz.org/index.php?option=com_content&view=article&id=79&Itemid=114	National	Media	Y	Information on the conservation measures of AFdPZ. For instance, in 2016, AFdPZ funded 16 programmes of in situ conservation for an amount of 63,000 EUR.
Zoo d'Amnéville, 2016, Nos programmes de conservation	http://www.zoo-amneville.com/leParc/conservation.php	National	Media	Y	Webpage of the Amnéville Zoo on their conservation activities. Over the last 5 years, the Zoo spent 2 million euros on conservation activities in various developing countries.
Zoos de France, 2015, Zoo de	http://w	National	Reports	Y	Following Code Animal's criminal complaint against the Stras-

l'Orangerie: Publication du Rapport d'Enquête de Code Animal (10 February 2015)	www.zoo-de-france.com/content/zoo-de-l%E2%80%99orangerie-publication-du-rapport-d%E2%80%99enqu%C3%AAte-de-code-animal	and studies	bourg Zoo, the Instance Court (Tribunal d'Instance) of Strasbourg opened an investigation. As of February 2015, it appears that the Public Prosecutor was still investigating the facts of the complaint	
Marty, M., 2013, 'Une enquête sur le zoo de l'Orangerie pourrait aboutir à sa fermeture', Rue 89 Strasbourg (8 January 2013)	http://www.rue89strasbourg.com/une-enquete-sur-le-zoo-de-lorangerie-pourrait-aboutir-a-sa-fermeture-27637	National Media	Y	This journal articles describes the conflict between the Strasbourg Zoo on one hand, and animal welfare NGOs and Green local politicians. Parties argue about whether the Strasbourg Zoo respects Directive 199/22/EC. The city of Strasbourg was asked to intervene in this conflict.
Code Animal, 2013, Zoo de Strasbourg: Une Structure Ar-	http://www.cod	National Reports and stu-	Y	The French NGO Code Animal brought a criminal complaint against the Strasbourg Zoo for violation of Order of 25 March

<p>chaîque en Echec (31 October 2013)</p>	<p>e-animal.com/wp-content/uploads/2015/09/cp_endc_ap_ok.pdf</p>	<p>dies</p>	<p>2004 and Directive 1999/22/EC, and other provisions of the Rural Code and the Criminal Code.</p>		
<p>'Zoo de Fréjus : les services de l'Etat demandent des mesures d'amélioration', Nice-Matin (10 September 2014)</p>	<p>http://archives.nicematin.com/derniere-mi-nute/zoo-de-frejus-les-services-vices-de-l%E2%80%99etat-demandent-des-mesures-d%E2%80%99amelioration.1898211.htm</p>	<p>National</p>	<p>Media</p>	<p>Y</p>	<p>This journal article describes the response of the local authorities, in particular the Direction Départementale de la Protection des Populations (DDPP), to the petition launched against the Fréjus Zoo after cases of poor treatment of animals had been raised.</p>

<p>'Éléphants assoiffés, loup blessé, ara déplumé... J'ai visité le zoo de Fréjus, une horreur', L'Obs Le Plus (22 August 2014)</p>	<p>ml http://leplus.nouvelobs.com/contribution/1233741-elephants-assoiffes-loup-blesse-ara-deplume-j-ai-visite-le-zoo-de-frejus-une-horreur.html</p>	<p>National</p>	<p>Media</p>	<p>Y</p>	<p>This blog article criticizes the treatment of animals and the lack of measures respecting the biological needs of animals in the Fréjus Zoo.</p>
<p>Garric, A., 2012, 'Les zoos français protègent-ils assez les animaux ?', Le Monde (5 May 2012)</p>	<p>http://www.lemonde.fr/planete/article/2012/05/05/les-zoos-francais-protgent-ils-assez-les-</p>	<p>National</p>	<p>Media</p>	<p>Y</p>	<p>This journal article questions whether French zoos respect their obligations under Directive 1999/22/EC following the publication of a Born Free's report on the implementation of the Directive in various EU Member States. The French NGO Code Animal criticizes the French law applying to zoos for being not precise enough. "They do not provide the minimal norms for all species; as a result each zoo interprets its general missions as it wishes". The article describes three main issues: inadequate measures to ensure animal well-being; lack of conservation measures by zoos; and insufficient public education.</p>

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IE (Ireland)							
European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003 of 19/09/2003		National	Legally binding document	Y	Y		Adoption in national legislation of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Irish Standards of Modern Zoo Practice	https://www.npws.ie/sites/default/files/publications/pdf/ISMZP2016.pdf	National	Policy document	Y	Y	Y	Specification of modern standards of zoo practice, including a range of forms
Irish Zoo Licence Guidance Notes: GN01 Zoo Licencing Useful Information	https://www.npws.ie/licences/education-and-science/zoo-licences	National	Policy document	Y	Y	Y	Specification of modern standards of zoo practice, including a range of forms
Irish Zoo Licence Guidance Notes: GN02 Zoo Licencing Process	https://www.npws.ie/licences/	National	Policy document	Y	Y	Y	Specification of modern standards of zoo practice, including a range of forms

	educa- tion- and- sci- ence/z oo- licences						
Irish Zoo Licence Guidance Notes: GN03 Exemption Criteria and Application	https:// www.n ps.ie/li cences/ educa- tion- and- sci- ence/z oo- licences	National	Policy document	Y	Y	Y	Specification of modern standards of zoo practice, including a range of forms
The EU Zoo Inquiry 2011: Country Report Ireland	http://w ww.bor nfree.or g.uk/zo ore- ports/ire land/	National	Reports and studies	Y		Y	Of the 27 identified zoological collections in the Republic of Ireland, eight zoos were assessed as part of a pan-European project to evaluate the effectiveness and degree of implementation and enforcement of European Council Directive 1999/22/EC. The Born Free report checked eight zoos in Ireland (6 licensed and 2 'unlicensed') in 2009. She concluded, amongst other issues, that Irish zoos appear to demonstrate a limited commitment to the conservation of biodiversity and, in particular, Threatened species, and that requirements of the EC Directive 1999/22 has been accurately transposed into R440/2003, there are inconsistencies in its application.
June 2002 Letter of formal notice		EU	Case law	Y		Y	June 2002: a Letter of formal notice was sent to Ireland concerning the non-transposition of the Directive into national law. This was followed by a Reasoned Opinion in October 2002, which in turn was followed by Saisine in June 2003. Ireland responded in September 2003 with European Communities (Licensing and Inspection of Zoos) Regulations 2003, S.I. No. 440/2003. The case was then withdrawn.
IT (Italy)							
Legislative Decree 21 March 2005 n. 73 (Official Gazette n. 100, 02/05/2005): 'Attuazione	http://w ww.cq me-	National	Legally binding docu-		Y	Y	Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory condi-

della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici'.	ra.it/parlam/leggi/deleghe/05073dl.htm		ment							tions; d) preventing escape and ecological threats and e) record keeping.
Decreto del Ministero dell'Ambiente 18 gennaio 2006. Modifica all'allegato 4 del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici. Gazzetta Ufficiale n. 26 del 1° febbraio 2006	http://gazzette.come.mune.jesi.an.it/2006/26/9.htm	National	Legally binding document							Modifying the annex 4 of the Italian legislative decree n. 73/2005 by removing the time limit of 180 days that were necessary to submit the application for obtaining the license required for the opening of new zoos.
Decreto Legislativo 4 aprile 2006 n. 192 (2006). Disposizioni correttive del decreto legislativo 21 marzo 2005, n. 73, recante attuazione della direttiva 1999/22/CE relativa alla custodia degli animali selvatici nei giardini zoologici. Gazzetta Ufficiale n. 121 del 26 maggio 2006.	http://gazzette.come.mune.jesi.an.it/2006/121/1.htm	National	Legally binding document							Modifying the definition of zoos in the Italian legislative decree n. 73/2005 which implements the Directive 1999/22/CE. Modifying provisions about the license in the Italian legislative decree n. 73/2005 which implements the Directive 1999/22/CE.
Legge n. 101 del 6 giugno 2008 (pubblicata nella Gazzetta Ufficiale n. 132 del 7 giugno 2008), "Conversione in legge, con modificazioni, del decreto-legge 8 aprile 2008, n. 59, recante disposizioni urgenti per l'attuazione di obblighi comunitari e l'esecuzione di sentenze della Corte di giustizia delle Comunità europee".	http://www.come.ra.it/parlam/leggi/081011.htm	National	Legally binding document	Y	Y	Y	Y	Y		Law enacted since the previous modifications of the legislative decree n. 73/2005 (Ministerial Decree of 18 January 2006 and Legislative Decree 192/2006) were interpreted by the European Commission as a breach of the Directive 1999/22/CE. Due to this situation the European Commission issued an infringement procedure against the Italian republic (2007/2179). To comply with the requests of the European Commission this law re-establishes the original definition of zoo as it was written in the first version of art. 2, legislative decree n. 73/2005
Gippoliti, S., Kitchener, C., 2007, 'The Italian Zoological Gardens and their Role in Mammal Systematic Studies, Conservation	http://www.italian-journal-	National	Scientific literature	Y						A stronger collaboration between zoos, museums and universities is needed to maximise the scientific and conservation value of Italian mammal collections.

<p>Biology and Museum Collections, in <i>Hystrix It. J. Mamm.</i> (n.s.), vol. 18 n.), pp. 173-184</p>	<p>of-mammalogy.it/articoli/view/4401/4337</p>									
<p>Rizzelli, D., Carratù, A., Montella, F, Nobili, C , Gaetano, F, 2013, 'A thousand ways to educate people: the case of the 'grassmen' workshop at Zoomarine Italy', in IZE Journal vol. 49</p>	<p>http://izea.net/wp-content/uploads/2015/03/A-thousand-ways-to-educate-people-the-case-of-the-grassmen-workshop-at-Zoomarine-Italy.pdf</p>	<p>National</p>	<p>Scientific literature</p>	<p>Y</p>						<p>The grassmen workshop is a powerful tool to educate people about wild species and conservation activities in the zoos.</p>
<p>Born Free Foundation, 2011, 'The EU Zoo Inquiry, An evaluation of the implementation and enforcement of the EC Directive 1999/22, relating to the keeping of wild animals in zoos – ITALY'</p>	<p>http://www.bornfree.org.uk/zoo-ports/italy-</p>	<p>National</p>	<p>Reports and studies</p>	<p>Y</p>	<p>Y</p>	<p>Y</p>	<p>Y</p>			<p>Many of the requirements applicable to zoos in Italy are more stringent than those required by the Directive. Findings indicated that the Italian zoo law was not being effectively implemented and enforced, with significant numbers of zoos remaining unlicensed and unregulated, yet operational. Findings concluded that few zoo inspections have taken place, the majority of zoos remain uninspected and many have yet</p>

	it/pages/BFF_EZR_ITALY_FINAL_24-04-12_SML.pdf							to request an operational licence. Whilst some individual zoos were performing better than others, overall findings indicate that zoos in Italy were failing to comply with their legal obligations of LD73/2005. This does not meet the fundamental objective of Article 4 of the Directive. Overall zoos appeared to be making an insignificant contribution to the conservation either globally or in Europe of species threatened with extinction. Species information was not available to the public for almost one third of the exhibited species holdings across the 25 zoos analysed in the report. The majority of the animal demonstrations observed showed the animals performing unnatural behaviours. Some zoos were not taking appropriate measures to prevent the escape of non-indigenous animals into the natural environment.
Masutti, N., 2009, '10 anni di buio, valutazione del benessere animale nelle strutture di detenzione presenti in Italia', LAV dossier, pp. 1 – 22	https://issuu.com/lavonlus6/docs/zoo-10-anni-di-buio	National	Scientific literature	Y	Y	Y		The system of licenses in Italy is not properly working as it does not respect the time limits established by EU Directive. The Italian minister of Environment (competent authority for zoos in Italy) is often vague or unclear in answering request for clarification asked by the stakeholders. Overall, the document argues that the EU Zoo Directive is not rightly applied in Italy.
Case C-302/03 (Commission v. Italy), 07/08/2004	http://curia.europa.eu/juris/document/document.jsf?text=&docid=49283&pageIn- dex=0&doclang=EN&	EU	Case law	Y		Y	Y	The Italian Republic failed to adopt the laws, regulations and administrative provisions necessary to implement Directive 1999/22, and was ordered to pay the costs of the trials.

	mode=lst&dir=&occ=first&part=1&cid=1394853						
Case 220/2008 – Italian Government (representing the Italian State) vs Valle d’Aosta Region	http://www.cortecos-tituzionale.it/actio-SchedaPronuncia.do?an-no=2008&numero=220	National	Case law	Y	Y	Y	The Valle d’Aosta Region - which is an autonomous region with special statute and powers - was also implementing the Directive 1999/22 with a regional act: The regional act n. 34/2006. The issue at stake was to verify whether the Valle d’Aosta, being a special region, had a competence to also implement a European piece of legislation. According to the Italian government, the Valle d’Aosta Region, despite the special powers recognised by the Italian constitution, had no competences to implement a European directive whose general aim is the protection of the environment. The latter being in fact a state competence, and not a regional one. In the end, the constitutional judge did not decide on the matter, since the Italian government failed to specify which division of powers between state and regions were breached by the regional act of Valle d’Aosta.
Case 387/2008 - Italian Government (representing the Italian State) vs Provincia di Bolzano	http://www.cortecos-tituzionale.it/actio-SchedaPronuncia.do?an-no=2008&numero=387	National	Case law	Y	Y		In Italy the Directive 1999/22 has been transposed and implemented by the Italian legislative decree 21 march n. 73/2005. The province of Bolzano - which is an autonomous province with special statute and powers - was also implementing the Directive 1999/22 with a provincial act: the provincial act n. 10/2007. According to the Italian government, some articles of the act issued by the province of Bolzano were not in line were the provisions of the Italian legislative decree n.73/2005, and consequently with the Directive. The issue at stake was to verify whether the province of Bolzano, being a special region, had a competence to legislate in matters such as environment and zoos. According to the constitutional judge, the State is the only territorial entity which has competence to legislate in matter of environment and zoos, therefore the articles of the provincial at n. 20/2007 not in line with the Italian legislative decree 73/2005 were declared invalid.
LT (Lithuania)							
Order No. 298, 04/06/02 [amended in 25/09/02 and	https://www.e-	National	Legally binding	Y	Y		The Order stipulates licensing and inspection of zoos, referring to a) conservation research and training, b) public education

25/03/03](Licensing and inspections of zoos) (Wild Fauna Rules)	tar.it/portal/it/legalAct/TAR.A6F660FEBBB1		document			and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping.
Order No. 346, 27/06/02 (Keeping Wild Animals in Zoos)	https://www.e-tar.it/portal/it/legalAct/TAR.F31219F5ACFC	National	Legally binding document	Y	Y	The standards for the keeping of wild animals in zoos are included in this law, including guidelines for housing.
Order No. 250/224, 16/05/02 (Taking of Wild Animals from the Wild to Form Zoological Collections and on Registration of Zoological Collections)	https://www.google.nl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKFwizn6nt2trQAHXGAX-oKHQXjCW8QFgqdMAA&url=http%3A%2F%2Fwww.lmzd.it%2Ffiles%2Fupload-	National	Legally binding document	Y	Y	The Order prescribes how to take wild animals from the wild to form zoological collections and on registration of zoological collections.

	load-ed%2Ftaisykles-2011.pdf&usq=AFQjCNF5hEjJV0pMDgcGTKWizzu5Q6EUUA					
BornFree, 2011, EU Zoo Inquiry Report, Lithuania	http://www.bornfree.org.uk/zoo-reports/Lithuania-en/pages/EU_ZOO_INQUIRY_LITHUANIA_ENG.pdf	National	Reports and studies	Y	Y	The investigation evaluated five zoos in Lithuania, two municipally-owned, Lietuvos Zoologijos Sodas ('Lithuanian Zoo') and the Lithuanian Sea Museum, and three; Grūto Park, the Naturalist Centre Mini Zoo ('Mini Zoo') and Lithuania's Young Naturalists' Centre, are privately owned.
Eurogroup, 2006, Report on the implementation of the EU Zoo Directive	https://www.rspca.org.uk/ImageLocaCa-tor/LocateAsset?asset=document&assetId=123271139	EU	Reports and studies	Y	Y	The report contains information about the implementation of the Zoos Directive in several European countries including Lithuania. It refers to legislation, competent authorities, zoos and licenses, and use of guidelines.

	9501&mode=pr d						
NL (Netherlands)							
Animal Act	http://wet-ten-overeheid.nl/BWBRO030250/2015-02-01	National	Legally binding document	Y	Y		Adoption in national legislations of provisions on a) conservation research and training, b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats and e) record keeping
Evaluation of Animal Act	https://www.rijksoverheid.nl/documenten/rapporten/2009/04/01/evaluatie-van-het-dieren-tuinen-besluit-eindrapport	National	Reports and studies	Y	Y	Y	Evaluation study, concerning the adoption of Zoos Directive, assessing issues with derogation, delay in licensing, and costs involved.
Artis, 2015, Annual Report 2015	http://www.artis.nl/nl/footer/over-natura-artis-magistra/jaar	National	Reports and studies				Description of activities of the zoo in 2015, and the collection of animals

	verslagen/					
ABN-AMRO, 2014, Sectorupdate – Leisure: Voor dierentuinen valt een wereld te winnen	https://insights.abnamro.nl/2014/07/dierentuinen-gebaat-bij-innovatie-aan-boden-prijzetting/	National	Reports and studies	Y	Y	Short study with general data on the zoo sector, with visitors numbers
PL (Poland)						
Nature Protection Act on Environmental Protection, Pursuant to Article 69(1) points 1-5	Legislation	National	Legally binding document	Y	Y	This is the main Polish legislation transposing Directive 1999/22/EC. Article 69(1) points 1-5 includes provisions on: a) conservation research and training; b) public education and awareness; c) accommodating animals under satisfactory conditions; d) preventing escape and ecological threats; and e) record keeping
Regulation of the Minister of the Environment of 16 April 2003 on the detailed conditions for the breeding and husbandry of respective groups of species in zoological gardens (Rozporządzenie Ministra Środowiska z dnia 16 kwietnia 2003 r. w sprawie szczegółowych warunków dla chowu i hodowli poszczególnych grup zwierząt w ogrodach zoologicznych) (RZ04/2003)	http://isip.sejm.gov.pl/DetailsServlet?id=WDU20030990916	National	Legally binding document	Y	Y	The regulation provides detailed conditions for the breeding and husbandry of different species in zoological gardens.
Regulation of the Minister of the Environment of 20 December	http://isap.sejm	National	Legally binding	Y	Y	The regulation provides detailed conditions for the husbandry and keeping of different species in zoological gardens.

2004 on the conditions for the husbandry and keeping of respective groups of species in zoological gardens (Rozporządzenie Ministra Środowiska z dnia 20 grudnia 2004 r. w sprawie warunków hodowli i utrzymywania poszczególnych grup gatunków zwierząt w ogrodzie zoologicznym) (RZ12/2004)	.gov.pl/De-tailsServlet?id=WDU20050050032		document					
The Welfare of Animals in Zoos and EU Legal Standards; Warsaw 2014	https://www.academia.edu/30092738/The_Welfare_of_Animals_in_Zoos_and_EU_Standards	EU	Reports and studies	Y	Y	Y	The report is a publication about welfare of animals in Zoos and EU legal standard. It discusses the role of zoos, the EU legislative framework and policies, national regulations. It summarises the Born Free Poland country report, and the functioning of the British zoo licensing system.	
Maślak R., et al., 2015, 'The Welfare of Bears in Zoos: A Case Study of Poland' in Journal of Applied Animal Welfare Science, vol 19, 2016		National	Scientific literature	Y			The paper describes the welfare of bears in captivity in Poland, which became a big issue of concern when a case of a bear being ill-treated became a high-profile case in the media. It describes that major welfare problems were identified.	
Gardockam T. et al., 2014, The Welfare of Animals in Zoos and EU Legal Standards	https://www.academia.edu/30092738/The_Welfare_of_Animals_in_Zoos_and_EU_Standards	EU	Scientific literature	Y			The paper describes legal standards on animal welfare across the EU.	

	Zoos and EU Legal Standards						
BornFree, Endcap, 2011, An evaluation of the implementation and enforcement of the EC Directive 1999/22, relating to the keeping of wild animals in Zoos, Poland	http://www.bornfree.org.uk/zoo-reports/Poland-en/pages/BFF-EZR_POLAND_FINAL_SM_L_09-11-11.pdf	National	Reports and studies	Y		Y	Information on how did 8 Zoos in Poland implemented the EC Directive 1999/22. The report describes shortcomings of the Polish licensing and inspection system, and animal welfare problems identified in zoos visited.
Basta!, 2014, Polish NGO	http://www.polskie-zoo.info/	National	Media	Y		Y	BASTA! has prepared a video illustrating bad housing conditions and welfare problems of animals in Polish zoos. In 2013 and 2014 activists led by Szczecin Initiative for Animal Welfare BASTA!, visited over 20 zoos in Poland.
PT (Portugal)							
Decree-Law No. 59/2003 (Diário da República I série-A No. 77), rectified by Decree-Law 104/2012	Regulation	National	Legally binding document	Y	Y		The Decree-law 104/2012 amends Decree-Law No 59/2003 of 1 April, corrected by the Declaration of Rectification no. 7-D / 2003, of May 31, which transposed the Zoos Directive 1999/22 /EC, with regard to: A) Of Decree-Law no. 92/2010, of July 26, which Principles and rules to simplify the free movement of access and exercise of service activities carried out In national territory, which transposed into the legal order Directive 2006/123 / EC of the European Parliament and of the Parliament and of the Council of 12 December on In the internal market; and B) Law No. 9/2009, of March 4, which transposed to Directive 2005/36 / EC of the European Parliament and of the European Parliament and of the Council of 7 September On the recognition of professional qualifications, and Directive 2006/123 / EC of the European Parliament and of the Council of 12 December, which adapts certain Directive on the free movement of persons, in particular accession of Bulgaria and

						Romania.
An Efficient Technique for the Captive Breeding of an Endangered Freshwater Fish <i>Salaria fluviatilis</i> (Pisces: Blenniidae), with a Description of Its Ontogeny; J World aquaculture society 2010: 41 (49-56)	http://onlinelibrary.wiley.com/doi/10.1111/j.1749-7345.2009.00332.x/abstract	National	Scientific literature	Y	Y	A technique for ex-situ breeding of endangered fish species in controlled conditions is presented, illustrating contribution of Portuguese zoos to conservation of biodiversity.
Ex situ reproduction of Portuguese endangered cyprinids in the context of their conservation, Sousa-Santos, C., Gil, F. & Almada, V.C. Ichthyol Res (2014) 61: 193	http://link.springer.com/article/10.1007/s10228-013-0383-6	National	Scientific literature	Y	Y	A technique for ex-situ breeding of endangered fish species cyprinids (Carla Sousa-Santos, 2013) in controlled conditions is presented, illustrating contribution of Portuguese zoos to conservation of biodiversity
BornFree, Endcap 2011, An evaluation of the implementation and enforcement of the EC Directive 1999/22, relating to the keeping of wild animals in Zoos, Portugal	http://www.bornfree.org.uk/zoo-reports/Portugal-en/	National	Reports and studies	Y	Y	Extensive study on the implementation of the Zoos Directive in Portugal by assessing 10 of Portugal zoos. Findings address in particular legal issues and animal welfare problems.
Paterok O, Livet J, 2007, Zoological collections in Portugal (Part1, International Zoo News, Vol 54, No.7, 2007, pp 388-402	http://www.rhinocenter.com/pdf_files/119/1199717279.pdf	National	Reports and studies	Y	Y	Information on some of the Zoological Gardens and History of Zoos in Portugal.
Conservation projects aquario Vasco de Gama (PROJECTO DE		National	Reports and stu-	Y	Y	The document illustrates how Vasco da Gama Aquarium will assist in the reproduction of endemic fish at greater risk, provid-

CONSERVAÇÃO EX-SITU DE ORGANISMOS FLUVIAIS)(our survey)		dies			ing facilities and technical personnel and providing information, illustrating the contribution of this Acquarium to conservation of biodiversity.
Scientific conservation programme Jardim Zoo (Programas de Conservacao)(our study)	National	Reports and studies	Y	Y	The document illustrates conservation programmes undertaken at Jardim Zoo
Education programmes at Estação Litoral da Aguda (our study)	National	Reports and studies	Y	Y	The document illustrates education programmes undertaken at Estação Litoral da Aguda

ANNEX V – GLOSSARY

Biodiversity or biological diversity: The diversity of life in all its forms—the diversity of species, of genetic variations within one species, and of ecosystems (CBD, CEPA Toolkit Glossaries).

Conservation: Means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status. (Habitats Directive, 2007 version)

Conservation of biodiversity: The management of human interactions with genes, species and ecosystems so as to provide the maximum benefit to the present generation while maintaining their potential to meet the needs and aspirations of future generations; encompasses elements of saving, studying and using biodiversity. (CBD)

Environmental Enrichment: The husbandry provision of species-specific opportunities within an animal's environment to enable it to express a diversity of desirable and natural behaviours. (Hosey et al. 2009)

Ex-situ conservation: The conservation of species outside their natural habitats. / The conservation of components of biological diversity outside their natural habitats. (CBD)

Education: Organised and sustained communication designed to bring about learning. Learning is taken as any change in behaviour, information, knowledge, understanding, attitudes, skills, or capabilities which can be retained and cannot be ascribed to physical growth or to the development of inherited behaviour patterns. (UNESCO, OECD, 2001)

EEP: The EEP is the most intensive type of population management for a species kept in zoos part of the European Association of Zoos and Aquaria (EAZA). Each EEP has a coordinator (someone with a special interest in and knowledge of the species concerned, who is working in an EAZA zoo or aquarium). He or she is assisted by a Species Committee. The coordinator has many tasks to fulfil, such as collecting information on the status of all the animals of the species for which he or she is responsible kept in EAZA zoos and aquariums, producing a studbook, carrying out demographic and genetic analyses, and producing a plan for the future management of the species. Together with the Species Committee, recommendations are made each year on which animals should breed or not breed, which individual animals should go from one zoo to another, and so on. (EAZA website)

ESB: The ESB is less intensive than the EEP programme. The studbook keeper who is responsible for a certain ESB collects all the data on births, deaths, transfers, etc., from all the EAZA zoos and aquariums that keep the species in question. These data are entered in special computer software programmes, which allow the studbook keeper to carry out analyses of the population of that species. EAZA zoos may ask the studbook keepers for recommendations on breeding or transfers. By collecting and analysing all the relevant information on the species, the studbook keeper can judge if it is doing well in EAZA zoos and aquariums, or if maybe a more rigid management is needed to maintain a healthy population over the long term. In that case, the studbook keeper may propose that the species be managed as an EEP programme. (EAZA website)

Fauna: Animals of any particular region or time. (General definition)

In-situ conservation: The conservation of species in their natural surroundings. / The conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties. (CBD)

Invasive alien species: an alien species whose introduction or spread has been found to threaten or adversely impact upon biodiversity and related ecosystem services. (Regulation 1143/2014 on invasive alien species)

International Species Information System (ISIS): Network collecting and sharing knowledge on animals and their environments. (ISIS website)

International Union for Conservation of Nature (IUCN): IUCN is a membership Union composed of government and civil society organisations. IUCN works across a range of themes related to conservation, environmental and ecological issues. (IUNC website)

One-off costs/investments: Costs faced by actors targeted by regulation since they have to adjust and adapt to the changes legal rule. All these costs are not likely to be borne by the targeted stakeholder on a regular basis in the future: to the contrary, they occur only once, after the entry into force of the new regulation. ("Assessing the Costs and Benefits of Regulation", CEPS – Economisti Associati Study for the European Commission)

Pest and vermin: Are intended as vectors or reservoirs of disease that can adversely affect zoo animals ("EU Zoos Directive, Good Practices Document", VetEffecT study for the European Commission)

Public awareness: brings the issues relating to biodiversity to the attention of key groups who have the power to influence outcomes. Awareness is an agenda setting and marketing exercise helping people to know what and why this is an important issue, the aspirations for the targets, and what is and can be done to achieve these. (CBD CEPA Toolkit Glossaries)

Record keeping system: System supporting the collection of animal records. Under the scope of the Zoos Directive, animal records serve two well-defined functions: i) they are a source of information for competent authorities during inspection and authorization, and; ii) they are essential for a zoo when planning and executing conservation, education and veterinary care programmes. (adapted from "EU Zoos Directive, Good Practices Document", VetEffecT study for the European Commission)

Recurrent costs: Those types of substantive compliance costs that are sustained by the targeted stakeholders on a regular basis as a result of the existence of a legal rule that imposes specific periodic behaviours. ("Assessing the Costs and Benefits of Regulation", CEPS – Economisti Associati Study for the European Commission)

Species: Often defined as a group of related organisms, or a set of animals or plants in which the members have similar characteristics to each other and can breed with each other. (General definition)

Training: Intended as the process of learning the skills needed for a particular job or activity. (General definition)

ANNEX VI – TARGETED SURVEYS REPORT

1 INTRODUCTION

In line with the Better Regulation Guidelines on Stakeholder Consultation, this report aims at summarizing the methodology and results of the targeted surveys of stakeholders undertaken as one of the consultation activities for the study to support the evaluation of the Zoos Directive.

Within the consultation strategy developed for this study, the targeted surveys were part of the overall consultation strategy consisting of:

- Targeted surveys addressed to competent authorities (CAs), zoos federations, non-governmental organisations (NGOs) and zoo operators from the 14 selected Member States (17 August – 28 November 2016);
- Open public consultation (15 September – 8 December 2016);
- In-depth interviews with CAs, zoos federations, NGOs and zoo operators from the 14 selected Member States (18 October – 12 December 2016).

This targeted consultation comprised, first, the questionnaire-based online surveys targeted to specific stakeholder groups, and secondly follow-up interviews to complement the information collected through the targeted surveys, and make sure that the points raised by stakeholders were fully understood (see Interviews Report published on the REFIT website⁴⁶⁷).

The targeted online questionnaires aimed at collecting detailed, quantitative and qualitative, information to support the answers to the evaluation questions. The questionnaires focused on the collection of detailed information and data, especially on the implementation of the Directive (the conservation measures undertaken by the zoos and actions taken by the CAs and enforcement authorities), and the costs and benefits brought by the Directive.

The questionnaires were discussed during a Steering Group Meeting on 5 July 2016 and revised according to the members' comments.

The following sections present information on:

- The stakeholders targeted and mapped; and the reach out strategy;
- The questionnaires;
- Information on respondents;
- The publication and use of answers.

⁴⁶⁷ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

2 TARGETED STAKEHOLDERS

The questionnaires targeted all stakeholder categories in the 14 selected Member States and at EU level:

1. Member States Competent Authorities (MSCAs);
2. NGOs, zoos federations, and experts at national and EU level⁴⁶⁸;
3. Zoo operators.

Stakeholders to be contacted for the survey were identified via different methods:

- **Zoos:** mainly through desk research by the national experts drafting the country fiches;
- **MSCAs, NGOs, Federations and Scientific experts:** through desk research, but also with input from EU level stakeholders (EAZA and BornFree⁴⁶⁹) and from the Commission.

The tables presented in Annex I list all contacted stakeholders for each stakeholder group. In total, the study team contacted: 19 MSCAs; 53 NGOs, federations and experts; 19 EU and international stakeholders; and 514 zoos.

⁴⁶⁸ The questionnaire targeting these stakeholders is hereinafter referred to as 'high level questionnaire'.

⁴⁶⁹ An initial list of relevant stakeholders identified through desk research was communicated to the two organisations for completion.

3 TARGETED QUESTIONNAIRES AND OUTREACH

Questionnaires

The questionnaires were structured around the evaluation questions, sub-questions according to the evaluation framework. The links between questions and evaluation criteria were guided and then illustrated in the correspondence matrix in order to:

- guarantee the added value of each question of the surveys to the evaluation;
- facilitate the comparison of results and;
- ensure the usability of collected data.

A major focus was placed on those evaluation questions for which the information is likely to be particularly scarce (such as state of play, effectiveness, efficiency and EU added value). The questionnaire for the targeted survey included closed questions, to facilitate comparability and quantification, and open questions for explanations and qualitative information. The questionnaires were also tailored to each different types of respondents, e.g., while MSCAs were asked to provide information on the transposing legislation, zoos were asked questions in relation to their activities, in order to measure the level of implementation of the Article 3 conservation measures.

We used the online service of EU survey. The three different questionnaires are available on the RE-FIT website⁴⁷⁰.

Dissemination

Stakeholders were informed about the scope and indicative timeline of all consultation activities including public consultation end of June 2016, 6 weeks before the first targeted questionnaire was sent.

Upon approval by the Commission, the survey was launched on **11 August 2016**, through emails with an introduction to the survey, a guidance document on the functioning of the survey system and specific links to the relevant surveys depending on the stakeholders' type (MSCAs, zoo operators or NGOs and zoos federations).

In order to reach a large panel of zoos operators, the questionnaire addressed to zoos was translated in the national languages of the 14 selected Member States. Moreover, federations and NGOs were encouraged to disseminate the invitation to participate to the surveys to all their members and other interested stakeholders.

A follow up through emails and phone was carried out, especially with:

- non-EAZA zoos to ensure a more balanced representation of zoos members and not members of the association (see below); and all zoos in countries where the response rate was particularly low (e.g. France and Spain)
- the stakeholders selected for the interviews, in order to encourage the completion of the survey before the interview.

Considering the limited availability of stakeholders during the summer period and the slow response rate of institutional stakeholders such MSCAs, the initial deadline of the survey (i.e. **12 September 2016**) was extended several times between September and November. The questionnaires were unpublished for zoos and federations/NGOs/experts on 14 November, and for MSCAs on **28 November** upon submission of the last missing contribution from national authorities.

⁴⁷⁰ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

4 RESPONDENTS

The CAs of the 14 selected Member States responded to the survey. Obtaining answers from some of the authorities required close follow-up and, in some cases, involvement of the European Commission.

Table 43: Overview of MSCAs responding to the questionnaire

Member States	Stakeholder type	Organisation
BE	Competent authorities	Animal Welfare - Walloon region and Flanders
BG	Competent authorities	Ministry of Environment and Water; National Nature Protection Service Directorate
CY	Competent authorities	Ministry of Agriculture, Natural Resources and Environment, Animal Health & Welfare Division
CZ	Competent authorities	Ministry of the Environment
DK	Competent authorities	Ministry of Environment and Food; Danish Veterinary and Food Administration
FR	Competent authorities	Ministry of Environment, Energy and Sea; Sub- Directorate for the Protection and promotion of species and their environment
IT	Competent authorities	Ministry of Environment, Land and Sea Protection
LT	Competent authorities	Ministry of Environment of the Republic of Lithuania
DE	Competent authorities	Federal Ministry of Environment, Nature Protection and Nuclear Safety, Protection of Species, Dept. N13
IE	Competent authorities	National Parks and Wildlife Service, Department of Arts, Heritage & the Gaeltacht
NL	Competent authorities	Ministry of Economic Affairs, Directie Dierlijke Agroketens en Dierenwelzijn
PL	Competent authorities	Ministry of Environmental Protection
PT	Competent authorities	Ministry of Agriculture, General Directorate for Food and Veterinary services
ES	Competent authorities	Ministry of Agriculture

Source: Our survey

Regarding the survey addressed to zoos federations and NGOs, 27 stakeholders replied, divided as illustrated in the table below.

Table 44: Overview of types of respondents to the high-level questionnaire

Level	Federations			NGOs			Authorities and experts ⁴⁷¹		
	Contacted	Responding	Response rate (%)	Contacted	Responding	Response rate (%)	Contacted	Responding	Response rate (%)
EU	4	2	50%	3	3	100%	5	0	0%
International	3	1	33%	1	0	0%	3	0	0%
National	15	10	67%	35	10	29%	2	1	50%

Source: Our survey

At national level, zoos federations and NGOs were from the following countries:

⁴⁷¹ CBD and CITES Secretariats were considered as “Authorities” and are counted in this table under the “Authorities and experts” category.

Table 45: Geographical distribution of federations and NGOs responding to the questionnaire

	BE	CY	DE	DK	ES	FR	IT	NL	PT
Federations	-	-	2	1	1	1	-	2	1
NGOs	1	1	2	-	2	1	1	-	-

Source: Our survey

Organisations active in the field of biodiversity conservation (IUCN, CITES, CBD) were non-responsive to repeated invitations to contribute to the study.

Regarding the involvement of zoos, in order to maximise the outreach, we contacted a large number of zoo operators (i.e. 514 zoos which represent around 25%⁴⁷² of the total registered or recognised zoos in the 14 Member States) based on the information gathered during the inception phase (desk research and lists from CAs⁴⁷³). We achieved the original goal of reaching a response rate between 15% and 20% of all contacted zoos. 70 zoos from the 14 Member States selected as case studies have replied to the survey. 12 additional zoos responded only by direct emails⁴⁷⁴. The total response rate was therefore 16%.

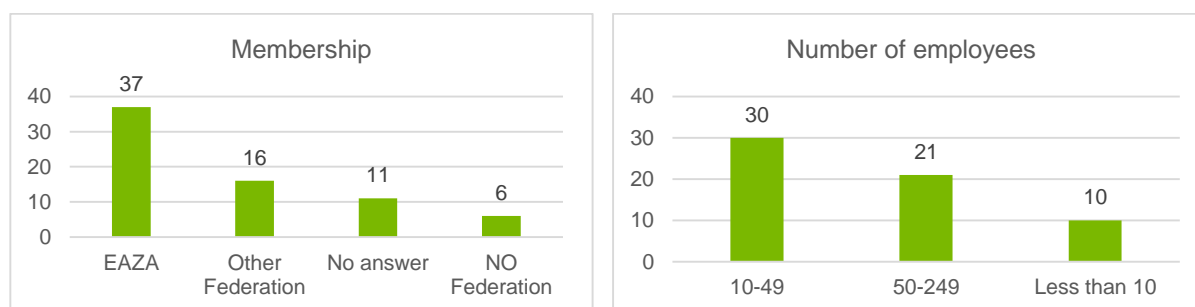
In terms of representativeness of the responses, most of the zoos that have replied are part of EAZA, or other national federations. EAZA zoos are overrepresented among the respondents to the survey (EAZA zoos represent nearly 20% of the total number of licensed zoos⁴⁷⁵ in the 14 selected Member States, and 52% of the respondents). The difficulties relating to representativeness are detailed in Section 3.5.1.2 below.

However, the survey captured the point of view of also covering zoos affiliated to national federations as well as zoos with no membership (6 indicated no membership, and 11 did not answer the question). Similarly, the replies represent zoos of different sizes, especially small establishments (between 10 and 49 employees), and include a number of very small zoos, with less than 10 employees (Figure 6). The presence in the sample of small zoos is particularly important, since one of the objectives of the evaluation is assessing whether small zoos might face more difficulties in complying with the requirements of the Zoos Directive. To this purpose, the questionnaire was translated in the national languages of the 14 Member States in the scope of the analysis and this strategy resulted successful in increasing the outreach of the survey and enhancing the participation of smaller operators.

Finally, the respondents to the survey represent both private and public establishments, and entities with mixed ownership.

The charts below present the main features of the sample of zoos that replied to our survey.

Figure 43: Distribution of the zoos having replied the survey by membership, number of employees and type of entity (in absolute numbers)

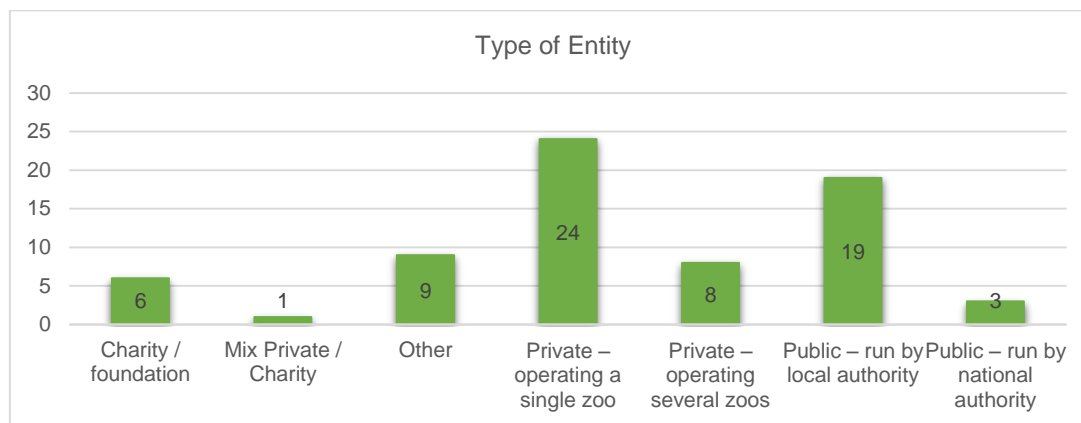


⁴⁷² Please note that, given the lack of precise information on the number of zoos in each Member State, this number represents an approximation.

⁴⁷³ MSCAs were asked to provide information and contact details of the zoos, possibly recorded to the purposes of the licensing system. In parallel, the mapping was conducted through desk research, and with input of other stakeholders.

⁴⁷⁴ Those zoos did not reply through the survey but highlighted their interest or lack of interest on the Directive by emails.

⁴⁷⁵ As reported by MSCAs in our survey: 195 EAZA members of 1006 zoos



Source: Our survey

The geographical distribution of responding zoos is illustrated below (together with the number of zoos contacted, and the related response rate).

Table 46 Geographical representation of zoos responding to the survey

Countries	BE	BG	CY	CZ	DE	DK	ES	FR	IE	IT	LT	NL	PL	PT
Nb of contacted zoos	29	7	6	19	82	26	20	100	17	67	8	30	21	22
Nb of responding zoos	7	2	1	6	17	0	7	10	4	4	1	2	1	8
Response rate (%)	24%	29%	17%	35%	21%	0%	35%	10%	23%	6%	12%	7%	5%	36%

Source: Our survey

5 USE OF ANSWERS

In line with the Better Regulation Guidelines on Stakeholder Consultation, respondents to the surveys were provided with three options regarding the publication of their answers, i.e. whether they replies:

- Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- Cannot be published but only used for statistical and analytical purposes, in the context of the present study.

The answers of respondents who have not required total anonymity were published by the European Commission through the webpage dedicated to the evaluation.

The answers provided by the surveys were integrated in the analysis of the evaluation criteria according to the evaluation framework (see main Study Report).

CONTACTED STAKEHOLDERS

Table 47: Competent authorities

MS	Organisation	MS	Organisation
BE	Animal Welfare - Brussels region	IT	Ministry of Environment, Land and Sea Protection
BE	Animal Welfare - Walloon region	LT	Ministry of Environment of The Republic of Lithuania
BE	Animal Welfare Services - Flemish region	DE	Federal Ministry of Environment, Nature Protection and Nuclear Safety, Protection of Species, Dpt N13
BG	Ministry of Environment and Water; National Nature Protection Service Directorate	IE	National Parks and Wildlife Service, Department of Arts, Heritage & the Gaeltacht
CY	Ministry of Agriculture, Natural Resources and Environment, Animal Health & Welfare Division	NL	Ministry of Economic Affairs, Directie Dierlijke Agroketens en Dierenwelzijn
CZ	Ministry of the Environment	PL	Ministry of Environmental Protection
DK	Ministry of Environment and Food; Danish Veterinary and Food Administration	PL	Główny Inspektorat Weterynarii
DK	Ministry of Environment and Food	PT	Ministry of Agriculture, General Directorate for Food and Veterinary services
FR	Ministry of Environment, Energy and Sea; Sub- Directorate for the Protection and promotion of species and their environment	ES	Ministry of Agriculture
FR	Ministry of Environment, Energy and Sea; Sub- Directorate for the Protection and promotion of species and their environment, Flora and Fauna Dpt		

Table 48: NGOs and zoos federations

Nb	Member States	Stakeholder type	Organisation
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N b	Member States	Stakeholder type	Organisation
1	BE	NGO	GAIA
2	BE	NGO	Dauphin libre
3	BE	NGO	Natuurpunt
4	BE	NGO	Natagora
5	BE	Zoos organisation	Zoovaria
6	BG	NGO	Four Paws
7	BG	NGO	Green Balkans
8	CY	NGO	Animal Party Cyprus
9	CY	NGO	ARC Cyprus
10	CZ	Zoos organisation	Union of Czech and Slovak Zoological Gardens
11	CZ	NGO	Nadace na ochranu zvířat
12	CZ	NGO	Svoboda zvířat (Freedom For Animals)
13	DK	Zoos organisation	Danish Association of Zoological Gardens and Aquaria
14	FR	NGO	Société Nationale de Protection de la Nature
15	FR	NGO	Noé (biodiversity protection, conservation, animal protection)
16	FR	NGO	Code Animal
17	FR	Zoos organisation	Association Française des Parcs Zoologiques (AfdPZ)
18	FR	Zoos organisation	Union des Conservateurs d' Aquarium (UCA)
19	FR	NGO	One Voice
20	IT	Zoos organisation	Italian Union of Zoos & Aquaria
21	IT	NGO	Born Free Italia - Nata Libera Italia
22	IT	NGO	Lega Italiana dei diritti dell'animale
23	IT	NGO	Animalista Italiani
24	IT	NGO	Lega Anti Vivisezione
25	LT	NGO	Lithuanian Society for the Protection Animals(LiSPA)
26	LT	NGO	PIFAS
27	LT	NGO	Lithuania Animal Rights Protection
28	DE	Zoos organisation	Verband der Zoologischen Gärten (VdZ) e.V.
29	DE	Zoos organisation	Deutschen Tierpark-Gesellschaft (DTG)
30	DE	Zoos organisation	German Zoo Educators Association VZP
31	DE	Keeper Organisation	Berufsverband der Zootierpfleger (BdZ) – Union of Zookeepers
32	DE	NGO	BMT
33	DE	NGO	Animal Public e.V.
34	DE	NGO	Whale Dolphin Conservation
35	IE	NGO	International Otter Survival Fund
36	IE	NGO	Wildlife Rehabilitation Ireland
37	IE	NGO	Irish Society for Prevention of Cruelty to Animals
38	IE	NGO	Veterinary Ireland
39	IE	NGO	CAPS
40	IE	Zoos organisation	British and Irish Association of Zoos and Aquariums (BIAZA)- Ms Kirsten Pullen
41	IE	Keeper organisation	Association of British and Irish Wild Animal Keepers (ABWAK)
42	NL	Zoos organisation	Nederlandse Dierentuin Vereniging
43	NL	NGO	Stichting Aap

Nb	Member States	Stakeholder type	Organisation
44	NL	NGO	Dolphinmotion
45	NL	NGO	Natuur en Recht- Mr.E. Philippi-Gho
46	PL	Zoos organisation	Board of Directors of Polish Zoos and Aquariums
47	PT	Zoos organisation	APZA (Associação Portuguesa de Zoos e Aquária)
48	ES	Zoos organisation	Iberian Association of Zoos and Aquaria
49	ES	NGO	Info zoos
50	ES	NGO	La Asociación Nacional para la Defensa de los Animales ANDA, Mr Alberto Diaz Michelana
51	ES	University	Universidad Autónoma de Barcelona
52	ES	Zoos organisation	La Asociación Iberica de Cuidadores de Animales Salvajes (AICAS) – Iberian Zookeepers Association
53	ES	NGO	FAADA Asociación por los animales- Mrs Carla Mirambell, Director

Table 49: EU and international stakeholders

Nb	Level of activity	Type of stakeholder	Name
1	International	Organisation	World Association of Zoos and Aquariums (WAZA)
2	International	Authority	Secretariat on the Convention of Biological Diversity (CBD)
3	International	Organisation	International Union for Conservation of Nature (IUCN)
4	International	Organisation	International Fund for Animal Welfare (IFAW)
5	International	Authority	CITES Secretariat
6	EU	NGO	FourPaws
7	EU	NGO	BornFree Foundation (including EDNCAP)
8	EU	Organisation	European Association of Zoos and Aquaria (EAZA)
9	EU	Organisation	European Association for Aquatic Mammals (EAAM)
10	EU	Organisation	European Association of Zoo and Wildlife Veterinarians (EAZWV)
11	EU	NGO	Eurogroup for Animals
12	EU	Experts/Academia	Dalia Conde
13	EU	Experts/Academia	Vincent Nijman
14	EU	Experts/Academia	Paul A. Rees
15	EU	Experts/Academia	Sjaak Kaandorp;
16	EU	Organisation	Federation of Veterinarians of Europe, Section EASVO - European Association of State Veterinary Officers
17	International	Experts/Academia	Prof Fa
18	EU	Experts/Academia	Philip McGowan
19	EU	Experts/Academia	Susannah Thorpe, Jackie Chappell, University of Birmingham

Table 50: Number of contacted zoos per Member State

Member State	BE	BG	CY	CZ	DE	DK	ES	FR	IE	IT	LT	NL	PL	PT
Nb of contacted zoos	29	7	6	19	82	26	20	100	17	67	8	30	21	22

Table 51: Zoos

Nb	MS	Organisation	EAZA / non EAZA
1	BE	Aquarium de Bruxelles	non EAZA
2	BE	NV Plopsaland S.A.	non EAZA
3	BE	Boudewijn Seapark	non EAZA

4	BE	Serpentarium	non EAZA
5	BE	National Sealife Blankenberge	non EAZA
6	BE	N.V. Bellewaerde Park S.A.	EAZA
7	BE	Recreatiedomein "De Brielmeersen"	non EAZA
8	BE	Familiepark Harry Malter	non EAZA
9	BE	Domein Eendenkooi	non EAZA
10	BE	Olmense Zoo	non EAZA
11	BE	Zoo Antwerpen	EAZA
12	BE	Dierenpark Planckendael	EAZA
13	BE	Provinciedomein Huizingen	non EAZA
14	BE	Aquatopia	non EAZA
15	BE	Noordzeeaquarium	non EAZA
16	BE	De Zonnegloed	non EAZA
17	BE	NAVIGO - Nationaal Visserijmuseum	non EAZA
18	BE	Parc "Les Onays"	non EAZA
19	BE	Musée d'Histoire Naturelle	EAZA
20	BE	La grange à papillons	non EAZA
21	BE	Aquarium - Museum de l'Université de Liège	non EAZA
22	BE	Parc animalier de Bouillon "La Crête des cerfs"	non EAZA
23	BE	Réserve d'Animaux sauvages de Han-sur-Lesse	EAZA
24	BE	Parc animalier de La Ried	non EAZA
25	BE	Parc Mont Mosan	non EAZA
26	BE	Pairi Daiza	EAZA
27	BE	Parc à Gibier de Saint-Hubert	non EAZA
28	BE	Tierpark	non EAZA
29	BE	Massembre	non EAZA
30	BG	Varna Zoo	non EAZA
31	BG	Stara Zagora Zoo	non EAZA
32	BG	Haskovo Zoo	non EAZA
33	BG	Sofia Zoo	non EAZA
34	BG	Lovech Zoo	non EAZA
35	BG	Blagoevgrad Zoo	non EAZA
36	BG	Plovdiv Zoo	non EAZA
37	CY	Zoo Limassol	non EAZA
38	CY	Pafos Zoo	non EAZA
39	CY	Animal Park Achna Village	non EAZA
40	CY	Ocean Aquarium	non EAZA
41	CY	Camel Park	non EAZA
42	CY	Pafos Aquarium	non EAZA
43	CZ	Liberec Zoo	EAZA
44	CZ	Dvur Kralove	EAZA (temporary)

45	CZ	Ohrada Zoo	EAZA
46	CZ	Pilsen Zoo	EAZA
47	CZ	Decin Zoo	EAZA
48	CZ	Chleby Zoo	non EAZA
49	CZ	Brno Zoo	EAZA
50	CZ	Zlin Zoo	EAZA
51	CZ	Olomouc Zoo	EAZA
52	CZ	Ostrava Zoo	EAZA
53	CZ	Vyskov Zoo	non EAZA
54	CZ	Hodonin Zoo	EAZA
55	CZ	Sea World	non EAZA
56	CZ	Obri akvarium	non EAZA
57	CZ	Usti Zoo	EAZA
58	CZ	Jihlava Zoo	EAZA
59	CZ	Chomutov ZooPark	EAZA
60	CZ	Crocodile zoo	non EAZA
61	CZ	Zoologicka zahrada Praha	EAZA
62	DK	Ree Park - Ebeltoft safari	EAZA
63	DK	Hansenberg Organia	non EAZA
64	DK	Skærup Zoo	non EAZA
65	DK	Nordsøen Oceanarium	EAZA
66	DK	Krokodille Zoo	non EAZA
67	DK	Fjord & Bælt	non EAZA
68	DK	NaturBornholm	non EAZA
69	DK	Den Blå Planet	EAZA
70	DK	Blåvand Zoo	non EAZA
71	DK	Knuthenborg Park og Safari	EAZA
72	DK	Danmarks Fugle Zoo	non EAZA
73	DK	Munkholm Zoo	non EAZA
74	DK	Guldborgsund Zoo	non EAZA
75	DK	Terrariet Vissenbjerg	non EAZA
76	DK	Aalborg Zoologiske Have	EAZA
77	DK	Nordsjællands Fuglepark	non EAZA
78	DK	Odsherreds Zoo Dyrepark	non EAZA
79	DK	Randers Regnskov	EAZA
80	DK	Skandinavisk Dyrepark	non EAZA
81	DK	Copenhagen Zoo	EAZA
82	DK	Skolehjemmet Orøstrand	non EAZA
83	DK	Givskud Zoo Zootopia	EAZA
84	DK	Jyllands Park Zoo	non EAZA
85	DK	Jesperhus Blomsterpark ApS	EAZA

86	DK	Kattegatcentret	EAZA
87	DK	Odense Zoo	EAZA
88	FR	Cigoland	non EAZA
89	FR	Centre de réintroduction des Cigognes et des Loutres	non EAZA
90	FR	Parc zoologique et botanique de Mulhouse	EAZA
91	FR	Le Paradis des papillons	non EAZA
92	FR	Aquarium du Perigord noir	non EAZA
93	FR	Réserve Zoologique de Calviac	EAZA
94	FR	Zoo d' Asson	non EAZA
95	FR	Parc' Ours	non EAZA
96	FR	Reptilium de Labenne	non EAZA
97	FR	Parc animalier d' Auvergne	EAZA
98	FR	Le Pal	EAZA
99	FR	La vallée des daims	non EAZA
100	FR	Parc de l'Auxois	non EAZA
101	FR	Parc naturel de Boutissaint	non EAZA
102	FR	Touroparc Zoo	EAZA
103	FR	Oceanopolis	EAZA
104	FR	Parc ornithologique de Bretagne	non EAZA
105	FR	Zoo de Pont-Scorff	EAZA
106	FR	Le ZooParc de Beauval	EAZA
107	FR	Reserve de la Haute-Touche	EAZA
108	FR	Grand Aquarium de Touraine	non EAZA
109	FR	La Ferme aux oiseaux exotiques	non EAZA
110	FR	Espace faune de la foret d'Orient	non EAZA
111	FR	A Cupulatta - La cité des tortues	non EAZA
112	FR	La Citadelle de Besançon	
113	FR	Le parc Polaire	non EAZA
114	FR	La Ménagerie, Zoo du Jardin des Plantes	EAZA
115	FR	Parc des Félines	non EAZA
116	FR	Zoo de Vincennes	non EAZA
117	FR	Aquarium de Paris	EAZA
118	FR	Sea Life Paris - Val d'Europe	non EAZA
119	FR	Zoo de Montpellier - Parc Darwin	EAZA
120	FR	Les Loups du Gévaudan	non EAZA
121	FR	Réserve africaine de Sigean	EAZA
122	FR	Seaquarium	non EAZA
123	FR	Zoo du Reynou	EAZA
124	FR	La Cité des Insectes	non EAZA
125	FR	Parc animalier des Monts du Guéret	non EAZA
126	FR	Zoo d'Amnéville	EAZA (temporary)

127	FR	Parc animalier de Sainte-Croix	EAZA
128	FR	Zoo African Safari	EAZA
129	FR	La Forêt des singes	non EAZA
130	FR	Zoo des trois vallées	non EAZA
131	FR	Animaparc	non EAZA
132	FR	La ferme aux bisons	non EAZA
133	FR	Parc animalier des Pyrénées	EAZA
134	FR	Ecoparc du Rocher des Aigles	non EAZA
135	FR	Parc Zoologique de Lille	EAZA
136	FR	Parc animalier des Cytises	non EAZA
137	FR	Insectarium du musée d'histoire naturelle de Lille	non EAZA
138	FR	Biotropica	non EAZA
139	FR	Parc de Clères	EAZA
140	FR	Zoo de Champrépus	EAZA
141	FR	Zoo de Jurques	EAZA
142	FR	Bioparc de Doué la Fontaine	EAZA
143	FR	Zoo de la Flèche	EAZA
144	FR	Planète Sauvage	non EAZA
145	FR	Le Refuge de l'Arche	non EAZA
146	FR	Spaycific Zoo	non EAZA
147	FR	Ocearium du Croisic	non EAZA
148	FR	Parc Zoologique d'Amiens métropole	EAZA
149	FR	Parc des Grands Félin	EAZA
150	FR	La Vallée des Singes	EAZA
151	FR	Zoo de la Palmyre	EAZA
152	FR	Zoodyssée	EAZA (temporary)
153	FR	Aquarium de la Rochelle	non EAZA
154	FR	La Marais aux oiseaux	non EAZA
155	FR	La Colline enchantée	non EAZA
156	FR	Alpha, le Parc des loups du Mercantour	non EAZA
157	FR	Zoo de la Barben	EAZA
158	FR	Parc Zoologique de Fréjus	non EAZA
159	FR	Parc animalier domestique du Verdon	non EAZA
160	FR	Parc Phoenix	non EAZA
161	FR	La Réserve biologique des monts d'Azur	non EAZA
162	FR	Corbi Parc	non EAZA
163	FR	Espace Marineland	EAZA
164	FR	Jardin Zoologique Tropical	non EAZA
165	FR	Jardin Zoologique de Lyon	EAZA
166	FR	Safari de Peaugres	EAZA
167	FR	Parc animalier du château de Bouthéon	non EAZA

168	FR	Parc de Courzieu	non EAZA
169	FR	Le Domaine des Fauves	non EAZA
170	FR	Espace Zoologique de Saint-Martin-la-Plaine	EAZA
171	FR	Zoo d'Upie (Jardin aux Oiseaux)	non EAZA
172	FR	Aquarium de Lyon	non EAZA
173	FR	Parc des Oiseaux	non EAZA
174	FR	La Ferme aux crocodiles	EAZA
175	FR	Zoo de Guadeloupe	non EAZA
176	FR	Les Jardins de la Mer	non EAZA
177	FR	Zoo du Bois d'Attilly	non EAZA
178	FR	Alligator Bay	non EAZA
179	FR	Le Bois des Aigles	non EAZA
180	FR	Zoo de la Boissière du Doré	EAZA
181	FR	Zoo des Sables d'Olonne	EAZA
182	FR	Le grand parc du Puy du fou	non EAZA
183	FR	La Ferme Souchinet	non EAZA
184	FR	Zoo de Guyane	EAZA
185	FR	Zoo de l'Orangerie de Strasbourg	non EAZA
186	FR	Parc animalier de la Bédouère	non EAZA
187	FR	L'Arche féline	non EAZA
188	IT	Zoomarine	EAZA
189	IT	Parco Zoo Punta Verde	EAZA
190	IT	Le Cornelle Parco Faunistico	EAZA
191	IT	Giardino Zoologico di Pistoia	EAZA
192	IT	Acquario di Genova	EAZA
193	IT	Parco Zoo di Falconara	EAZA
194	IT	Parco Faunistico La Torbiera	EAZA
195	IT	Parco Natura Viva	EAZA
196	IT	Parco Faunistico Cappelier	non EAZA
197	IT	Casa delle Farfalle di Bordano	non EAZA
198	IT	Le Dune Del Delta	non EAZA
199	IT	Bioparco di Roma	EAZA
200	IT	Parco Faunistico Valcorba	non EAZA
201	IT	Butterfly ARC s.r.l	non EAZA
202	IT	Casa delle Farfalle & Co (Atlatide)	non EAZA
203	IT	Casa delle farfalle Monteserra (giardino Zoologico)	non EAZA
204	IT	Bioparco di Sicilia	non EAZA
205	IT	Safari Park - Pombia	non EAZA
206	IT	Zoom Torino (Baitelandia)	EAZA
207	IT	Le Navi - Acquario di Cattolica	non EAZA
208	IT	Sea Life di Jesolo	non EAZA

209	IT	Parco Oltremare	non EAZA
210	IT	Tropicarium Park (Aquarium Reptilium)	non EAZA
211	IT	Acquario di Livorno	non EAZA
212	IT	1 Parco Zoo della Fauna Europea - Poppi	non EAZA
213	IT	Parco Safari Delle Langhe - Murazzano	non EAZA
214	IT	Zoo Safari di Fasano	non EAZA
215	IT	Zoo D'Abruzzo di Bellucci Mario enrico (Embell Riva)	non EAZA
216	IT	Oasi degli animali	non EAZA
217	IT	Parco delle star "Daniel Berquiny"	non EAZA
218	IT	Gallorose	non EAZA
219	IT	Giardino Zoologico di Napoli	non EAZA
220	IT	Zoo delle Maitine	non EAZA
221	IT	Acquario dell'elba	non EAZA
222	IT	Zoo Acquario di Imola (see row 276)	non EAZA
223	IT	L'Acquario Mediterraneo	non EAZA
224	IT	Acquario Cala Gonone	non EAZA
225	IT	Parco di Villa Pallavicino	non EAZA
226	IT	Acquario di Alghero	non EAZA
227	IT	Zooproject / Rettilario di Perugia	non EAZA
228	IT	Parco Nazionale d'Abruzzo, Lazio e Molise	non EAZA
229	IT	Parco Faunistico Spormaggiore	non EAZA
230	IT	Civico Acquario Marino & Vivarium	non EAZA
231	IT	Acquario E Civica Stazione Idrobiologica Milano	non EAZA
232	IT	Oasi di Sant' Alessio	non EAZA
233	IT	Citta della domenica	non EAZA
234	IT	Acquario Stazione Zoologica Anton Dohrn Napoli	non EAZA
235	IT	Safari Ravenna	non EAZA
236	IT	Parco Faunistica Cappeller	non EAZA
237	IT	Gardaland Sea Life Aquarium	non EAZA
238	IT	Bioparco Faunistico d'Abruzzo	non EAZA
239	IT	Parc Animalier d'introd	non EAZA
240	IT	Parco degli Angeli	non EAZA
241	IT	Parco Faunistico al Bosco	non EAZA
242	IT	Parco La Rupe	non EAZA
243	IT	Zoosafari Fasonalandia	non EAZA
244	IT	Parco Faunistico del Monte Amiata	non EAZA
245	IT	Parco Naturale di Cavriglia	non EAZA
246	IT	Minitalia Leolandia Park	non EAZA
247	IT	Acquario Comunale Laguna di Ortobello	non EAZA
248	IT	Acquario Mediterraneo del Comune di monte Argentario	non EAZA
249	IT	Parco Faunistico Varcorba	non EAZA

250	IT	Parco Natura La Selvotta	non EAZA
251	IT	Parco del Sole	non EAZA
252	IT	Parco d'orleans	non EAZA
253	IT	Tiger Experience	non EAZA
254	IT	Zoo Acquario di Imola	non EAZA
255	LT	Kaunas Zoo; Lithuanian zoological garden	non EAZA
256	LT	Mini Zoo; Klaipėda zoo	non EAZA
257	LT	Live Tropical Butterfly Exhibition	non EAZA
258	LT	Grutas Park	non EAZA
259	LT	LITHUANIAN SEA MUSEUM	non EAZA
260	LT	Zoopark	non EAZA
261	LT	Mapeta zoo	non EAZA
262	LT	Lithuanian Center of Young Naturalists	non EAZA
263	DE	Munchener Tierpark Hellabrunn	EAZA
264	DE	Zoologischer Garten Schwerin	EAZA
265	DE	Zoologischer Garten Rostock	EAZA
266	DE	Zoo Stralsund	non EAZA
267	DE	Tiergarten Neustrelitz	non EAZA
268	DE	Tierpark Burg Stargard	non EAZA
269	DE	Tierpark Grimmen	non EAZA
270	DE	Tierpark Wismar	non EAZA
271	DE	Heimattierpark Hansestadt Greifswald	non EAZA
272	DE	Tierpark Ueckermünde	non EAZA
273	DE	Tierpark Wolgast	non EAZA
274	DE	Tierpark Sassnitz	non EAZA
275	DE	Müritzeum	non EAZA
276	DE	Ozeaneum Stralsund	non EAZA
277	DE	Deutsches Meeresmuseum	non EAZA
278	DE	Natur- und Umweltpark Güstrow	non EAZA
279	DE	Vogelpark Marlow	EAZA
280	DE	BÄRENWALD Müritz	non EAZA
281	DE	Vogel- und Freizeitpark „Nebeltal“	non EAZA
282	DE	Karls Markt	non EAZA
283	DE	Schmetterlingspark Klütz	non EAZA
284	DE	Elefantenhof Platschow	non EAZA
285	DE	Erlebnis- und Tigerpark Dassow	non EAZA
286	DE	Wildlife Usedom	non EAZA
287	DE	Hausdierpark Lelkendorf	non EAZA
288	DE	Tropenhaus Bansin	non EAZA
289	DE	Tierpark Hellabrunn München	EAZA
290	DE	Zoologischer Garten Augsburg	EAZA

291	DE	Tiergarten Nürnberg	EAZA
292	DE	Zoologisch-Botanischer Garten Wilhelma Stuttgart	EAZA
293	DE	Zoologischer Garten Karlsruhe	EAZA
294	DE	Heidelberg Zoo	EAZA
295	DE	Saarbrücken Zoo	EAZA
296	DE	Neunkirchen Zoo	EAZA
297	DE	Frankfurt/Main Zoo	EAZA
298	DE	Kölner Zoo	EAZA
299	DE	Wuppertal Zoo	EAZA
300	DE	Krefeld Zoo	EAZA
301	DE	Duisburg	EAZA
302	DE	Zoom Erlebniswelt Gelsenkirchen	EAZA
303	DE	Dortmund Zoo	EAZA
304	DE	Allwetterzoo Münster	EAZA
305	DE	Osnabrück Zoo	EAZA
306	DE	Erlebnis-Zoo Hannover	EAZA
307	DE	Schwerin Zoo	EAZA
308	DE	Tierpark Friedrichsfelde Berlin	EAZA
309	DE	Dresden Zoo	EAZA
310	DE	Naturerlebnispark Kirchheim Kirchheim	non EAZA
311	DE	Wildpark Frankenberg	non EAZA
312	DE	Erlebniswald Trappenkamp Daldorf	non EAZA
313	DE	Wild- und Freizeitpark Klotten bei Cochem	non EAZA
314	DE	Wildpark Klausshof Bad Kissingen	non EAZA
315	DE	Tiergehege Zeulenroda	non EAZA
316	DE	Wildpark Neuhaus Holzminden	non EAZA
317	DE	Wildpark Johannismühle Baruth-Klasdorf	non EAZA
318	DE	Schwarzwaldpark Löffingen	non EAZA
319	DE	Wildpark Bilsteintal Warstein	non EAZA
320	DE	Zoo Safaripark Schloss Holte-Stukenbrock	non EAZA
321	DE	Serengeti-Park Hodenhagen	non EAZA
322	DE	Krefeld Zoo	EAZA
323	DE	Aquadom Bad Wiessee	non EAZA
324	DE	Aquarium und Schmetterlingshaus im Botanischen Garten Tübingen	non EAZA
325	DE	Ostsee-Info-Center Eckernförde	non EAZA
326	DE	Gruson-Gewächshäuser	non EAZA
327	DE	Sea Life Speyer	non EAZA
328	DE	Naturkundemuseum Potsdam	non EAZA
329	DE	Meereszentrum Burg auf Fehmarn	non EAZA
330	DE	Meeresaquarium Oberwiesenthal	non EAZA
331	DE	Aquarium Wilhelmshaven	non EAZA

332	DE	Neuwied Zoo	EAZA
333	DE	Aachen Zoo	EAZA
334	DE	NaturZoo Rheine	EAZA
335	DE	Tierpark Chemnitz	EAZA
336	DE	Aschersleben Zoo	non EAZA
337	DE	Zoo in der Wingst	non EAZA
338	DE	Gettorf Zoo	non EAZA
339	DE	Arche Noah Zoo Braunschweig	non EAZA
340	DE	Landau in der Pfalz Zoo	EAZA
341	DE	Zoo Vivarium Darmstadt	EAZA
342	DE	Opel-Zoo Kronberg	EAZA
343	DE	Weltvogelpark Walsrode	EAZA
344	DE	Naturschutz-Tierpark Görlitz	EAZA
345	IE	Burren Birds of Prey Centre	non EAZA
346	IE	Galway Atlantaquaria	non EAZA
347	IE	Dromoland Falconry	non EAZA
348	IE	Eagles Flying	non EAZA
349	IE	Stonehall Visitor Farm, Adare, Co. Limerick	non EAZA
350	IE	Tropical World	non EAZA
351	IE	Dingle Ocean World	non EAZA
352	IE	Tayto Park, Ashbourne, Co. Meath	non EAZA
353	IE	Ardmore Manor	non EAZA
354	IE	National Sealife Centre, Bray, Co. Wicklow	non EAZA
355	IE	Ardmore Open Farm	non EAZA
356	IE	Woodlands Falconry/Bird of Prey Centre	non EAZA
357	IE	Dublin Zoo	EAZA
358	IE	National Reptile Zoo	non EAZA
359	IE	Fota Wildlife Park	EAZA
360	IE	Coolwood Wildlife Park	non EAZA
361	IE	Secret Valley Adventure Farm	non EAZA
362	NL	Apenheul Primate Park	EAZA
363	NL	AQUAZOO FRIESLAND	EAZA
364	NL	Vogelpark Avifauna	EAZA
365	NL	Royal Burgers' Zoo	EAZA
366	NL	DierenPark Amersfoort	EAZA
367	NL	Wildlands	EAZA
368	NL	Dierenrijk	EAZA
369	NL	Dolfinarium Harderwijk	EAZA
370	NL	GaiaZOO	EAZA
371	NL	Ouwehands Zoo	EAZA
372	NL	Safaripark Beekse Bergen	EAZA

373	NL	Zoo Parc Overloon	EAZA
374	NL	SEA LIFE Scheveningen	non EAZA
375	NL	Dierenpark Zie Zoo	non EAZA
376	NL	Vlinderparadijs Papiliorama	non EAZA
377	NL	Vogelrevalidatiecentrum Zundert	non EAZA
378	NL	DoeZoo	non EAZA
379	NL	Aquariumvereniging De Discus	non EAZA
380	NL	Vogelpark Ruinen	non EAZA
381	NL	Berkenhof's Tropical Zoo	non EAZA
382	NL	Zoo Veldhoven	non EAZA
383	NL	Dierenpark van Blanckendaell	non EAZA
384	NL	De Orchideeen Hoeve	non EAZA
385	NL	Vogelbush Eureka	non EAZA
386	NL	Reptielen- en Amfibieënhuis De Aarde	non EAZA
387	NL	Artis royal Zoo	EAZA
388	NL	Diergaarde Blijdorp	EAZA
389	NL	Ecomare	non EAZA
390	NL	Reptielenzoo Iguana	non EAZA
391	NL	Mondo Verde	non EAZA
392	PL	Bydgoszczy Zoological Garden	non EAZA
393	PL	The Silesian Zoological Garden	non EAZA
394	PL	Municipal Zoological Garden of Sea Cost Gdansk	EAZA
395	PL	Gdynia Aquarium National Marine Fisheries Research Institute	non EAZA
396	PL	Prof.Benedykt Dybowski Wildlife Park	non EAZA
397	PL	Local Park and Zoological Garden - Foundation	EAZA
398	PL	Łódź Municipal Zoological Garden	EAZA
399	PL	Opole Zoological Garden	EAZA
400	PL	Plock Municipal Zoological Garden	EAZA
401	PL	Poznan zoo	EAZA
402	PL	Zoo Safari Świerkocin Ltd	non EAZA
403	PL	Torun Zoobotanical Garden	EAZA
404	PL	Wroclaw zoo Ltd	EAZA
405	PL	Stefan Miler Zoological Garden Zamosc	EAZA
406	PL	Zoo Farma	non EAZA
407	PL	Akcent Zoo	non EAZA
408	PL	Gdynia Aquarium	non EAZA
409	PL	Canpol Zoo	non EAZA
410	PL	Zoo Charlotta	non EAZA
411	PL	Warsaw Zoo	EAZA
412	PL	Ogród Zoologiczny w Lubinie	EAZA
413	PT	Zoo Santo Inacio	EAZA

414	PT	Zoo Lourosa	EAZA
415	PT	Oceanario de Lisboa	EAZA
416	PT	Jardim Zoologico de Lisboa	EAZA
417	PT	Aquario Vasco da Gama	EAZA
418	PT	Parque Zoológico de Lagos	EAZA
419	PT	ZooMarine	EAZA
420	PT	ESTAÇÃO LITORAL DA AGUDA	non EAZA
421	PT	ZOO DA MAIA	non EAZA
422	PT	PARQUE BIOLÓGICO DE GAIA	non EAZA
423	PT	AQUAMUSEU DO RIO MINHO	non EAZA
424	PT	MERLIN ENTERTAINMENTS SEA LIFE PORTO UNI	non EAZA
425	PT	EUROPARADISE - PARQUE ZOOLOGICO , LDA	non EAZA
426	PT	PARQUE DOS MONGES	non EAZA
427	PT	BADOCA , ACTIVIDADES TURISTICAS , LDA	non EAZA
428	PT	MONTE SELVAGEM - RESERVA ANIMAL , LDA	non EAZA
429	PT	FLUVIARIO DE MORA	non EAZA
430	PT	KRAZY WORLD	non EAZA
431	PT	PARQUE ZOOLOGICO DE GOUVEIA	non EAZA
432	PT	PARQUE BIOLOGICO DA SERRA DA LOUSA	non EAZA
433	PT	PARQUE BIOLOGICO DA SERRA DAS MEADAS	non EAZA
434	PT	PARQUE BIOLÓGICO DE VINHAIS	non EAZA
435	ES	Aquarium Roquetas de Mar	non EAZA
436	ES	Canada de los Pájaros	non EAZA
437	ES	Crocodile Park	non EAZA
438	ES	Lobo Park	non EAZA
439	ES	Mariposario de Benalmádena	non EAZA
440	ES	Reserva Natural del Castillo de las Guardas	non EAZA
441	ES	Oasys: un mundo lleno de color	non EAZA
442	ES	Selwo Aventura	EAZA
443	ES	Selwo Marina	EAZA
444	ES	Zoo de Castellar	non EAZA
445	ES	Zoo de Sevilla (Mundo Park - fundacion Juan Luis Malpartida)	non EAZA
446	ES	Aquarium de Almunécar	non EAZA
447	ES	Parque Ornitológico Loro Sexi	non EAZA
448	ES	Parque de la Naturaleza Pena Escrita	non EAZA
449	ES	Parque Zoológico Jardín Botánico Alberto Durán	non EAZA
450	ES	Zoobotanico de Jerez	non EAZA
451	ES	La Cuniacha. Parque Faunístico de los Pirineos	non EAZA
452	ES	Acuario de Zaragoza	non EAZA
453	ES	Acuario de Gijon	non EAZA
454	ES	Rincon de las Aves	non EAZA

455	ES	Cercado Osero de Santo Adriano	non EAZA
456	ES	La Grandera-Faunastur	non EAZA
457	ES	Aquarium Cap Blanc	non EAZA
458	ES	Lloc de Menorca	non EAZA
459	ES	Marineland de Menorca	EAZA
460	ES	Natura Parc	non EAZA
461	ES	Palma Aquarium	non EAZA
462	ES	Aquàrium del Centre de Visitants del PN de Cabrera	non EAZA
463	ES	Aquarium de Costa Teguse Lanzarote S.L.	non EAZA
464	ES	Jungle Park Las Aguilas	non EAZA
465	ES	La Lajita Oasis Park	non EAZA
466	ES	Mariposario del Dragó	non EAZA
467	ES	Maroparque	non EAZA
468	ES	Monkey Park	non EAZA
469	ES	Oceanarium Explorer	non EAZA
470	ES	Palmitos Park	non EAZA
471	ES	Rancho Texas Lanzarote Park	non EAZA
472	ES	Zoo de Santillana del Mar	EAZA (Since 1997)
473	ES	Parque de la naturaleza Cabárceno	EAZA
474	ES	Museo de la Fauna Salvaje	non EAZA
475	ES	El Coto Escolar	non EAZA
476	ES	Safari Show Park	non EAZA
477	ES	Centre d'apropament a la natura (CAN)	non EAZA
478	ES	Centre de recuperació de primats (Fundació mona)	non EAZA
479	ES	Cim d'àligues	non EAZA
480	ES	Món Natura Pirineus (Planes de Son)	non EAZA
481	ES	Butterfly Park	non EAZA
482	ES	L'aquarium de Barcelona	non EAZA
483	ES	Parc animal dels Pirineus "Les Bernedes	non EAZA
484	ES	Parc zoològic de Barcelona	EAZA
485	ES	Mercelle Natureza	non EAZA
486	ES	Aquarium Finisterrae - Casa de los peces	non EAZA
487	ES	Centro de Naturaleza Cañada Real	non EAZA
488	ES	Faunia	EAZA
489	ES	Zoo de Madrid	non EAZA
490	ES	Sendaviva Parque de la Naturaleza de Navarra	non EAZA
491	ES	Refugio de Fauna y Flora Basondo	non EAZA
492	ES	Centro de Acogida de Fauna Karpín. Karpín Abentura	non EAZA
493	ES	Getxo Aquarium	non EAZA
494	ES	Rioja Natura	non EAZA
495	ES	Jardín del Papagayo	non EAZA

496	ES	L'Oceanografic	EAZA
497	ES	Safari Aitana	non EAZA
498	ES	Terra Natura Zoo Benidrom	EAZA
499	ES	Terra Natura Murcia	EAZA (temporary)
500	ES	Loro parque	EAZA
501	ES	Zoo de Fuengirola	EAZA
502	ES	Parque del Oeste	non EAZA
503	ES	Parque Zoologico de Córdoba	non EAZA
504	ES	Parque Zoologico Prudencio Navarro Pallarés	non EAZA
505	ES	EL Bosque	Non EAZA
506	ES	Safari-zoo Services S.L	non EAZA
507	ES	Centro de interpretación avifauna	Non EAZA
508	ES	Org. Autónomo municipal Parque das Ciencias. Vigozoo	non EAZA
509	ES	Safari Madrid	non EAZA
510	ES	Zoo Aquarium de Madrid	EAZA
511	ES	Bioparc	EAZA
512	ES	Mundomar	non EAZA
513	ES	Rio Safari	non EAZA
514	ES	Zoobotanico de Jerez	EAZA

ANNEXES VIA TO VIC – TARGETED SURVEYS QUESTIONNAIRES

Targeted survey as part of the REFIT evaluation of the Zoos Directive

Fields marked with * are mandatory.

Targeted consultation as part of the REFIT evaluation of the Zoos Directive Questionnaire addressed to zoos

The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

The evaluation is part of the European Commission's Regulatory Fitness and Performance Programme ([REFIT](#)). This programme involves a comprehensive, evidence-based assessment of whether the current regulatory framework is proportionate and fit for purpose, and delivering as expected.

Objectives of the evaluation

The evaluation examines the relevance, effectiveness, efficiency, coherence and EU added value of the [EU Directive 1999/22/EC relating to keeping of wild animals in zoos](#) (hereinafter 'the Zoos Directive'). It will evaluate what has worked well or poorly, and will compare actual performance to initial expectations. It looks to see if the rules set out in the Directive are simple, clear and do not cause unnecessary costs.

The results will be used by the Commission to inform future decisions relating to the protection of wild animals and the enhancement of EU biodiversity, to which ex-situ conservation and zoos contribute. The evaluation in itself does not consider possible future changes to the legislation.

This survey is part of a broader range of consultation activities. Further information on the evaluation and the different activities it involves can be consulted on the Commission's [evaluation website](#).

The aim of this consultation is to gather the views and opinions of interested stakeholders on the current EU legislation on zoos and its implementation to date. Your responses will be used to help assess the current situation and ensure that the most accurate and comprehensive evidence is taken into account. It is therefore important that you complete this questionnaire as fully as possible.

The evaluation will look in particular at the implementation and functioning of the EU rules on the regulation of zoos with regards to: (1) the protection of wild animals; (2) the conservation of biodiversity by strengthening the role of zoos.

The Zoos Directive, was adopted with the objective to promote wild animal species protection and conservation by strengthening the role of zoos in the conservation of biodiversity. The Directive intended to achieve these objectives by the adoption of measures by Member States for the licensing and inspection of zoos in order to ensure that zoos respect conservation and protection measures, including appropriate accommodation of the animals.

The Directive requires Member States to establish a licencing and inspection system in order to ensure that zoos implement the following Article 3 conservation measures:

- Participate in **one or more** of the following: i) research and training through which conservation objectives may be achieved, ii) exchange of information relating to species conservation, iii) captive breeding, iv) repopulation, or v) reintroduction of species into the wild;
- Promote public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats;
- Accommodate animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and maintaining a high standard of animal husbandry;
- Prevent the escape of animals in order to avoid threats to indigenous species and intrusion of outside pest and vermin;
- Keep appropriate records of the zoo's collection.

Guidance

The questionnaire for this targeted online survey has been prepared in order to gather evidence-based information for the evaluation.

Please answer questions based on direct experience. As far as possible, please provide evidence to substantiate your replies in the open text fields. For many questions it is also possible to upload supporting documents. Where possible, quantitative evidence should be provided. Where this is not possible, estimates and qualitative evidence would be welcome.

You can skip questions that you do not feel comfortable responding to. However, replies to questions marked with an asterisk are compulsory.

To facilitate understanding of the questions, the survey is available in 13 languages. Given possible delays in translating comments submitted in some languages, contributions in English for the open text fields are welcome, as they will help to process the survey more swiftly.

This questionnaire is being sent out to zoo operators in 14 selected Member States (Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Italy, Ireland, Netherlands, Poland, Portugal, Spain).

NB: Several different questionnaires for different stakeholder groups have been established, namely:

- **National competent authorities** (e.g. ministries or regional/local authorities responsible for implementing and enforcing the Zoos Directive)
- EU-level and national-level federations and associations of zoos (e.g. **zoos federations**) and non-governmental associations (**NGOs** in the field of biodiversity conservation or animal welfare)), as well as academics and other experts in the area
- **Zoo operators**

In addition, a public consultation for the broader public will run on the Commission's website 'Your Voice in Europe' between September and December 2016.

The different surveys have been distributed via different distribution channels. If you feel you have not received the right questionnaire, or have any queries please contact zoos.directive@milieu.be. If you are aware of additional specific documents that should be taken into account in the evidence gathering process, please submit them through the [evaluation website](#).

The present questionnaire is structured as follows:

- Part I investigates the implementation of conservation measures by Zoos, in line with Article 3 of the Zoos Directive
- Part II gathers information and opinions in relation to the results achieved with the Zoos Directive, in order to assess its effectiveness, efficiency, relevance, coherence and added value
- Part III gives stakeholders the possibility to add concluding remarks

You may pause at any time and continue later. Once you have submitted your answers, you can download a copy of your completed responses.

We kindly ask you to fill in the questionnaire within 4 weeks of receipt.

Use of the results

*¹

Please note that according to the Commission's Better Regulation Guidelines, stakeholder's contributions will be published on the dedicated evaluation website.

Regardless of the option chosen below, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In such cases, the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

According to relevant data protection rules, please indicate whether your reply:

- Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- Cannot be published but only used for statistical and analytical purposes, in the context of the present study

Background Information

*²

Please indicate here the language that you will use in your replies.

- Bulgarian
- Czech
- Danish
- Dutch
- English
- Estonian
- French Ger-
- man Greek
- Italian
- Polish
- Portuguese
- Spanish

* 3 **Name of the zoo**

* 4 **Contact name**

* 5 **Email address**

* 6 **Telephone number**

* 7 **Member State**

- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- France
- Germany
- Italy
- Ireland
- Netherlands
- Poland
- Portugal
- Spain

* 8 **Type of business entity**

- Private – operating a single zoo
- Private – operating several zoos
- Public – run by national authority
- Public – run by regional authority
- Public – run by local authority
- Charity / foundation
- Mix Public/Private
- Mix Public / Charity
- Mix Private / Charity
- Other

* 9 If 'Other', please specify:

250 character(s) maximum

* 10 **Number of employees**

- 250 employees or more
- Between 50-249 employees
- Between 10-49 employees
- Less than 10 employees
- Don't know

* 11 **Please indicate the zoo's visitor number per year.**

- < 200,000
- 200,000 - 750,000
- > 750,000
- Don't know

* 12 **Type of Zoo**

- Zoo
- Zoo with aquarium included
- Aquarium
- Animal park (zoo in which wild animals are housed and displayed in large open spaces designed to resemble their native habitats)
- Safari park (enclosed park in which wild animals are kept uncaged in the open and can be viewed by the public from cars, etc.)
- Other

* 13 If 'Other', please specify

250 character(s) maximum

* 14 **Does the zoo have a license issued by the national authority to keep and display wild animals?**

- Yes
- No
- Applied, but licence pending

* 15 **Does the zoo have an exemption from licensing?**

- Yes
- No

* 16 **Who is the authority responsible for issuing the zoo's licence? Please specify the name of the organisation.**

250 character(s) maximum

- * 17 **Who is the authority responsible for granting the exemption? Please specify the name of the organisation.**

250 character(s) maximum

- 18 **Is the zoo a member of a zoos association / representative body? If yes, please specify which one.**

250 character(s) maximum

- 19 **Is the zoo member of other organisations (biodiversity conservation, ex-situ management, tourism, visitor attraction, business assoication etc.) If yes, please specify which ones.**

250 character(s) maximum

- 20 **Are any members of the zoo's staff member of Specialist Groups of IUCN's Species Survival Commission? If yes, please specify which ones.**

500 character(s) maximum

- 21
How many species of animals and how many individual animals are kept in the zoo?

	Number
Species	
Individual animals	

- 22
Can you provide the source (report link, ISIS record, publication reference,..)?

23 If relevant, please also upload documents here.

24

Please specify the percentage of species you keep that are on global/European/national red lists.

	% of species
Global red list	
European red list	
National red list	

Part I - Implementation of conservation measures

Under Article 3 of the EU Directive ([Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos](#)) Member States (MS) are required to implement conservation measures to strengthen the role of zoos in the conservation of biodiversity.

The conservation measures that EU zoos must implement under Article 3 of the Directive in order to obtain a licence are:

- Participation in one or more of the following: research and training through which conservation objectives may be achieved, exchange of information relating to species conservation skills, captive breeding, repopulation, or reintroduction of species into the wild;
- Promotion of public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats;
- Accommodate animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and maintaining a high standard of animal husbandry;
- Preventing the escape of animals in order to avoid threats to indigenous species and intrusion of outside pests and vermin;
- Keeping appropriate records of the zoo's collection

Research, training and exchange of information

25

Throughout the implementation period of the Zoos Directive (2003-2016), has your zoo participated in research projects designed to benefit conservation?

- Yes
 No

26 If your answer is “yes”, please provide the following information:

	From 0 to 10	From 10 to 25	From 25 to 50	More than 50	Don't know
Number of research projects in which the zoo took part	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of publications issued (General interest publications, scientific publications, Guidance documents)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27

Could you provide a list of the main topics addressed in these research projects? If possible, substantiate your answer by providing the relevant documents or the list of projects or publications with full reference, or provide the URL here.

850 character(s) maximum

28 If relevant, please upload documents here.

29

Does the zoo offer trainings in conservation skills for professionals?

- Yes
- No

30

If your answer is “yes”, please specify the target groups of the trainings:

Please select one or more answers

- Own employees
- Employees of other zoos
- Students
- Veterinarians

Biologists

- Volunteers
- Other professionals

31

Please specify "other professionals"

250 character(s) maximum

32 **Does the zoo take part in information sharing activities?**

- Yes
- No

33

If your answer is yes, please specify:

- Exchange information with other zoos
 - Attendance at meetings with other regional or national stakeholders (e.g. zoos federations, national authorities)
 - Attendance of meetings with other international stakeholders (e.g., IUCN, EAZA)
- Use the International Species Information System (ISIS)
- Other (please specify below)

34

If 'Other', please specify.

500 character(s) maximum

35

Please provide a short description of the information sharing activities carried out.

850 character(s) maximum

Captive breeding, repopulation or reintroduction of species into the wild

36

Do you have a written conservation strategy/plan?

Yes

No

37

If possible, please provide the document, reference or URL.

38 Please upload your document(s) here.

39

Please indicate the overall number of EEP (European Endangered Species Programme) or ESB (European Stud Books) captive breeding programmes the zoo takes part in or coordinates.

	Taking part	Coordinating
EEP		
ESB		

Please indicate the number and kind of other conservation programmes/projects the zoo participates in:

	Name of the programme/project	In-situ (conservation of species in their natural habitats) (Yes/No)	Ex-situ (conservation of species outside their natural habitats) (Yes/No)	Local/regional/national (please enter one of the three options)	EU/international (please enter one of the two options)	In-situ or ex-situ conservation project within the frame of Birds- and Habitats Directive (Yes/No)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

41

Please indicate if a species was downlisted in any red list (i.e. moved to a lower threat category) or taken off any red list because of conservation programmes your zoo participated in? Please provide a short description.

850 character(s) maximum

42

Please indicate the number of individual animals bred in your zoo that were reintroduced into the wild over the last 15 years? Which species and which conservation programmes were involved?

850 character(s) maximum

43 If possible, please provide the documents, references or URLs.

44

Please upload your document(s) here.

Promoting public education and awareness in relation to the conservation of biodiversity

45

Does the zoo have a written education strategy (i.e., for non-specialists)?

Yes

No

46

If your answer is “yes”, please provide the document, reference or URL or shortly describe the areas addressed, the target groups and kind of activities.

850 character(s) maximum

47

Please upload your document(s) here.

48

Does the zoo carry out any of the following activities?

Please select one or more answers

Animal shows

Animal handling

Keeper talks

Guided tours

Illustrated species talks

Interactive displays

Zoo maps

Species information boards

Literature provided at the entrance

Other (please specify below)

None of the above

49

If 'Other', please specify.

250 character(s) maximum

50

If possible, please substantiate your answers by providing relevant documents or examples, e.g. annual report, press release, references, URLs.

51 Please upload your document(s) here.

52

Which groups are targeted by these activities?

Please select one or more answers

- Schools
- Wider public
- Other (please specify below)

53

If 'Other', please specify.

250 character(s) maximum

Animal accommodation and husbandry

54

Are there minimum standards on animal accommodation for each species, issued by national authorities, zoos organisations or other bodies which the zoo applies?

- Yes
- No
- Not Applicable (if you are not aware of standards existing in your country)
- Don't know

55

If your answer is "yes", please specify.

500 character(s) maximum

56

If your answer is “no”, please indicate on what you base the design of your enclosures?

850 character(s) maximum

57

Can you please provide the number (and percentage on total) of enclosures with environmental enrichment measures? Please provide examples of these measures. If possible, please also provide the references or sources.

850 character(s) maximum

58 If relevant, please also upload documents here.

59

Are animal keepers at the zoo required to have a national (if existing in your country)/international qualification on animal care?

- Yes
- No
- Don't know

60

Can you please indicate whether the zoo has the following capabilities?

	Yes	No
Written health care programmes (preventive and/or curative)	<input type="radio"/>	<input type="radio"/>
Written nutrition programme	<input type="radio"/>	<input type="radio"/>
In house qualified veterinarian with experience and knowledge of wild animals	<input type="radio"/>	<input type="radio"/>
Contact with external qualified veterinarian with experience and knowledge of wild animals	<input type="radio"/>	<input type="radio"/>
Hygiene plans for cleaning and change of food/water	<input type="radio"/>	<input type="radio"/>
Protocols for capture/handling/transport of animals	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>

61

If 'Other', please specify.

250 character(s) maximum

Prevention of escapes and intrusion

62

Can you please provide the number of escapes from the zoo posing threats to indigenous species that occurred in the last 15 years (if any)? Which species were concerned?

850 character(s) maximum

63

Does the zoo have a formal plan/protocol to prevent animal escape and prevent intrusion of outside pests and vermin?

Please select one or more answers

- Yes, for escape of animals
 Yes, for intrusion of outside pests and vermin

No

64

If possible, please provide the plan/protocol.

Record keeping

65

Does the zoo have a record keeping system of the zoo's collection?

- Yes
 No

66

If your answer is “yes”, please specify the options that apply:

Please select one or more answers

- Paper-based system
 Electronic or computer based system
 Standardised data format is used and compliant with other institutions

Individual record (per animal)

- Group record (per species or groups within a species)

Mainly individual records with few group records

- Complete collection covered
 Use of Zoological Information Management System (ZIMS)
 Records are used also for permits, information exchange, and transport certificates
 Animal identification systems in line with national/international trade regulations (e.g. Council Regulation 338/97, and Commission Regulation 865/2006)
 Information to be included is determined by the zoo
 Information to be included is determined by the competent authority

Other (please specify below)

67

If 'Other', please specify.

250 character(s) maximum

Part II - Assessment of the Zoos Directive

Effectiveness

Assessing the effectiveness of the Zoos Directive means analysing the extent to which its objectives have been met, and identifying any significant factors that may have contributed to or inhibited progress towards meeting those objectives.

68

In your opinion, to what extent did the Directive contribute to achieving the following objectives?

	Did not contribute	Slightly contributed	Strongly contributed	Fully contributed	No opinion
Protecting threatened wild species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reinforcing the role of zoos in preserving biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make people aware of the values of biodiversity and the steps they can take to conserve and use it sustainably (as laid down in Aichi Target 1 of the Convention of Biologic Diversity).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

69

If 'Other', please specify.

500 character(s) maximum

70

If possible, please justify your replies with evidence.

850 character(s) maximum

71

In your opinion, has the role of zoos in the conservation of biodiversity been strengthened over the last 15 years? Can this be attributed to the Zoos Directive?

- Yes, and it can be fully attributed to the Directive
- Yes, and it can be partly attributed to the Directive
- Yes, but it cannot be attributed to the Directive
- No strengthened role has been observed
- No opinion

72

Please specify the reasons for your reply.

850 character(s) maximum

73

Have you observed any other positive or negative changes as a consequence of the Directive?

Please select one or more answers

- Positive
- Negative
- Don't know

74

Please provide examples of positive changes that can be attributed to the Directive.

500 character(s) maximum

75

Please provide examples of negative changes that can be attributed to the Directive.

500 character(s) maximum

76

Concerning the licensing and inspection system established by the enforcement authorities, to what extent do you agree with the following statements?

	Totally disagree	Somewhat disagree	Somewhat agree	Totally agree	Don't know
An appropriate licensing and inspection system is established in my country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspectorate has sufficient (financial and human) resources to ensure the enforcement of the Directive's requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inspectors have sufficient knowledge/training to ensure the enforcement of the Directive's requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Every zoo is licensed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Licenses contain conditions to enforce Article 3 requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zoos compliance is monitored regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before granting/refusing a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before extending a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before significantly amending a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a zoo does not meet licensing conditions, it is closed and/or has to comply with specific requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Penalties are imposed if breaches are detected are effective, proportionate and dissuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

77

If 'Other', please specify.

250 character(s) maximum

78

If possible, please justify your replies with evidence.

850 character(s) maximum

79

In your view, which main factors have contributed to or stood in the way of achieving the Zoos Directive's objectives?

850 character(s) maximum

Efficiency

The central question asked here is whether the costs involved in the implementation of the Directive are reasonable and in proportion to the benefits achieved. Both 'costs' and 'benefits' can be monetary and/or non-monetary.

The implementation of the Directive and the related licensing system could have prompted one-off investments and triggered recurrent costs, in order to ensure the compliance of the zoo with the requirements introduced.

Important: For all questions below, only additional costs, directly due to the Zoos Directive, should be considered. Business-as-usual costs (costs from activities that would be incurred even in the absence of the legislation) should not be considered. To this purpose, we also ask you to identify the share of the costs/resources dedicated to the implementation of the Zoos Directive.

Did you undertake the following investments? What share of these investments was made to obtain and keep the licence?

As far as possible, please provide an estimate of the total investments undertaken (in €). If the investments were done fully or partly because of the Directive, indicate the share that can be attributed to the Directive (%).

If the same investments would have been done also in absence of the Directive, please indicate 0%.

	Total amount of the investments (€)	Approximate share that can be attributed to the Directive (%). Please indicate 0% if the same investments would have been done also in absence of the Directive.
Investments for:		
• Renovation of the enclosures		
• Provision of information on exhibited animals		
• Improvement of standard of animal husbandry and of the enclosures		
• Systems to prevent escape of animals and/or intrusion of outside pests and vermin		
• Record keeping/animal identification systems		
• Other (please specify below)		

81

If applicable, please specify 'Other'.

250 character(s) maximum

Have you observed increased recurrent costs in your zoo? What share of these costs is due to licencing requirements?

As far as possible, please provide an estimate of the following annual costs in € and the share which can be attributed to obtaining/keeping a licence required by the Zoos Directive. If the investments were done fully or partly because of the Directive, indicate the share that can be attributed to the Directive (%).

	Recurrent costs: Estimate of annual costs (€)	Share that can be attributed to the Directive (%). Please indicate 0% if the same investments would have been done also in absence of the Directive.
Research and conservation projects		
Training activities		
Information exchange activities		
Education and awareness raising activities		
Information on exhibited animals		
Animal accommodation and high standard of animal husbandry		
Preventing escape of animals		
Preventing intrusion of outside pests and vermin		
Record keeping/animal identification systems		
Other (please specify below)		

83 If applicable, please specify 'Other'.

250 character(s) maximum

84

Did your zoo hire new staff in order to obtain a licence?

- Yes
- No
- Don't know

85

If “yes”, please indicate how many people and their responsibilities.

500 character(s) maximum

Do the procedures for licensing and inspection trigger administrative costs?

As far as possible, please provide an estimate of the following information, as costs in € dedicated to the licensing and inspection procedure. Also possible penalties for non-compliance with licensing requirements are included. If your zoo was subject to a licensing system also before the implementation of the Zoo Directive, please estimate the increase occurred because of the system introduced by the national authority in order to implement the Zoo Directive.

	Estimate	Where licensing existed in your country before the Directive, estimate of the increase due to the implementation of the Zoo Directive (%). If licencing did not exist, the increase is 100%
Costs for non-compliance with licensing requirements (penalties) (Annual estimate in €)		
Charge paid to obtain the license (€)		
Zoo personnel involved in license applications: man days needed to prepare the application to obtain the license		
Zoo personnel involved in inspections by the MS Competent authorities: man days per one single inspection (preparatory work for the inspection, send documents to authorities, fill-in pre-inspection questionnaires, taking part in the visit of the MS Competent authorities, providing answer to the inspection report)		
Other (please specify below)		

87 If applicable, please specify 'Other'.

250 character(s) maximum

88

Have there been delays in licensing that caused additional costs (e.g. investments in enclosure renovation, foregone ticket sales, lower visitor numbers, etc.?)

- Yes
- No
- Don't know

89

If your answer is “yes”, please provide a short description, and provide supporting evidence to substantiate your statement (court judgments, complaint to the authorities).

500 character(s) maximum

90 If relevant, please also upload documents here.

91

In your experience, does the Directive imply disproportionate costs? Please indicate which costs you deem as disproportionate and the reasons for that.

	Yes	No	Don't know
Investments in order to ensure compliance with the licensing requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recurrent costs triggered by the licensing requirements in your zoo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrative costs, in relation to the procedures for licensing and inspection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

92

If 'Other', please specify.

250 character(s) maximum

93

If possible, please justify your replies with evidence.

850 character(s) maximum

94

Was it difficult for your zoo to comply with and finance Article 3 requirements in order to obtain a license?

- Very difficult
- Moderately difficult
- Slightly difficult
- Not difficult at all
- Don't know

95

Please provide examples from your experience.

850 character(s) maximum

96

Do you know any good practices in terms of cost-effective implementation of the Zoos Directive? If yes, please provide examples.

850 character(s) maximum

97

In your opinion, how significant are the benefits associated with the Directives? For each of the items below, please indicate to what extent benefits have been delivered.

	No benefits	Minor benefits	Moderate benefits	Major benefits	No opinion
Benefits for overall biodiversity conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Benefits for protecting species from extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for ex-situ conservation efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for public education and better knowledge on biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for positive changes of behaviour towards biodiversity protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for accommodation of animals and standard of animal husbandry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for the local economy (e.g. new jobs in the zoo and related recreational activities, increased tourism, research and innovation on conservation issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Benefits for zoos as economic operators because of an EU wide legal framework (similar conditions among zoo operators in different EU MS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for zoos as economic operators as Zoos Directive triggers higher visitor numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for society (e.g. health, culture, recreation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

98

If 'Other', please specify.

250 character(s) maximum

99

Please provide examples for items where you see clear benefits and also the reasons why you don't see benefits for other items. Could you provide quantitative or monetary evidence for any of the benefits?

850 character(s) maximum

Coherence

Evaluating the coherence of the Directive means assessing if the legislation is consistent with other legislation as well as with other related EU policies.

100

Have you experienced problems (e.g. duplication of work) while applying requirements from other EU or international policies or legislation in addition to the zoos licensing requirements?

Please select one or more answers

- EU policies and legislation
- International policies and agreements

Don't know

101

Please provide examples (e.g. regulations on animal health requirements, regulations on trade, regulations on nature protection).

850 character(s) maximum

Relevance

Relevance concerns the extent to which the objectives of the Zoos Directive are consistent with the needs of EU biodiversity conservation. It relates to whether the objectives of the legislation are still necessary and appropriate and whether the objectives and requirements set out in the Directive are still valid.

102

In your opinion, are the following needs that justified the adoption of the Directive still important?

	Yes	No	No opinion
Protect species threatened by extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public awareness of biodiversity conservation issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

103

Please justify your replies.

850 character(s) maximum

104

In your opinion, is the Directive adapted to technical and scientific progress in the field of biodiversity conservation, especially ex-situ conservation and its links to in-situ conservation?

	Not at all	To some extent	To a large extent	No opinion
In the field of biodiversity conservation in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In relation to strengthening links between in-situ and ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

105

If 'Other', please specify.

250 character(s) maximum

106

Please justify your replies.

850 character(s) maximum

EU added value

EU Added Value is defined as the additional value resulting from EU legislation compared to what would have been achieved by Member States acting in isolation. EU added value questions ask whether EU action was needed and is still needed.

107

In your zoo, were the measures listed below already in place before the adoption of the Directive?

	Yes	No	Don't know
Participation in research and training from which conservation objectives may be achieved, exchange of information relating to species conservation skills and, where appropriate, captive breeding, repopulation, or reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion of public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodating the animals under conditions that aim to satisfy the biological requirements of the species by providing specific enrichment to the enclosures, as well as maintaining high standards of animal husbandry and veterinary preventive and curative care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of the animals and avoid intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep appropriate records of the zoo's collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your zoo, to what extent has the Zoos Directive contributed to implementing new conservation measures or improving the existing ones?

	Did not contribute	Somewhat contributed	Fully contributed	Don't know
Participation in research and training from which conservation objectives may be achieved, exchange of information relating to species conservation skills and, where appropriate, captive breeding, repopulation, or reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion of public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Accommodating the animals under conditions that aim to satisfy the biological requirements of the species by providing specific enrichment to the enclosures, as well as maintaining high standards of animal husbandry and veterinary preventive and curative care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of the animals and the intrusion of outside pests and vermin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep appropriate records of the zoo's collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

109

Do you think an EU legislative act is necessary to ensure that zoos implement Article 3 measures?

- Yes
- No
- No opinion

110

Please justify your reply.

850 character(s) maximum

111

Could the same objectives be partly or entirely achieved with the relevant existing international conventions, programmes or other instruments?

Such instruments include the Convention on biological Diversity (CBD) with the Aichi Targets; the Birds Directive (Council Directive 79/409/EEC) and Habitats Directive (Council directive 92/43/EEC); the Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES) and Council regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade; Regulation 1143/2014 on invasive alien species; National species action plans in EU Member States; European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA); European Endangered Species Programmes (EEP); IUCN technical guidelines for the management of ex-situ populations for conservation; WAZA World Zoo and Aquarium Conservation Strategy.

- Yes, partly
- Yes, fully
- No
- Don't know

112

Please comment on your reply.

850 character(s) maximum

113

In your opinion would the Zoos Directive's objectives of protecting wild fauna and conserving biodiversity have been better achieved with additional EU rules on the following matters?

	Yes	No	No opinion
Monitoring and reporting obligations to the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coherent minimum standards for animal accommodation for all species kept in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-wide strategic approach for species conservation in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focusing on conservation efforts in zoos on species of transnational importance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

114

If 'Other', please specify.

250 character(s) maximum

115 Please justify your replies.

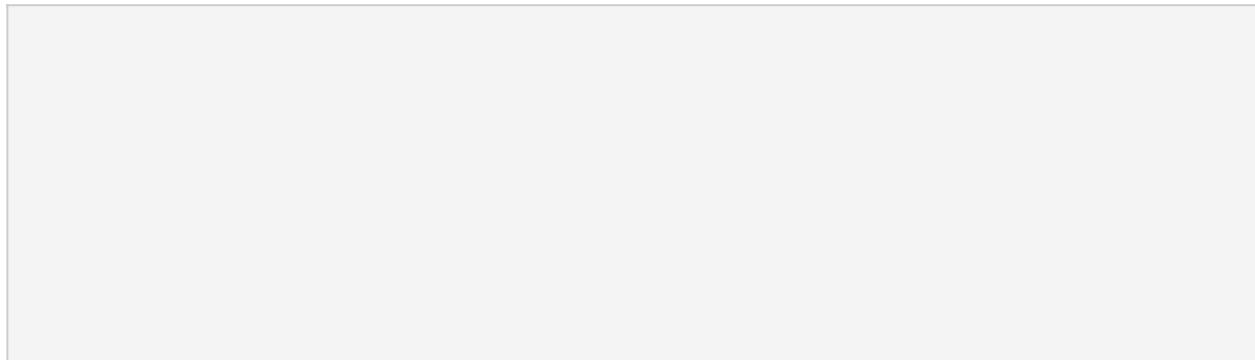
850 character(s) maximum

Part III - Concluding remarks

116

What works well and what does not in the current legislation on the keeping of wild animals in zoos? Do you have specific recommendations for improvements? Please substantiate your reply.

1000 character(s) maximum



Thank you for your participation!

Targeted survey as part of the REFIT evaluation of the Zoos Directive, addressed to Member State Competent Authorities

Fields marked with * are mandatory.

Disclaimer

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About this consultation

The evaluation is part of the European Commission's Regulatory Fitness and Performance Programme ([REFIT](#)). This programme involves a comprehensive, evidence-based assessment of whether the current regulatory framework is proportionate and fit for purpose, and delivering as expected.

Objectives of the evaluation

The evaluation examines the relevance, effectiveness, efficiency, coherence and EU added value of the [EU Directive 1999/22/EC relating to keeping of wild animals in zoos](#) (hereinafter 'the Zoos Directive'). It will evaluate what has worked well or poorly, and will compare actual performance to initial expectations. It looks to see if the rules set out in the Directive are simple, clear and do not cause unnecessary costs.

The results will be used by the Commission to inform future decisions relating to the protection of wild animals and the enhancement of EU biodiversity, to which ex-situ conservation and zoos contribute. The evaluation in itself does not consider possible future changes to the legislation.

This survey is part of a broader range of consultation activities. Further information on the evaluation and the different activities it involves can be consulted on the Commission's [evaluation website](#).

The aim of this consultation is to gather the views and opinions of interested stakeholders on the current EU legislation on zoos and its implementation to date. Your responses will be used to help assess the current situation and ensure that the most accurate and comprehensive evidence is taken into account. It is therefore important that you complete this questionnaire as fully as possible.

The evaluation will look in particular at the implementation and functioning of the EU rules on the regulation of zoos with regards to: (1) the protection of wild animals; (2) the conservation of biodiversity by strengthening the role of zoos.

The [Zoos Directive](#), was adopted with the objective to promote wild animal species protection and conservation by strengthening the role of zoos in the conservation of biodiversity. The Directive intended to achieve these objectives by the adoption of measures by Member States for the licensing and inspection of zoos in order to ensure that zoos respect conservation and protection measures, including appropriate accommodation of the animals.

The Directive requires Member States to establish a licencing and inspection system in order to ensure that zoos implement the following Article 3 conservation measures:

- Participate in **one or more** of the following: i) research and training through which conservation objectives may be achieved, ii) exchange of information relating to species conservation, iii) captive breeding, iv) repopulation, or v) reintroduction of species into the wild;
- Promote public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats;
- Accommodate animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and maintaining a high standard of animal husbandry;
- Prevent the escape of animals in order to avoid threats to indigenous species and intrusion of outside pest and vermin;
- Keep appropriate records of the zoo's collection.

Guidance

The questionnaire for this targeted online survey has been prepared in order to gather evidence-based information for the evaluation.

Please answer questions based on direct experience. As far as possible, please provide evidence to substantiate your replies in the open text fields. For many questions it is also possible to upload supporting documents. Where possible, quantitative evidence should be provided. Where this is not possible, estimates and qualitative evidence would be welcome.

You can skip questions that you do not feel comfortable responding to. However, replies to questions marked with an asterisk are compulsory.

This questionnaire is being sent out to Competent Authorities in 14 selected Member States (Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, France, Germany, Italy, Ireland, Lithuania, Netherlands, Poland, Portugal, Spain).

NB: Several different questionnaires for different stakeholder groups have been established, namely:

- **National competent authorities** (e.g. ministries or regional/local authorities responsible for implementing and enforcing the Zoos Directive)
- EU-level and national-level federations and associations of zoos (e.g. **zoos federations**) and non-governmental associations (**NGOs** in the field of biodiversity conservation or animal welfare)), as well as academics and other experts in the area
- Zoo operators

In addition, a public consultation for the broader public will run on the Commission's website 'Your Voice in Europe' between September and December 2016.

The different surveys have been distributed via different distribution channels. If you feel you have not received the right questionnaire, or have any queries please contact zoos.directive@milieu.be. If you are aware of additional specific documents that should be taken into account in the evidence gathering process, please submit them through the [evaluation website](#).

The present questionnaire is structured as follows:

- Part I investigates the the transposition of the Directive in your Member State.
- Part II concerns the implementation of conservation measures including licensing and enforcement activities.
- Part III gathers information and opinions in relation to the results achieved with the Zoos Directive, in order to assess its effectiveness, efficiency, relevance, coherence and added value.
- Part IV gives you the possibility to add concluding remarks.

You may pause at any time and continue later. Once you have submitted your answers, you can download a copy of your completed responses.

We kindly ask you to fill in the questionnaire within 4 weeks of receipt.

Use of the results

- *¹ Please note that according to the Commission's Better Regulation Guidelines, stakeholder's contributions will be published on the dedicated evaluation website.

Regardless of the option chosen below, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In such cases, the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

According to relevant data protection rules, please indicate whether your reply:

- Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- Cannot be published but only used for statistical and analytical purposes, in the context of the present study

Information on the respondent

- *² Complete name of the organisation or expert

- *³ Name and position of the respondent

- *⁴ Email address

*** 5 Telephone number**

*** 6 Member State**

- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- France
- Germany
- Italy
- Ireland
- Lithuania
- Netherlands
- Poland
- Portugal
- Spain

Part I - Transposition of the Directive in your Member State

- * 7** Please provide the full name of the act(s) transposing the Directive 1999/22/EC, and the link to the website where the legislation can be found.

- * 8** Which is (are) the designated competent authority (ies) in your Member State with overall responsibility for implementing the Directive?

850 character(s) maximum

9. Has the deadline for transposition of the Directive into national law been met (original deadline was 9 April 2002)?

- Yes
 No

10. If not, what was the reason for this and when has it been finally transposed?

500 character(s) maximum

11. Are the objectives of the Zoos Directive (to protect wild animals and conserve biodiversity, strengthen the role of zoos in conservation of biodiversity) reflected correctly in national law?

- Yes
 No
 Don't know

12. If not, where do you see discrepancies?

500 character(s) maximum

*Article 2 of the Directive reads as follows: “[...], ‘zoos’ mean all permanent establishments where **animals of wild species** are kept for exhibition to the public for 7 or more days a year, with the exception of circuses, pet shops and **establishments which Member States exempt** from the requirements of the Directive on the grounds that they do not exhibit a **significant number** of animals or species to the public and the exemption will not jeopardise the objectives of the Directive.”*

13. Does national law provide for a definition of ‘zoos’?

- Yes
 No

14. If yes, please quote (in English) the text of the definition.

850 character(s) maximum

15 Does national law provide for a definition of 'animal of wild species'?

- Yes
- No

16

If yes, please quote (in English) the text of the definition.

850 character(s) maximum

17 Does national law include exemptions according to Article 2?

- Yes
- No

18

If yes, in which cases and how is a "significant number of animals" defined?

500 character(s) maximum

19 Are there minimum standards set by law, for animal accommodation/enclosure size?

- Yes
- No

20

If your answer was "yes", please provide reference and a short description.

850 character(s) maximum

21 If yes, are the standards set by law species-specific?

- Yes
- No

22 If your answer was “yes”, please provide reference and a short description.

500 character(s) maximum

23 Are there any provisions in national law that go beyond those of the Zoos Directive?

- Yes
- No
- Don't know

24

If yes, please state which ones.

500 character(s) maximum

Part II – Implementation of the Directive in your Member State

The initial deadline for transposition provided in the Directive is 9 April 2002. The implementation period corresponds to the time between the transposition of the Directive and today. The original deadline to have all zoos licenced by the competent authority was 29 March 2003 (four years after the entry into force of the Directive).

Licensing in your Member State

25 Which institution(s) or competent authority(ies) grant licenses to zoos?

850 character(s) maximum

26 Are other (non-governmental) bodies/advisors involved? If so, please specify who they are and the role they play.

850 character(s) maximum

27. Please provide the following numbers for your country, for the implementation period

“New zoos” cover any zoo established later than four years after the entry into force of the Directive. If you cannot provide some of the answers, please state 'N/a' in the table.

	Number
Number of zoos licenced within four years after the entry into force of the Directive	
Number of zoos licenced later than four years after the entry into force of the Directive (excluding new zoos)	
Number of new zoos licenced later than four years after the entry into force of the Directive	

28. Please provide the following numbers for your country

'Zoo' is understood within the meaning of the Directive.

If you cannot provide some of the answers, please state 'N/a' in the table.

	2010	2015
Number of zoos to date (licensed and not licensed)		
Number of licensed zoos to date		
Number of zoos with a license application pending to date		
Number of zoos exempted from licensing to Article 2		
Number of zoos for which a license was refused (conditions not met)		
Number of zoos for which a license was initially refused (conditions not met) but granted later on after improvements have been made		

29. If the first year of reference of the data you provided is different than 2010, please specify here.

250 character(s) maximum

30 If the last year of reference of the data you provided is different than 2015, please specify here.

250 character(s) maximum

31

Please provide the reference to the source, or the URL where this data can be found, here:

32 You can also upload relevant documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

33. What is the duration of validity of a license? If different types of licenses are provided, please indicate the types and differences in duration.

850 character(s) maximum

34 What is the cost of a license for an applicant? If costs vary, please indicate the costs for different types of licences.

850 character(s) maximum

Enforcement activities in your Member State

Organisation of enforcement authorities

35 Which institution(s) or competent authority(ies) inspect the zoos?

850 character(s) maximum

36 If more institutions/authorities at local and/or regional level are identified, please describe also how their work is coordinated. Please also indicate if the authorities are supported by advisory bodies or external experts.

850 character(s) maximum

37 What is the enforcement authority(ies) capacity for inspections?

If you cannot provide some of the answers, please state 'N/a' in the table.

	Number
Full time (equivalent) staff dedicated to zoos inspections	
Duration of one inspection procedure including reviewing documents, inspection form, inspection visit, report	
Number of zoos to be covered by one inspector (per year)	

38 Please add any other information related to the enforcement authority(ies) capacity for inspections.

850 character(s) maximum

39 What other responsibilities does a zoo inspector have (e.g. general animal welfare, food safety, epidemics control etc.)?

850 character(s) maximum

40 Are there specific criteria (in terms of educational background/expertise) to be met by inspectors appointed for zoos inspections?

- Yes
- No
- Don't know

41

If your answer was “yes”, please specify.

500 character(s) maximum

42 Are there training/training programmes for zoo inspectors?

- Yes
- No
- Don't know

43

If your answer was “yes”, please specify the **content** and **frequency** of training

500 character(s) maximum

Inspection regime and licensing procedure

44 What aspects are taken into account when carrying out inspections?

850 character(s) maximum

45. Is there a structured inspection form and a set of inspection criteria?

- Yes
- No
- Don't know

46. If your answer was “yes”, please describe it below and/or upload a template of the form/criteria.

850 character(s) maximum

47 Please upload your document. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

48. Does an inspection include pre- and post-inspection meetings with zoo staff?

- Yes
- No
- Don't know

49. Is relevant documentation requested in advance?

- Yes
- No
- Don't know

50. Is an inspection report prepared?

- Yes
- No
- Don't know

51. Is inspection work sub-contracted to other associations/entities?

- Yes
- No
- Don't know

52. If your answer was “yes”, please specify the type and organisation of such sub-contracts, including their monitoring.

500 character(s) maximum

53. Is there a central zoo database with results/documents of licencing/inspection procedures?

- Yes
- No
- Don't know

54. If so, can this database be accessed by all local and regional authorities dealing with the Zoos Directive?

- Yes
- No

55. Are inspections carried out before:

	Yes	No
Granting/refusing a license	<input type="radio"/>	<input type="radio"/>
Extending a license	<input type="radio"/>	<input type="radio"/>
Significantly amending a license	<input type="radio"/>	<input type="radio"/>

56. Are inspections carried out after a licence is granted?

- Yes
- No

57. If your answer was “yes”, how often do they take place (e.g. once per year)?

500 aracter(s) maximum

58. Could you provide an estimate of total number of inspections carried out for the following purposes since the entry into force of the Directive?

If you cannot provide some of the answers, please state 'N/a' in the table.

	Number of inspections
Granting/refusing a license	
Extending a license	
Significantly amending a license	

59. According to national law implementing the EU Zoos Directive, are zoos required to carry out any of these activities in order to obtain the license?

	Yes	No	Don't know
Research and/or training and/or exchange of information on species conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Captive breeding, repopulation, reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public education and awareness raising in relation to conservation of biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing information about exhibited species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain high standard of animal husbandry with programmes of preventive and curative veterinary care and nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of animals in order to avoid ecological threats to indigenous species/preventing intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping of up to date records of zoos collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

60. If 'other', please specify:

250 aracter(s) maximum

61. Which criteria are applied for the assessment of these activities?

Please provide the assessment criteria for the activities zoos are required to carry out, according to your answers to the previous question.

	Criteria/indicators applied to assess whether the activity is properly carried out
Research and/or training and/or exchange of information on species conservation	
Captive breeding, repopulation, reintroduction of species into the wild	
Public education and awareness raising in relation to conservation of biodiversity	
Providing information about exhibited species	
Accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species	
Maintain high standard of animal husbandry with programmes of preventive and curative veterinary care and nutrition	
Preventing the escape of animals in order to avoid ecological threats to indigenous species/preventing intrusion of outside pests and vermin	
Keeping of up to date records of zoos collection	
Other (please specify in the table)	

62. Are there monetary penalties foreseen in case zoos do not comply with the Directive?

Yes

No

63. If your answer was “yes”, please indicate the range of monetary penalties applied to different breaches of the national legislation.

500 character(s) maximum

64 With reference to information on breaches to national legislation, please provide the following data:

If you cannot provide some of the answers, please state 'N/a' in the table.	Number of regular inspections (as per Art.4(3) of the Directive) or average per year	Number of detected breaches after license was granted	Number of zoos subject to penalties, due to non-compliance with the Directive	Number of zoos completely closed because of non-compliance	Number of zoos partially closed because of non-compliance
1998					
1999					
2000					
2001					
2002					
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					
Total					

65. Based on data collected during inspections, which are the most common reasons for breaches of Article 3 provisions?

	High	Medium	Low	Don't know
Research and/or training and/or exchange of information on species conservation and/or captive breeding, repopulation, reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public education and awareness raising in relation to conservation of biodiversity, particularly by providing information about exhibited species and their habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain high standard of animal husbandry with programmes of preventive and curative veterinary care and nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of animals in order to avoid ecological threats to indigenous species/preventing intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping of up to date records of zoos collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

66. If 'other', please specify

250 character(s) maximum

67. In case of closure, does a national action plan or other arrangements in place for the relocation and accommodation of animals?

- Yes
- No
- Don't know

68. If your answer was “yes”, please specify. For instance, are there sanctuaries and/or does a network of national/international contacts exist for animal placement?

500 character(s) maximum

69. Are you aware of escapes of wild animals from zoos over the implementation period?

- Yes
- No
- Don't know

70

If yes, please indicate the overall number of escapes as well as the species and the zoo concerned.

250 character(s) maximum

71 Did you notice a reduction in these cases over the years?

- Yes
- No
- Don't know

72

Please provide the reference to the source, or the URL where this data can be found, here:

73 You can also upload documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

Part III - Assessment of the Zoos Directive

Effectiveness

Assessing the effectiveness of the Zoos Directive means analysing the extent to which its objectives have been met, and identifying any significant factors that may have contributed to or inhibited progress towards meeting those objectives.

In your opinion, to what extent did the Directive contribute to achieving the following objectives?

	Did not contribute	Slightly contributed	Strongly contributed	Fully contributed	No opinion
Protecting threatened wild species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reinforcing the role of zoos in preserving biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make people aware of the values of biodiversity and the steps they can take to conserve and use it sustainably (as laid down in Aichi Target 1 of the Convention of Biologic Diversity).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

75

If 'Other', please specify.

250 character(s) maximum

76

If possible, please justify your replies with evidence.

850 character(s) maximum

77

In your opinion, has the role of zoos in the conservation of biodiversity been strengthened over the last 15 years? Can this be attributed to the Zoos Directive?

- Yes, and it can be fully attributed to the Directive
- Yes, and it can be partly attributed to the Directive
- Yes, but it cannot be attributed to the Directive
- No strengthened role has been observed
- No opinion

78

Please specify the reasons for your reply.

850 character(s) maximum

79

Have you observed any other positive or negative changes as a consequence of the Directive?

Please select one or more answers

- Positive
- Negative
- No changes
- Don't know

80

Please provide examples of positive changes that can be attributed to the Directive.

500 character(s) maximum

81

Please provide examples of negative changes that can be attributed to the Directive.

500 character(s) maximum

Concerning the licensing and inspection system, to what extent do you agree with the following statements?

	Totally disagree	Somewhat disagree	Somewhat agree	Totally agree	Don't know
The monitoring and reporting system in your Member State is well suited to ensure compliance with the Article 3 requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspectors have sufficient knowledge/training to ensure the enforcement of the Directive's requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspectorate has sufficient (financial and human) resources to ensure the enforcement of the Directive's requirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penalties available are effective, proportionate and dissuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If possible, please justify your replies with evidence.

850 character(s) maximum

84 Can you describe any action taken in the last years in order to improve the licensing and inspection system (e.g. periodic trainings of inspectors, establishment of advisory bodies, development of centralised system of record keeping on inspections, etc.)? Or any other good practices in relation to inspections and licensing?

850 character(s) maximum

85 Are you aware of any other factors (e.g. actions by national authorities or other stakeholders, external factors) which contributed to or affected negatively the effective implementation of the Directive’s requirements?

850 character(s) maximum

Efficiency

The central question asked here is whether the costs involved in the implementation of the Directive are reasonable and in proportion to the benefits achieved. Both 'costs' and 'benefits' can be monetary and/or non-monetary.

Important: For all questions below, only additional costs, directly due to the Zoos Directive, should be considered. Business-as-usual costs (costs from administrative activities that would be occurred even in the absence of the legislation) should not be considered.

86. Have you observed increased costs triggered by the Directive in your administration in relation to:

	Yes	No	Don't know
Treating license applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preparing the inspection necessary for granting of the license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desk based inspections (e.g. analysis of records)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On-site inspections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follow-up of inspections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training of inspectorate staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring the compliance of the legislation, providing information to the EC, exchanging information with other authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

87. If 'other', please specify:

250 character(s) maximum

88. Can you estimate the following costs?

If you cannot provide some of the answers, please state 'N/a' in the table.

	Estimate on an annual basis
Costs incurred by authorities for closure of zoos	
Costs caused by invasive alien species that escaped from zoos	
Other	

89. If relevant, please specify 'other':

250 character(s) maximum

90. If you could not provide specific estimate in the previous question, please provide an order of magnitude of the costs incurred.

Please provide an estimation of the magnitude of costs per year, in euros.

	100s	1,000s	10,000s	100,000s	1,000,000s	Don't know
Costs incurred by authorities for closure of zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs caused by invasive alien species that escaped from zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

91. If 'other', please specify:

250 character(s) maximum

92

In your experience, does the Directive imply disproportionate costs for the competent authorities? Please indicate which costs you deem as disproportionate and the reasons for that.

	Yes	No	Don't know
Costs of licensing and inspections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs relating to the closure of zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring compliance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing information to the EC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exchanging information with other authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

93

If 'Other', please specify.

250 character(s) maximum

94

Please justify your replies with evidence.

850 character(s) maximum

95 In your opinion, how significant are the benefits associated with the Directives? For each of the items below, please indicate to what extent, in your opinions, direct and indirect benefits have been delivered.

	No benefit	Minor benefits	Moderate benefits	Major benefits	Don't know
Benefits for overall biodiversity conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for protecting species from extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for ex-situ conservation efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for public education and better knowledge on biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for positive changes of behaviour towards biodiversity protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for accommodation of animals and standard of animal husbandry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Benefits for the local economy (e.g. new jobs in the zoo and related recreational activities, increased tourism, research and innovation on conservation issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for zoos as economic operators because of an EU wide legal framework (creation of a level playing field among zoo operators in different EU MS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for zoos as economic operators as Zoos Directive triggers higher visitor numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for society (e.g. health, culture, recreation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

96 If 'other', please specify:

250 character(s) maximum

97

Please provide examples for items where you see clear benefits and also the reasons why you don't see benefits for other items. Could you provide quantitative or monetary evidence for any of the benefits?

850 character(s) maximum

98 Do you think it is more difficult for small zoo establishments (< 10-50 employees) to comply with and finance Article 3 requirements in order to obtain a license?

- Yes
- No
- Don't know

99

Please provide examples from your experience.

850 character(s) maximum

100

Do you know any good practices in terms of cost-effective implementation of the Zoos Directive? If yes, please provide examples.

850 character(s) maximum

Coherence

Evaluating the coherence of the Directive means assessing if the legislation is consistent with other legislation as well as with other related EU policies.

101 Is the Zoos Directive consistent with and mutually supportive of the following legal interventions or do you see significant gaps, overlaps or inconsistencies?

	Consistent and/or Mutually supportive	Gaps	Overlaps	Inconsistencies	Don't know
Convention on biological Diversity (CBD)/Aichi targets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Birds Directive , 1979 (Council Directive 79/409/EEC) and Habitats Directive , 1992 (Council directive 92/43/EEC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES), embraced by Council Regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Regulation 1143/2014 on invasive alien species	●	●	●	●	●
Commission regulation No 1739/2005 of 21 October 2005 laying down animal health requirements for the movement of circus animals between Member States	●	●	●	●	●
Council Directive 92/65/EEC of 13 July 1992 laying down animal health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific rules referred to in annex A (I) to Directive 90/425/EEC	●	●	●	●	●

<p>Council Directive 90/425/EEC of 26 June 1990 concerning veterinary and zoo technical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market</p>	●	●	●	●	●
<p>National species action plans in EU Member States</p>	●	●	●	●	●
<p>National animal welfare acts</p>	●	●	●	●	●
<p>Other</p>	●	●	●	●	●

102 If 'other', please specify

250 character(s) maximum

If you identified gaps, overlaps or inconsistencies, how do they impact the achievement of the Zoos Directive's objectives and the achievement of the objectives of the other legal interventions? Do gaps, overlaps or inconsistencies result in additional administrative burden? What would be your suggestion to resolve these inconsistencies?

850 character(s) maximum

104 Is the Zoos Directive consistent with and mutually supportive of the following non-legal instruments or do you see significant gaps, overlaps or inconsistencies?

	Consistent and/or Mutually supportive	Gaps	Overlaps	Inconsistencies	Don't know
European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IUCN technical guidelines for the management of ex-situ populations for conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WAZA World Zoo and Aquarium Conservation Strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
European Endangered Species Programmes (EEP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

105 If 'other', please specify:

250 character(s) maximum

106

If you identified gaps, overlaps or inconsistencies, how do they impact the achievement of the Zoos Directive's objectives and the achievement of the objectives of the other legal interventions? Do gaps, overlaps or inconsistencies result in additional administrative burden? What would be your suggestion to resolve these inconsistencies?

850 character(s) maximum

Relevance

Relevance concerns the extent to which the objectives of the Zoos Directive are consistent with the needs of EU biodiversity conservation. It relates to whether the objectives of the legislation are still necessary and appropriate and whether the objectives and requirements set out in the Directive are still valid.

107

In your opinion, are the following needs that justified the adoption of the Directive still important?

	Yes	No	No opinion
Protect species threatened by extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public awareness of biodiversity conservation issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

108

Please justify your replies.

850 character(s) maximum

109

In your opinion, is the Directive adapted to technical and scientific progress in the field of biodiversity conservation, especially ex-situ conservation and its links to in-situ conservation?

	Not at all	To some extent	To a large extent	No opinion
In the field of biodiversity conservation in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In relation to strengthening links between in-situ and ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

110

If 'Other', please specify.

250 character(s) maximum

111

Please justify your replies.

850 character(s) maximum

EU added value

EU Added Value is defined as the additional value resulting from EU legislation compared to what would have been achieved by Member States acting in isolation. EU added value questions ask whether EU action was needed and is still needed.

Were the following conservation measures applying to zoos already in place in the national legislation before the adoption of the Directive?

	Yes	No	Don't know
Defining biodiversity conservation as the purpose of ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research and/or training and/or exchange of information on species conservation, captive breeding, repopulation, reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public education and awareness raising in relation to conservation of biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing information about exhibited species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain high standard of animal husbandry with programmes of preventive and curative veterinary care and nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of animals in order to avoid ecological threats to indigenous species/preventing intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping of up to date records of zoos collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other measures you are aware of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

113 Please specify 'other measures':

250 character(s) maximum

114. Do you think that the EU intervention has contributed to make zoos adopt or implement the Article 3 conservation measures more efficiently or more quickly as compared to national law or non-legal initiatives?

- Yes
- No
- Don't know

115. Please justify your reply.

850 character(s) maximum

116

Do you think an EU legislative act is necessary to ensure that zoos implement Article 3 measures?

- Yes
- No
- No opinion

117

Please justify your reply.

850 character(s) maximum

118

In your opinion, could the same objectives be partly or entirely achieved with the relevant existing international conventions, programmes or other instruments?

Such instruments include the Convention on biological Diversity (CBD) with the Aichi Targets; the Birds Directive (Council Directive 79/409/EEC) and Habitats Directive (Council directive 92/43/EEC); the Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES) and Council regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade; Regulation 1143/2014 on invasive alien species; National species action plans in EU Member States; European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA); European Endangered Species Programmes (EEP); IUCN technical guidelines for the management of ex-situ populations for conservation; WAZA World Zoo and Aquarium Conservation Strategy.

- Yes, partly
- Yes, fully
- No
- Don't know

119

Please justify your reply.

850 aracter(s) maximum

120. In your opinion would the Zoos Directive's objectives of protecting wild fauna and conserving biodiversity have been better achieved with additional EU rules on the following matters?

	Yes	No	No opinion
Monitoring and reporting obligations to the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coherent minimum standards for animal accommodation for all species kept in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-wide strategic approach for species conservation in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focusing on conservation efforts in zoos on species of transnational importance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

121.If 'Other', please specify.

250 character(s) maximum

122 Please justify your replies.

850 character(s) maximum

Part IV - Concluding remarks

123

Which aspects, if any, of the Zoos Directive do you see as successful? Why?

1000 character(s) maximum

124. Which aspects, if any, of the Zoos Directive do you see as failures? Why?

1000 character(s) maximum

125. Do you have specific recommendations for improvements?

1000 character(s) maximum

* 126 May we contact you for further input to the study?

Yes

No

Thank you for your participation!

Targeted survey as part of the REFIT evaluation of the Zoos Directive, addressed to NGOs, zoos federations and experts

Fields marked with * are mandatory.

Disclaimer

The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

About this consultation

The evaluation is part of the European Commission's Regulatory Fitness and Performance Programme ([REFIT](#)). This programme involves a comprehensive, evidence-based assessment of whether the current regulatory framework is proportionate and fit for purpose, and delivering as expected.

Objectives of the evaluation

The evaluation examines the relevance, effectiveness, efficiency, coherence and EU added value of the [EU Directive 1999/22/EC relating to keeping of wild animals in zoos](#) (hereinafter 'the Zoos Directive'). It will evaluate what has worked well or poorly, and will compare actual performance to initial expectations. It looks to see if the rules set out in the Directive are simple, clear and do not cause unnecessary costs.

The results will be used by the Commission to inform future decisions relating to the protection of wild animals and the enhancement of EU biodiversity, to which ex-situ conservation and zoos contribute. The evaluation in itself does not consider possible future changes to the legislation.

This survey is part of a broader range of consultation activities. Further information on the evaluation and the different activities it involves can be consulted on the Commission's [evaluation website](#).

The aim of this consultation is to gather the views and opinions of interested stakeholders on the current EU legislation on zoos and its implementation to date. Your responses will be used to help assess the current situation and ensure that the most accurate and comprehensive evidence is taken into account. It is therefore important that you complete this questionnaire as fully as possible.

The evaluation will look in particular at the implementation and functioning of the EU rules on the regulation of zoos with regards to: (1) the protection of wild animals; (2) the conservation of biodiversity by strengthening the role of zoos.

The Zoos Directive, was adopted with the objective to promote wild animal species protection and conservation by strengthening the role of zoos in the conservation of biodiversity. The Directive intended to achieve these objectives by the adoption of measures by Member States for the licensing and inspection of zoos in order to ensure that zoos respect conservation and protection measures, including appropriate accommodation of the animals.

The Directive requires Member States to establish a licencing and inspection system in order to ensure that zoos implement the following Article 3 conservation measures:

- Participate in **one or more** of the following: i) research and training through which conservation objectives may be achieved, ii) exchange of information relating to species conservation, iii) captive breeding, iv) repopulation, or v) reintroduction of species into the wild;
- Promote public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats;
- Accommodate animals under conditions which aim to satisfy the biological and conservation requirements of the individual species and maintaining a high standard of animal husbandry;
- Prevent the escape of animals in order to avoid threats to indigenous species and intrusion of outside pest and vermin;
- Keep appropriate records of the zoo's collection.

Guidance

The questionnaire for this targeted online survey has been prepared in order to gather evidence-based information for the evaluation.

Please answer questions based on direct experience. As far as possible, please provide evidence to substantiate your replies in the open text fields. For many questions it is also possible to upload supporting documents. Where possible, quantitative evidence should be provided. Where this is not possible, estimates and qualitative evidence would be welcome.

You can skip questions that you do not feel comfortable responding to. However, replies to questions marked with an asterisk are compulsory.

To facilitate understanding of the questions, the survey is available in 13 languages. Given possible delays in translating comments submitted in some languages, contributions in English for the open text fields are welcome, as they will help to process the survey more swiftly.

This questionnaire is being sent out to EU-level and national-level federations and associations of zoos in 14 selected Member States (Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, France, Germany, Italy, Ireland, Lithuania, Netherlands, Poland, Portugal, Spain), as well as to NGOs and experts.

NB: Several different questionnaires for different stakeholder groups have been established, namely:

- **National competent authorities** (e.g. ministries or regional/local authorities responsible for implementing and enforcing the Zoos Directive)
- EU-level and national-level federations and associations of zoos (e.g. **zoos federations**) and non-governmental associations (**NGOs** in the field of biodiversity conservation or animal welfare)), as well as academics and other experts in the area
- Zoo operators

In addition, a public consultation for the broader public will run on the Commission's website 'Your Voice in Europe' between September and December 2016.

The different surveys have been distributed via different distribution channels. If you feel you have not received the right questionnaire, or have any queries please contact zoos.directive@milieu.be. If you are aware of additional specific documents that should be taken into account in the evidence gathering process, please submit them through the [evaluation website](#).

The present questionnaire is structured as follows:

- Part I investigates the implementation of the Directive
- Part II gathers information and opinions in relation to the results achieved with the Zoos Directive, in order to assess its effectiveness, efficiency, relevance, coherence and added value.
- Part III gives stakeholders the possibility to add concluding remarks

You may pause at any time and continue later. Once you have submitted your answers, you can download a copy of your completed responses.

We kindly ask you to fill in the questionnaire within 4 weeks of receipt.

Use of the results

* 1

Please note that according to the Commission's Better Regulation Guidelines, stakeholder's contributions will be published on the dedicated evaluation website.

Regardless of the option chosen below, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In such cases, the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

According to relevant data protection rules, please indicate whether your reply:

- Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- Cannot be published but only used for statistical and analytical purposes, in the context of the present study

Information on the respondent

* 2. Complete name of the organisation or expert

* 3 Name and position of the respondent

* 4 Email address

*** 5 Telephone number**

*** 6**
What type of stakeholder do you represent?

- Federation of zoos and/or aquaria
- Trade union
- NGO
- Scientific expert, academic, researcher
- Other

*** 7**
If 'Other', please specify:

250 character(s) maximum

*** 8 Do you operate mainly at international, EU or national level?**

You may choose one or more answers

- International level
- EU level
- National level

*** 9 If you operate at national level, in which Member State are you based?**

- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- France
- Germany
- Italy
- Ireland
- Lithuania
- Netherlands
- Poland
- Portugal
- Spain
- Other

* 10 If other, please specify:

* 11 Which of the following best describes your main field of activity?

- Environment, nature
- Biodiversity in-situ conservation (conservation of species in their natural environment)
- Biodiversity – ex-situ conservation (conservation of species outside their natural environment)
- Animal welfare
- Education
- Recreation
- Tourism
- Other

* 12 If 'other', please specify:

* 13 Are you registered in the EU Transparency Register?

In the interests of transparency, organisations, networks, platforms or self-employed individuals engaged in activities aimed at influencing the EU decision making process have been invited to provide the public with relevant information about themselves, by registering in Transparency Register and subscribing to its Code of Conduct.

Please note: If the organisation is not registered, the submission is published separately from the registered organisations. During the analysis of replies to a consultation, contributions from respondents who choose not to register will be treated as individual contributions (unless the contributors are recognised as representative stakeholders through Treaty provisions, European Social Dialogue, Art. 154-155 TFEU).

If your organisation is not registered, you have the opportunity to [register now](#).

- Yes
- No

14 If yes, please provide your EU Transparency Register ID number.

Part I - Implementation of the Directive

Licensing

15 If you have the following data at the EU level, please provide the following numbers at EU level for 2015. If the data you have refers to another year, please specify in the next question.

If you are an international/EU stakeholder- if you have information for all or some EU Member States, please provide the information in a separate document.

'Zoo' is to be understood within the meaning of the Directive.

	Number
Number of zoos to date (licensed and not licensed)	
Number of licensed zoos to date	
Number of zoos with a license application pending	
Number of zoos exempted from licensing according to Article 2 of the Directive (e.g. zoos that do not exhibit a significant number of animals or species to the public)	
Number of zoos for which a license was refused (conditions not met)	
Number of zoos closed over the implementation period, due to non-compliance with the requirements	

16

If the year of reference of the data you provided is different than 2015, please specify here.

250 character(s) maximum

17

Please provide the reference to the source, or the URL where this data can be found, here:

18 You can also upload documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

19. If you have the following data for your Member State, please provide the following numbers for your country, for 2015. If the data you have refers to another year, please specify in the next question.

'Zoo' is to be understood within the meaning of the Directive.

	Number
Number of zoos to date (licensed and not licensed)	
Number of licensed zoos to date	
Number of zoos with a license application pending	
Number of zoos exempted from licensing according to Article 2 of the Directive (e.g. zoos that do not exhibit a significant number of animals or species to the public)	
Number of zoos for which a license was refused (conditions not met)	
Number of zoos closed over the implementation period, due to non-compliance with the requirements	

20

If the year of reference of the data you provided is different than 2015, please specify here.

250 character(s) maximum

21

Please provide the reference to the source, or the URL where this data can be found, here:

22 You can also upload documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

Enforcement activities

23. In case of closure, are you aware of national plan(s) or other arrangements for the relocation and accommodation of zoos?

- Yes
 No
 Don't know

24

If you are an international or EU stakeholder, please specify the countries/region you refer to.

250 character(s) maximum

25 If your answer was “yes”, please specify. For instance, are there sanctuaries and/or does a network of national/international contacts exist for animal placement?

500 character(s) maximum

26 Are you aware of escapes of wild animals from zoos over the implementation period?

- Yes
- No
- Don't know

27

If yes, please indicate number of escapes observed, per year where applicable, and the geographical coverage

250 character(s) maximum

28 Did you notice a reduction in these cases over the years?

- Yes
- No
- Don't know

29

Please provide the reference to the source, or the URL where this data can be found, here:

30 You can also upload documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

Part II - Assessment of the Zoos Directive

Under Article 3 of the EU Directive (Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos.) Member States (MS) are required to implement conservation measures to strengthen the role of zoos in the conservation of biodiversity. The conservation measures that EU zoos must implement under Article 3 of the Directive in order to obtain a licence are:

- Participation in one or more of the following: research and training through which conservation objectives may be achieved, exchange of information relating to species conservation skills, captive breeding, repopulation, or reintroduction of species into the wild;
- Promotion of public education and awareness in relation to the conservation of biodiversity, particularly by providing information about the species exhibited and their natural habitats;
- Accommodating the animals under conditions that aim to satisfy the biological requirements of the species by providing specific enrichment to the enclosures, as well as maintaining high standards of animal husbandry and veterinary preventive and curative care;
- Preventing the escape of the animals in order to avoid threats to indigenous species and intrusion of outside pests and vermin;
- Keeping appropriate records of the zoo's collection

Effectiveness

Assessing the effectiveness of the Zoos Directive means analysing the extent to which its objectives have been met, and identifying any significant factors that may have contributed to or inhibited progress towards meeting those objectives.

31

In your opinion, to what extent did the Directive contribute to achieving the following objectives?

	Did not contribute	Slightly contributed	Strongly contributed	Fully contributed	No opinion
Protecting threatened wild species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>Reinforcing the role of zoos in preserving biodiversity</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Make people aware of the values of biodiversity and the steps they can take to conserve and use it sustainably (as laid down in Aichi Target 1 of the Convention of Biologic Diversity).</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Other (please specify below)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32

If 'Other', please specify.

250 character(s) maximum

33

If possible, please justify your replies with evidence.

850 character(s) maximum

34

In your opinion, has the role of zoos in the conservation of biodiversity been strengthened over the last 15 years? Can this be attributed to the Zoos Directive?

- Yes, and it can be fully attributed to the Directive
- Yes, and it can be partly attributed to the Directive
- Yes, but it cannot be attributed to the Directive
- No strengthened role has been observed
- No opinion

35

Please specify the reasons for your reply, with reference or evidence if possible.

850 character(s) maximum

36

Have you observed any other positive or negative changes as a consequence of the Directive?

Please select one or more answers

- Positive
- Negative
- No changes
- Don't know

37

Please provide examples of positive changes that can be attributed to the Directive.

500 character(s) maximum

38

Please provide examples of negative changes that can be attributed to the Directive.

500 character(s) maximum

Concerning the licensing and inspection system, to what extent do you agree with the following statements?

	Totally disagree	Somewhat disagree	Somewhat agree	Totally agree	No opinion
Appropriate licensing and inspection system(s) is(are) established	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspectors have sufficient knowledge/training to ensure the enforcement of the Directive's requirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspectorate has sufficient (financial and human) resources to ensure the enforcement of the Directive's requirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penalties applied if breaches are detected are effective, proportionate and dissuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

40

If possible, please justify your replies with evidence.

850 character(s) maximum

41 If you are a national stakeholder, to what extent do you agree with the following statements? Please answer with reference to your Member State.

Please answer with reference to your Member State only.

	Totally disagree	Somewhat disagree	Somewhat agree	Totally agree	No opinion
Every zoo is licensed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Licenses contain conditions to enforce Article 3 requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zoos compliance is monitored regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before granting/refusing a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before extending a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspections are carried out before significantly amending a license	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a zoo does not meet licensing conditions, it is closed and/or has to comply with appropriate requirements imposed within an appropriate time period	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42

If 'Other', please specify.

250 character(s) maximum

43

If possible, please justify your replies with evidence.

850 character(s) maximum

44

In your view, which main factors have contributed to or stood in the way of achieving the Zoos Directive's objectives?

850 character(s) maximum

45 In your opinion, which main factors have contributed to or negatively affected the effective implementation of the Directive's requirements?

	Has contribut- ed to the effec- tive implemen- tation	Has negatively affected	Had no effect	No opinion
Transposition/implementation/enforcement by Member State(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enforcement by the Commission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of clarity of the Directive's provisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordination at different levels (EU, national, regional, local)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dedicated funding and resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stakeholders' involvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public awareness and support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of scientific knowledge about species and ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integration of the Zoos Directive in other policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

46 If 'other', please specify.

250 character(s) maximum

47

Please provide examples of factors that have contributed or negatively affected the effective implementation.

850 character(s) maximum

Efficiency

The central question asked here is whether the costs involved in the implementation of the Directive are reasonable and in proportion to the benefits achieved. Both 'costs' and 'benefits' can be monetary and/or non-monetary.

The implementation of the Directive and the related licensing system could have prompted **one-off investments** and triggered **recurrent costs**, in order to ensure the compliance of the zoo with the requirements introduced.

Important: For all questions below, only additional costs, directly due to the Zoos Directive, should be considered. Business-as-usual costs (costs from activities that would be incurred even in the absence of the legislation) should not be considered. To this purpose, we also ask you to identify the share of the costs/resources dedicated to the implementation of the Zoos Directive.

48 Did the Zoo Directive imply an increase of costs for zoos and Member States?

Following the enter into force of the Directive, zoos might have incurred new or higher costs in relation to the elements such as:

- Investments and/or recurrent costs to implement the national requirements to obtain or keep the licence (i.e. to implement the conservation measures related to Article 3);
- Administrative burdens (administrative costs to meet information obligations that are caused solely by the legislation and doesn't include business-as-usual administrative costs), arising from licensing and inspection procedures (i.e. labour costs for writing the license application, preparing the inspection necessary for granting of the license, send documents to authorities, fill pre-inspection questionnaires, etc.);
- Charges, e.g. license fees.

Similarly, Member State authorities might incur administrative burdens that include but are not restricted to the following: labour costs for treating license applications, monitoring of compliance, exchange of information. Member States' enforcement costs relate to compliance monitoring, e.g., preparing the inspection necessary for granting of the license, evaluate pre-inspection questionnaires, onsite inspections, writing inspection report or costs for training of inspectorate staff.

	No significant costs	Slightly increased costs	High increase of costs	Don't know
Costs for zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs for MS authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

49

Please provide a source or reference of evidence.

50 If relevant, you can also upload documents here. If a document is too big to be uploaded, please send it to the address: zoos.directive@milieu.be

51. In your opinion, does the Directive imply disproportionate costs for the zoos and/or competent authorities?

- Yes, for zoos
 Yes, for MS competent authorities

No

- Don't know

52

Please justify your reply.

850 character(s) maximum

53

Do you know any good practices in terms of cost-effective implementation of the Zoos Directive? If yes, please provide examples.

850 character(s) maximum

54 Do you think it is more difficult for small zoo establishments (< 10-50 employees per year) to comply with and finance Article 3 requirements in order to obtain a license?

- Yes
 No
 Don't know

55

Please provide examples

850 character(s) maximum

56

In your opinion, how significant are the benefits associated with the Directives? For each of the items below, please indicate to what extent benefits have been delivered.

	No benefits	Minor benefits	Moderate benefits	Major benefits	No opinion
Benefits for overall biodiversity conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for protecting species from extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for ex-situ conservation efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for public education and better knowledge on biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for positive changes of behaviour towards biodiversity protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for accommodation of animals and standard of animal husbandry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for the local economy (e.g. new jobs in the zoo and related recreational activities, increased tourism, research and innovation on conservation issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for zoos as economic operators because of an EU wide legal framework (similar conditions among zoo operators in different EU MS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for zoos as economic operators as Zoos Directive triggers higher visitor numbers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits for society (e.g. health, culture, recreation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

57

If 'Other', please specify.

250 character(s) maximum

58

Please provide examples for items where you see clear benefits and also the reasons why you don't see benefits for other items. Could you provide quantitative or monetary evidence for any of the benefits?

850 character(s) maximum

Coherence

Evaluating the coherence of the Directive means assessing if the legislation is consistent with other legislation as well as with other related EU policies.

59 Is the Zoos Directive consistent with and mutually supportive of the following legal interventions or do you see significant gaps, overlaps or inconsistencies?

	Consistent and/or Mutually supportive	Gaps	Overlaps	Inconsistencies	Don't know
Convention on biological Diversity (CBD)/Aichi targets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>Birds Directive, 1979 (Council Directive 79/409/EEC) and Habitats Directive, 1992 (Council directive 92/43/EEC)</p>	●	●	●	●	●
<p>Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES), embraced by Council Regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade</p>	●	●	●	●	●
<p>Regulation 1143/2014 on invasive alien species</p>	●	●	●	●	●
<p>Commission regulation No 1739/2005 of 21 October 2005 laying down animal health requirements for the movement of circus animals between Member States</p>	●	●	●	●	●

<p>Council Directive 92/65/EEC of 13 July 1992 laying down animal health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific rules referred to in annex A (I) to Directive 90/425/EEC</p>	●	●	●	●	●
<p>Council Directive 90/425/EEC of 26 June 1990 concerning veterinary and zoo technical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market</p>	●	●	●	●	●
<p>National species action plans in EU Member States</p>	●	●	●	●	●

National animal welfare acts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

60 If 'other', please specify.

250 character(s) maximum

61 If you identified gaps, overlaps or inconsistencies, how do they impact the achievement of the Zoos Directive's objectives and the achievement of the objectives of the other legal interventions? Do gaps, overlaps or inconsistencies result in additional administrative burden? What would be your suggestion to resolve these inconsistencies?

850 character(s) maximum

62 Is the Zoos Directive consistent with and mutually supportive of the following non-legal instruments or do you see significant gaps, overlaps or inconsistencies?

	Consistent and/or Mutually supportive	Gaps	Overlaps	Inconsistencies	Don't know
European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IUCN technical guidelines for the management of ex-situ populations for conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WAZA World Zoo and Aquarium Conservation Strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
European Endangered Species Programmes (EEP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

63 If 'other', please specify.

250 character(s) maximum

64 If you identified gaps, overlaps or inconsistencies, how do they impact the achievement of the Zoos Directive's objectives and the achievement of the objectives of the other legal interventions? Do gaps, overlaps or inconsistencies result in additional administrative burden? What would be your suggestion to resolve these inconsistencies?

850 character(s) maximum

Relevance

Relevance concerns the extent to which the objectives of the Zoos Directive are consistent with the needs of EU biodiversity conservation. It relates to whether the objectives of the legislation are still necessary and appropriate and whether the objectives and requirements set out in the Directive are still valid.

65

In your opinion, are the following needs that justified the adoption of the Directive still important?

	Yes	No	No opinion
Protect species threatened by extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public awareness of biodiversity conservation issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

66

Please justify your reply.

850 character(s) maximum

67

In your opinion, is the Directive adapted to technical and scientific progress in the field of biodiversity conservation, especially ex-situ conservation and its links to in-situ conservation?

	Not at all	To some extent	To a large extent	No opinion
In the field of biodiversity conservation in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In relation to strengthening links between in-situ and ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

68

If 'Other', please specify.

250 character(s) maximum

69

Please justify your reply.

850 character(s) maximum

EU added value

EU Added Value is defined as the additional value resulting from EU legislation compared to what would have been achieved by Member States acting in isolation. EU added value questions ask whether EU action was needed and is still needed.

70 If you are a national stakeholder, were the following conservation measures already in place in the national legislation before the adoption of the Directive?

	Yes	No	Don't know
Defining biodiversity conservation as the purpose of ex-situ conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research and/or training and/or exchange of information on species conservation, captive breeding, repopulation, reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public education and awareness raising in relation to conservation of biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing information about exhibited species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodating animals under conditions which aim to satisfy the biological and conservation requirements of the individual species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain high standard of animal husbandry with programmes of preventive and curative veterinary care and nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing the escape of animals in order to avoid ecological threats to indigenous species/preventing intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping of up to date records of zoos collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other measures you are aware of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

71 Please specify 'other measures'.

250 character(s) maximum

72. If you are an EU/international stakeholder, are you aware of specific rules that were in place before the introduction of the Directive in one or several Member States?

- Yes
 No

73. Please comment on your reply.

850 character(s) maximum

74. Do you think that the EU intervention has contributed to adopt or implement the Article 3 conservation measures more efficiently or more quickly as compared to national law or non-legal initiatives?

- Yes
 No
 Don't know

75. Please comment on your reply.

850 character(s) maximum

76

Do you think an EU legislative act is necessary to ensure that zoos implement Article 3 measures?

- Yes
 No
 No opinion

77

Please justify your reply.

850 character(s) maximum

78

In your opinion, could the same objectives be partly or entirely achieved with the relevant existing international conventions, programmes or other instruments?

Such instruments include the Convention on biological Diversity (CBD) with the Aichi Targets; the Birds Directive (Council Directive 79/409/EEC) and Habitats Directive (Council directive 92/43/EEC); the Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES) and Council regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade; Regulation 1143/2014 on invasive alien species; National species action plans in EU Member States; European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA); European Endangered Species Programmes (EEP); IUCN technical guidelines for the management of ex-situ populations for conservation; WAZA World Zoo and Aquarium Conservation Strategy.

- Yes, partly
- Yes, fully
- No
- Don't know

79

Please comment on your reply.

850 character(s) maximum

80. In your opinion would the Zoos Directive's objectives of protecting wild fauna and conserving biodiversity have been better achieved with additional EU rules on the following matters?

	Yes	No	No opinion
Monitoring and reporting obligations to the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coherent minimum standards for animal accommodation for all species kept in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-wide strategic approach for species conservation in zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focusing on conservation efforts in zoos on species of transnational importance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

81. If 'Other', please specify.

250 character(s) maximum

82 Please justify your replies.

850 character(s) maximum

Part III - Concluding remarks

83

What works well and what does not in the current legislation on the keeping of wild animals in zoos? Do you have specific recommendations for improvements? Please substantiate your reply.

1000 character(s) maximum

* 84 May we contact you for further input to the study?

- Yes
- No

Thank you for your participation!

ANNEX VII – INTERVIEWS REPORT

1 INTRODUCTION

In line with the Better Regulation Guidelines on Stakeholder Consultation, this report aims at summarizing the methodology and results of the stakeholders' interviews undertaken as one of the consultation activities of the study to support the evaluation of the Zoos Directive.

Within the consultation strategy applied to this study, the interviews were designed as part of the targeted consultation of stakeholders. This targeted consultation comprised, first, the questionnaire-based online surveys targeted to specific stakeholder groups (see Targeted Surveys Report), and secondly follow-up interviews to complement the information collected through the targeted surveys, and make sure that the points raised by stakeholders were fully understood.

The interviews were organised between 18th October 2016 and 1st March 2017 with:

- **National stakeholders:** within each of the 14 Member States, depending on the number of relevant stakeholders acting at national level, at least **two and up to four interviews** were held. The interviews at national level at least included one interview with the competent authority. The remaining ones were carried out with a different type of stakeholder preferably the main national zoo federation, an NGO involved in biodiversity conservation, ex-situ conservation or animal welfare, or a zoo.
- **EU and international stakeholders:** besides the stakeholders within the 14 Member States, the data collection team performed eight additional interviews with stakeholders from the EU and international level: the European Association of Zoos and Acquaria (EAZA), the European Commission, the European Association for Aquatic Mammals (EAAM), Eurogroup for Animals and Born Free (Daniel Turner; Will Travers) and experts in biodiversity conservation.

2 STAKEHOLDERS INTERVIEWED

In total, 44 stakeholders were interviewed: 13 MSCAs, 8 zoo federations, 6 NGOs, 9 zoo operators and 9 EU and international stakeholders. This is higher than the target initially provided in the consultation strategy⁴⁷⁶. Table 8 provides the overview of the 44 stakeholders interviewed.

Table 52: Overview of interviewed stakeholders

Nb	Country	Stakeholder type	Organisation
1	BE	MSCAs	Walloon and Flemish Public Service for Animal Welfare
2	BE	NGO	GAIA
3	BE	Zoos	BE Zoo (anonymity requested)
4	BG	NGO	Four Paws
5	BG	Zoos	Sofia Zoo
6	CY	MSCAs	Veterinary Services
7	CY	NGO	ARC Cyprus

⁴⁷⁶ A 14 total of minimum 28 and maximum 42 interviews at national level, plus up to eight interviews at EU/international level.

8	CY	Zoos	Pafos Zoo
9	CZ	MSCAs	Ministry of the Environment of the Czech Republic
10	DE	MSCAs	Regional department for Health and Food Safety; Regional Institute for Animal Health, Bavaria
11	DE	MSCAs	Federal Ministry for the Environment, Nature Conservation
12	DE	Zoos federations	Verband der Zoologischen Gärten – VdZ
13	DK	MSCAs	Ministry of Environment and Food; Danish Veterinary and Food Administration
14	DK	Zoos federations	Danish Association of Zoos and Aquaria - DAZA
15	ES	MSCAs	Ministry of Agriculture, Food and Environment, General directorate for environmental quality and evaluation, General sub-directorate for natural environment,
16	ES	Zoos	Zoobotanico Jerez
17	ES	NGO	Infozoos
18	ES	Zoos federations	Asociación Ibérica de Zoos y Acuarios - AIZA
19	FR	NGO	Code Animal
20	FR	Zoos	FR Zoo (anonymity requested)
21	FR	MSCAs	Ministry of Environment
22	IE	MSCAs	Ministry of Environment
23	IE	Zoos federations	British and Irish Association of Zoos and Aquariums - BIAZA
24	IE	Zoos	Fota
25	IT	MSCAs	Ministry of Environment, Land and Sea Protection; Nature and Sea Protection Directorate; CITES Management Authority
26	IT	Zoos federations	Italian zoos federation
27	IT	Zoos	IT zoo
28	IT	NGO	Animalisti Italiani
29	LT	MSCAs	Ministry of Environment; Nature Protection Department, Biodiversity Division;
30	LT	Zoos	Lithuanian Zoological Gardens
31	NL	MSCAs	Ministry of Economic Affairs
32	PL	Zoos	Wroclaw Zoo
33	PL	Zoos federations	Board of Directors of Polish Zoological Gardens and Aquaria
34	PT	Zoos	Jardim zoologico e de aclimação em Portugal
35	PT	Zoos federations	Associação Portuguesa de Zoos e Aquaria - APZA
36	PT	MSCAs	Division of Animal Welfare - DGAV-DSPA
37	EU	EU and international	Eurogroup for Animals
38	EU	EU and international	EAZA
39	EU	EU and international	BornFree (Daniel Turner; Will Travers)
40	EU	EU and international	EAAM
41	EU	EU and international	European Commission, DG Environment, Unit D.2 (Biodiversity)

42	EU	EU and international	IUCN SSC Commission expert/Vice-Director of Copenhagen Zoo
43	EU	EU and international	Expert in biodiversity conservation
44	EU	EU and international	Expert in biodiversity conservation

Source: Interviews in the context of this study

Non-responsive stakeholders

- Some stakeholders were difficult to reach: CAs in Bulgaria, Cyprus, the Czech Republic, Poland and Lithuania were particularly slow in replying or non-responsive:
- Bulgaria submitted the answer to the questionnaire very late in the process and declined an interview. The Polish CAs also declined the interview.
- The Dutch Federation of Zoos (NDV) wanted to seek information from their network for the interview. Because this did not succeed, the federation refused to be interviewed and limited their response to the online questionnaire.
- Most international stakeholders contacted declined an interview (WAZA, CITES Secretariat and CBD Secretariat).

An expert of the SSC Commission of IUCN was interviewed, but no formal contribution of IUCN as an organisation was provided.

3 INTERVIEW QUESTIONS

The interviews questions ensured a full coverage of the evaluation questions and tailored the questions to the different types of stakeholder groups identified. The links between the evaluation questions and interview questions were added to the evaluation framework. A semi-flexible approach was adopted to make sure that: on the one hand, each interview takes into account the specific context and issues raised by the stakeholder in the targeted survey; on the other hand, that the same topics are covered in all interviews and information remains comparable to a certain degree.

The interview questions were drafted in collaboration with the European Commission. The interview questions, as well as the targeted stakeholders and the general approach, were discussed during a Steering Group Meeting on 6th October 2016. The minutes of the meeting are presented in Annex I to this report.

Interview guidelines

The project management team developed interview guidelines for the preparation and execution of the interviews. The guidance document was subject to approval by DG ENV, and afterwards circulated among the study team. The guidance document included information on: the purpose of the interviews; the targeted stakeholders; instructions for contacting stakeholders, preparing (and tailoring as needed) the questions and conducting the interviews; the interview questions. As illustrated in the tables below, for each question, we provided:

- The questions that were asked to the interviewees;
- The type of stakeholders that are targeted for each question;
- background information based on the early findings from October 2016 for the interviewer to understand the context of certain questions as needed;
- the links to the questions of the targeted questionnaires. To prepare the interviews, the interviewer was asked to check the answers provided by the interviewee to these specific questions.
- The respondents that provided answers to those questions.

Some interviews were carried out as a second round to complement specific points of the study on which data was found to be particularly scarce. The table below provides an overview of those second round of interviews and the specific aspects that they covered.

Table 53: Supplementary interviews

Purpose of the interview	Interviewee
Gain additional insight regarding: - the context leading to the adoption of the Zoos Directive; - the situation in the EU countries prior to its implementation (baseline).	BornFree (Will Travers) Expert in biodiversity conservation (Stanley Johnson) Expert in biodiversity conservation (Kerstin Sundseth - Ecosystems Ltd) IUCN SSC Commission expert/Vice-Director of Copenhagen Zoo (Bengt Holst)
Interaction of the Directive with the IAS Regulation	European Commission, DG Environment, Unit D.2 (Biodiversity)

Such interviews were based on a more flexible approach and did not follow exactly the same structure as the others. Hence they might not appear as systematically in the tables below.

Table 54: Effectiveness

Question	Target	Background information	Link with targeted online questionnaire	Interview respondents
<p>Question 1. What progress have Member States made over time towards achieving the objectives set out in the Directive and the related transposed national legislations (to protect wild fauna and to conserve biodiversity/to strengthen the role of zoos in the conservation of biodiversity)? Could you provide evidence?</p>	<p>Zoos federation MSCA NGO</p>	<p>A majority of zoos considered that the Directive contributed (to a more or less significant extent) to the protection of species and the preservation of biodiversity. A vast majority of zoos also estimated that the role they have played on biodiversity conservation has been strengthened over the past 15 years and that this could be at least partly attributed to the Directive. Different profiles of zoos (conservation oriented zoos vs more entertainment oriented zoos, small vs big zoos, conservation-oriented vs entertainment-oriented, public vs private zoos) might show different patterns in the evolution of their activities towards conservation.</p>	<p>Zoos questionnaire : questions 25-42; 107-113 MSCAs questionnaire : questions 112-126</p>	<p>Zoos federations : EAZA, EAAM, Verband der Zoologischen Gärten (VdZ), DAZA⁴⁷⁷, AIZA⁴⁷⁸, BIAZA⁴⁷⁹, APZA⁴⁸⁰, UIZA⁴⁸¹. MSCAs : BE, DE (central), ES, FR, IT, NL. NGOs: BornFree, Eurogroup for Animals, GAIA⁴⁸², Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos⁴⁸³, Code Animal, Animalisti Italiani⁴⁸⁴.</p>
<p>Question 2. What has worked well and what hasn't in the implementation of the Directive and why? Which factors contributed or stood in the way of achieving the Directive objectives?</p>	<p>Zoos federation MSCA NGO</p>	<p>Several factors were mentioned in the questionnaires that influenced the achievement of the Directive's goals positively or negatively. Examples of positive factors: Membership in zoos association, small zoos forming conservation clusters to build capacity for bigger conservation programmes, zoos' financial contributions to in situ conservation, cross-border cooperation of zoos and national authorities, minimum standards for animal husbandry in national legislation, national legislation going beyond Article 3(1) of the Directive, involvement of advisory boards/committees or zoos associ-</p>	<p>Zoos questionnaire : questions 76, 116 MSCAs questionnaire : questions 35-71 ; 82-85 ; 123-126 NGOs&Federation questionnaire : questions 39-41 ; 83-84</p>	<p>Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, CZ, DE (regional), DE (central), DK, ES, FR, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.</p>

⁴⁷⁷ DK zoos federation.

⁴⁷⁸ ES zoos federation.

⁴⁷⁹ British and Irish zoos federation.

⁴⁸⁰ Portuguese zoos federation.

⁴⁸¹ IT zoos federation.

⁴⁸² BE animal welfare NGO.

⁴⁸³ ES NGO.

⁴⁸⁴ IT NGO.

		<p>ations in the inspection procedure.</p> <p>Examples of negative factors: lack of enforcement by authorities due to resource constraints, lack of knowledge in competent authorities, tendency to keep non-compliant zoos open as closure is cumbersome, lack of support from more entertainment-oriented zoos, vagueness of Directive's requirements (especially Article 3(1) either-or-option), lack of monitoring and reporting system, lack of reference in the Directive to growing importance of zoos for in situ conservation</p>		
<p>Question 3. Are you aware of specific actions by stakeholders which contributed or impeded the requirements of the Directive? Any good or bad practice examples?</p>	<p>Zoos federation MSCA NGO</p>	<p>See background under question 2. For instance, in terms of contribution, literature suggests that, besides actively taking part in conservation programmes, some zoos also invest part of their funds in conservation projects (both in situ and ex situ). Actions triggered by EAZA membership and cooperation programmes between MSCAs are examples.</p>	<p>Zoos questionnaire : questions 25-32 ; 36-42 ; 107-113 MSCAs questionnaire : questions 112-126</p>	<p>Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), ES, FR, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.</p>
<p>Question 4. How have the conservation related activities (research programmes, public awareness raising, accommodation) of zoos changed with the adoption of the Directive?</p>	<p>Zoos federation MSCA NGO</p>	<p>See background under question 1.</p>	<p>Overall answers</p>	<p>Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), DK, ES, FR, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.</p>
<p>Question 5. Beyond the objectives of biodiversity conservation and protection of wild fauna, have you observed other significant changes, positive or negative, resulting from the</p>	<p>Zoos federation MSCA NGO</p>	<p>See background under question 2. For instance, harmonisation of standards across EU zoos.</p>	<p>Zoos questionnaire : question 73 MSCAs questionnaire : question 79 NGO& federations</p>	<p>Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA. MSCAs : BE, DE (central), DK, FR, IE, IT, NL, PT.</p>

adoption and implementation of the Directive?			questionnaire : question 41.	NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal.
Question 6. Has the formulation of the Directive (e.g. definition of 'zoos', conservation measures listed in Article 3, either-or-option of Article 3 (1)) been problematic in your experience? Does national law formulate more specific or more stringent requirements? If so, does this efficiently address these shortcomings?	Zoos federation MSCA NGO	Evidence received so far from competent authorities' replies indicates that there are different approaches to transpose, implement and enforce the Directive which could result in different levels of effectiveness. There seems to be a huge difference across Member States in enforcement capacity and therefore in the number of non-licensed zoos.	Zoos questionnaire : question 116 MSCAs questionnaire : questions 7-24 NGOs&Federation questionnaire : questions 45-47	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, UIZA. MSCAs : BE, DE (regional), DE (central), DK, ES, FR, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.
Question 7. Does the licensing system in your country work properly? Can you explain why – or why not? In particular, do the authorities have sufficient capacity, knowledge and resources?	Zoos federation MSCA NGO	See background under question 2. The proportion of unlicensed zoos varies significantly from a country to another. In some countries the licensing procedures is semi-automatic – without inspections necessarily carried out before the issuance of a licence.	MSCAs questionnaire : questions 25-71. NGOs & federations questionnaire : questions 31-45.	Zoos federations : VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos federations : VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, CZ, DE (regional), DE (central), DK, ES, FR, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.
Question 8. How did the implementation and enforcement of the Directive by Member States competent authorities evolve in your Member State over the time?	Zoos federation MSCA NGO	A few replies to the questionnaires indicate that a major part of the inspection system refers to technical issues like animal health, conditions under which animals are kept, enclosure size, animal registration system, CITES issues, etc.).	MSCAs questionnaire : questions 25-71. NGOs & federations questionnaire : questions 31-45.	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), DK, ES, FR, IT, NL, PT. NGOs: BornFree, Euro-

				group for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal.
Question 9. How are closures of zoos handled at national level in practice? Do you have specific examples of actions taken for the disposal/relocation of animals?	Zoos federation MSCA NGO	There seems to be a tendency to keep non-compliant zoos open as disposal/relocation of animals in case of closure is very cumbersome. It seems as closure is only used as a means to put pressure on zoos to comply (e.g. reducing number of species, renovating enclosures) or stop their business.	MSCA questionnaire: questions 67-68	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), FR, ES, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.
Question 10. Is the EU Zoos Directive Good Practices Document used by competent authorities to enhance their understanding of the Directive?	MSCA	The lack of knowledge was mentioned many times across all stakeholders, even by MSCAs themselves. It would be helpful to elaborate further on this problem. So far no MSCA mentioned the use of the Good Practices Document. The fact that the Good Practices Document exist only in English was highlighted by stakeholders as impeding its use across the EU.	-	MSCAs : BE, CZ, DE (regional), DE (central), DK, ES, FR, IE, IT, NL, PT.

Table 55: Efficiency

Question	Target	Background information	Link with targeted online questionnaire	Interview respondents
Compliance costs for zoos: one-off investments and recurrent costs due to the Directive				
Question 11. In order to ensure compliance with the Zoo Directive, did zoos incur additional one-off costs (i.e. excluding costs that would have occurred also in the absence of legislation), such as hiring of personnel, or investments for the renovation of enclosures, provisions of information, etc.? If so, which are the most relevant addi-	Zoos federation Zoo	The implementation of the Directive and the related licensing system could have prompted one-off investments (e.g. building new enclosure) and triggered recurrent costs (e.g. training activities, information exchange, record keeping, etc.), in order to ensure the compliance of the zoo with the requirements introduced by the Directive. Also, additional staff could have been hired to address the needs created by the licensing requirements.NB: For all questions below, only additional	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56	Zoos federations : EAZA, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos : BE Zoo, Sofia Zoo, Pafos Zoo, Zoobotanico Jerez, FR Zoo, Fota, Italian Zoo, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoológico e de aclimação em Portugal.

<p>tional costs? Could you provide quantitative evidence/figures or at least the magnitude of costs, based on specific examples?</p>		<p>costs, directly due to the Zoos Directive, should be considered. Business-as-usual costs (costs from activities that would be incurred even in the absence of the legislation) should not be considered. During the interview, it is important to: understand whether new costs (which would have not been occurred without the Directive) were borne; among the new costs, understand which are the most significant; collect information on the magnitude of the costs (in monetary terms if estimates exist or, for example number of investments done, number of new people hired, etc.).</p>		
<p>Question 12. Did zoos experience an increase of recurrent costs (e.g. costs for training, information exchange, awareness raising, etc.) that would have not been borne in absence of the Zoos Directive? If so, which are the most relevant additional costs? Could you provide quantitative evidence/figures or at least the magnitude of costs, based on specific examples?</p>	<p>Zoos federation Zoo</p>	<p>See background information for question 11.</p>	<p>Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56</p>	<p>Zoos federations: EAZA, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos: BE Zoo, Sofia Zoo, Pafos Zoo, Zoobotanico Jerez, FR Zoo, Fota, Italian Zoo, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoologico e de aclimaçao em Portugal.</p>
<p>Administrative burden (and enforcement costs)</p>				
<p>Question 13. [For zoos, zoos federations] To what extent did the Zoos Directive imply additional administrative costs related to licencing and inspection procedures? Could you provide information on the procedures carried out by zoos that trigger additional costs and on the magnitude of these costs? Are you aware of missing revenues due to delays in the licencing procedure? [For MSCAs] To what extent did the Directive imply additional costs for the MSCA (costs related to the licencing and inspection system,</p>	<p>Zoos federation Zoo MSCA</p>	<p>Licensing often can be cumbersome and time-consuming for zoos (especially small structures). In some isolated cases, issues in terms of excessively long licencing procedures have been raised. In particular, please consider the following: Regarding zoos: a) The purpose of the questions addressed to zoos is to walk through the steps needed to obtain/renew the licence (e.g. applying for the licence; prepare the documents requested by the authority before the inspection; presence during the inspection; providing additional documents after the inspection, etc.) and, for each step, collect information on: time or "man days" needed to carry out the activity, frequency per year/across years (which depends on the fre-</p>	<p>Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56</p>	<p>Zoos federations : EAZA, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos : BE Zoo, Sofia Zoo, Pafos Zoo, FR Zoo, Fota, Italian Zoo, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoologico e de aclimaçao em Portugal. MSCAs : BE, DE (regional), DE (central), DK, ES, FR, IE, IT, NL, PT.</p>

<p>monitoring of the compliance with the legislation, closure of zoos and relocation of animals, etc.)? Which are the most relevant additional costs? Could you provide information on the procedures that trigger additional costs? Could you please detail the steps of the procedures (including number of man days needed and frequency)?</p>	<p>quency of controls). As for the questions above, it is important to understand if similar licencing and inspections activities were carried out also before the entering into force of the Directive (based on national legislation) and, if so, to what extent the Directive implied increased costs and why (i.e. what changed).</p> <p>b) Costs due to delays should be based on estimates provided by the Zoo, or quantified in months/days during which the zoo was closed because of the delays in obtaining the licence.</p> <p><i>For MSCAs:</i></p> <p>b) Costs related to licencing and inspection: like in point a) above, the objective is to walk through the procedure (from the point of view of the authority performing the control), and collect information on the steps and man days needed in each step. At national level, aggregated estimate can be asked about the costs on the licencing and inspection system (taken into account that these estimate can include the cost for inspectors carrying out also other duties). If similar licencing and inspections procedures existed before the Directive, the extent to which costs are higher and why (i.e. what changed) should be discussed.</p> <p>c) Other costs can be occurred by the authority for the regular monitoring of the compliance or, for example, for the exchange of information within the administration. The objective of the interview should be to understand which are the activities that generate significant costs, and if man days dedicated to these activities on an annual basis can be quantified (as above, it should be taken into account that personnel is likely to carry out also other activities, not strictly related to the Zoo Directive, and costs cannot be isolated).</p> <p>d) Regarding the other costs mentioned (closure of zoos and costs due to escapes of invasive alien species), overall estimates should be obtained by the authority (if relevant and available), along</p>		
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		with a description of the cases encountered.		
Benefits				
Question 14. What are the benefits brought about by the Directive? Could you provide quantitative evidence/figures or at least the magnitudes for particular benefits?	Zoos federation Zoo MSCA	In the questionnaires, statements pointed to clear benefits of Directive for biodiversity conservation. However, it's difficult to quantify them. Examples of quantitative evidence were an increase in number of EAZA members, an increase of EAZAs European Endangered Species programmes between 2000-2015, an increase in number of zoos taking part in the conservation database Species 360. There was ambiguous evidence regarding the economic benefits.	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos : BE Zoo, Sofia Zoo, Pafos Zoo, Zoobotanico Jerez, Fota, Italian Zoo, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoologico e de aclimação em Portugal. MSCAs : BE, DE (regional), DE (central), DK, FR, IE, IT, NL, PT.
Question 15. Could you give examples of economic benefits for zoos or socio-economic benefits for citizens (e.g. increased visitor number as Zoos Directive improved quality of zoos, creation of jobs, better recreation opportunities for citizens)? Could you provide quantitative evidence/figures or at least the magnitudes for particular benefits?	Zoos federation Zoo	See background information for question 14.	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos : Pafos Zoo, Zoobotanico Jerez, Fota, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoologico e de aclimação em Portugal.
Proportionality of costs				
Question 16. Could you provide evidence regarding the relation between costs and benefits brought about by the Directive? Are the costs proportionate or disproportionate compared to the benefits and why?	Zoos federation Zoo MSCA	The majority of responding zoos feel that, even if they encountered additional costs caused by the Directive, they were proportionate to the benefits. Similarly, many MSCAs indicated that the Directive triggered increased costs, which nevertheless were not regarded as disproportionate, as they use existing structures in veterinary authorities to licence/inspect zoos. However, in some isolated cases, issues in terms of excessively long licencing procedures have been raised.	Zoos questionnaire : question 91 - 93. MSCAs questionnaire : questions 92 - 94. NGOs& federations questionnaire : 51 -53.	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. Zoos : BE Zoo, Sofia Zoo, Pafos Zoo, Zoobotanico Jerez, FR Zoo, Fota, Parco Faunistico, Le Cornelle, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoologico e de aclimação em Portugal. MSCAs : BE, DE (regional), DE (central), DK, FR, IE, IT,

				NL, PT.
Funding				
Question 17. Are availability and access to funding a constraint or support? Does the Zoo Directive facilitate or enhance chances for zoos in applying for funding for biodiversity or conservation activities? Which kind of funding programmes at national, EU or international level are mostly frequently used by zoos for conservation projects?	Zoos federation Zoo	-	-	Zoos federations : EAZA, EAAM, VdZ, DAZA, BIAZA, APZA, UIZA. Zoos : BE Zoo, Sofia Zoo, Zoobotanico Jerez, FR Zoo, Fota, Italian Zoo, Lithuanian Zoological Gardens, Wroclaw Zoo, Jardim zoológico e de aclimação em Portugal.

Table 56: Relevance

Question	Target	Background information	Link with targeted online questionnaire	Interview respondents
Question 18. Is the Zoo Directive in line with the evolution of the EU and global objectives and targets concerning conservation of biodiversity? Which are the most important needs in this field and how are they addressed by the Directive?	Zoos federation MSCA NGO	There was broad agreement that the needs that triggered the implementation of the Zoos Directive still exist. Nevertheless, contradictory views were expressed about the adaptation of the Directive to scientific and technical progress.	Zoos questionnaire : question 102-104. MSCAs questionnaire : questions 109-111. NGOs & federations questionnaire: questions 65-67.	Zoos federations : EAZA, EAAM, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, IE, IT, NL. NGOs: BornFree, Eurogroup for Animals, GAIA, Animal Rescue Centre (ARC) Cyprus, Infozoos.
Question 19. How well adapted is the Zoos Directive to technical and scientific progress in the field of biodiversity conservation, and relation to in-situ and ex-situ conservation?	Zoos federation MSCA NGO	See background information for question 18.	Zoos questionnaire : question 102-104. MSCAs questionnaire : questions 109-111. NGOs & federations questionnaire: questions 65-67.	Zoos federations : EAZA, EAAM, VdZ, AIZA, BIAZA, APZA. MSCAs : BE, DE (central), ES, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal.

Table 57: Coherence

Question	Target	Background information	Link with targeted online questionnaire	Interview repondents
<p>Question 20. Have you observed any inconsistencies or overlaps between the requirements of the Zoos Directive and those of other EU/ international policies and legislation on biodiversity conservation and animal welfare?</p> <ul style="list-style-type: none"> In particular, do you think there are inconsistencies with the IAS Regulation? Do you think that there are overlaps, resulting in additional administrative burden? In particular, do you consider there are overlaps between the Zoos Directive and Directive 92/65/EEC on animal health requirements⁴⁸⁵ or the national transposing legislation, in particular legally binding standards for accommodation, e.g. different inspection procedures? 	<p>Zoos federation MSCA</p>	<p>Issues in relation to the IAS Regulation have been raised. On one hand, some stakeholders noted that zoos can no longer keep species (except captured ones) that are listed in the IAS Regulation. This impedes the creation of educational programmes tailored to the problem of Invasive Alien Species, while also impacting the biodiversity of zoo collections. On the other hand, zoos may play a role in the management of listed species.</p> <p>Concerning potential overlaps between the Zoos Directive and other legislation, replies from zoo operators pointed to problems, such as duplication of work, they have experienced when applying the Directive.</p>	<p>Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.</p>	<p>Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), ES, IE, IT, NL, PT.</p>
<p>Question 21. [For MSCAs] Have you experienced any positive interfaces and synergies between the Zoos Directive and other EU/ international policies and legislation on biodiversity conservation and animal welfare? Can the implementation of the Zoos Directive support the objectives pursued by these policies and</p>	<p>Zoos federation MSCA</p>	<p>In relation to synergies, examples may include conservation programmes or programmes for reintroducing species covered by the Habitats Directive undertaken by zoos or of zoos taking part in in situ conservation measures of species covered by the Habitats or Birds Directive, or educational programmes undertaken by zoos, addressing Natura 2000.</p> <p>There was no question on the economic level playing field, which was subgrouped under Efficiency-</p>	<p>Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.</p>	<p>Zoos federations : EAZA, EAAM, VdZ, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (central), DK, ES, FR, IE, IT, NL.</p>

<p>legislation, and reciprocally? For example, are you aware of any conservation programmes or programmes for reintroducing species covered by the Habitats Directive undertaken by zoos or of zoos taking part in in situ conservation measures of species covered by the Habitats or Birds Directive? Are you aware of educational programmes undertaken by zoos, addressing Natura 2000? Are you aware of any other such instances?</p> <p><i>[For Zoo federations, zoos]</i> Are you aware of any positive or negative effects of the Zoos Directive on the EU internal market and the creation of an economic level playing field for zoos as economic operators? Could you provide evidence for these effects?</p>		<p>benefits. Opinions regarding the level playing field were mixed.</p>		
<p>Question 22. Are you aware of any significant discrepancies and differences in the implementation of the Zoos Directive among Member States, e.g. concerning costs, benefits, level of penalties, which could be an obstacle to the creation of a level –playing field for zoo operators across the EU?</p>	<p>Zoos federation MSCA</p>	<p>There was no question on the economic level playing field, which was subgrouped under Efficiency-benefits. Opinions regarding the level playing field were mixed.</p>	<p>Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.</p>	<p>Zoos federations : EAZA, EAAM, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (central), DK, IE.</p>

Table 58: EU Added Value

Question	Target	Background information	Link with targeted online questionnaire	Interview respondents
<p>Question 23. What was the situation regarding the contribution of zoos to biodiversity conservation in your country/in the EU at the moment of</p>	<p>Zoos federation MSCA NGO</p>	<p>The wide majority of responding stakeholders sees benefits from the existence of the Zoos Directive on the conservation of biodiversity.</p>	<p>Zoos questionnaire : questions 107-108 MSCAs questionnaire : Questions 7-23 ; 112-122</p>	<p>Zoos federations : EAZA, EAAM, DAZA, BIAZA, APZA, UIZA. MSCAs : BE, IE, IT, NL, PT.</p>

the adoption of the Zoos Directive and to what extent is the current situation due to the Directive?			NGOs & federations questionnaire: questions 70-75 ; 56	NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Animalisti Italiani.
Question 24. Do you deem a Zoos Directive necessary to make sure that zoos contribute to the conservation of biodiversity? Please specify the reasons why or why not. What would be the likely situation without the Zoos Directive being in place?	Zoos federation MSCA NGO	The majority of stakeholders (MSCA, NGOs, federations and zoos) believes that EU intervention is (still) needed to make zoos adopt or implement Article 3 measures.	Zoos questionnaire : questions 109-110. MSCAs questionnaire : questions 116-117. NGOs & federations questionnaire: questions 74-77, 56.	Zoos federations : EAZA, EAAM, VdZ, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), DK, FR, IE, IT, NL, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.
Question 25. Could the same objectives have been achieved under national/international conventions or programmes? If not, which aspects of the Directive would not be covered?	Zoos federation MSCA NGO	Most respondents to the questionnaires consider that the objectives of the Directive could not be fully achieved under existing international conventions or programmes, either because they are not sufficiently enforceable or because they do not cover the whole scope of the Directive.	Zoos questionnaire : questions 111-112. MSCAs questionnaire : questions 118-119. NGOs & federations questionnaire: 78-79	Zoos federations : EAZA, EAAM, VdZ, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, DE (regional), DE (central), DK, ES, IE, IT, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.

Table 59: Overall assessment – concluding question

Question	Target	Background information	Link with targeted online questionnaire	Interview respondents
Question 26. What works well and what does not in the current legislation on the keeping of wild animals in zoos? Do you have specific recommendations for improvements?	Zoos federation MSCA NGO	Many stakeholders think the goal of the Directive could be better achieved if monitoring and reporting mechanisms to the EU had been in place. Other stakeholders support the introduction of species specific require-	=	Zoos federations : EAZA, EAAM, DAZA, AIZA, BIAZA, APZA, UIZA. MSCAs : BE, CZ, DE (regional), DE (central), DK,

		ments on the accommodation of animals.		ES, IE, IT, PT. NGOs: BornFree, Eurogroup for Animals, GAIA, Four Paws Bulgaria, Animal Rescue Centre (ARC) Cyprus, Infozoos, Code Animal, Animalisti Italiani.
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In addition to this guidance document, the interviewers received:

- The questionnaire of the online surveys completed by the interviewees;
- All answers from the other stakeholders from the relevant Member State;
- An excel matrix (“general transcript”) to report the information gathered during the interviews;
- The list of questions to send to the interviewee ahead of the interview. Four different lists were prepared, one for each stakeholder type⁴⁸⁶.

Performing the interviews

To help ensure effective and efficient interviews, interviewers were in charge of sending the list questions to the interviewee in advance so that they are aware of the topics to be discussed.

We have validated the results of the interviews by cross-checking information, such as asking the same question to different stakeholders, and verifying statements by evidence as far as possible (legislation, publications, etc.).

Finally, we have ensured to the possible extent that our team can perform interviews in the national languages of the selected Member States if interviews in English were not possible.

4 USE OF ANSWERS AND KEY POINTS

Transcripts of interviews were requested for each interview. Once drafted, the transcripts were submitted for approval and additional input to the interviewee. Transcripts were fed into a general transcript in an Excel document (in English) in order to allow the study team to compare and collect the relevant information for answering the evaluation questions. The transcript of interviews is an internal document used and produced exclusively by the study team and will not be published. Key points raised by interviewed MSCAs, zoo federations and NGOs are however summarized below in an aggregate manner. This provides an overview of the most substantial points made by stakeholders during the interviews. The questions asked to zoos focused on the costs incurred for the implementation of the Directive and are hence not reproduced among the key points listed below. Similarly, the supplementary interviews listed in Table 53 and covering specific topics are not included in the sections below.

The answers provided by the interviews were integrated in the analysis of the evaluation criteria according to the evaluation framework and the links highlighted in the tables above.

4.1 MEMBER STATE COMPETENT AUTHORITIES

The 13 interviewed MSCAs underlined the following key points.

The implementation of the zoos directive is **more focused on animal welfare** than biodiversity conservation. The Zoo directive has strengthened the efforts made by zoos to improve and satisfy the biological and requirements of the individual species. MSCAs reported that only large zoos or specialized institutions can provide contributions to wider biodiversity conservation, these are not the focus of smaller zoos which lack resources for such activities. Although MSCAs underlined that the wording of Article 3, first indent allows zoos to opt only for “exchange of information” as a means to comply with the EU requirements, none suggested that all those options should become compulsory.

MSCAs encouraged **greater harmonisation of standards** to strengthen cross-border collaboration (exchange of information and animals), including on the definition of zoos (as well as on “significant

⁴⁸⁶ MSCAs, Federations and NGOs, Zoos, EU stakeholders.

number of animals or species” and criteria for exemption).

It was reported by interviewed MSCAs that the Zoos Directive should put more emphasis on the importance of **skilled staff and veterinary care**, both within zoos (for zoo operators and zoo keepers) and within the competent authorities. MSCAs often underlined that inspectors would appreciate having more trainings on the application of the Zoos Directive, including on animal welfare requirements and the assessment of conservation measures.

The **Good Practices Document** should be **translated** and actively disseminated at EU and national levels in order to be useful to all MSCAs and zoo operators across the EU.

It is important as a political message that the Zoos Directive is maintained.

4.2 ZOOS FEDERATIONS

Ten zoos federations⁴⁸⁷ were interviewed and reported the following points as positive and negative elements of the implementation of the Directive.

On the positive points, the interviewed zoos federations overall recognized that the Zoos Directive has introduced a widely accepted **legal framework** which provides **minimum requirements** with which zoos must comply. This framework has forced zoos to think in terms of **conservation programs** and education is a big asset. Besides, the Zoos Directive clearly points out the **importance of zoos** in society.

Regarding existing issues, the interviewed zoos federations underlined that **insufficient action by the European Commission** led to poor coordination and harmonization between Member States. They reported that MSCAs need to be supported in implementation (e.g. stakeholder platform), because of their insufficient capacity and expertise. It would be appreciated if the Commission could even lead inspections in the Member States. In relation to this point, the zoos federations stressed that the lack of reporting and monitoring requirements hamper the proper implementation of the Directive. Such reports would potentially provide the baseline and data that is currently critically lacking on the status of EU zoos. Within an implementation framework led by the European Commission, the creation of a platform of national stakeholders would be instrumental in improving the coordination and harmonization of practices among MS. Still related to the action of the European Commission, numerous interviewees stressed that the **Good Practices Document** should be translated and disseminated in order to be useful to all MSCAs and zoo operators across the EU. Many zoo operators are not aware of the existence of the Document.

At national level, the zoos federations reported that the **work and standards established by regional federations** of zoos should be more systematically recognized and referred to by the national legislation. Generally, given their limited resources and expertise, national governments would benefit from closer cooperation with national zoo associations in all zoo and wildlife related matters. MSCAs generally lack adequate resources for managing the licensing and inspections procedures. Their training is insufficient and often no requirement exists regarding the content of inspections. Those aspects are overlooked by the Directive’s requirements.

Another point related to the content of the Directive concerns the definition of “zoo”. A reviewed or clarified definition of “zoo” would be welcome.

Finally, further financial support would allow smaller institutions to lead or participate to conservation projects and public education.

⁴⁸⁷ Including EAZA and EAAM reported above under the category « EU and international stakeholder ».

4.3 NGOS

The eight NGOs⁴⁸⁸ that were interviewed underlined the following positive and negative aspects.

Three main positive achievements of the Directive were reported during the interviews with NGO representatives. Firstly, the adoption of the Directive established the **minimum requirements** that all zoos across the EU should comply with to hold a licence. In that sense, the EU Zoos Directive created the legal framework which constitutes the key and often sole incentive for MS and zoo operators to incorporate conservation objectives in their operation. As a result, **participation of zoos to research and conservation programmes has been improved**. The quality of the information provided to the public has been generally improved. Zoos Directive led to an **increased attractiveness** of zoos for the public, **increased education and awareness** about biodiversity conservation and, not the least, to **improved animal care and welfare** (through the increase of enclosure size, addition of furnishing and enrichments). Finally, the Directive creates additional leverage and pressure on national authorities to properly implement a legislation on zoos.

Regarding points that did not work well in the implementation of the Directive or which would require further improvements, the NGOs highlighted six important points:

1. The **absence of reporting and monitoring requirements** allows Member States to have almost no implementation measures in relation to the Directive and renders extremely difficult to assess the progress made. In that respect, the European Commission was very slow at reacting to existing infringements from the Member States (e.g. lack and poor transposition of the Directive).
2. The **loose wording** of the Directive is generally considered as too weak to ensure that high standards are applied in zoos. The wording of the Directive was particularly criticized regarding the definition of zoos ('significant number of species') and Article 3, first indent. It was repeatedly reported that the Directive should have higher standards in order to ensure that all zoos actively contribute to biodiversity conservation. Most NGOs consider that the options of Article 3, first indent, should be cumulative requirements.
3. The Directive contains no requirement on the **content of inspections** or **qualification of inspectors**. Hence it gives too much margin of interpretation to inspectors. NGOs reported that most inspectors are not qualified to assess the appropriateness of animal accommodations, even less qualified to assess the existence of conservation programmes whether it is information, research, training, or conservation programmes. According to this group of stakeholders, inspectors are, at best, veterinarians with a multitude of other tasks related to animal welfare (e.g. livestock, pet shops, etc.). Hence many welfare issues go unnoticed. Additionally, evaluating a conservation or education programme to see if it complies with the directive will be totally out of their comfort zone as they never received proper training (i.e. university level) on these issues.
4. According to some NGOs, the Directive should contain an explicit **prohibition of animal performance**, given that such performances are not in line with the objectives of conservation of wild animals.
5. The implementation of the Directive should be supported by **stricter sanctions**. NGOs suggested that stronger liability should be systematically required in case of closure of a zoo. There also should be a mechanism sanctioning the MS in case of abandoned wild animals.
6. The **Good Practices Document** should be translated in order to be useful to all MSCAs and zoo operators across the EU. Many zoo operators are not aware of the existence of the Document.

⁴⁸⁸ Including Born Free and Eurogroup for Animals, reported above as « EU and international stakeholders ».

ANNEX VIIA – INTERVIEW QUESTIONS

Question	Target	Link with targeted online questionnaire
Effectiveness		
Question 27. What progress have Member States made over time towards achieving the objectives set out in the Directive and the related transposed national legislations (to protect wild fauna and to conserve biodiversity/to strengthen the role of zoos in the conservation of biodiversity)? Could you provide evidence?	Zoo federation MSCA NGO	Zoos questionnaire : questions 25-42; 107-113 MSCAs questionnaire : questions 112-126
Question 28. What has worked well and what hasn't in the implementation of the Directive and why? Which factors contributed or stood in the way of achieving the Directive objectives?	Zoo federation MSCA NGO	Zoos questionnaire : questions 76, 116 MSCAs questionnaire : questions 35-71 ; 82-85 ; 123-126 NGOs&Federation questionnaire : questions 39-41 ; 83-84
Question 29. Are you aware of specific actions by stakeholders which contributed or impeded the requirements of the Directive? Any good or bad practice examples?	Zoo federation MSCA NGO	Zoos questionnaire : questions 25-32 ; 36-42 ; 107-113 MSCAs questionnaire : questions 112-126
Question 30. How have the conservation related activities (research programmes, public awareness raising, accommodation) of zoos changed with the adoption of the Directive?	Zoo federation MSCA NGO	Overall answers
Question 31. Beyond the objectives of biodiversity conservation and protection of wild fauna, have you observed other significant changes, positive or negative, resulting from the adoption and implementation of the Directive?	Zoo federation MSCA NGO	Zoos questionnaire : question 73 MSCAs questionnaire : question 79 NGO& federations questionnaire : question 41.
Question 32. Has the formulation of the Directive (e.g. definition of 'zoos', conservation measures listed in Article 3, either-or-option of Article 3 (1)) been problematic in your experience? Does national law formulate more specific or more stringent requirements? If so, does this efficiently address these shortcomings?	Zoo federation MSCA NGO	Zoos questionnaire : question 116 MSCAs questionnaire : questions 7-24 NGOs&Federation questionnaire : questions 45-47
Question 33. Does the licensing system in your country work properly? Can you explain why – or why not? In particular, do the authorities have sufficient capacity, knowledge and resources?	Zoo federation MSCA NGO	MSCAs questionnaire : questions 25-71. NGOs & federations questionnaire : questions 31-45.
Question 34. How did the implementation and enforcement of the Directive by Member States competent authorities evolve in your Member State over the time?	Zoo federation MSCA NGO	MSCAs questionnaire : questions 25-71. NGOs & federations questionnaire : questions 31-45.
Question 35. How are closures of zoos handled at national level in practice? Do you have specific examples of actions taken for the disposal/relocation of animals?	Zoo federation MSCA NGO	MSCA questionnaire: questions 67-68
Question 36. Is the EU Zoos Directive Good Practices Document used by competent authorities to enhance their understanding of the Directive?	MSCA	-
Efficiency		
Question 37. In order to ensure compliance with the Zoo Directive, did zoos incur additional one-off costs (i.e. excluding costs that would have occurred also in the absence of legislation), such as hiring of personnel, or investments for the renovation	Zoo federation Zoo	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations ques-

of enclosures, provisions of information, etc.? If so, which are the most relevant additional costs? Could you provide quantitative evidence/figures or at least the magnitude of costs, based on specific examples?		tionnaire : 48-56
Question 38. Did zoos experience an increase of recurrent costs (e.g. costs for training, information exchange, awareness raising, etc.) that would have not been borne in absence of the Zoos Directive? If so, which are the most relevant additional costs? Could you provide quantitative evidence/figures or at least the magnitude of costs, based on specific examples?	Zoo federation Zoo	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56
Question 39. [For zoos, zoos federations] To what extent did the Zoos Directive imply additional administrative costs related to licencing and inspection procedures? Could you provide information on the procedures carried out by zoos that trigger additional costs and on the magnitude of these costs? Are you aware of missing revenues due to delays in the licencing procedure?	Zoo federation Zoo MSCA	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56
Question 40. [For MSCAs] To what extent did the Directive imply additional costs for the MSCA (costs related to the licencing and inspection system, monitoring of the compliance with the legislation, closure of zoos and relocation of animals, etc.)? Which are the most relevant additional costs? Could you provide information on the procedures that trigger additional costs? Could you please detail the steps of the procedures (including number of man days needed and frequency)?		
Question 41. What are the benefits brought about by the Directive? Could you provide quantitative evidence/figures or at least the magnitudes for particular benefits?	Zoo federation Zoo MSCA	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56
Question 42. Could you give examples of economic benefits for zoos or socio-economic benefits for citizens (e.g. increased visitor number as Zoos Directive improved quality of zoos, creation of jobs, better recreation opportunities for citizens)? Could you provide quantitative evidence/figures or at least the magnitudes for particular benefits?	Zoo federation Zoo	Zoos questionnaire : questions 80-97 MSCAs questionnaire : questions 86-100 NGOs& federations questionnaire : 48-56
Question 43. Could you provide evidence regarding the relation between costs and benefits brought about by the Directive? Are the costs proportionate or disproportionate compared to the benefits and why?	Zoo federation Zoo MSCA	Zoos questionnaire : question 91 - 93. MSCAs questionnaire : questions 92 - 94. NGOs& federations questionnaire : 51 -53.
Question 44. Are availability and access to funding a constraint or support? Does the Zoo Directive facilitate or enhance chances for zoos in applying for funding for biodiversity or conservation activities? Which kind of funding programmes at national, EU or international level are mostly frequently used by zoos for conservation projects?	Zoo federation Zoo	-
Relevance		
Question 45. Is the Zoo Directive in line with the evolution of the EU and global objectives and targets concerning conservation of biodiversity? Which are the most important needs in this field and how	Zoo federation MSCA NGO	Zoos questionnaire : question 102-104. MSCAs questionnaire : questions 109-111.

are they addressed by the Directive?		NGOs & federations questionnaire: questions 65-67.
Question 46. How well adapted is the Zoos Directive to technical and scientific progress in the field of biodiversity conservation, and relation to in-situ and ex-situ conservation?	Zoo federation MSCA NGO	Zoos questionnaire : question 102-104. MSCAs questionnaire : questions 109-111. NGOs & federations questionnaire: questions 65-67.
Coherence		
Question 47. Have you observed any inconsistencies or overlaps between the requirements of the Zoos Directive and those of other EU/ international policies and legislation on biodiversity conservation and animal welfare? ➤ - In particular, do you think there are inconsistencies with the IAS Regulation? Question 48. - Do you think that there are overlaps, resulting in additional administrative burden? In particular, do you consider there are overlaps between the Zoos Directive and Directive 92/65/EEC on animal health requirements ⁴⁸⁹ or the national transposing legislation, in particular legally binding standards for accommodation, e.g. different inspection procedures?	Zoo federation MSCA	Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.
Question 49. [For MSCAs] Have you experienced any positive interfaces and synergies between the Zoos Directive and other EU/ international policies and legislation on biodiversity conservation and animal welfare? Can the implementation of the Zoos Directive support the objectives pursued by these policies and legislation, and reciprocally? For example, are you aware of any conservation programmes or programmes for reintroducing species covered by the Habitats Directive undertaken by zoos or of zoos taking part in in situ conservation measures of species covered by the Habitats or Birds Directive? Are you aware of educational programmes undertaken by zoos, addressing Natura 2000? Are you aware of any other such instances? Question 50. [For Zoo federations, zoos] Are you aware of any positive or negative effects of the Zoos Directive on the EU internal market and the creation of an economic level playing field for zoos as economic operators? Could you provide evidence for these effects?	Zoo federation MSCA	Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.
Question 51. Are you aware of any significant discrepancies and differences in the implementation of the Zoos Directive among Member States, e.g. concerning costs, benefits, level of penalties, which could be an obstacle to the creation of a level –playing field for zoo operators across the EU?	Zoo federation MSCA	Zoos questionnaire : questions 100-101. MSCAs questionnaire : questions 101-106. NGOs & federations questionnaire: questions 59-62.
EU Added Value		
Question 52. What was the situation regarding the contribution of zoos to biodiversity conservation in your country/in the EU at the moment of the adoption of the Zoos Directive and to what extent is the current situation due to the Directive? Question 53.	Zoo federation MSCA NGO	Zoos questionnaire : questions 107-108 MSCAs questionnaire : Questions 7-23 ; 112-122 NGOs & federations questionnaire: questions 70-75 ; 56

<p>Question 54. Do you deem a Zoos Directive necessary to make sure that zoos contribute to the conservation of biodiversity? Please specify the reasons why or why not. What would be the likely situation without the Zoos Directive being in place?</p>	<p>Zoo federation MSCA NGO</p>	<p>Zoos questionnaire : questions 109-110. MSCAs questionnaire : questions 116-117. NGOs & federations questionnaire: questions 74-77, 56.</p>
<p>Question 55. Could the same objectives have been achieved under national/international conventions or programmes? If not, which aspects of the Directive would not be covered?</p>	<p>Zoo federation MSCA NGO</p>	<p>Zoos questionnaire : questions 111-112. MSCAs questionnaire : questions 118-119. NGOs & federations questionnaire: 78-79</p>
<p>Overall assessment/Final remarks</p>		
<p>Question 56. What works well and what does not in the current legislation on the keeping of wild animals in zoos? Do you have specific recommendations for improvements?</p>	<p>Zoo federation MSCA NGO</p>	<p>–</p>

ANNEX VIII – PUBLIC CONSULTATION REPORT

1 INTRODUCTION

The public consultation had the objective to get the views and perceptions of a wide set of stakeholders on the contribution of the Directive to strengthen the role of zoos and enhance biodiversity conservation. The public consultation intended to enlarge the scope of the consultation beyond the stakeholders consulted in the 14 selected Member States, and give stakeholders from other countries and citizens the opportunity to express their opinion.

Our support for the public consultation was threefold: firstly, the development of the questionnaire in cooperation with the European Commission, secondly, assistance in setting up and disseminating the public consultation, and finally, the drafting of this report (public consultation report) providing an overview of the number of responses, a brief analysis of the answers as well as the problems encountered.

The questionnaire followed closely the logic of the REFIT exercise to obtain feedback on the elements investigated in the evaluation, i.e. in line with the five evaluation criteria. The questions were aimed at collecting opinions and input on the different evaluation questions, in order to easily evaluate the outcome of the public consultation per evaluation question and strengthen the evidence base.

The public consultation was primarily conceived as a complementary tool, to supplement the information gathered through the other tools (in particular the targeted questionnaires and interviews). Questions were drafted in a way that ensures the manageability and usefulness of the answers, and to relate to the awareness of citizens and their perceptions on the implementation of the Directive's requirements.

The questions were drafted in close cooperation with the European Commission, both within DG ENV and with the Secretariat General, following a Steering Group meeting held in July 2016.

The public consultation focused on ten key questions. The questions were closed questions in order to ensure the comparability of data and to facilitate its analysis (possibility to provide limited input, i.e. limited number of words, to complement closed questions, for instance, for multiple choice questions 'other; please specify'). Questions 1 – 19 are introductory questions aimed at obtaining an understanding of the respondents' profiles. Questions 20 – 29 constitute the core questions of the consultation. Questions 20, 21, 22, 24, 25, 27 and 28 are closed questions. Within these closed questions, questions 20, 21, 22, 24, 25 and 28 contain numerous sub-items (up to 13 sub-items). Questions 19, 23, 26 and 29 allowed respondents to specify the mention of "Other" items in questions 18, 22, 25 and 28. The full questionnaire is presented in Annex III to this report.

This report outlines the methodology used for analysing the results as well as the challenges encountered (Section 2); provides an overview of the profile of respondents (Section 2.3.2.1); and contains an analysis of the results of the core questions on each of the five evaluation criteria: effectiveness (Section 4), efficiency (Section 5), relevance (Section 6), coherence (Section 7) and EU added value (Section 8).

2 METHODOLOGY

2.1 THE SURVEY TOOL

The public consultation was carried out using the EU Survey. This is the Commission's online survey management tool, which is used to conduct multilingual online public consultations. The questionnaire was provided in all EU languages. The individual results of the consultation were downloaded in Excel format.

Some (minor) problems were encountered during the process, e.g. draft answers saved by the respondents, but not submitted, identification of the right language by the respondents, links broken for a limited period of time. These were eventually resolved so that the full data set could be analysed.

2.2 THE ANALYSIS

All core questions (questions 20 - 29) were analysed from four different angles, first considering the **general trends** based on all received answers, then using three break-downs:

- **Per type of stakeholder** i.e. individual, zoo operator, business or business representative, non-governmental organisation ('NGO'), organisation or association other than NGO, government or public authority, European institution or agency, academic/research institute, other. This break-down was based on the answers provided by the respondent to question 3 of the public consultation (i.e. "I am replying to this questionnaire as...").
- **Per country** in which the respondent is based, i.e. all 28 EU Member States or non-EU country. This break-down depends on the answer provided by the respondent to question 8 of the public consultation (i.e. "In which Member State are you based?"). This analysis allows us to identify differences or similarities across Member States, and between respondents based in the EU or in non-EU countries;
- Depending on **whether the respondent stated that she/he visits zoos or not**. This break-down relied on the answer provided by the respondent to question 18 of the public consultation (i.e. "What are your main reasons for visiting a zoo?"). Question 18 provided respondents with multiple-choices composed of the six following options: 1. I don't visit zoos; 2. Professional reasons; 3. Recreation (e.g. seeing exotic/wild animals, animal shows); 4. Learning about nature, animals and their habitats, and biodiversity conservation; 5. Teaching about nature, animals and their habitats, and biodiversity conservation; 6. Other. The results brought 39 different combinations of reasons. The break-down was simplified to distinguish the assessments made by two groups: respondents that flagged the option "I don't visit zoos" and respondents that indicated any reasons for visiting zoos.

The report mostly presents results in absolute numbers of respondents in order to provide a picture as objective as possible, which reflects the size of stakeholder groups. Generally, data are visualized by using a 100% stacked bar representation in order to facilitate the comparison across the different categories of respondents. On this basis, percentages used in the body of the text were rounded up or down to the nearest whole number for ease of comparison. This explains why the sums may deviate slightly from 100%.

2.3 LIMITATIONS TO THE METHOD AND USE OF RESULTS

Some limitations can be observed, both in the method used to gather information in itself, and in relation to the analysis of the results. Such limitations affect mainly the representativeness and reliability of the findings presented in this report.

2.3.1 Challenges linked to the exercise of the public consultation

As in all public consultations that are conducted by internet, some population groups have a higher degree of access to the consultation than others (e.g., elderly people with no IT access, people not connected to the network). Also, the consultation did not pre-select those who could reply, unlike, for instance, the opinion polls conducted for the Eurobarometer. Instead, the consultation was made widely available to anyone with an interest in the subject and is therefore not statistically representative of the EU population as a whole or of individual Member States.

2.3.2 Challenges relating to the analysis of results

2.3.2.1 Influence on answers by interest groups

Several interest groups (mainly animal welfare or zoos organisations) have provided their members and/or the wider public with guidance on how to answer the consultation.

Two NGOs involved in animal welfare (Born Free⁴⁹⁰ and Eurogroup for Animals⁴⁹¹) disseminated on the web suggested replies to the public consultation. The guidance was also disseminated through other EU/International associations (such as ADI- Animal Defender International⁴⁹²), and other associations at national level (such as Animal Public⁴⁹³, active in Germany).⁴⁹⁴

A very limited number of respondents however followed all indications for the closed questions:

- 36 respondents followed the indications of Born Free (1.5% of the total number of respondents);
- 4 respondents followed the indications of Eurogroup for Animals (0.17% of the total number of respondents).

The situation is different regarding the **semi-open fields**, that offered to respondents to give “other” information in questions 23, 26 and 29. In these instances, a larger number of responses appears to follow the guidance provided by the campaign promoted by Born Free⁴⁹⁵. Moreover, responses to semi-open fields reveal that further campaigns have been launched by other interest groups, including zoos associations both at EU and Member State level.

In total, under question 23, 277 out of the 488 respondents to that question (56%) provided answers that appear to follow pre-made answers by some stakeholders. Under question 26, 363 out of 443 stakeholders (81%) provided pre-made answers. Under question 29, 335 out of 400 (84%) respondents gave answers issued from external guidance. In summary, out of the total respondents, only a limited number of stakeholders provided input in semi-open fields but, in these cases, most of them appear to be influenced by different interest groups. Moreover, it should be noticed that campaigns appear to have guided the open replies provided by different groups of stakeholders: individuals, NGOs, other associations as well as zoos operators.

It is not possible to assess the impact of these campaigns on the overall results in a precise manner because some respondents may have been influenced by the guidance provided by one group without following the full set of prescribed responses, or because the guidance did not necessarily provide a

⁴⁹⁰ http://www.bornfree.org.uk/fileadmin/user_upload/files/zoo_check/EU_Zoo_Inquiry/Public_consultation_on_Zoo_Directive_REFIT.pdf.

⁴⁹¹ <http://www.eurogroupforanimals.org/wp-content/uploads/2016/10/Suggested-Replies.pdf>.

⁴⁹² http://www.ad-international.org/animals_in_entertainment/go.php?id=4264&ssi=12). Suggested replies are the same as those provided by Eurogroup for Animals.

⁴⁹³ Suggested replies are the same provided by BornFree (<http://www.animal-public.de/europas-zootiere-brauchen-ihre-hilfe/>).

⁴⁹⁴ It is likely that additional examples could be found on other websites not identified by the project team.

⁴⁹⁵ In the guidance published online, Eurogroup for Animals did not provide suggestions for the semi-open fields. The number of responses that can be attributed to the Born Free campaign varies from question to question (161 replies in Q23; around 100 replies in Q26, 146 replies in Q29). Details are presented in the detailed analysis of each question.

full set of responses. Some respondents may also have answered to closed questions in the same way as such guidance by coincidence.

However, on the basis of the data provided above, the influence of campaigns appears to be very limited. The proportion of answers following a complete pre-determined set of closed answers being negligible, this variable was not taken into account in the analysis.

Regarding semi-open questions, the report identifies identical reply patterns (corresponding to the recommendations provided by interest groups), and takes them into account in the analysis of the relevant sections of this report (section 6.1.1 for question 23; section 5.1.1 for question 26; section 7.1.1 for question 29).

It should be mentioned that several organisations/websites have also disseminated the information on the public consultation without any recommended replies⁴⁹⁶. This factor suggests that a large visibility and dissemination of the public consultation has actually been achieved.

2.3.2.2 Break-downs

The results were analysed with the aim to ascertain the general trends and, in parallel, to explore the possible relations between the respondents' profiles and response patterns (i.e. determining, to the extent possible, the reasons why certain respondents reply in a certain way).

To this end, data has been disaggregated, firstly, by **categories of stakeholders**. This break-down allows us to understand the positioning of different stakeholder groups and possible patterns, commonalities and differences. In addition, as explained in Section 2.2, the data has been disaggregated by country of the respondents and by zoos visitors/non visitors.

Regarding the break-down by **country**, it should be mentioned that:

- There are large discrepancies in the number of respondents from one country to another (ranging from 796 respondents in Germany to one in Luxembourg, Estonia and Croatia (see Section 3.2 below). For this reason, the possibility to compare results across countries is very limited, the representativeness of the replies originating from some countries (with one or few respondents) being obviously limited.
- The results by country appear to be influenced by the type of stakeholders prevailing in each country. Especially in Germany and the UK (the two countries with the highest number of respondents), some stakeholder categories are over-represented (partially because of campaigns), and this pattern has influenced the results. Animal welfare NGOs have been particularly active in the UK, and in many instances in the analysis, a strong correlation exists between NGOs replies and British ones. Similarly, professional associations seem to be particularly represented in German replies. Such correlations, where they could be identified, were mentioned in the analysis. They nevertheless significantly reduce the pertinence of the analysis on a country basis.

Regarding the break-down depending on whether **the respondents visit or do not visit zoos**, similar observations can be made:

- The difference in the size of the two groups analysed (600 respondents not visiting zoos vs. 1697 respondents visiting zoos) implies a limited possibility for comparing the two groups.
- Also here, a strong correlation can be observed between the defence of animal welfare and the absence of visits to zoos. Respondents under that category have therefore usually a similar pattern of answers by NGOs, thus limiting the interest of such

⁴⁹⁶ Examples include: Daily Express Online; Interel; Marine Connection; The Zoo Scientist; VdZ; Landau Zoo.

analysis.

In Sections 4 to 9, the break-downs by country and by zoos visitors/non-visitors are reported for completeness of information. However, it is important to bear these explanations in mind, as the conclusions presented need in many cases to be nuanced due to this specific context.

Finally, the consultation document included questions on **main field of activity** (question 11), **main field of interest** (question 13), and **main reasons for visiting a zoo** (question 18). These questions allowed us to collect further information on the profile of the respondents. However, since, these questions were designed as multiple-choice questions, it was not possible to disaggregate results accordingly, given the important interlinkages between the offered options and a high number of possible combinations (184 for question 11; 173 for question 13 and 39 for question 18). These questions were hence mainly used to map stakeholders rather than to carry out subsequent break-down analysis. An analysis based on a break-down by, for instance, main field of activity, would have required a grouping of combinations in order to be manageable. Such grouping would necessarily have been arbitrary, and thus would have weakened the reliability of the results and the robustness of the conclusions. Besides, there is no guarantee that such analysis would have brought useful keys to understand the results of the consultation.

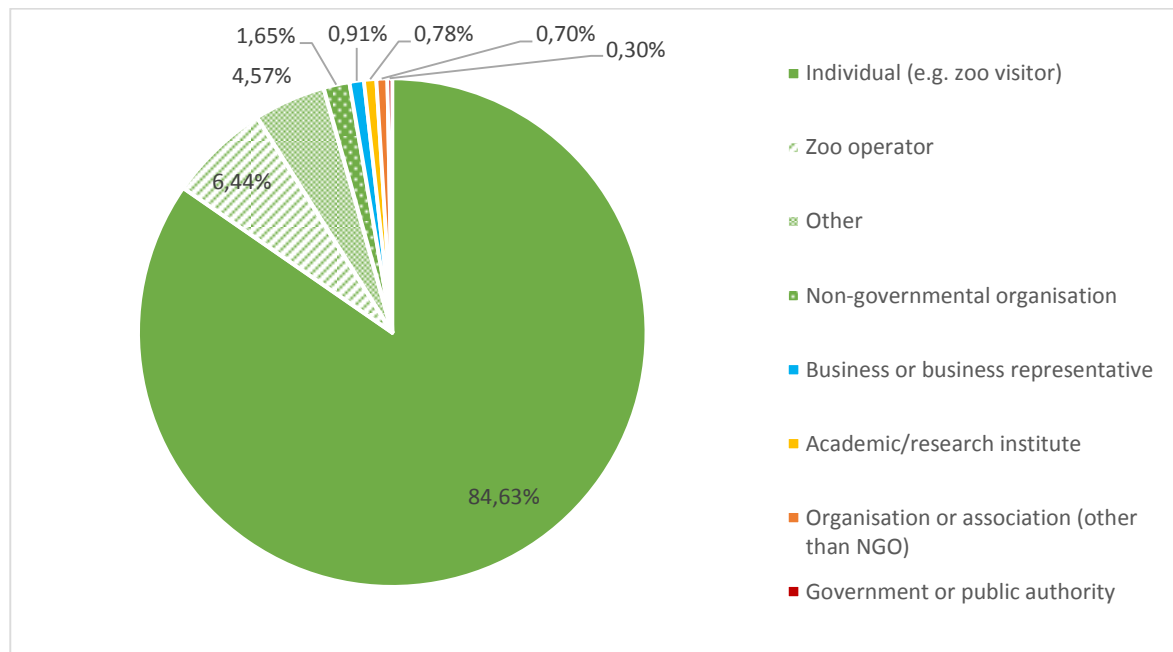
3 PROFILE OF RESPONDENTS

The public consultation received 2297 answers.

3.1 TYPE OF STAKEHOLDERS

The main categories of respondents are individuals (zoo visitors) with 1944 answers, and zoos operators with 148 answers.

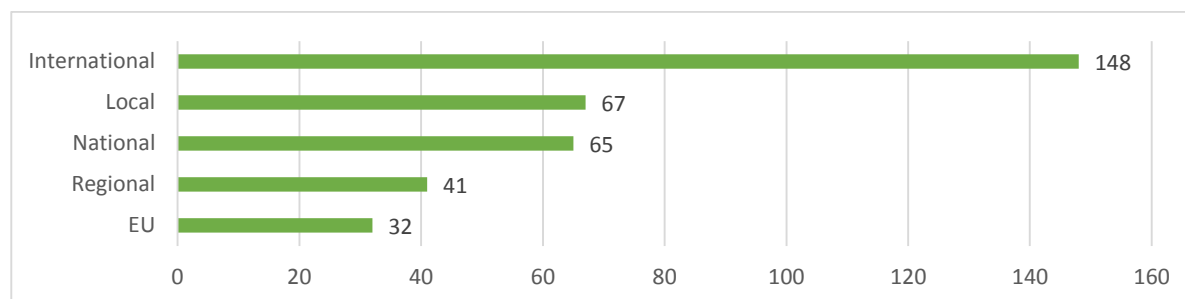
Figure 44: Types of respondents to the public consultation (in shares of total number of respondents, n=2297)



105 respondents chose the category ‘other’ types of respondents. Among these, 46 can be grouped as zoos and aquarium workers, 14 as persons working with animals but not as zoos employees (e.g. veterinarian, animal trainer, wildlife rehabilitator, zoo consultants), 6 as academics/scientists (biologists, ethologists). A large number of individuals did not recognise themselves in the category ‘individuals (e.g. zoo visitors)’ because they are opposed to animal captivity or more generally concerned about animal welfare. 14 individuals mentioned clearly that they refuse to visit zoos and 12 can be considered as animal welfare activists or supporters. The remaining 12 comprise a large variety of individuals including photojournalists, other media workers, teachers etc. were included in this category respondents who considered themselves as ‘citizens’ or ‘members of the public’, probably in opposition to ‘zoo visitors’ but without mentioning it specifically.

Among the 353 organisations (all types of respondents except individuals), the majority indicated that they operate at international level.

Figure 45: Answers to the public consultation, level at which organisation operate (in absolute numbers)



3.2 COUNTRY

The largest groups of respondents are from Germany, the United Kingdom, Non-EU countries, Spain and the Netherlands. German and British respondents represent 60% of the respondents.

Other countries show a very low number of replies, from one to three respondents (Luxembourg, Estonia, Croatia, Malta, Lithuania, Slovenia, Bulgaria, Slovak Republic). In these cases, the disaggregated results should be considered with caution.

Table 60: Number of respondents to the public consultation, per Member States (in absolute numbers)

Member State	Nb of respondents	Member State	Nb of respondents
Germany	796	Czech Republic	15
United Kingdom	612	Greece	14
Non-EU country	214	Poland	13
Spain	157	Finland	8
Netherlands	118	Hungary	6
France	68	Malta	3
Italy	51	Lithuania	3
Belgium	43	Slovenia	3
Denmark	39	Bulgaria	3
Portugal	38	Slovak Republic	2
Sweden	31	Luxembourg	1
Austria	25	Estonia	1
Ireland	16	Croatia	1
Romania	16	-	-

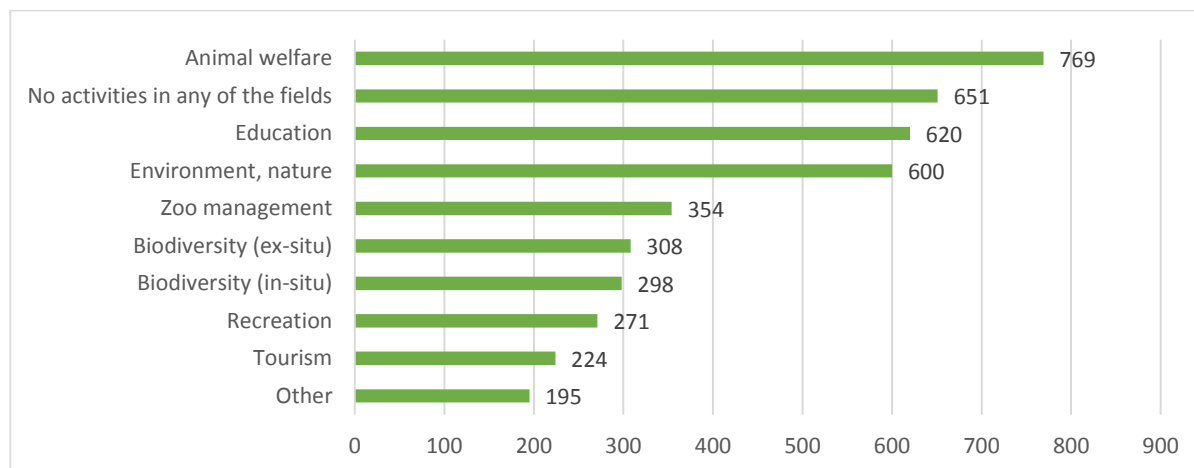
Answers from non-EU countries mainly come from the United States (99 answers), Australia (19 answers), Canada (14 answers) and Switzerland (11 answers)⁴⁹⁷. As the question asked in which country the respondents were based, some of these respondents can be European citizens living outside Europe.

3.3 FIELD OF ACTIVITY

Most respondents described their field of activities as being ‘animal welfare’ (769 respondents), education (620 respondents) and environment, nature (600 respondents) or none of the categories proposed (651 respondents). This was a multiple-choice question and therefore total numbers of respondents in each category do not add up to the total number of respondents.

⁴⁹⁷ Respondents are also based in South Africa (5), the Channel Islands (5), New Zealand (3), Norway (3), Argentina (2), the United Arab Emirates (2), China (2), Singapore (1), Malaysia (1), Chile (1), Vietnam (1), Israel (1), Colombia (1), India (1), Saudi Arabia (1), Mexico (1).

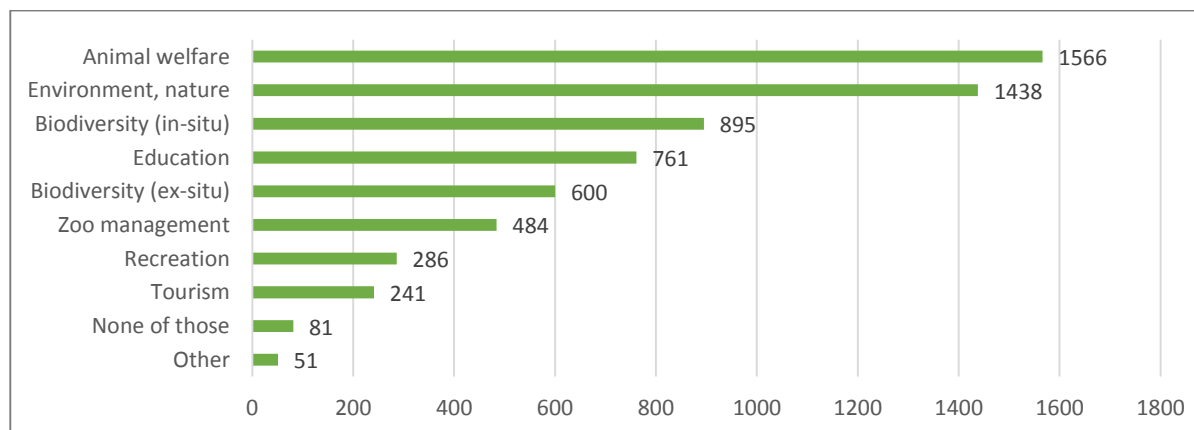
Figure 46: Main field of activity of respondents to the public consultation (in absolute numbers)



3.4 FIELD OF INTEREST

Most respondents described their field of interest as being ‘animal welfare’ (1566 respondents), ‘Environment and nature’ (1438 respondents) and biodiversity – in situ conservation (895 respondents). This was a multiple-choice question and therefore total numbers of respondents in each category do not add up to the total number of respondents.

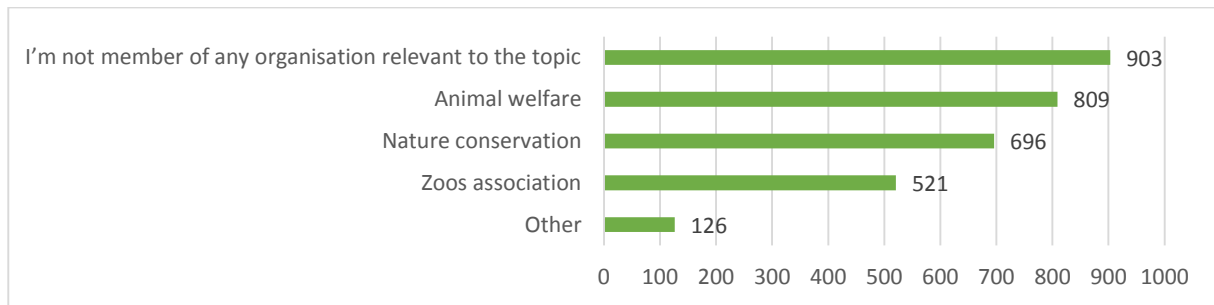
Figure 47: Main field of interest of respondents to the public consultation (in absolute numbers)



3.5 MEMBERSHIP

The majority of respondents is not a member of any organisation relevant to the topic of the consultation. However, a large number of respondents declared being members of an animal welfare organisation (809 respondents) and a nature conservation organisation (696 respondents). 521 are members of a zoo association. This was a multiple-choice question and therefore total numbers of respondents in each category do not add up to the total number of respondents.

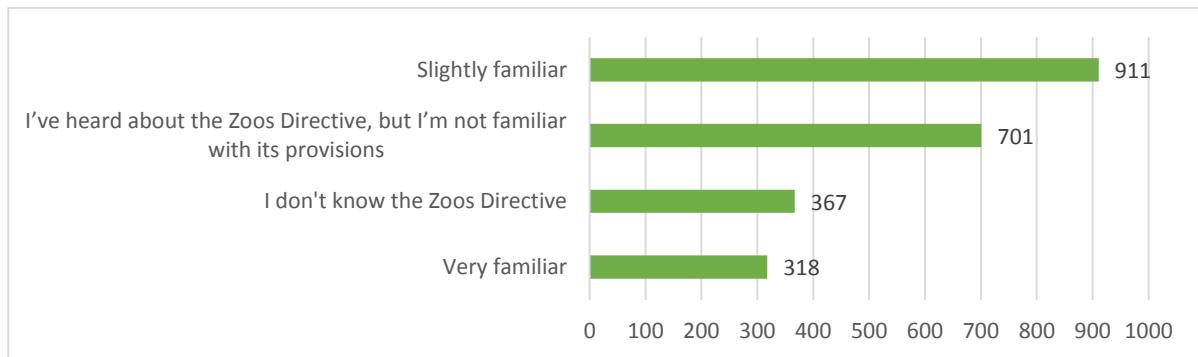
Figure 48: Respondents' memberships in organisations relevant to the topic of the public consultation (in absolute numbers)



3.6 FAMILIARITY WITH THE DIRECTIVE

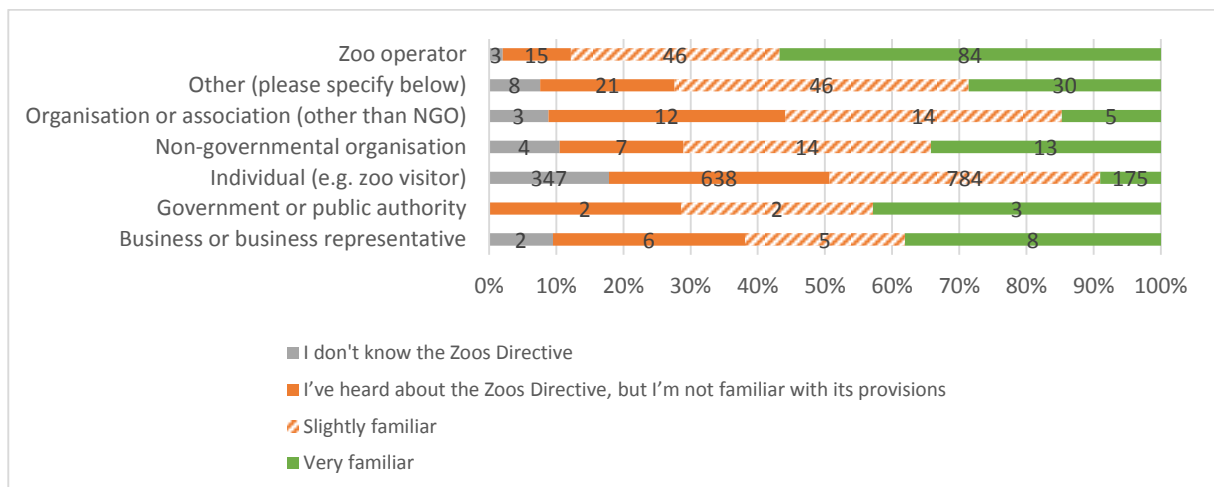
The majority of respondents is slightly familiar with the Zoos Directive or aware of the Directive without specific knowledge on its provisions (1612).

Figure 49: Familiarity with the Zoos Directive of respondents to the public consultation (in absolute numbers)



This overall limited level of familiarity is due to the high share of individuals with no or limited knowledge of the Directive among the respondents. This is due to the nature and audience of the public consultation. The table below illustrates how this level of familiarity varies among the different groups of stakeholders.

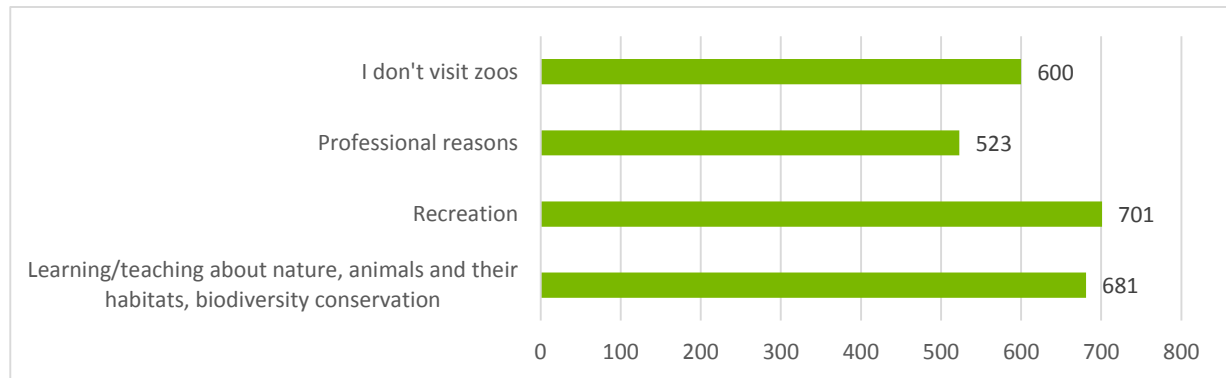
Figure 50: Answers to question 17 of the public consultation "How familiar are you with the Directive?" (in absolute number of respondents, per type of stakeholder)



3.7 REASONS FOR VISITING A ZOO

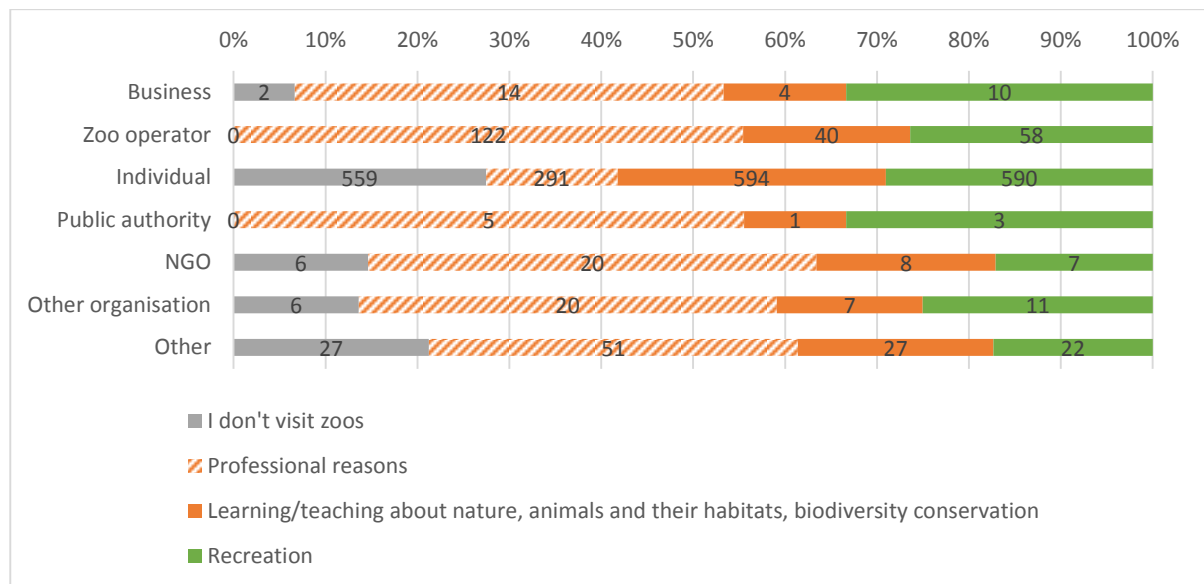
As one of the reasons for visiting zoos, 701 respondents indicated that they visit zoos for recreation and 681 respondents indicated learning or teaching about nature, animals and biodiversity. 600 respondents have indicated however that they do not visit zoos. This was a multiple-choice question and therefore total numbers of respondents in each category do not add up to the total number of respondents (i.e. 2297).

Figure 51: Respondents' reasons for visiting a zoo per type of stakeholder



When grouped per type of stakeholder, the results, as presented in the figure below, show that most respondents who do not visit zoos are individuals (559 out of 1944 individual respondents and 559 out of 600 respondents who do not visit zoos).

Figure 52: Answers to question 18 of the public consultation “What are your main reasons for visiting a zoo?” in absolute number of respondents



4 EFFECTIVENESS

Effectiveness corresponds to the assessment of the extent to which a certain legal provision, act or set of acts has achieved the objectives that it was intended to achieve. This question constitutes an essential element of the evaluation, and several of the questions asked in the public consultation relate to this criterion. More particularly, **question 20** and **question 21** are relevant in the context of assessing the progress of the Directive towards its objectives. Other questions, especially **questions 22 to 26**, incidentally deal with the impact of EU rules on biodiversity conservation and the protection of wild fauna, but the answers to these questions are analysed under other Sections of this report.

4.1 TO WHAT EXTENT DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS REGARDING ZOOS IN YOUR COUNTRY (QUESTION 20)?

Question 20 intends to measure the impact of the Directive by asking the respondents about their personal experience on the actual implementation of the Directive's requirements. This covers several elements:

- a. Information on species and their habitats is usually well presented;
- b. After a zoo visit, I know more about conservation of wild animals, protected species, threatened species;
- c. After a zoo visit, I know more about biodiversity and conservation of nature in general;
- d. I have noticed improvements of education activities (e.g. school visits, educational shows) provided by zoos over the last 15 years;
- e. I have noticed improvements in research activities carried out by zoos over the last 15 years;
- f. Animals live in conditions that satisfy their needs;
- g. I have noticed improvements in the size and design of spaces where animals are kept over the last 15 years;
- h. Animal shows are adapted to animals' natural behaviours;
- i. In the zoos I've visited, I received information on the species and/or its conservation status;
- j. Zoos visits encourage visitors to become more engaged in the protection of species;
- k. Zoos visits encourage visitors to become more engaged in the protection of biodiversity and nature in general;
- l. Zoos are adequately designed to prevent the escape of animals.

These various statements can be grouped under different types:

- The implementation of Article 3 measures aimed at impacting the public:
 - Level of awareness - Questions 20 (b) and (c);
 - Education activities- Questions 20 (a), (d), (h) to (k)
- The implementation of other Article 3 measures which can be observed by the public:
 - Accommodation and care – Questions 20(f), (g), (h)
 - Prevention of escape- Question 20(l).

In addition, some of the questions seek specifically to obtain information on the perception of respondents on the progress made towards the achievement of the Directive's objectives during the implementation period ('I have noticed improvements [...] over the last 15 years'-Questions 20(d), (e) and (g)).

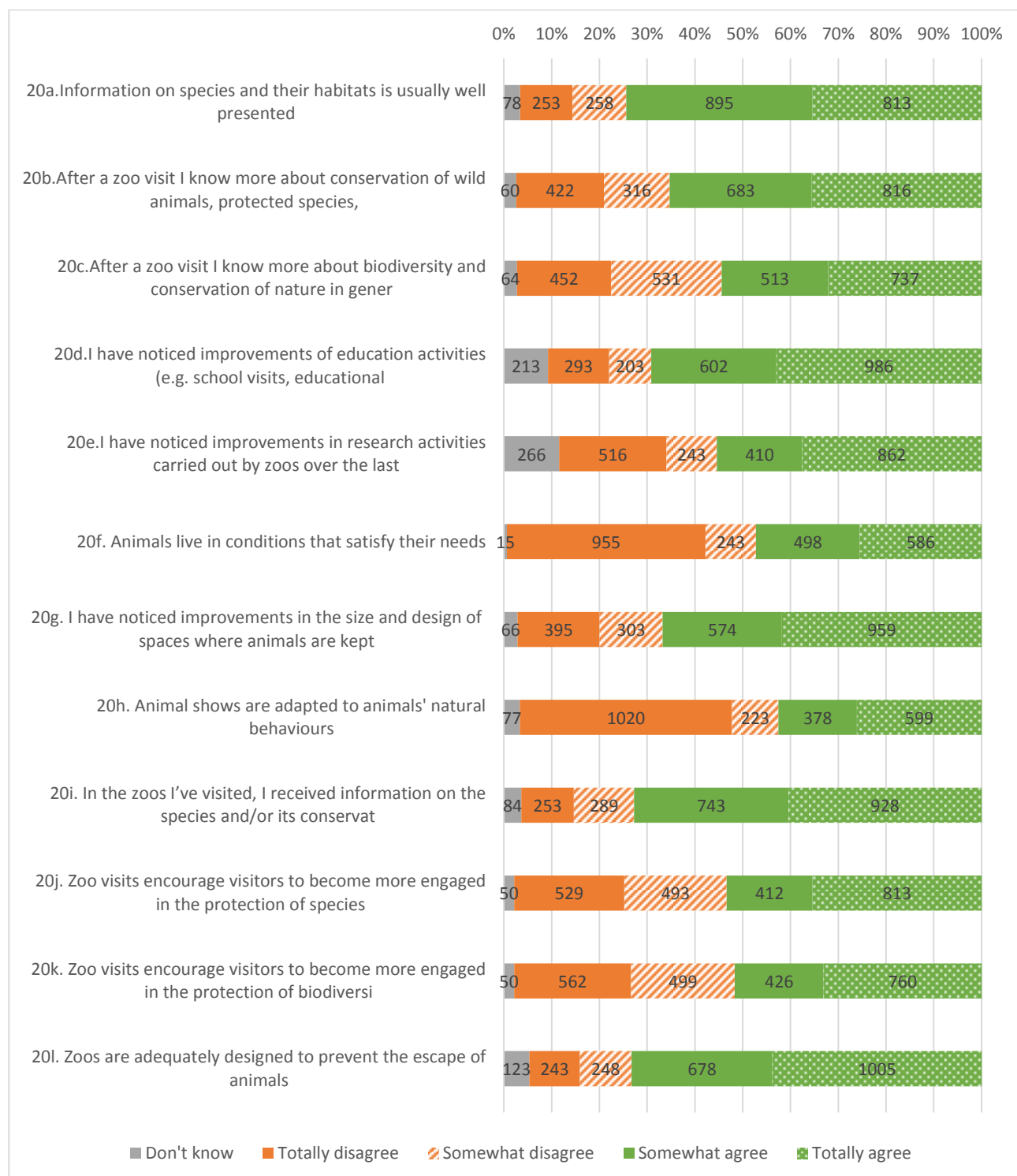
4.1.1 General trends

As indicated above, the public consultation document provides 12 statements relating to the imple-

mentation of the Zoos Directive. Stakeholders were asked to provide indications on their level of adhesion to these statements (totally disagree, somewhat disagree, somewhat agree, totally agree, don't know).

As shown in Figure 53, the majority of respondents agree with most statements, showing overall a positive perception of the achievement of the Directives' objectives, with some reservations, especially in relation to animal accommodation and care.

Figure 53: Answer to question 20 of the public consultation “To what extent do you agree with the following statements?” in absolute number of respondents



The highest level of positive perception can be observed in relation to two main points:

- Adequate **prevention** of escape of animals: 44% of the respondents fully agreed and 30% somewhat agreed on the fact that zoos are adequately designed to prevent escape (point 20l);
- Adequate level of **education**: 72% of the respondents indicated having received information on species and conservation (point 20i), and 74% considered (fully or partly) the information of species and their habitats well presented (point 20a). In addition, a high proportion of respondents

(43% ‘totally’/ 26% ‘somewhat’) observed improvements in the educational activities provided by zoos in the past 15 years. (point 20d).

Views are more nuanced, though in majority positive, in relation to:

- The level of **awareness** on *species*: 66% (of which 36% fully) agreed to the fact that they know more about wild animals and protected species after a visit to the zoo (point 20b), while 53% agreed (33% fully) that zoo visits encourage visitors to become more engaged in the protection of species (point 20j);
- The level of **awareness** on *biodiversity conservation* in general: 54% (of which 32% fully) agreed to the fact that they know more about biodiversity and conservation after a visit to the zoo (point 20c), and 52% agreed (33% fully) that zoo visits encourage visitors to become more engaged in the protection of biodiversity (point 20k).
- Progress achieved in relation to **research**: 56% of the respondents (of which 38% fully) noticed improvements in research activities carried out by zoos over the last 15 years (point 20e).

Finally, the conditions of animals in zoos was overall negatively assessed by a majority of respondents:

- 54% of the respondents, including 44% totally, did not adhere to the observation that **animal shows** were adapted to the animals’ natural behaviours (point 20h).
- Regarding **accommodation**, 53% of the respondents, including 42% totally, disagreed with the fact that animals live in conditions that satisfy their needs (point 20f). It should nevertheless be noted in the latter point that 67% (of which 42% totally) observed improvements in the size and design of spaces where animals are kept over the last 15 years.

4.1.2 Distribution per type of stakeholders

Even though, as explained above, the level of appreciation of the contribution of the Directive to its objectives is overall assessed positively, as illustrated in Figure 54 and Table 61, there is a high level of discrepancy between the answers provided by the different types of stakeholders.

Figure 54: Answer to question 20 of the public consultation “To what extent do you agree with the following statement?” per share of respondents who agree to the statements proposed, per type of stakeholders. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “Don’t know” is excluded)

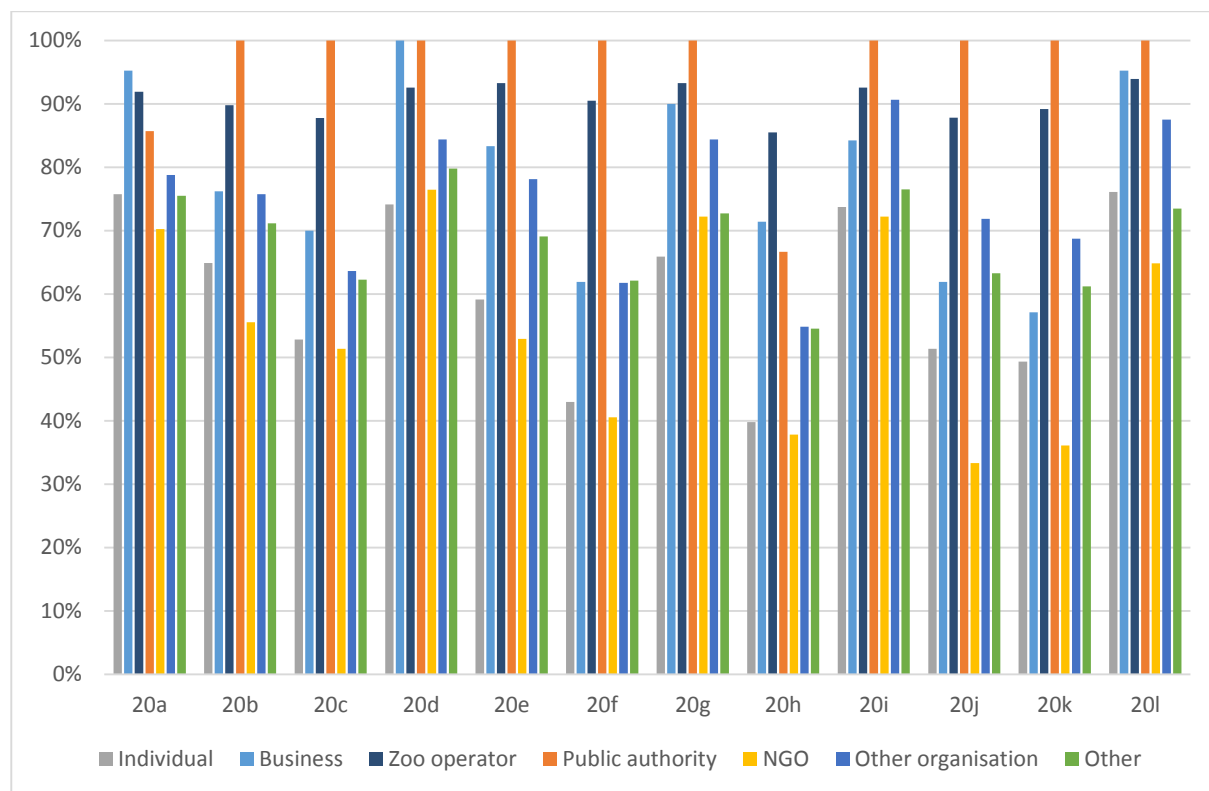


Table 61: Answer to question 20 of the public consultation “To what extent do you agree with the following statement?” - Share of respondents who replied “Totally agree” or “Somewhat agree”, per type of stakeholder. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “Don’t know” is excluded)

Type of stakeholder	Business	Public authority	Individual	NGO	Other org.	Zoo operator	Other
20a.Information on species and their habitats is usually well presented	95% (n=21)	86% (n=7)	76% (n=1875)	70% (n=37)	79% (n=33)	92% (n=98)	76% (n=148)
20b.After a zoo visit I know more about conservation of wild animals, protected species,	76% (n=21)	100% (n=7)	65% (n=1896)	56% (n=36)	76% (n=33)	90% (n=97)	71% (n=147)
20c.After a zoo visit I know more about biodiversity and conservation of nature in general	70% (n=20)	100% (n=7)	53% (n=1891)	51% (n=37)	64% (n=33)	88% (n=98)	62% (n=147)
20d.I have noticed improvements of education activities (e.g. school visits, educational	100% (n=19)	100% (n=7)	74% (n=1750)	76% (n=34)	84% (n=32)	93% (n=94)	80% (n=148)
20e.I have noticed improvements in research activities carried out by zoos over the last	83% (n=18)	100% (n=7)	59% (n=1695)	53% (n=34)	78% (n=32)	93% (n=97)	69% (n=148)

Type of stakeholder	Business	Public authority	Individual	NGO	Other org.	Zoo operator	Other
20f. Animals live in conditions that satisfy their needs	62% (n=21)	100% (n=7)	43% (n=1933)	41% (n=37)	62% (n=34)	90% (n=103)	62% (n=147)
20g. I have noticed improvements in the size and design of spaces where animals are kept	90% (n=20)	100% (n=7)	66% (n=1889)	72% (n=36)	84% (n=32)	93% (n=99)	73% (n=148)
20h. Animal shows are adapted to animals' natural behaviours	71% (n=21)	67% (n=6)	40% (n=1881)	38% (n=37)	55% (n=31)	86% (n=99)	55% (n=145)
20i. In the zoos I've visited, I received information on the species and/or its conservation	84% (n=19)	100% (n=7)	74% (n=1873)	72% (n=36)	91% (n=32)	93% (n=98)	77% (n=148)
20j. Zoo visits encourage visitors to become more engaged in the protection of species	62% (n=21)	100% (n=7)	51% (n=1905)	33% (n=36)	72% (n=32)	88% (n=98)	63% (n=148)
20k. Zoo visits encourage visitors to become more engaged in the protection of biodiversity	57% (n=21)	100% (n=7)	49% (n=1905)	36% (n=36)	69% (n=32)	89% (n=98)	61% (n=148)
20l. Zoos are adequately designed to prevent the escape of animals	95% (n=21)	100% (n=7)	76% (n=1831)	65% (n=37)	88% (n=32)	94% (n=98)	73% (n=148)

On the one hand, public authorities and zoo operators usually consider that the implementation of the Directive's objectives is successful. On average, **public authorities** agree (fully or partly) at 96% with the statements provided in question 20, and 91% of the responding **zoo operators** agree with these statements. The lowest rate of adhesion for both types of stakeholders is for point 20h on **animal shows** (respectively 67% for authorities and 86% for zoo operators).

On the other hand, only 55% of the **NGOs** and 60% of the **individual respondents** agree with the statements of question 20. In terms of sub-questions, the lowest rate for NGOs corresponds to 33% of the responding NGOs agreeing to the statement provided in point 20j 'zoo visits encourage visitors to become more engaged in the protection of species', and the lowest rate for individuals (40%) relates to point 20h on shows. In addition, it should be mentioned that, in contrast with public authorities (100%) and zoo operators (90%), only a minority of NGOs (41%) and individuals (43%) agreed with the statement that animals live in conditions that satisfy their needs (point 20f). The same stakeholders nevertheless observed in majority (respectively 72% and 66%) an improvement on the accommodation of animals kept in zoos (point 20g), thus showing a certain consensus among the stakeholders, regardless of their type, on progress achieved in animal welfare in zoos over the implementation period.

The highest level of adhesion for NGOs corresponds to point 20d on improvements in educational activities (76%), and for individuals to point 20a on the presentation of information on species and their habitats (76%). In spite of these positive assessments in relation to education and awareness raising, NGOs and individuals still have a rather negative perception about the increase in knowledge after a visit to a zoo (point 20 b- 56% for NGOs and 65% for individuals- and point 20c- 51% and 53%) and possible behavioural changes triggered by a visit (point 20j- 33% and 51% and point 20k- 36% and 49%). Once again, this perception is strikingly different from that expressed by public au-

thorities and zoos operators, who have assessed in vast majority such measures positively (100% for all points listed above for public authorities and between 88 and 90% for zoos operators). These results would tend to indicate that educational measures are not as successful among visitors as perceived by public authorities and zoos.

Other stakeholders have less clear-cut views. **Business-oriented respondents, other organisations and ‘other’ respondents** agree to the statements of Article 20 respectively at an average of 79%, 75% and 68%. For each of these groups, at least a majority of respondents has agreed to each and every statement. More details per type of stakeholders for each sub-question can be found in Annex I.

4.1.3 Distribution per country

Figure 55 and Table 62 below show the distribution of replies by geographical distribution of the respondents (Member States/non-EU country). As in the sub-section above, the figure and table present only the share of respondents who flagged the reply options “Totally agree” or “Somewhat agree”. A full overview is presented in Annex I.

Figure 55 presents the level of agreement with all question 20 statements as an average. This shows an overall positive appreciation of the implementation of the Directive’s objectives in 16 out of 27 Member States/non-EU countries, with the highest scores in the Netherlands (89%), Germany (79%) and the Slovak Republic (79%). Respondents of 11 of the Member States agreed at less than 50% to the statements provided. This includes countries with a relatively high response rate, such as Belgium (37%), France (43%) and Spain (28%). The average level of agreement was particularly low in Bulgaria (18%), Slovenia (22%) and Malta (25%). Here, and even more in Table 62, the trends observed by Member States need to be nuanced, as previously explained, due to potential issues in terms of representativeness of the sample of each country.

Figure 55: Answer to question 20 of the public consultation- Share of respondents who agreed with the statements of Question 20, on average across Questions 20a to 20l

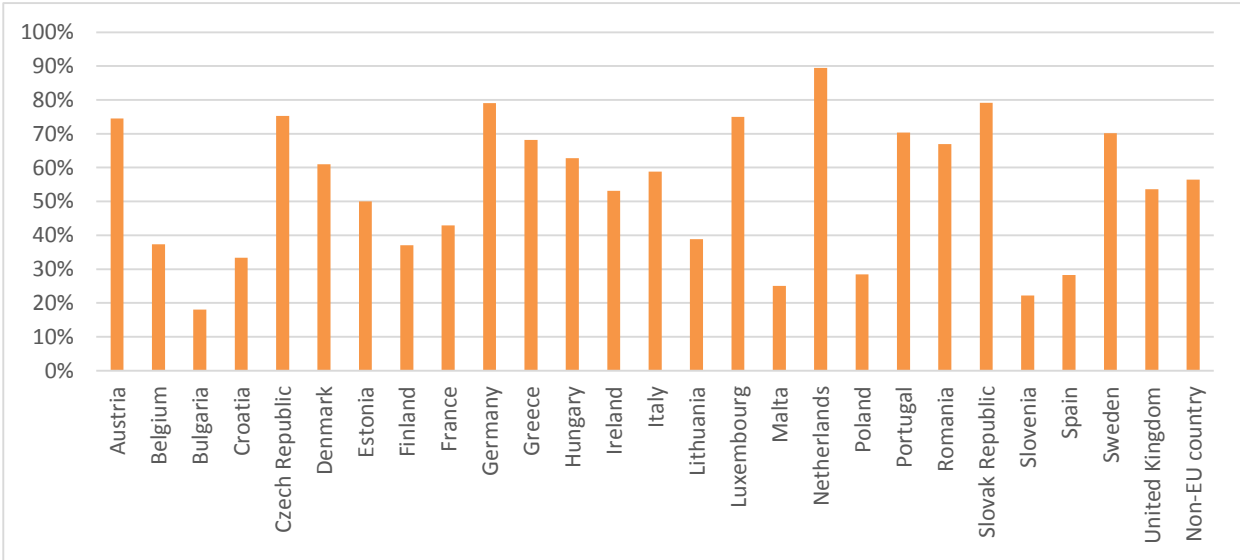


Table 62: Answer to question 20 of the public consultation “To what extent do you agree with the following statements?” - Share of respondents who flagged the reply options “Totally agree” or “Somewhat agree”, per Member State/non-EU Country. Percentages and, in brackets, absolute number of total respondents per Member State excluding “No opinion”

MS	20a	20b	20c	20d	20e	20f	20g	20h	20i	20j	20k	20l
Austria	84% (n=25)	72%(n=25)	60%(n=25)	88%(n=24)	70%(n=23)	60%(n=25)	92%(n=25)	57%(n=23)	92%(n=25)	70%(n=23)	64%(n=25)	87%(n=23)
Belgium	55%(n=40)	39%(n=41)	27%(n=41)	49%(n=35)	45%(n=33)	23%(n=43)	43%(n=40)	15%(n=41)	45%(n=42)	26%(n=43)	21%(n=43)	62%(n=39)
Bulgaria	33%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)	0%(n=2)	0%(n=3)	33%(n=3)	0%(n=3)	50%(n=2)	0%(n=3)	0%(n=3)	67%(n=3)
Croatia	100%(n=1)	100%(n=1)	0%(n=1)	0%(n=0)	0%(n=0)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)	0%(n=0)
Czech R.	86%(n=14)	79%(n=14)	64%(n=14)	93%(n=15)	86%(n=14)	60%(n=15)	80%(n=15)	64%(n=14)	79%(n=14)	67%(n=15)	60%(n=15)	87%(n=15)
Denmark	69%(n=39)	66%(n=38)	55%(n=38)	72%(n=36)	62%(n=34)	50%(n=38)	67%(n=39)	45%(n=38)	72%(n=39)	50%(n=38)	54%(n=39)	71%(n=34)
Estonia	100%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)
Finland	50%(n=8)	38%(n=8)	14%(n=7)	29%(n=7)	50%(n=8)	13%(n=8)	29%(n=7)	13%(n=8)	63%(n=8)	38%(n=8)	25%(n=8)	86%(n=7)
France	60%(n=68)	43%(n=68)	26%(n=68)	59%(n=61)	53%(n=57)	24%(n=67)	49%(n=67)	19%(n=68)	56%(n=68)	27%(n=67)	27%(n=67)	72%(n=65)
Germany	90%(n=777)	81%(n=786)	74%(n=782)	88%(n=731)	77%(n=689)	69%(n=793)	86%(n=780)	66%(n=776)	87%(n=774)	71%(n=782)	70%(n=781)	90%(n=762)
Greece	71%(n=14)	71%(n=14)	64%(n=14)	71%(n=14)	58%(n=12)	62%(n=13)	86%(n=14)	57%(n=14)	79%(n=14)	64%(n=14)	64%(n=14)	69%(n=13)
Hungary	100%(n=5)	100%(n=6)	33%(n=6)	80%(n=5)	40%(n=5)	33%(n=6)	67%(n=6)	17%(n=6)	100%(n=6)	50%(n=6)	50%(n=6)	83%(n=6)
Ireland	87%(n=15)	50%(n=16)	44%(n=16)	80%(n=15)	60%(n=15)	19%(n=16)	60%(n=15)	29%(n=14)	67%(n=15)	33%(n=15)	43%(n=14)	67%(n=12)
Italy	80%(n=50)	71%(n=51)	57%(n=51)	81%(n=48)	58%(n=48)	33%(n=49)	59%(n=51)	23%(n=40)	67%(n=49)	51%(n=51)	47%(n=51)	80%(n=49)
Lithuania	33%(n=3)	33%(n=3)	33%(n=3)	67%(n=3)	33%(n=3)	0%(n=3)	33%(n=3)	0%(n=3)	67%(n=3)	33%(n=3)	33%(n=3)	100%(n=3)
Luxembg	100%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)
Malta	50%(n=2)	50%(n=2)	0%(n=2)	50%(n=2)	50%(n=2)	0%(n=2)	0%(n=2)	0%(n=2)	50%(n=2)	50%(n=2)	0%(n=2)	0%(n=2)
Netherlands	93%(n=118)	88%(n=117)	85%(n=117)	97%(n=113)	94%(n=113)	85%(n=118)	94%(n=116)	76%(n=115)	94%(n=117)	86%(n=117)	85%(n=117)	96%(n=115)
Poland	31%(n=13)	23%(n=13)	15%(n=13)	50%(n=12)	31%(n=13)	15%(n=13)	23%(n=13)	17%(n=12)	38%(n=13)	15%(n=13)	15%(n=13)	67%(n=12)
Portugal	81%(n=36)	68%(n=38)	63%(n=38)	81%(n=37)	70%(n=37)	63%(n=38)	71%(n=38)	61%(n=38)	81%(n=37)	62%(n=37)	62%(n=37)	81%(n=36)
Romania	75%(n=16)	63%(n=16)	63%(n=16)	81%(n=16)	64%(n=14)	63%(n=16)	69%(n=16)	40%(n=10)	69%(n=16)	63%(n=16)	63%(n=16)	93%(n=14)
Slovakia	100%(n=2)	100%(n=2)	50%(n=2)	100%(n=1)	100%(n=1)	50%(n=2)	100%(n=1)	50%(n=2)	100%(n=2)	50%(n=2)	50%(n=2)	100%(n=2)
Slovenia	67%(n=3)	33%(n=3)	0%(n=3)	0%(n=2)	0%(n=2)	0%(n=3)	0%(n=3)	33%(n=3)	67%(n=3)	0%(n=3)	0%(n=3)	67%(n=3)

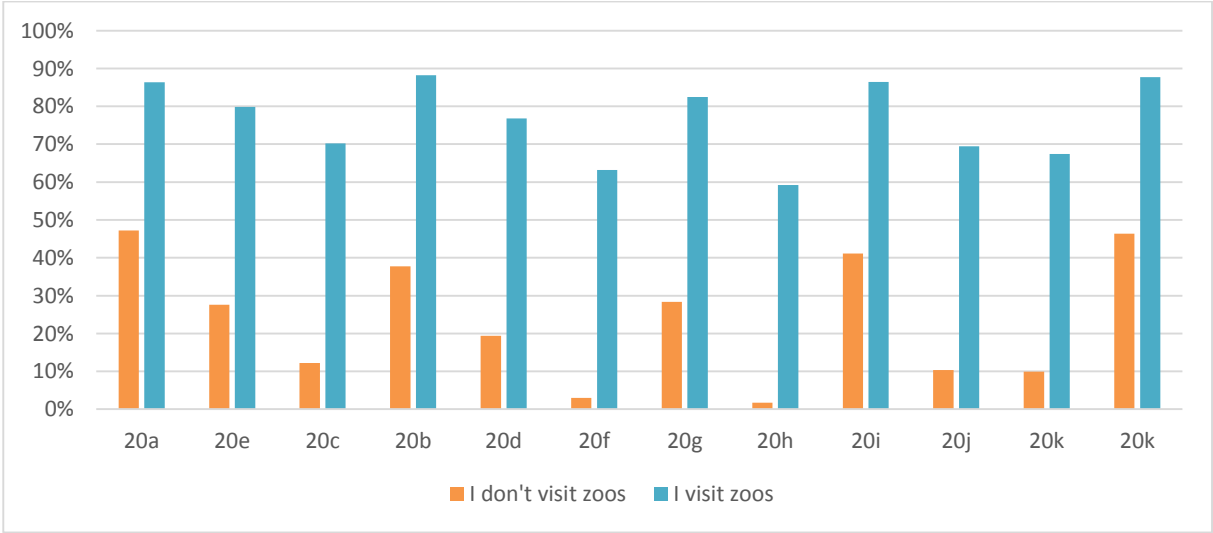
MS	20a	20b	20c	20d	20e	20f	20g	20h	20i	20j	20k	20l
Spain	44%(n=151)	32%(n=155)	18%(n=156)	42%(n=145)	23%(n=142)	10%(n=157)	29%(n=153)	6%(n=156)	44%(n=153)	15%(n=156)	15%(n=156)	60%(n=149)
Sweden	71%(n=31)	68%(n=31)	68%(n=31)	74%(n=27)	78%(n=27)	61%(n=31)	74%(n=31)	53%(n=30)	81%(n=31)	65%(n=31)	60%(n=30)	90%(n=29)
UK	73%(n=580)	61%(n=577)	44%(n=578)	72%(n=535)	53%(n=537)	29%(n=607)	60%(n=583)	27%(n=590)	74%(n=569)	44%(n=590)	41%(n=589)	66%(n=573)
Non-EU	69%(n=203)	60%(n=207)	53%(n=206)	67%(n=195)	58%(n=198)	44%(n=213)	58%(n=207)	39%(n=211)	65%(n=208)	49%(n=209)	47%(n=210)	69%(n=206)

Table 62 presents an overview of the level of agreement by statement. It reflects once again the positive answers ('Totally agree' and 'Somewhat agree'). In spite of the reservations expressed above, when looking at the answers provided in the countries with the highest level of response (i.e., Germany, the United Kingdom, the Netherlands), the same trends as the overall trends observed under Section 5.1.1. The level of positive assessment is the highest in ten countries in relation to the prevention of escape (point 20l), and in four countries (the Czech Republic, Denmark, Italy and the Netherlands) in relation to the improvement in education activities (point 20d). A strong adhesion also exists in relation to research in Germany, Hungary and Ireland (point 20a). The strongest reservations can be observed in relation to animal welfare and animal shows in most countries. In particular, in all countries but four, the statement on animal shows (point 20h) is the least adhered to (though this rate is still high in the Netherlands- 76% or France-66% for instance). In the four remaining countries (the Czech Republic, Ireland, Poland and Slovenia), point 20f (living conditions of animals) has the lowest score. In contrast, it is worth noting that Greece registers its highest rate of agreement with point 20g on improvements in the size and design of spaces where animals are kept.

4.1.4 Distribution depending on whether the respondent visit a zoo or not

This section provides an overview of the answers patterns between respondents that declared to visit zoos for different reasons and respondents who do not visit zoos. Figure 56 below presents the share of respondents who flagged the reply options "Totally agree" or "Somewhat agree", by distinguishing between respondents visiting zoos and respondents not visiting zoos.

Figure 56: Answer to question 20 of the public consultation "To what extent do you agree with the following statements?" - Share of respondents who flagged the reply options "Totally agree" or "Somewhat agree", per respondents visiting zoos or not. Percentages are calculated on the number of respondents that expressed an opinion (i.e. "No opinion" is excluded)



As illustrated in this Figure 56, there is a significant difference in the responses provided by the two types of stakeholders. On average, for the 12 statements, there is a 76% agreement rate among respondents visiting zoos. The rate drops to 24% for persons who do not visit zoos. The biggest differences can be observed for statements 20f (animal living conditions- 63% and 3% respectively) and 20h (animal shows- 59% and 2% respectively).

4.1.5 Key points

- Under Question 20, the public consultation document provides 12 statements corresponding to indicators of the effective implementation of the Zoos Directive. Overall, respondents tended to

agree with these statements, suggesting a **good level of effectiveness** of the Directive. There was nevertheless, on average, a higher rate of positive perceptions among public authorities and zoos operators than among NGOs and individual respondents.

- In general, respondents considered that **educational measures and measures relating to the prevention of escape** were best implemented. This was true of all types of stakeholders, including for NGOs and individual respondents.
- The level of adhesion to the statements relating to the **living conditions of animals** and the contribution of **animal shows** was significantly lower. In relation to animal shows, all types of stakeholders, including public authorities, showed a disagreement or a limited agreement with the statement that shows are adapted to animals' natural behaviour. The disagreement is particularly obvious among respondents which do not visit zoos.
- The geographical pattern is not very conclusive, as it generally shows a higher level of agreement in the Netherlands and Germany, and a lesser level in the UK, corresponding to the types of respondents present in these countries (respectively, mainly zoo operators and NGOs).

4.2 DO YOU THINK THE FOLLOWING ACTIVITIES ARE SUFFICIENTLY PROMOTED IN ZOOS ACROSS THE EU (QUESTION 21)?

Question 21 aims at measuring the public perception of the implementation of the Article 3 conservation measures in zoos. To that end, the respondents' opinion is asked in relation to the promotion of eight activities corresponding to the Article 3 measures:

- a. Research on species conservation issues;
- b. Training on relevant species conservation skills;
- c. Exchange of information relating to species conservation, between zoos, authorities, other organisations;
- d. Provide education on and raise awareness of biodiversity and broader nature protection topics;
- e. Provide education on and raise awareness of species, wild animals and their natural habitats;
- f. Provide information on exhibited species and their habitats;
- g. Keep animals under appropriate conditions with good veterinary care;
- h. Collect data on animals in zoos.

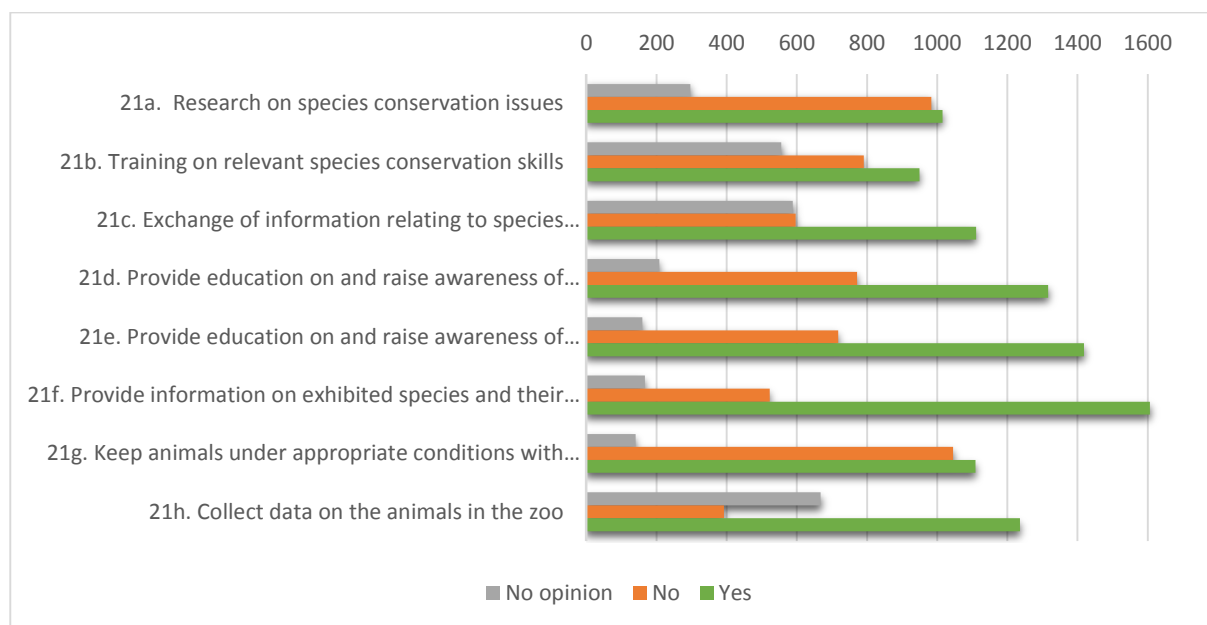
Points a to c correspond to the first indent of Article 3. Points d to f correspond to the second indent of Article 3. Point g corresponds to the third indent, and point h to the last indent (up-to-date records).

4.2.1 General trends

The public consultation document asks the respondents to indicate whether they think that the eight activities listed above are sufficiently promoted, with three possible answers ('yes, no', 'no opinion').

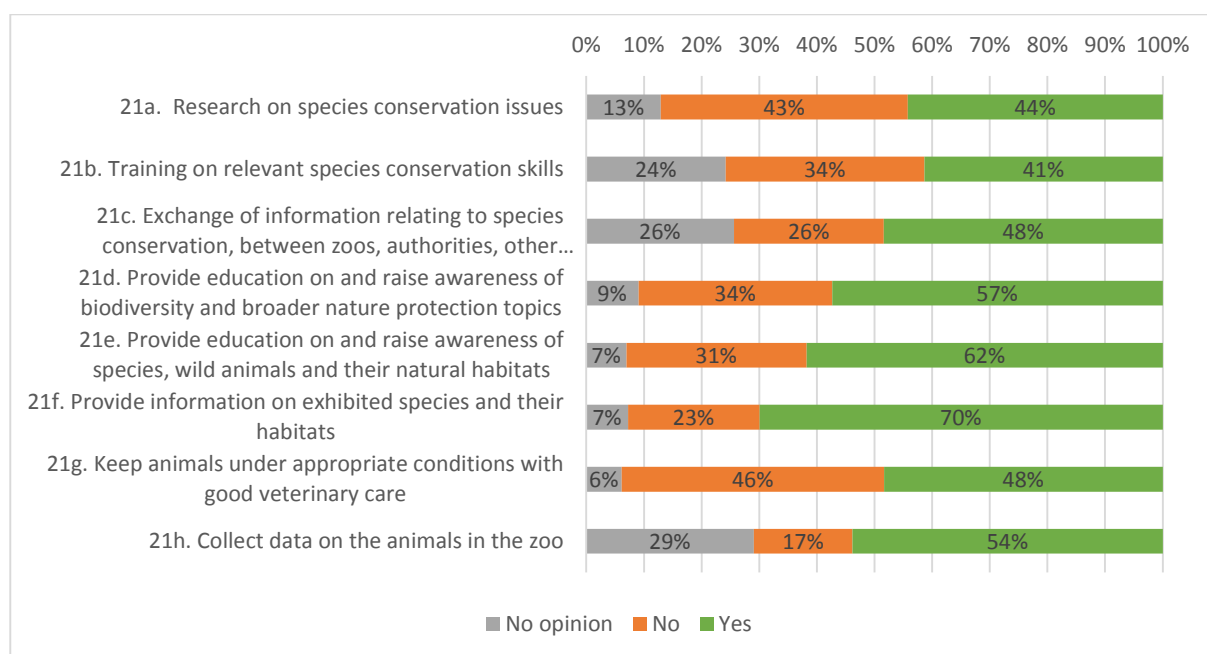
Figure 57 provides an overview of the number of responses for each possible answer and per activity.

Figure 57: Answer to question 21 of the public consultation “Do you think the following activities are sufficiently promoted in zoos across the EU?” in absolute number of respondents



In addition, Figure 58 indicates the percentage of answers of each type for each activity.

Figure 58: Answer to question 21 of the public consultation “Do you think the following activities are sufficiently promoted in zoos across the EU?” in percentage of respondents



As can be seen from Figure 57 and Figure 58, **all activities** have been assessed predominantly positively. For half of the activities, a majority of respondents considered that the activities were sufficiently promoted. These relate primarily to the provision of **information and education**:

- Providing information on exhibited species, wild animals and their natural habitats: 70% of positive answers (point 21 f);
- Providing education on and raise awareness of species, wild animals and their natural habitats:

- 62% of positive answer (point 21 e);
- Providing education on and raise awareness of biodiversity and broader nature protection topics: 57% of positive answers (point 21 d).

Positive assessment of these activities is consistent with the answers provided to question 20 in relation to the same topic (see Section 4.1.1 above). In addition, the collection of data on animals in zoos was also assessed positively (54% of positive assessment).

The highest level of **negative** answers related to:

- Animal conditions and care (point 21g): 46% of negative answers;
- Research in species conservation issues (point 21a): 43% of negative answers.

The high proportion of respondents that consider that the promotion of animals' accommodation and care in zoos is not sufficient is also consistent with the trends identified in question 20 (see Section 4.1.1 above).

Research should, like other specific activities (e.g. training, exchange of information and collection of data), be less visible for the wide public, and hence subject to a higher proportion of 'no opinion', similarly to what is observed for these other activities. The high rate of negative answers is therefore particularly striking.

4.2.2 Distribution per type of stakeholders

Figure 59 and Table 63 provide, for each statement, the level of positive answers for each type of stakeholders. A more complete information, with ratios for all three answers and all three activities is provided in Annex I.

Figure 59: Answers to question 21 of the public consultation “Do you think the following activities are sufficiently promoted in zoos across the EU?” per share of respondents who replied ‘yes’. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

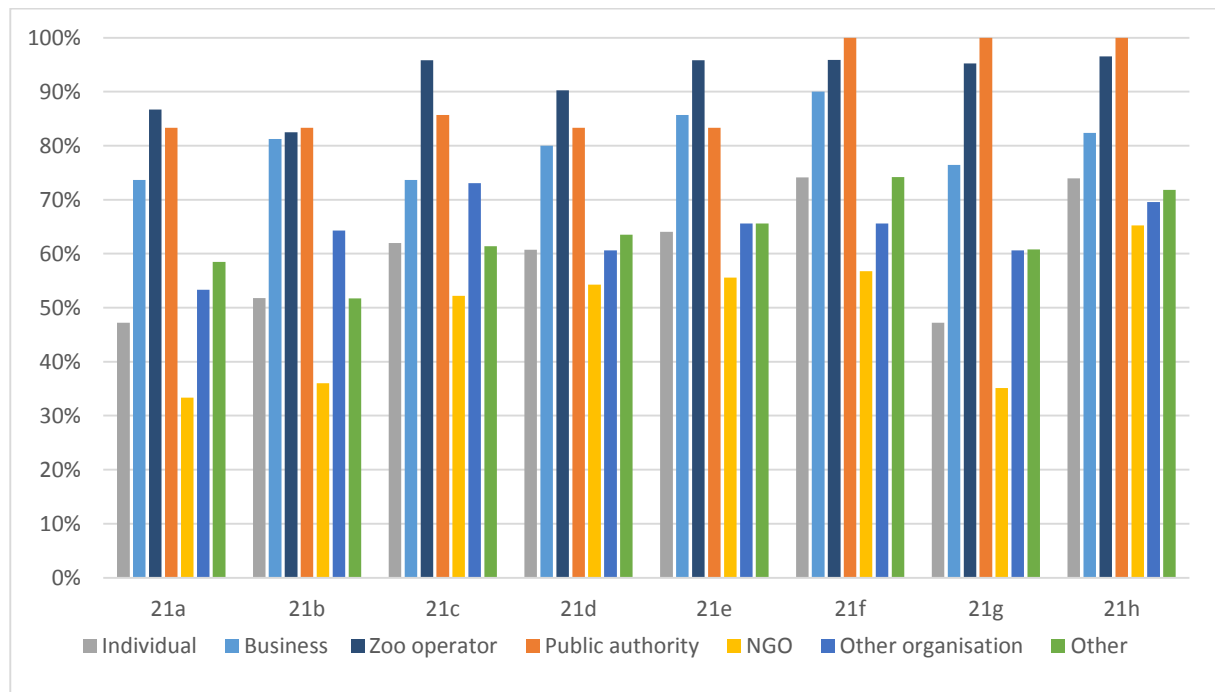


Table 63: Answers to question 21 of the public consultation “Do you think the following activities are sufficiently promoted in zoos across the EU?” per share of respondents who replied ‘yes’. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

	Business	Public authority	Individual	NGO	Other org.	Zoo operator	Other
21a. Research on species conservation issues	74% (n=19)	83% (n=6)	47% (n=1675)	33% (n=33)	53% (n=30)	87% (n=94)	59% (n=143)
21b. Training on relevant species conservation skills	81% (n=16)	83% (n=6)	52% (n=1642)	36% (n=25)	64% (n=28)	82% (n=87)	52% (n=137)
21c. Exchange of information relating to species conservation, between zoos, authorities, other organisations	74% (n=19)	86% (n=7)	62% (n=1402)	52% (n=23)	73% (n=26)	96% (n=88)	61% (n=143)
21d. Provide education on and raise awareness of biodiversity and broader nature protection topics	80% (n=20)	83% (n=6)	61% (n=1755)	54% (n=35)	61% (n=33)	90% (n=96)	64% (n=144)
21e. Provide education on and raise awareness of species, wild animals and their natural habitats	86% (n=21)	83% (n=6)	64% (n=1802)	56% (n=36)	66% (n=32)	96% (n=96)	66% (n=144)
21f. Provide information on exhibited species and their habitats	90% (n=20)	100% (n=7)	74% (n=1795)	57% (n=37)	66% (n=32)	96% (n=93)	74% (n=146)
21g. Keep animals under appropriate conditions with good veterinary care	76% (n=17)	100% (n=7)	47% (n=1818)	35% (n=37)	61% (n=33)	95% (n=97)	61% (n=147)
21h. Collect data on the animals in the zoo	82% (n=17)	100% (n=7)	74% (n=1337)	65% (n=23)	70% (n=23)	97% (n=78)	72% (n=144)

Figure 59 shows a **particularly positive** perception of the implementation of Article 3 measures among public authorities, zoo operators and business, and a **less positive** one among individuals, NGOs and other organisations. On average, responding zoos operators expressing an opinion gave at 92% positive answers and public authorities 90%, while NGOs had an average of 51% of negative answers. Individuals expressed 60% of positive answers on average.

Table 63 illustrates more clearly the trends among the different types per activity. The bold numbers correspond to the highest percentage of positive answers for each of these activities. The numbers in italics are the lowest percentages of positive answers.

The highest rates of agreement are always with **public authorities or zoo operators**. Among these two groups, a correlation can be observed between the highest positive response rates and the level of involvement or control of each type of stakeholders on a given activity. For points 21b (training), 21f (information), 21g (animal accommodation and care) and 21h (data collection), most, if not all, of the authorities considered that the promotion of these activities was sufficient. For points 21a (research), 21c (exchange of information), 21d and e (education), zoos operators represented the highest rate of positive answers. The rate of positive answers does not go below 83% (for research and education) for public authorities and below 82% (training) for zoo operators.

While **NGOs** have the lowest rate of positive appreciation for all activities, this level is particularly low in relation to research (33%), training (36%) and animal accommodation and care (35%). The highest rate of positive answers for NGOs is in relation to data collection (65%).

Individuals expressing an opinion are more or less in-between these two extremes, with an average of

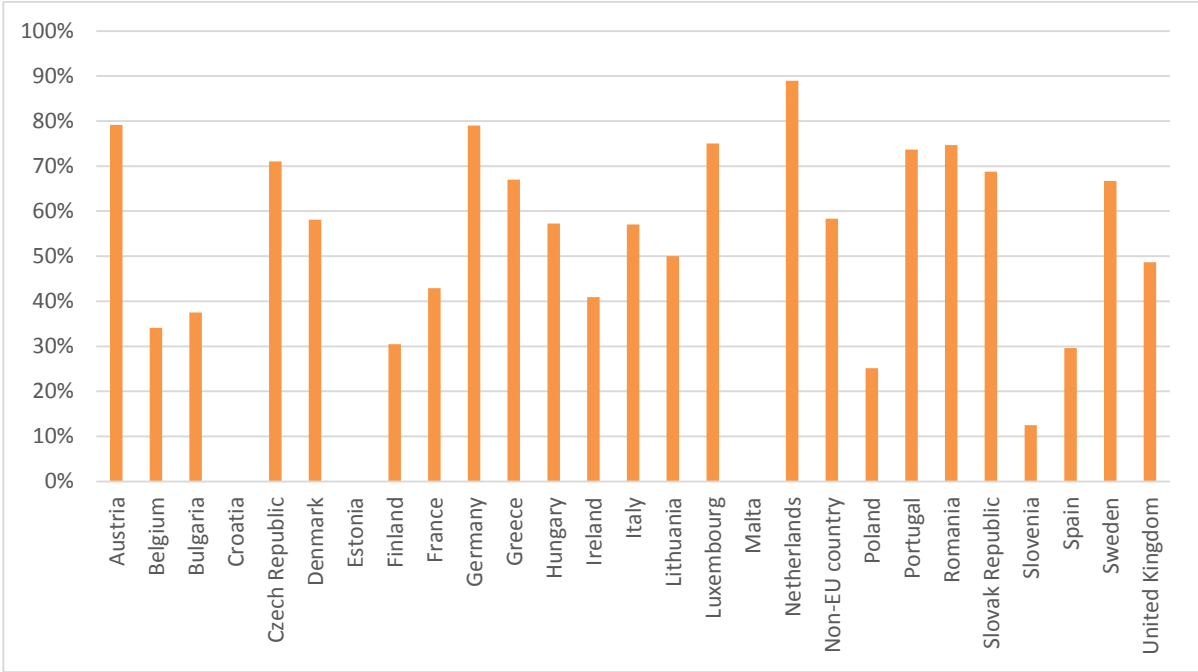
60% of positive answers, with the highest appreciation for the provision of information on species and their habitats (point 21f) and for data collection (point 21h), with a 74% positive response rate in both cases. Their lowest level of positive answers relates to research (point 21a) and animal accommodation and care (point 21g), with a rate of positive answers of 47% for the two instances.

4.2.3 Distribution per country

Figure 60 and Table 64 below show the distribution of replies by geographical distribution of the respondents (Member States/non-EU country). As in the sub-section above, the figure and table present only the share of respondents who expressed a positive opinion. A full overview is presented in Annex I.

Figure 60 presents the level of positive perception with all activities listed under question 21 as an average. This shows an overall positive appreciation of the implementation of the Directive’s objectives in 15⁴⁹⁸ out of 27 Member States/non-EU countries, with the highest scores in the Netherlands (89%), Germany (79%) and Austria (79%). Respondents of 12⁴⁹⁹ of the Member States assessed on average negatively (less than 50% of positive answers) the promotion of the activities listed in Question 21. In particular, the respondents of Croatia, Estonia and Malta all considered that the promotion of none of the activities listed was sufficient (0%). The rate of positive responses was also very low in Slovenia (13%) and Poland (25%).

Figure 60: Answer to question 21 of the public consultation- Share of respondents who think that the activities listed in Question 21 are sufficiently promoted, on average across Questions 21a to 21h, per Member State/non-EU country.



⁴⁹⁸ Austria, Czech Republic, Denmark, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, the Netherlands, non-EU countries, Portugal, Romania, Slovakia and Sweden.

⁴⁹⁹ Belgium, Bulgaria, Croatia, Estonia, Finland, France, Ireland, Malta, Poland, Slovenia, Spain and the UK.

Table 64: Answer to question 21 of the public consultation- Share of respondents who think that the activities listed in Question 21 are sufficiently promoted, per Member States/non-EU countries, and per activity. Percentages and, in brackets, absolute number of total respondents per Member State excluding “No opinion”.

MS	21a	21b	21c	21d	21e	21f	21g	21h
Austria	68% (n=22)	81% (n=21)	81% (n=21)	75% (n=24)	83% (n=24)	88% (n=25)	67% (n=24)	90% (n=20)
Belgium	17% (n=36)	20% (n=35)	36% (n=25)	37% (n=38)	39% (n=38)	54% (n=39)	22% (n=41)	48% (n=23)
Bulgaria	0% (n=1)	0% (n=1)	50% (n=2)	50% (n=2)	50% (n=2)	50% (n=2)	0% (n=3)	100% (n=1)
Croatia	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)	0% (n=0)
Czech Republic	53% (n=15)	62% (n=13)	77% (n=13)	73% (n=15)	67% (n=15)	80% (n=15)	73% (n=15)	83% (n=12)
Denmark	49% (n=37)	45% (n=31)	59% (n=32)	58% (n=38)	62% (n=37)	70% (n=37)	51% (n=37)	70% (n=30)
Estonia	0% (n=1)	N/A (n=0)	N/A (n=0)	0% (n=1)	0% (n=1)	0% (n=1)	0% (n=1)	N/A (n=0)
Finland	29% (n=7)	29% (n=7)	50% (n=6)	17% (n=6)	14% (n=7)	43% (n=7)	13% (n=8)	50% (n=6)
France	34% (n=59)	22% (n=54)	48% (n=50)	47% (n=62)	46% (n=63)	60% (n=60)	34% (n=64)	52% (n=46)
Germany	69% (n=704)	78% (n=638)	81% (n=647)	78% (n=740)	80% (n=759)	85% (n=765)	71% (n=768)	89% (n=639)
Greece	54% (n=13)	67% (n=12)	82% (n=11)	58% (n=12)	67% (n=12)	85% (n=13)	62% (n=13)	63% (n=8)
Hungary	25% (n=4)	33% (n=3)	50% (n=2)	80% (n=5)	100% (n=5)	100% (n=6)	20% (n=5)	50% (n=2)
Ireland	33% (n=15)	33% (n=12)	43% (n=14)	43% (n=14)	44% (n=16)	67% (n=15)	23% (n=13)	42% (n=12)
Italy	50% (n=44)	43% (n=40)	70% (n=37)	50% (n=46)	56% (n=48)	71% (n=48)	49% (n=45)	68% (n=34)
Lithuania	50% (n=2)	50% (n=2)	50% (n=2)	33% (n=3)	33% (n=3)	100% (n=3)	33% (n=3)	50% (n=2)
Luxembourg	100% (n=1)	0% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	0% (n=1)	100% (n=1)
Malta	0% (n=2)	0% (n=2)	N/A (n=0)	0% (n=1)	0% (n=3)	0% (n=2)	0% (n=3)	N/A (n=0)
Netherlands	85% (n=113)	83% (n=111)	89% (n=108)	89% (n=112)	89% (n=112)	95% (n=113)	87% (n=117)	95% (n=110)
Poland	15% (n=13)	9% (n=11)	40% (n=5)	17% (n=12)	17% (n=12)	36% (n=11)	17% (n=12)	50% (n=4)
Portugal	57% (n=35)	61% (n=36)	79% (n=34)	73% (n=37)	78% (n=36)	86% (n=37)	68% (n=37)	87% (n=31)
Romania	64% (n=11)	55% (n=11)	83% (n=12)	77% (n=13)	77% (n=13)	87% (n=15)	79% (n=14)	77% (n=13)
Slovak Republic	100% (n=1)	100% (n=1)	50% (n=2)	50% (n=2)	50% (n=2)	100% (n=2)	50% (n=2)	50% (n=2)

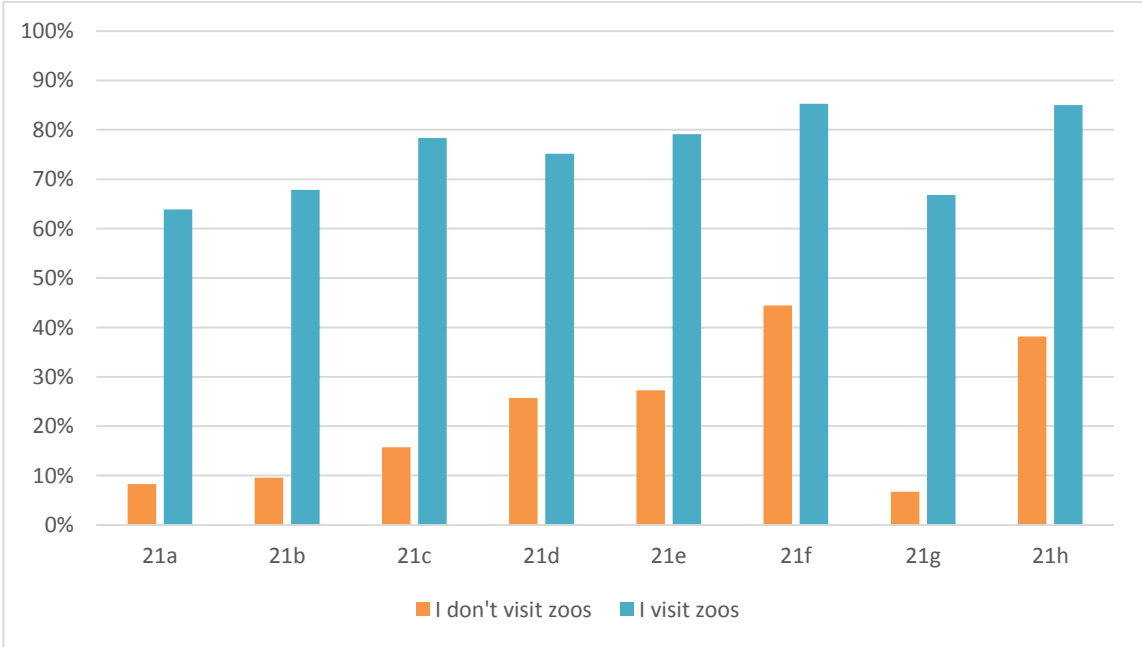
Slovenia	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	33% (n=3)	0% (n=3)	67% (n=3)
Spain	18% (n=128)	17% (n=109)	27% (n=94)	30% (n=145)	33% (n=150)	49% (n=144)	17% (n=149)	47% (n=91)
Sweden	59% (n=29)	63% (n=27)	77% (n=26)	70% (n=30)	67% (n=30)	78% (n=27)	55% (n=29)	65% (n=26)
United Kingdom	33% (n=534)	33% (n=413)	46% (n=405)	52% (n=547)	60% (n=558)	69% (n=556)	32% (n=562)	65% (n=372)
Non-EU country	49% (n=170)	48% (n=147)	58% (n=156)	61% (n=180)	62% (n=187)	70% (n=183)	47% (n=186)	71% (n=141)

Table 63 presents an overview of the level of positive answer by activity. When looking at the answers provided in the countries with the highest level of response (i.e., Germany, the United Kingdom, Spain, the Netherlands and France), they show similar trends, with the highest rate of positive answers for point 21f (information on species) and point 21h (data collection). The trends are similar in all other countries. Overall, 13 countries⁵⁰⁰ expressed their highest level of adhesion with point 21f, and eight Member States⁵⁰¹ and the non-EU countries with 21h. The lowest rates are achieved for point 20a (research) in Belgium, the Czech Republic, Germany, Greece, Poland and Portugal, for point 21b (training) in Denmark, France, Italy, the Netherlands (with 83% positive assessment though), Romania and Spain (17% positive assessment), and finally for point 21g (animal accommodation and care) in Austria, Finland (13% positive assessment), Hungary, Ireland, Spain, Sweden (with 55% positive assessment though), the United Kingdom and non-EU countries.

4.2.4 Distribution depending on whether the respondent visit a zoo or not

This section provides an overview of the answers patterns between respondents that declared to visit zoos for different reasons and respondents who do not visit zoos. Figure 61 below presents the share of respondents who think that the activities listed in question 21 are sufficiently promoted, by distinguishing between respondents visiting zoos and respondents not visiting zoos.

Figure 61: Answer to question 21 of the public consultation - Share of respondents who think that the activities listed in Question 21 are sufficiently promoted, depending on whether they visit zoos or not. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion” is excluded)



As illustrated in this Figure 61, the difference in the responses provided by the two types of stakeholders is very noticeable. On average, there is a 75% rate of positive appreciation among respondents visiting zoos across the eight activities. The rate is only of 22% for persons who do not visit zoos. The biggest differences can be observed for activities 21c (exchange of information- 78% and 16% respectively) and 21g (animal accommodation and care- 67% and 7% respectively).

⁵⁰⁰ Belgium, Denmark, France, Greece, Hungary, Ireland, Italy, Lithuania, the Netherlands, Romania, Spain, Sweden and the UK.
⁵⁰¹ Austria, Bulgaria, the Czech Republic, Finland, Germany, Poland, Portugal and Slovenia.

4.2.5 Key points

- Overall, the activities listed in question 21, and which correspond to the activities resulting for the implementation of the Article 3 measures, have been considered as being sufficiently promoted by the persons who responded to the public consultation. The perception of the implementation of Article 3 measures is particularly positive among public authorities, zoo operators and business. It is less positive among individuals, NGOs and other organisations. On average, 92% of the responding zoos operators expressing an opinion and 90% of the responding public authorities gave a positive appreciation of the activities listed, while the appreciation was negative for 51% of the responding NGOs. Individuals considered the activities listed as sufficiently promoted at 60% on average.
- In particular, the implementation of the activities relating to **information** (point 21f) and **education** (points 21 d and e) were positively assessed. This was especially the case among zoo operators and public authorities. Comparable results can be found when looking at the Member States with the highest number of respondents, point 21f received the highest rates of positive answers among the listed activities in these countries.
- In contrast, the level of negative answers was relatively high in relation to **animal conditions and care** (point 21g), with on average 46% of negative answers among all stakeholders. NGOs and individuals in particular expressed a negative perception as to the sufficient promotion of measures related to this activity, with respectively 35% and 47% of positive answers. The sufficient promotion of **training** had the weakest positive rate among zoo operators (82%) and public authorities (83%).
- The rate of persons who used the ‘no opinion’ option was understandably higher for activities which related to more ‘technical’ activities (e.g. research, training, exchange of information and collection of data), the implementation of which is more difficult to assess for a non-specialized audience. However, for the stakeholders expressing an opinion, the level of positive answers was particularly low in relation to **research** (point 21a) among NGOs (33% of positive opinions) and individuals (47% of positive opinions).

5 EFFICIENCY

The public consultation explored the perception of stakeholders on the extent of the benefits brought by the Zoos Directive benefits (questions 25 and 26, Section 5.1) and investigated how costs compare with the benefits (question 27, Section 5.2).

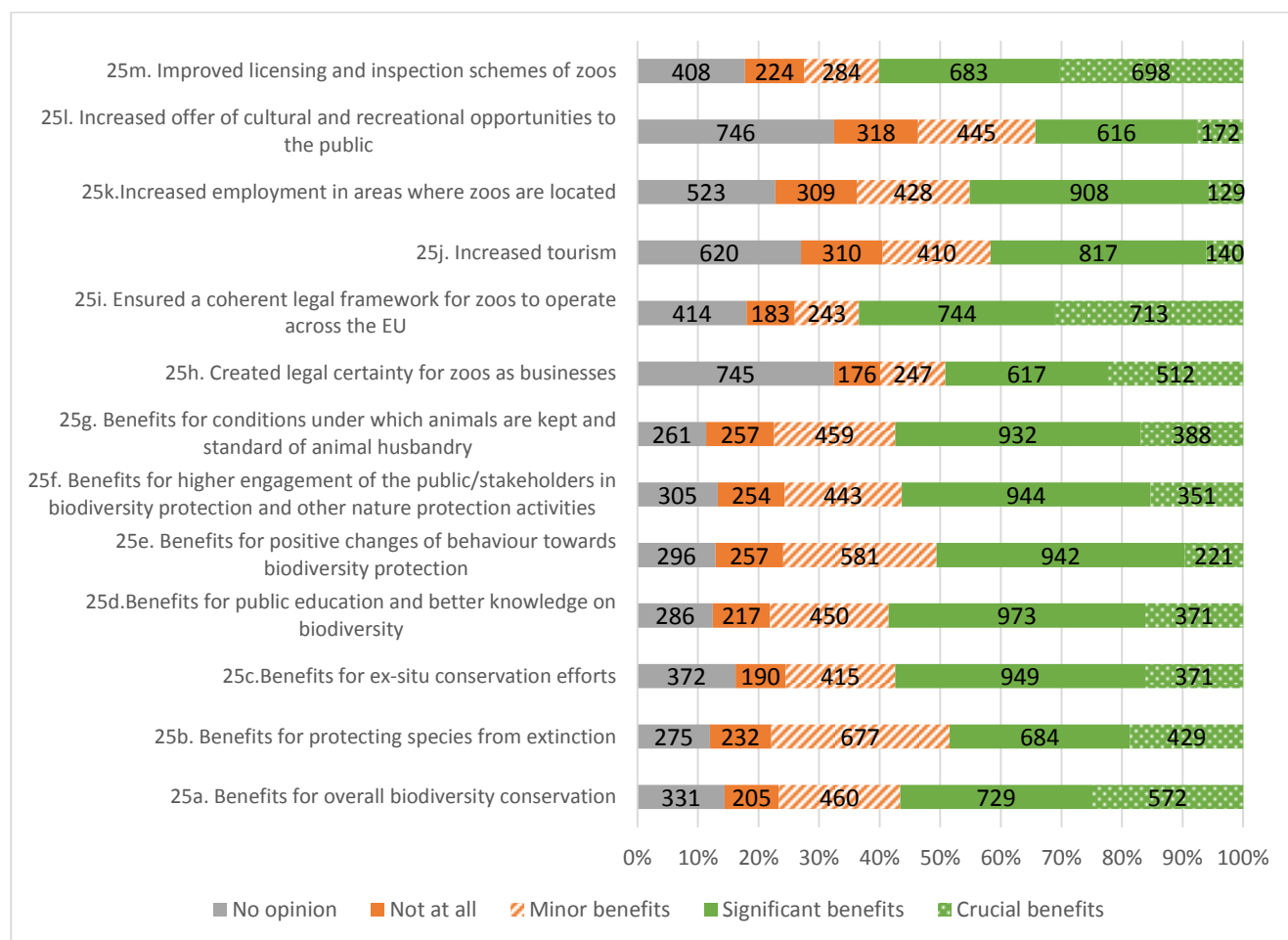
5.1 TO WHAT EXTENT DO YOU CONSIDER THAT THE DIRECTIVE HAS BROUGHT THE FOLLOWING BENEFITS (QUESTIONS 25-26)?

The public consultation aimed at collecting opinions on the benefits produced with the implementation of the Zoos Directive. To this end, in question 25, stakeholders have been asked to assess the extent of a range of expected benefits, across different areas (from benefits on biodiversity conservation to benefits on public awareness, increased recreational opportunities, tourism, etc.). The possibility for adding other relevant benefits has been also provided, through the field “Other” (question 26).

5.1.1 General trends

The public consultation document has identified 13 potential benefits of the Zoos Directive and asked stakeholders to provide their opinion on the magnitude of each benefit. As shown in Figure 62, the majority of respondents believe that significant or crucial benefits have been achieved in most of the 13 fields listed.

Figure 62: Answer to question 25 of the public consultation “To what extent do you consider that the Directive has brought the following benefits?”, in absolute numbers of respondents



In almost all cases, 50% or more of the stakeholders considered the benefits achieved as significant or crucial. Exceptions are benefits in terms of:

- Increased offer of cultural and recreational opportunities (point 25l);
- Increased tourism (point 25j);
- Increased employment in areas where zoos are located (point 25k);
- Benefits for protecting species from extinction (point 25b).

In all these cases, a high number of stakeholders have not provided an answer, while less than 50% of the respondents have rated these benefits as crucial or significant.

At the other hand of the spectrum, there seem to be a large agreement among stakeholders on the ability of the Zoos Directive to: ensure a coherent legal framework for zoos to operate across the EU (point 25i); ensure improved licensing and inspection schemes of zoos (25m); and promote public education and better knowledge on biodiversity (point 25d). The benefits in these fields have been rated as significant or crucial by 63% to 59% of the respondents.

Table 65 reports a simplified presentation of the data mentioned above and fully presented in Figure 62. For each category of benefit, it shows the share of stakeholders having not provided an opinion, and the share of stakeholders having rated the different benefits as poorly (i.e. “No or minor benefits”) or fully achieved (i.e. “Significant or crucial benefits”). The categories of benefits at the ends of spectrum are highlighted.

Table 65: Answer to question 25 of the public consultation “To what extent do you consider that the Directive has brought the following benefits?” (% on total respondents)

	No opinion	No or minor benefits	Significant or crucial benefits
Significant or crucial benefits ≥ 50% of total respondents			
25i. Ensured a coherent legal framework for zoos to operate across the EU	18.0%	19%	63%
25m. Improved licensing and inspection schemes of zoos	18%	22%	60%
25d. Benefits for public education and better knowledge on biodiversity	12.5%	29%	59%
25a. Benefits for overall biodiversity conservation	14.4%	29%	57%
25g. Benefits for conditions under which animals are kept and standard of animal husbandry	11.4%	31%	57%
25c. Benefits for ex-situ conservation efforts	16.2%	26%	57%
25f. Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	13.3%	30%	56%
25e. Benefits for positive changes of behaviour towards biodiversity protection	12.9%	36%	51%
Significant or crucial benefits < 50% of total respondents			
25h. Created legal certainty for zoos as businesses	32.4%	18%	49%
25b. Benefits for protecting species from extinction	12.0%	40%	48%
25k. Increased employment in areas where zoos are located	22.8%	32%	45%
25j. Increased tourism	27.0%	31%	42%
25l. Increased offer of cultural and recreational opportunities to the public	32.5%	33%	34%

In general terms, this data suggests how the Zoos Directive has produced marginal benefits on zoos as economic operators but also for boosting economic activities around them. Instead, the most notable benefits appear to be related to the creation of a common legal framework across the EU, improved systems for licensing and inspections (missing in most of the Member States before the entering into force of the Zoos Directive), and better knowledge on biodiversity among the public.

In addition, 443 stakeholders provided input on “Other benefits” in the form of open comments (question 26). Most of the comments are repeated several times, indicating that these were likely influenced by guidance from interest groups.

In Table 66 below, we report the repeated comments identified, and information on their frequency, languages used, main categories of stakeholders having used those repeated comments and their Member State of origin. However, two elements make it difficult to establish the exact number of repeated comments influenced by interest groups:

- firstly, while in some cases, these comments are repeated in exactly the same words, in other cases, variations can be observed;
- secondly, repeated comments appear in different languages, making an exact comparison more difficult.

Therefore, Table 66 represents our best estimate, while we are aware that a margin of error exists.

Table 66: Analysis of the open comments to question 26 of the public consultation (“To what extent do you consider that the Directive has brought the following benefits? – If Other, please specify”) and identification of repeated comments

Comment	Number	Percentage
1) Recognising that each animal species has specific welfare needs, regardless of location, EU-wide, scientifically-validated animal husbandry standards will ensure animals are appropriately kept in zoos (<i>recommended answer by Born Free and Animal Public – in German</i>).	100	22.6%
2) Harmonisation and standardization on EU level. An EU legislative act is necessary to help raising the public role of zoos and to contribute efficiently and significantly to biodiversity conservation	83	18.7%
3) The EU Directive supports the public perception and role of zoos in nature conservation and species protection	79	17.8%
4) Establishing stricter rules for animal welfare	20	4.5%
5) A European law is needed to promote the public role of zoos and contribute to the preservation of biodiversity	14 (not possible to establish whether all are repeated comments)	3.2%
6) Establishing animal husbandry standards	67 (not possible to establish whether all are repeated comments)	15.1%
TOTAL	363	81.9%

Overall, according to the estimate presented in the table above, 363 are repeated comments, accounting for approximately 82% of all open comments to question 26.

Regardless the influence of interest groups, the comments on benefits brought by the Zoos Directive point to the ability of the Directive to the promote harmonization at EU level and help raise: standards for animal keeping (point 1 in the table above); the role and public perception of zoos as entities contributing to biodiversity conservation and protection of species (points 2, 3 and 5).

Moreover, and importantly, a high number of stakeholders have pointed out the importance of the Zoos Directive for the establishment of animal husbandry standards (points 1 and 6) and introducing stricter rules for animal welfare (point 5).

Although the primary objective of the Zoos Directive is related to conservation of biodiversity and animal welfare is outside the scope of the intervention, one of the main benefits of the Zoos Directive, as perceived by stakeholders, has been the improvement of husbandry standards and its contribution to welfare of animals in zoos, currently not covered by other animal welfare legislation.⁵⁰²

Regarding the remaining 74 comments, the analysis aimed at identifying the range of statements by going through all the comments, in order to identify a range of key categories and determine which statements appeared most frequently.

The following categories have been identified:

- Firstly, a set of comments, not classified as “repeated comments” originating from campaigns,

⁵⁰² Article 3, third indent, of the Zoos Directive requires zoos to accommodate animals under conditions which “aim to satisfy the biological and conservation requirements of the individual species” and to maintain “maintaining a high standard of animal husbandry”. In line with the general aim of the Zoos Directive, this provision is intended to pursue conservation objectives.

points to benefits related to:

- harmonization at the EU level, favouring both the establishment of standards for animal keeping, and a framework for conservation, research and public engagement by zoos (10 comments);
- the establishment of standards for keeping animals in European Zoos (19 comments).
- Secondly, recurrent comments revealing a negative opinion and pointing to issues, rather than to benefits achieved. These comments can be divided in two categories:
 - Comments claiming the lack of proper enforcement of the Zoos Directive, which translates into poor conditions for animal kept in zoos and calls for a better monitoring of the rules and application of sanctions (7 comments). Specific examples (of Member States failing to enforce the legislation or Zoos) have been also mentioned in two comments.
 - Comments expressing a more general and negative position against zoos as such. These comments (29) points to the bad conditions in which animals are kept in zoos, or support the view that animals should live in their natural environment and, therefore, do not recognize the conservation role of zoos. These comments mainly come from individuals.
- Finally, some specific (not recurrent) comments have been encountered. Among these, two comments have highlighted the following benefits:
 - Promoting adequate tracking of animal data within the EU Zoos and help transparency;
 - The establishment of a legislation on zoos provides the possibility for animal activists to challenge poor animal welfare and request for remedies against breaches of the rules.

5.1.2 Distribution per type of stakeholders

Table 67 below provides an overview of the opinion of the different stakeholder categories on the benefits achieved by the Zoos Directive.

In order to provide a synthetic overview, the table presents, per each type of stakeholder, only the share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”. Percentages are calculated on the number of respondents that expressed an opinion (i.e. excluding the respondents that flagged “No opinion”). A complete overview is presented in Annex I.

Table 67: Answer to question 25 of the public consultation “To what extent do you consider that the Directive has brought the following benefits?” - Share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”, per type of stakeholder. Percentages and, in brackets, absolute number of total respondents per stakeholder excluding “No opinion”

Type of stakeholder	Business	Public authority	Individual	NGO	Other organisation	Zoo operator	Other
25a. Benefits for overall biodiversity conservation	61% (n=18)	83% (n=6)	65% (n=1658)	58% (n=33)	61% (n=28)	84% (n=135)	64% (n=88)
25b. Benefits for protecting species from extinction	56% (n=18)	71% (n=7)	53% (n=1709)	38% (n=32)	55% (n=29)	80% (n=133)	62% (n=94)
25c. Benefits for ex-situ conservation efforts	76% (n=17)	71% (n=7)	67% (n=1613)	80% (n=30)	72% (n=29)	85% (n=136)	69% (n=93)
25d. Benefits for public education and better knowledge on biodiversity	78% (n=18)	86% (n=7)	65% (n=1696)	64% (n=33)	69% (n=29)	85% (n=137)	67% (n=91)
25e. Benefits for	59%	71%	58%	67%	66%	57%	57%

positive changes of behaviour towards biodiversity protection	(n=17)	(n=7)	(n=1 688)	(n=33)	(n=29)	(n=1 35)	(n=92)
25f. Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	71% (n=17)	71% (n=7)	64% (n=1 679)	64% (n=33)	68% (n=28)	76% (n=1 37)	65% (n=91)
25g. Benefits for conditions under which animals are kept and standard of animal husbandry	59% (n=17)	100% (n=7)	63% (n=1 719)	72% (n=32)	72% (n=29)	76% (n=1 36)	68% (n=96)
25h. Created legal certainty for zoos as businesses	76% (n=17)	100% (n=7)	71% (n=1 269)	91% (n=22)	77% (n=26)	86% (n=1 33)	73% (n=78)
25i. Ensured a coherent legal framework for zoos to operate across the EU	83% (n=18)	100% (n=7)	76% (n=1 572)	84% (n=31)	89% (n=28)	90% (n=1 37)	74% (n=90)
25j. Increased tourism	56% (n=16)	100% (n=5)	58% (n=1 425)	63% (n=24)	65% (n=26)	51% (n=1 10)	48% (n=71)
25k. Increased employment in areas where zoos are located	65% (n=17)	67% (n=6)	58% (n=1 496)	50% (n=26)	68% (n=25)	61% (n=1 31)	51% (n=73)
25l. Increased offer of cultural and recreational opportunities to the public	50% (n=16)	67% (n=6)	50% (n=1 292)	47% (n=19)	54% (n=24)	55% (n=1 21)	52% (n=73)
25m. Improved licensing and inspection schemes of zoos	72% (n=18)	100% (n=7)	71% (n=1 587)	89% (n=28)	82% (n=28)	89% (n=1 37)	73% (n=84)

Looking at the general results, the benefits stemming from the establishment of a coherent legal framework (point 25i) rank high among all the stakeholder groups. In particular, for businesses, individuals, zoo operators and other organisations and stakeholders⁵⁰³, the creation of a coherent legal framework is considered as the most important benefit achieved.

Looking at the results across different stakeholder categories, it is interesting to note how only a slight majority of zoo operators and businesses perceive the benefits of the Zoos Directive on the economic dimension (i.e. in terms of increased employment, tourism, cultural and recreational opportunities to the public, respectively points 25.k, 25j and 25.l). The share of businesses and zoos operators perceiving significant or crucial benefits in these fields ranges between 51% and 65%. These shares are the lowest ones, if the replies provided by businesses and zoo operators in relation to other categories of benefits are considered. In parallel, NGOs appear to consider the benefits of cultural and recreational opportunities to the public (point 25l.) and in terms of improved licensing and inspection schemes of

⁵⁰³ The stakeholder category “Other” includes academics/scientists, animal welfare activists, zoo/aquarium workers, other people working with animals.

zoos (point 25m) as particularly significant.

5.1.3 Distribution per country

Table 68 below shows the distribution of the replies per each field of benefits and by geographical distribution of the respondents (Member States/non-EU country). As in the Section above, the table presents only the share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”. A complete overview is presented in Annex I.

Due to the differences in the size of the sample per each Member State, divergences emerge. However, focusing on Member States with the highest number of respondents (Germany, the Netherlands, France, Spain and United Kingdom), the benefits in terms “Coherent legal framework for zoos to operate across the EU” (25i) are perceived as significant or crucial by the highest shares of respondents across the three countries.

Moreover, as compared to Germany and the Netherlands, a lower share of respondents from the UK, France and Spain tend to attribute significant or crucial benefits across all the categories of benefits.

In general terms, results confirm the trends noticed across other questions of the public consultation: while respondents from some countries (such as Czech Republic, Germany, the Netherlands and Portugal) tend to provide a positive opinion on the results achieved with the Zoos Directive, other countries (such as Belgium, France and Spain) share a more negative view on its achievements.

In this case, a more negative view appears to prevail also among respondents from non-EU countries. The share of respondents from non-EU countries rating the different benefits as significant or crucial is on average lower. However, a higher tendency not to provide an opinion among respondents outside the EU (see detailed tables in Annex I) should also be mentioned.

Table 68: Answer to question 25 of the public consultation “To what extent do you consider that the Directive has brought the following benefits?” - Share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”, per Member State/non-EU Country. Percentages and, in brackets, absolute number of total respondents per Member State excluding “No opinion”

MS	25a. Overall biodiversity conservation	25b. Protecting species from extinction	25c. Ex-situ conservation efforts	25d. Public education and better knowledge on biodiversity	25e. Positive changes of behaviour towards biodiversity protection	25f. Higher engagement of public/stakeholders in biodiversity and other nature protection activities	25g. Conditions under which animals are kept and standard of animal husbandry	25h. Legal certainty for zoos as businesses	25i. Coherent legal framework for zoos to operate across the EU	25j. Tourism	25k. Employment in areas where zoos are located	25l. Offer of cultural and recreational opportunities to the public	25m. Licensing and inspection schemes of zoos
Austria	86% (n=21)	73% (n=22)	81% (n=21)	82% (n=22)	82% (n=22)	71% (n=21)	77% (n=22)	83% (n=18)	90% (n=20)	79% (n=19)	79% (n=19)	75% (n=20)	84% (n=19)
Belgium	45% (n=40)	51% (n=41)	49% (n=37)	47% (n=38)	47% (n=38)	44% (n=39)	53% (n=40)	65% (n=31)	63% (n=35)	31% (n=35)	33% (n=30)	40% (n=30)	58% (n=33)
Bulgaria	0% (n=2)	0% (n=2)	0% (n=2)	0% (n=2)	0% (n=2)	50% (n=2)	0% (n=2)	0% (n=1)	0% (n=2)	0% (n=2)	0% (n=2)	0% (n=2)	0% (n=2)
Croatia	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)	0% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)
Czech Republic	92% (n=12)	75% (n=12)	83% (n=12)	92% (n=12)	42% (n=12)	92% (n=12)	50% (n=12)	100% (n=10)	92% (n=12)	44% (n=9)	58% (n=12)	29% (n=7)	83% (n=12)
Denmark	72% (n=32)	55% (n=33)	66% (n=32)	73% (n=33)	53% (n=32)	67% (n=33)	56% (n=34)	73% (n=30)	71% (n=34)	41% (n=27)	43% (n=30)	38% (n=24)	70% (n=30)
Estonia	100% (n=1)	0% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	0% (n=0)	100% (n=1)	100% (n=1)	100% (n=1)	0% (n=0)	100% (n=1)
Finland	43% (n=7)	43% (n=7)	33% (n=6)	33% (n=6)	33% (n=6)	17% (n=6)	29% (n=7)	67% (n=6)	67% (n=6)	33% (n=6)	29% (n=7)	14% (n=7)	40% (n=5)
France	52% (n=56)	42% (n=57)	50% (n=56)	60% (n=58)	47% (n=57)	47% (n=55)	44% (n=61)	62% (n=42)	67% (n=55)	49% (n=47)	49% (n=49)	36% (n=45)	68% (n=50)
Germany	75% (n=697)	66% (n=719)	78% (n=675)	73% (n=714)	71% (n=708)	74% (n=712)	80% (n=724)	83% (n=582)	86% (n=659)	65% (n=660)	65% (n=651)	66% (n=629)	80% (n=670)
Greece	54% (n=13)	54% (n=13)	67% (n=12)	62% (n=13)	62% (n=13)	62% (n=13)	69% (n=13)	73% (n=11)	77% (n=13)	50% (n=10)	67% (n=12)	60% (n=10)	77% (n=13)
Hungary	80% (n=5)	50% (n=6)	80% (n=5)	80% (n=5)	60% (n=5)	80% (n=5)	75% (n=4)	67% (n=3)	100% (n=6)	50% (n=4)	80% (n=5)	100% (n=1)	100% (n=5)

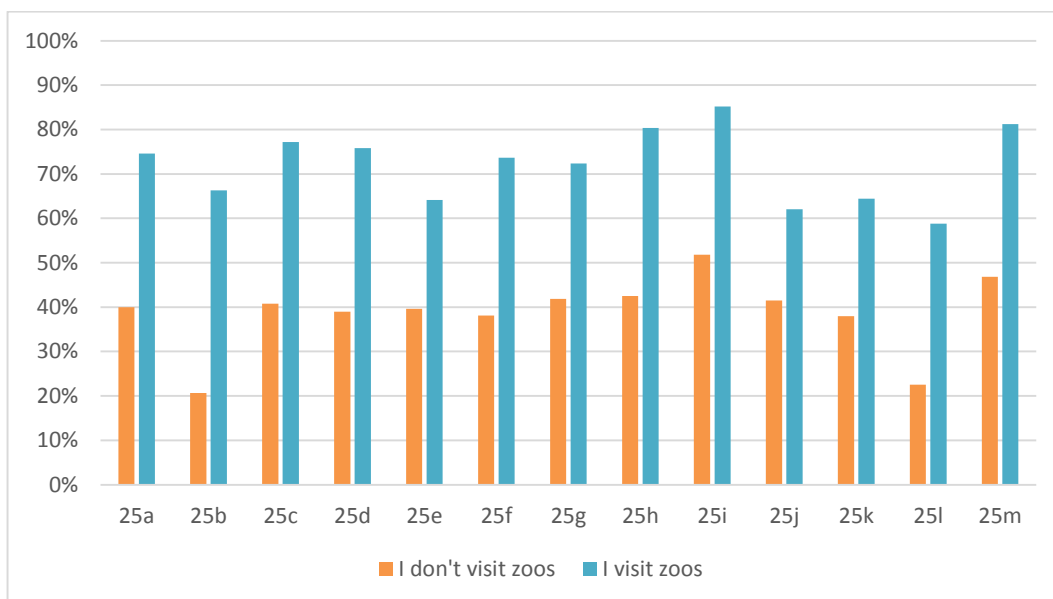
Ireland	62% (n=13)	40% (n=15)	54% (n=13)	67% (n=15)	53% (n=15)	57% (n=14)	77% (n=13)	64% (n=11)	75% (n=12)	45% (n=11)	64% (n=11)	45% (n=11)	77% (n=13)
Italy	39% (n=44)	45% (n=47)	56% (n=45)	51% (n=47)	45% (n=47)	48% (n=44)	38% (n=47)	43% (n=35)	65% (n=43)	57% (n=37)	51% (n=41)	36% (n=36)	51% (n=43)
Lithuania	67% (n=3)	33% (n=3)	67% (n=3)	67% (n=3)	67% (n=3)	67% (n=3)	67% (n=3)	100% (n=1)	67% (n=3)	100% (n=2)	67% (n=3)	50% (n=2)	67% (n=3)
Luxembourg	100% (n=1)	100% (n=1)	100% (n=1)	100% (n=1)	0% (n=1)	0% (n=1)	100% (n=1)	0% (n=1)	100% (n=1)	0% (n=1)	100% (n=1)	0% (n=1)	100% (n=1)
Malta	0% (n=1)	50% (n=2)	0% (n=0)	0% (n=1)	0% (n=1)	100% (n=1)	100% (n=2)	50% (n=2)	50% (n=2)	0% (n=1)	0% (n=1)	0% (n=1)	50% (n=2)
Netherlands	84% (n=112)	84% (n=113)	91% (n=111)	85% (n=114)	34% (n=113)	85% (n=113)	37% (n=113)	92% (n=104)	94% (n=112)	51% (n=55)	75% (n=106)	52% (n=56)	88% (n=113)
Poland	33% (n=12)	33% (n=12)	67% (n=12)	75% (n=12)	50% (n=12)	33% (n=12)	75% (n=12)	73% (n=11)	90% (n=10)	60% (n=5)	30% (n=10)	17% (n=6)	100% (n=8)
Portugal	79% (n=34)	71% (n=34)	85% (n=33)	85% (n=34)	49% (n=35)	82% (n=34)	51% (n=35)	90% (n=30)	88% (n=34)	50% (n=22)	76% (n=33)	50% (n=22)	94% (n=34)
Romania	80% (n=15)	80% (n=15)	80% (n=15)	73% (n=15)	33% (n=15)	75% (n=16)	31% (n=16)	73% (n=15)	88% (n=16)	38% (n=8)	67% (n=15)	60% (n=10)	80% (n=15)
Slovak Re-public	100% (n=2)	100% (n=2)	100% (n=2)	50% (n=2)	50% (n=2)	100% (n=2)	100% (n=2)	50% (n=2)	100% (n=2)	50% (n=2)	50% (n=2)	50% (n=2)	100% (n=2)
Slovenia	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	0% (n=3)	67% (n=3)	67% (n=3)	33% (n=3)	33% (n=3)	33% (n=3)	0% (n=3)
Spain	50% (n=138)	29% (n=139)	53% (n=133)	47% (n=139)	45% (n=139)	42% (n=136)	47% (n=135)	53% (n=95)	61% (n=124)	43% (n=124)	35% (n=124)	28% (n=100)	55% (n=124)
Sweden	64% (n=25)	65% (n=26)	80% (n=25)	72% (n=25)	31% (n=26)	69% (n=26)	42% (n=26)	87% (n=23)	88% (n=26)	57% (n=14)	86% (n=21)	33% (n=15)	83% (n=23)
United Kingdom	60% (n=520)	42% (n=533)	61% (n=511)	61% (n=532)	54% (n=531)	59% (n=525)	63% (n=542)	58% (n=358)	69% (n=502)	54% (n=440)	53% (n=451)	35% (n=388)	66% (n=509)
Non-EU country	64% (n=157)	53% (n=164)	63% (n=159)	65% (n=164)	63% (n=162)	64% (n=162)	65% (n=165)	71% (n=127)	73% (n=150)	61% (n=132)	61% (n=134)	62% (n=123)	71% (n=156)

5.1.4 Distribution depending on whether the respondent visits zoos or not

Finally, a comparison is presented between the respondents that declared to visit zoos and respondents that do not visit zoos. The Figure below present the share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”, by distinguishing between respondents visiting zoos and respondents not visiting zoos.

The data suggests a general more positive opinion on the benefits achieved by the Zoos Directive among zoo visitors. However, this result is affected by the different size of the two groups considered (600 respondents not visiting zoos vs. 1697 respondents visiting zoos), as well as the higher tendency of respondents not visiting zoos to flag the “No opinion” option. However, it is of note that respondents not visiting zoos, while expressing a generally negative opinion on the effectiveness of the Zoos Directive (see Question 20, Section 4.1.4), have a positive opinion on the benefits brought in the 40% of cases (on average).

Figure 63: Answer to question 25 of the public consultation “To what extent do you consider that the Directive has brought the following benefits?” - Share of respondents who flagged the reply options “Significant Benefits” or “Crucial Benefits”, per respondents visiting zoos or not. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion” is excluded)



5.1.5 Key points

- According to the results of the public consultation, the Zoos Directive has produced significant benefits across different fields and, especially, in terms of: creation of a common legal framework across the EU; improved systems for licensing and inspections (missing in most of the Member States before the entering into force of the Zoos Directive); promotion of better knowledge on biodiversity among the public. The benefits on economic activities around zoos, i.e. on increased employment, tourism, cultural and recreational opportunities for the public appear less relevant. This opinion is largely shared also by zoo operators and businesses that have replied to the public consultation.
- Moreover, open comments on “Other benefits” produced by the Zoos Directive place further emphasis on some aspects, considered as key achievements: the ability of the Directive to promote harmonization at EU level, enhance the role and public perception of zoos as entities contributing to biodiversity conservation, and help raise standards for animal keeping. Concerning the last point, it is interesting to note that stakeholders have also pointed out the importance of Directive in establishing rules for animal welfare, an objective that is not directly pursued by the Zoos Directive (primarily focused on conservation of biodiversity). However, it should be mentioned that

a few open comments have also pointed to the lack of proper enforcement of the Zoos Directive, with consequences in terms of poor conditions for animal kept in zoos (7 out of 443 comments provided), while a number of replies have expressed a more general and negative position against zoos as such (29 comments).

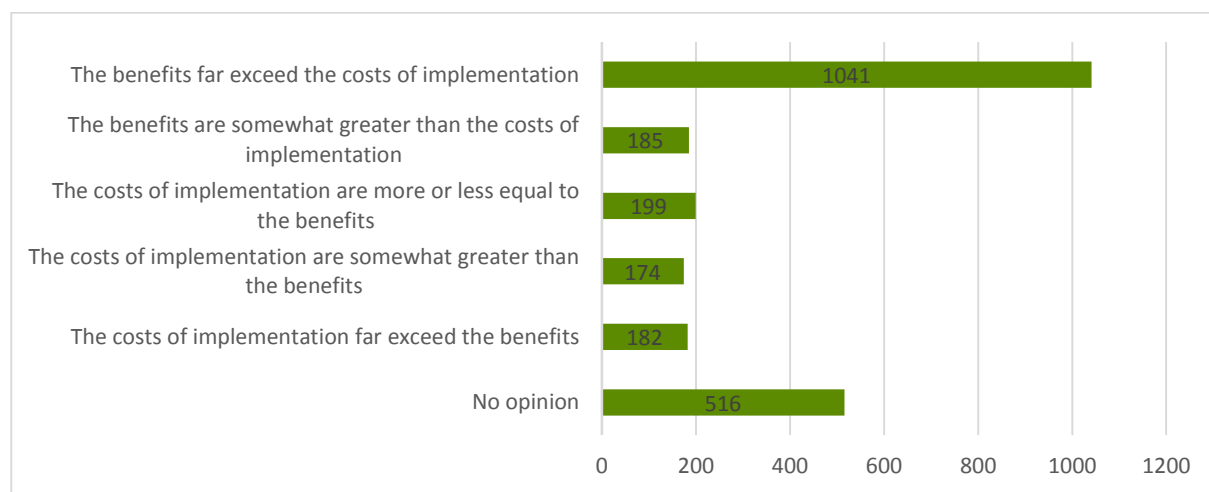
5.2 IN YOUR VIEW, HOW DO THE COSTS OF IMPLEMENTATION OF THE ZOOS DIRECTIVE COMPARE WITH THE BENEFITS BROUGHT ABOUT FROM THEIR IMPLEMENTATION (QUESTION 27)?

Question 27 asks the opinion of stakeholders on the balance between costs and benefits brought by the Zoos Directive. It is worth mentioning that the consultation document provided respondents with background information on the possible additional costs that might have been prompted by the Zoos Directive.

5.2.1 General trends

Respondents were asked to rate the balance between costs and benefits brought by the Zoos Directive. As shown in the Figure below, the **majority** of respondents support the opinion that **benefits exceed the costs of implementation** by far (1041 respondents or 45.3% of total respondents) or to a certain extent (185 respondents or 8.1% of total respondents). Overall, the share of stakeholders stating that benefits are higher compared to the costs represent 53.4% of the total respondents to the public consultation. This share increases to 68.8% if only stakeholders that expressed an opinion for this question are counted (i.e. 1781 stakeholders, excluding respondents that flagged “No opinion”). 8.7% of respondents (or 119 stakeholders) expressed a neutral opinion (i.e. that the costs of implementation are more or less equal to the benefits), while 15.5% of respondents considered the costs as exceeding the benefits (i.e. 356 stakeholders).

Figure 64: Answer to question 27 of the public consultation “In your view, how do the costs of implementation of the Zoos Directive compare with the benefits brought about from their implementation” in absolute numbers of respondents)



5.2.2 Distribution per type of stakeholder

The feedback on the costs and benefits of the Zoos Directive does not significantly vary depending on the stakeholder category.

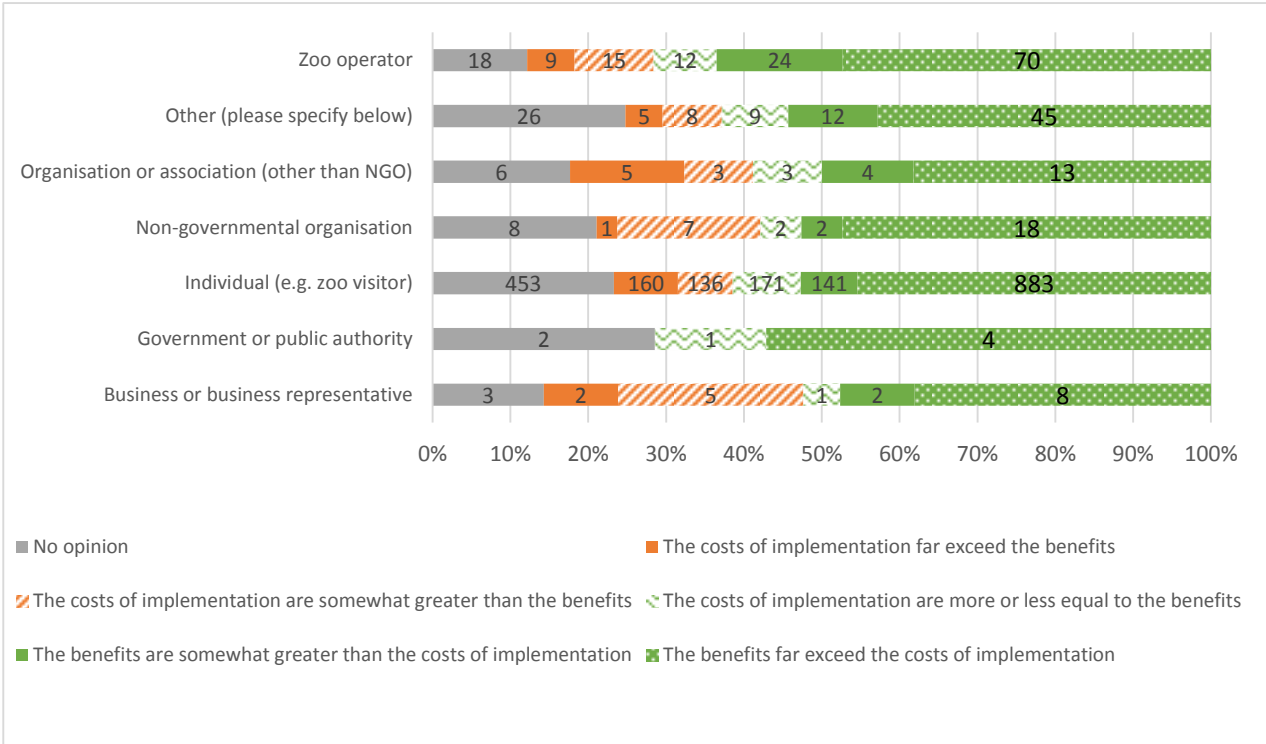
It is interesting to note that the majority of **zoos operators** (i.e., the category of stakeholders likely to be affected by possible additional costs, together with governments) declares that the benefits *far exceed* or are somewhat greater than the costs (94 zoo operators out of 148 or 63.5% of total).

Regarding **public authorities** (expected to bear costs for the implementation and running of the licensing and inspection system), four respondents (out of seven) state that benefits *far* exceed the costs. However, the size of the sample does not enable generalisation.

The remaining stakeholder categories (although not expected to be directly affected by increased costs) share the view that the benefits are greater than the costs, or that the balance between benefits and costs is neutral.

In particular, looking at the replies provided by **individuals** (the most represented group of respondents), 52.7% of them (or 1,024) think that benefits are greater than costs, and 8.8% (or 171) think that there is balance between the two elements. Overall, considering that a high number of individuals did not provide an answer, only 15.2% of the respondents belonging to this category (or 296) expressed a negative opinion on the balance between costs and benefits.

Figure 65: Answer to question 27 of the public consultation “In your view, how do the costs of implementation of the Zoos Directive compare with the benefits brought about from their implementation”, in absolute numbers of re-



spondents, per type of stakeholder

5.2.3 Distribution per country

Looking at the geographical distribution of the respondents (across the Member States and in non-EU countries), the opinion that “benefits far exceed the costs of implementation” is the most frequent option among respondents from **non-EU countries** and across **most of the Member States**.

This result is confirmed in Member States represented in a large number of responses, such as: Germany, where 48% of the 796 respondents stated that benefits far exceed costs; the United Kingdom, with 42% of 612 respondents; and The Netherlands, with 58% of 118 respondents. The only exception is Slovenia, where respondents appear to support the option that costs far exceed benefits; however, this Member State is represented by only three respondents, which share a general less positive feedback on the benefits achieved with the implementation of the Directive (see also Section 5.1.3 above).

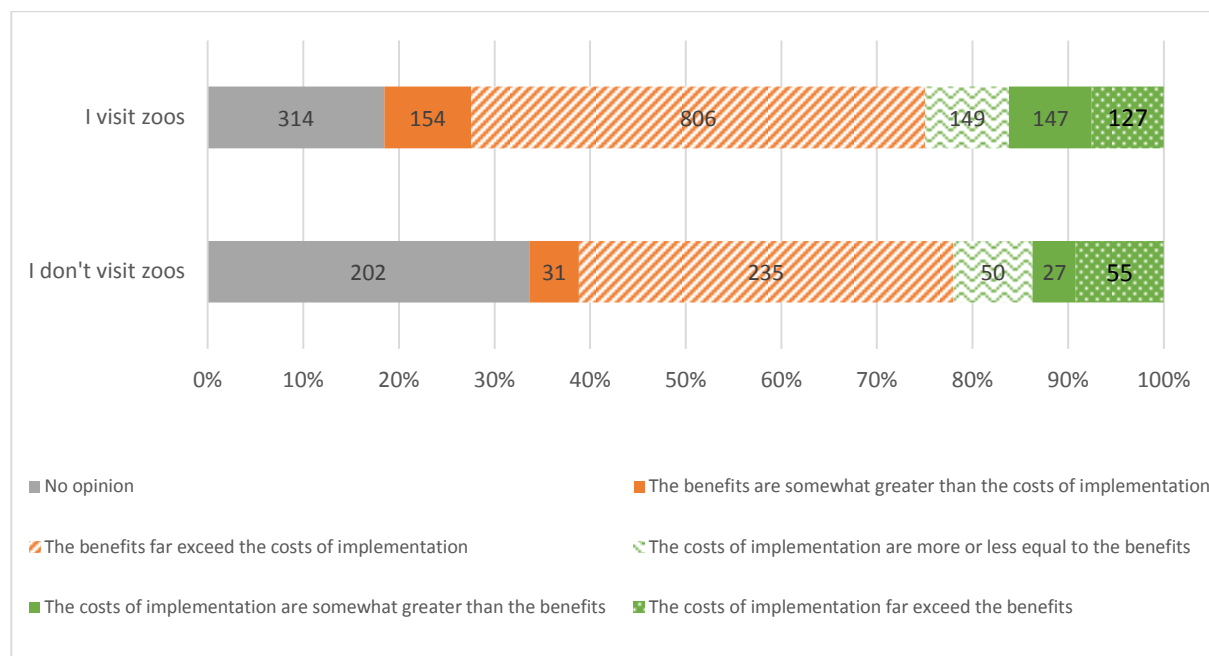
Table 69: Answer to question 27 of the public consultation “In your view, how do the costs of implementation of the Zoos Directive compare with the benefits brought about from their implementation” (% and absolute numbers of respondents), per Member State/Non-EU country

Member State	No opinion	The benefits are somewhat greater than the costs of implementation	The benefits far exceed the costs of implementation	The costs of implementation are more or less equal to the benefits	The costs of implementation are somewhat greater than the benefits	The costs of implementation far exceed the benefits	Total number of respondents
Austria	12%	4%	60%	8%	8%	8%	25
Belgium	42%	7%	37%	2%	5%	7%	43
Bulgaria	0%	33%	33%	33%	0%	0%	3
Croatia	100%	0%	0%	0%	0%	0%	1
Czech Rep.	20%	0%	60%	7%	0%	13%	15
Denmark	31%	18%	33%	10%	5%	3%	39
Estonia	0%	0%	100%	0%	0%	0%	1
Finland	13%	38%	13%	13%	13%	13%	8
France	25%	6%	43%	6%	7%	13%	68
Germany	19%	5%	48%	9%	12%	7%	796
Greece	14%	0%	43%	21%	7%	14%	14
Hungary	33%	0%	50%	0%	17%	0%	6
Ireland	6%	13%	50%	25%	6%	0%	16
Italy	18%	6%	35%	8%	8%	25%	51
Lithuania	0%	0%	67%	0%	0%	33%	3
Luxembourg	0%	0%	100%	0%	0%	0%	1
Malta	33%	0%	33%	33%	0%	0%	3
Netherlands	17%	8%	58%	3%	4%	8%	118
Poland	23%	15%	62%	0%	0%	0%	13
Portugal	18%	13%	55%	0%	3%	11%	38
Romania	19%	13%	50%	0%	6%	13%	16
Slovakia	50%	0%	50%	0%	0%	0%	2
Slovenia	0%	0%	33%	0%	0%	67%	3
Spain	35%	4%	41%	8%	4%	6%	157
Sweden	32%	16%	39%	6%	6%	0%	31
UK	23%	12%	42%	9%	6%	8%	612
Non-EU country	26%	7%	44%	12%	5%	6%	214
Total	22%	8%	45%	9%	8%	8%	2297

5.2.4 Distribution depending on whether the respondent visits zoos or not

Finally, respondents that declared to **visit zoos** for several reasons share the general view that the Directive brought benefits greater than its costs (56.6% or 960 out of 1,697 total respondents). Respondents that declared **not to visit zoos show** a less positive feedback (44.3% or 266 out of 600 total respondents); however, the sample of respondents not visiting zoos is significantly smaller (600 respondents in total), while the high number of no opinion further affects the result (33.6% of total or 202).

Figure 66: Answer to question 27 of the public consultation “In your view, how do the costs of implementation of the Zoos Directive compare with the benefits brought about from their implementation”, in absolute numbers of respondents, per respondents visiting zoos or not



5.2.5 Key points

- The Zoos Directive has likely implied **additional costs** related to its implementation, both for zoos (such as investments and recurrent costs, such as costs for the renovation of the enclosures, provision of information on exhibited animals, costs to run research programs, training, awareness raising and educational activities, etc.), and for Member State authorities, requested to set up a licensing and inspection system and regularly monitor the implementation of the EU Directive (actions, in most of the cases, not required by national legislation before the application of the Zoos Directive)⁵⁰⁴.
- In parallel, stakeholders agree on the fact that the Zoos Directive has brought a **range of benefits**, especially in terms of harmonized and improved animal husbandry, public education on biodiversity, improved behaviour towards biodiversity protection and conservation (see Section 5.1).
- In this context, benefits of the Zoos Directive are thought to be greater than the costs of its implementation. The results of the public consultation clearly support this perception. Moreover, and interestingly, the large majority of zoo operators, despite being the category likely to be the most affected by increasing costs (together with Member State authorities or governments), consider benefits as exceeding the costs.

⁵⁰⁴ The examples of costs mentioned in this paragraph represent assumptions on the likely additional costs, defined on the basis of the provisions of the Zoos Directive and the obligations introduced.

6 RELEVANCE

The public consultation explored, in questions 22 and 23, the perception of stakeholders on the relevance of EU-wide rules on a certain number of matters of biodiversity conservation and zoo management currently regulated by the Directive.

6.1 HOW IMPORTANT DO YOU THINK EU-WIDE RULES ON ZOOS ARE ON THE FOLLOWING MATTERS (QUESTIONS 22 - 23)?

The public consultation aimed at collecting opinions on the importance and current relevance of certain topics related to biodiversity conservation and zoo management covered by the Zoos Directive. To this end, in question 22, stakeholders have been asked to assess the importance of a series of subjects that were identified in line with the intervention logic of the Directive, namely:

- a. Protecting Europe's threatened species (point 22a);
- b. Protecting globally threatened species (point 22b);
- c. Captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally (point 22c);
- d. Reintroduction of species into the wild (point 22d);
- e. Keeping animals under appropriate conditions with good veterinary care (point 22e);
- f. Making zoos shift from pure exhibition to modern conservation centres, where education, research, captive breeding and reintroduction programmes are undertaken (point 22f);
- g. Avoiding the escape of animals (point 22g);
- h. Increasing awareness of the wider public on biodiversity and nature protection by offering education and information on these topics (point 22h);
- i. Keeping appropriate, shareable data records of the zoo's animals (point 22i).

The possibility for adding other relevant aspects was also provided, through the field “Other” (question 23).

6.1.1 General trends

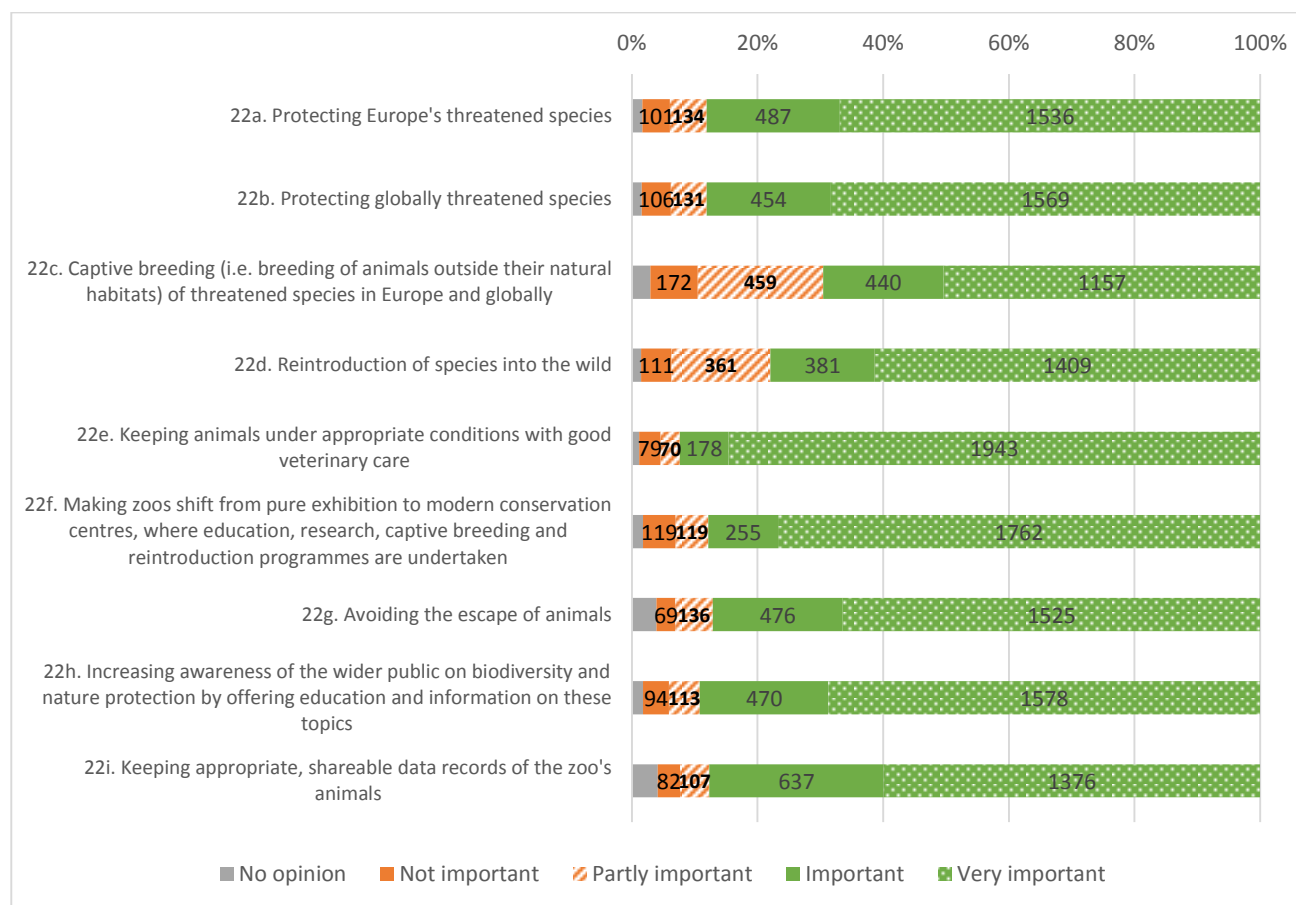
Between 1597 and 2121 of the 2297 respondents (70-92%) think that EU-wide rules are important or very important on the points listed in **question 22** of the public consultation.

As illustrated in Figure 66 below, the strongest consensus relates to point e “Keeping animals under appropriate conditions with good veterinary care” for which 1943 respondents out of 2297 (85%) consider it very important and 178 (8%) important to have EU-wide rules on the subject.

The two points for which views are slightly more nuanced are:

- Captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally: 459 respondents (20%) consider the existence of EU-wide rules as “partly important” and 172 (7%) consider it not important.
- Reintroduction of species into the wild: 361 respondents (16%) consider it partly important and 111 (5%) consider it not important to have EU-wide rules on the subject.

Figure 67: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters?” in absolute number of respondents



488 respondents answered to **question 23** which allowed them to add other aspects for which the Zoos Directive is important. 277 out of those 488 respondents provided answers that appear to follow pre-made answers by some stakeholders. The two identified patterns suggested the following answers (in English or other languages):

Table 70: Answers provided to Question 23 of the public consultation ‘Please specify other’ – Absolute numbers and percentage on the total number of answers to Question 23 (n=488) clearly influenced by public campaigns

Typical answer	Number	Percentage
Encouraging zoos to meet standards and/or to become accredited members of a national or regional zoo association	116	23.7%
Animal shows are adapted to animals' natural behaviour/ Recognising that each animal species has specific natural behaviours, and the public education requirement on zoos; animals used in shows should only perform natural behaviours.	161	33%
TOTAL	277	56.7%

The remaining 211 answers are listed in Annex II. In a nutshell, these highlight one of the following points of view – which constitute statements rather than answers to the public consultation question:

- Zoos are money-driven business that have entertainment as a priority and are not real conservation centres, nor educational ones;
- All zoos should be closed because they do not contribute to biodiversity, only sanctuary and wildlife reserves should be allowed;

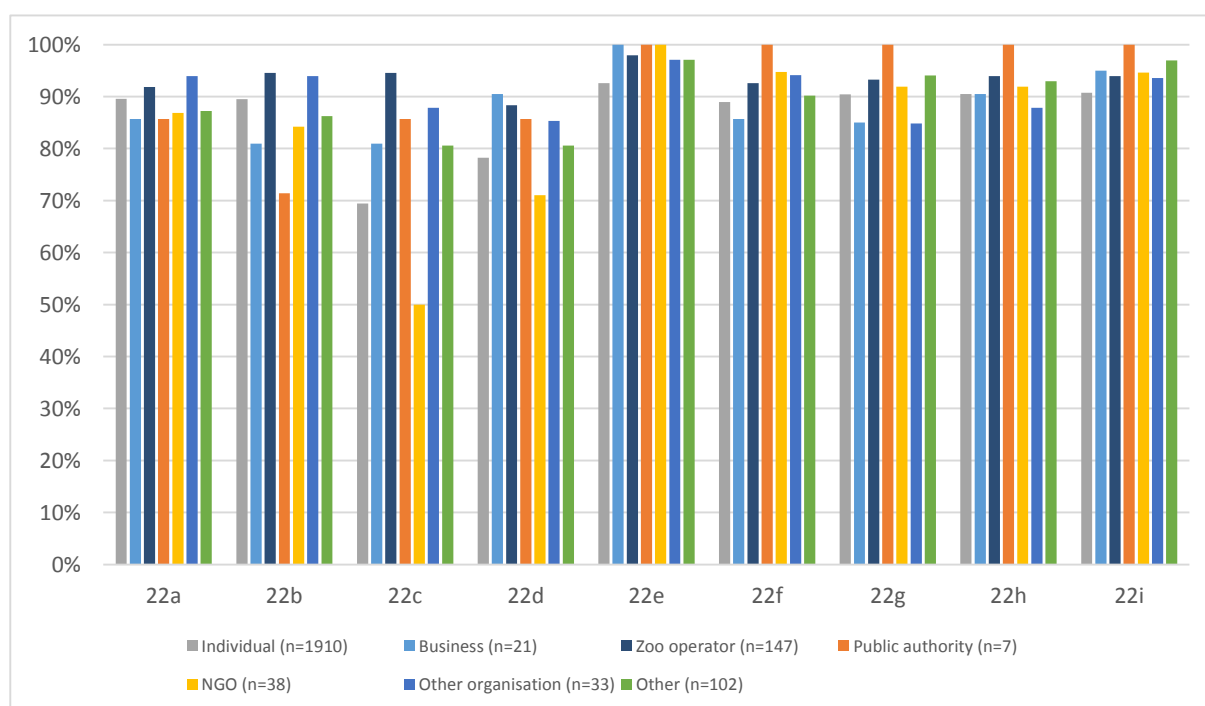
- Zoos are backwards institutions mistreating animals;
- Zoos should better comply with national and European standards.

6.1.2 Distribution per type of stakeholders

The majority of respondents in all stakeholder groups considered that EU-wide rules are important or very important on all the points listed in question 22 of the public consultation. Figure 68 below illustrates this support. As the figure shows, the strongest support from stakeholders who answered to question 22 of the public consultation was found in relation to the aspects related to the management of zoos, namely to keeping animals under appropriate conditions with good veterinary care (point 22e); making zoos shift from pure exhibition to modern conservation centres, where education, research, captive breeding and reintroduction programmes are undertaken (point 22f); avoiding the escape of animals (point 22g); increasing awareness of the wider public on biodiversity and nature protection by offering education and information on these topics (point 22h); and keeping appropriate, shareable data records of the zoo's animals (point 22i).

Slightly more nuanced views were expressed regarding the importance of EU-wide rules for wider conservation actions of zoos such as protecting Europe's threatened species (point 22a); protecting globally threatened species (point 22b); captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally (point 22c); and reintroduction of species into the wild (point 22d). In particular, EU regulation on captive breeding was reported by 6 out of 38 NGOs (16%) as non-important and by 13 out of 38 (34%) as partly important only.

Figure 68: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters?” per share of respondents who think that it is important or very important to have EU-wide rules on the following matters, per type of stakeholder. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



In order to provide a synthetic overview complementary to the figure above, Table 71 below presents, per type of stakeholder, the shares of respondents who chose the reply options “Important” or “Very important”. Percentages are calculated on the number of respondents that expressed an opinion (i.e. excluding the respondents that opted for “No opinion”). A complete overview is presented in Annex I. The highest shares of support are underlined in bold.

Table 71: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters?” (per share of respondents who think that it is important or very important to have EU-wide rules on the following matters, per type of stakeholder). Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

-	22a	22b	22c	22d	22e	22f	22g	22h	22i
Business	86% (n=21)	81% (n=21)	81% (n=21)	90% (n=21)	100% (n=21)	86% (n=21)	85% (n=20)	90% (n=21)	95% (n=20)
Public authority	86% (n=7)	71% (n=7)	86% (n=7)	86% (n=7)	100% (n=7)	100% (n=7)	100% (n=7)	100% (n=7)	100% (n=7)
Individual	90% (n=1910)	89% (n=1912)	69% (n=1884)	78% (n=1918)	93% (n=1920)	89% (n=1905)	90% (n=1860)	90% (n=1910)	91% (n=1860)
NGO	87% (n=38)	84% (n=38)	50% (n=38)	71% (n=38)	100% (n=38)	95% (n=38)	92% (n=37)	92% (n=37)	95% (n=37)
Other organisation	94% (n=33)	94% (n=33)	88% (n=33)	85% (n=34)	97% (n=34)	94% (n=34)	85% (n=33)	88% (n=33)	94% (n=31)
Other	87% (n=102)	86% (n=102)	81% (n=98)	81% (n=98)	97% (n=103)	90% (n=102)	94% (n=101)	93% (n=99)	97% (n=99)
Zoo operator	92% (n=147)	95% (n=147)	95% (n=147)	88% (n=146)	98% (n=147)	93% (n=148)	93% (n=148)	94% (n=148)	94% (n=148)

As illustrated in Figure 68 and Table 71 above, the stakeholder group that demonstrated the most support to the existence of EU-wide rules on the topic are **zoo operators**: 135 out of 147 (92%) consider them important or very important for protecting Europe's threatened species (point 22a); 139 out of 147 (95%) for protecting globally threatened species (point 22b); 139 out of 147 (95%) for captive breeding (point 22c); 129 out of 146 (88%) for the reintroduction of species into the wild (point 22d); 144 out of 147 (98%) for keeping animals under appropriate conditions with good veterinary care (point 22e); 137 out of 148 (93%) for making zoos shift from pure exhibition to modern conservation centres (point 22f); 138 out of 148 (93%) for avoiding the escape of animals (point 22g); and 139 out of 148 (94%) for increasing awareness of the wider public on biodiversity and nature protection (point 22g).

While in majority still supporting the existence and importance of EU-wide rules on these matters, the stakeholder group that demonstrated the relatively least support is the group composed of **NGOs**: 33 out of 38 (87%) consider them important or very important for protecting Europe's threatened species (point 22a); 32 out of 38 (84%) for protecting globally threatened species (point 22b); 19 out of 38 (50%) for captive breeding (point 22c); 27 out of 38 (71%) for the reintroduction of species into the wild (point 22d); 38 out of 38 (98%) for keeping animals under appropriate conditions with good veterinary care (point 22e); 36 out of 38 (95%) for making zoos shift from pure exhibition to modern conservation centres (point 22f); 34 out of 37 (92%) for avoiding the escape of animals (point 22g); and 34 out of 37 (92%) for increasing awareness of the wider public on biodiversity and nature protection (point 22g).

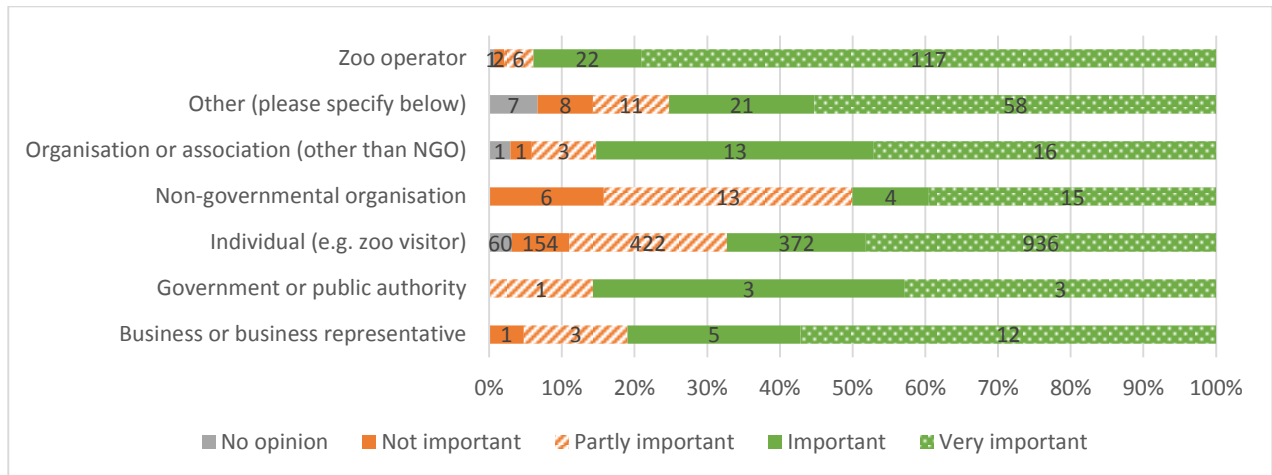
The existence of EU-wide rules for keeping animals under appropriate conditions with good veterinary care (point 22e) benefits from the strongest support among all stakeholder groups: between 93 and 100% of the different stakeholder groups consider it as important or very important.

The answers from stakeholders are the most mixed with relation to the existence of EU-wide rules on captive breeding of species (point 22c), as pointed out in figure 26 below.

As the figure illustrates, the absolute majority of stakeholders consider such rules as either partly important (459 out of 2228 stakeholders, i.e. 20%), important (440 out of 2228, i.e. 20%) or very important (1157 out of 2228, i.e. 52%). Only 8% of stakeholders (172 out of 2228) reported that EU-

rules on captive breeding were not important, with the highest share among non-governmental organisations (6 out of 38 NGOs, i.e. 15%).

Figure 69: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters? c. Captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally” (in absolute number of respondents, per type of stakeholder). Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



The detailed figures and graphs per sub-question and per stakeholder group are available in Annex I.

6.1.3 Distribution per country

The figure below presents a synthetic overview of the extent to which stakeholders of each country on average think that EU wide-rules are important or very important on all points listed in question 22 of the public consultation. According to the averaged answers of respondents, minimum 65% of stakeholders think that EU-rules are needed in 26 out of 28 Member States.

Figure 70: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters?” as averaged shares of respondents who think that it is important or very important to have EU-wide rules on the points listed in question 22, per Member State, percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

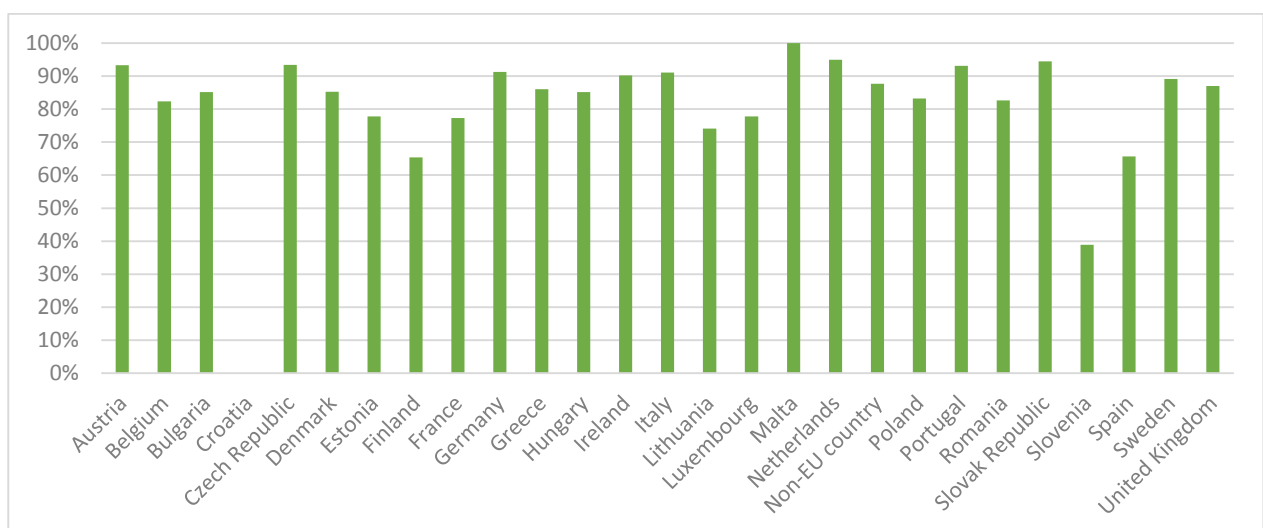


Table 72 below summarizes the importance of the points listed in question 22 of the public consulta-

tion per country of stakeholders. The table presents, per type of stakeholder, the shares of respondents who chose the reply options “Important” or “Very important”. Percentages are calculated on the number of respondents that expressed an opinion (i.e. excluding the respondents that opted for “No opinion”). A complete overview is presented in Annex I. In italics are highlighted the lowest rates of agreement of the public (i.e. activities would not take place at all or unlikely to take place without EU rules).

It appears that the regulation of captive breeding at EU level (point 22c) is considered as one of/ the least important matters for regulation in all countries but Poland, the Netherlands, Slovakia and Slovenia. Polish and Slovakian stakeholders consider regulation on that matter more important than on another point, i.e. “avoiding escape of animals” (point 22g). On the contrary, the highest positive response rate among Spanish respondents concerned avoiding escape (considered relevant by 78% of the Spanish respondents). Dutch respondents considered reintroduction of species into the wild (point 22d) as the least relevant point (though still considered relevant by 89% of the respondents). Among the countries with the highest response rate (the Netherlands, Germany, the United Kingdom) as well as among non-EU countries, a significant number of respondents flagged the keeping of animals under appropriate conditions as particularly relevant (respectively 99%, 97%, 95% and 95%).

Table 72: Answers to question 22 of the public consultation, per share of respondents who think that it is important or very important to have EU-wide rules on the points listed in question 22, per Member State). Percentages and, in brackets, absolute number of total respondents per Member State excluding “No opinion”

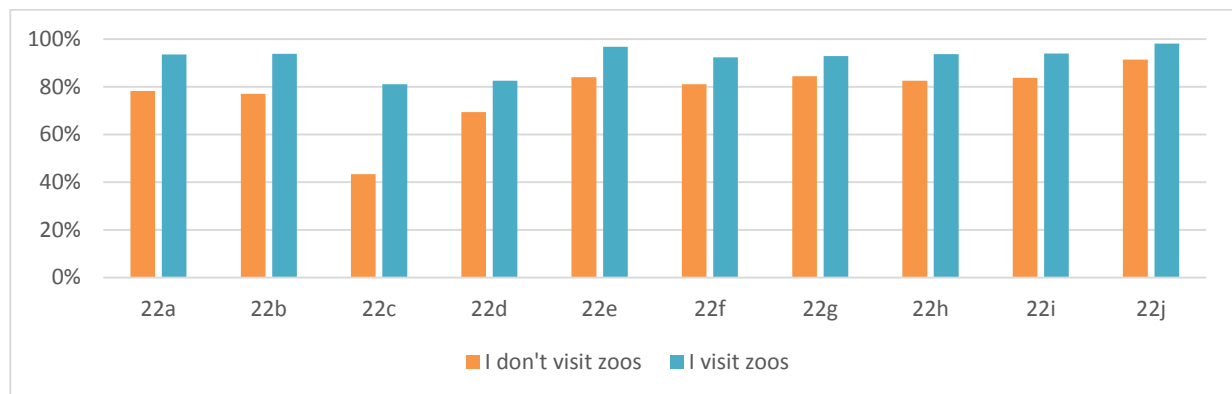
MS	22a	22b	22c	22d	22e	22f	22g	22h	22i
Austria	100%(n=25)	100%(n=25)	80%(n=25)	84%(n=25)	100%(n=25)	92%(n=24)	96%(n=25)	96%(n=25)	92%(n=24)
Belgium	90%(n=40)	88%(n=40)	65%(n=40)	83%(n=40)	88%(n=41)	83%(n=40)	84%(n=37)	85%(n=41)	76%(n=38)
Bulgaria	67%(n=3)	67%(n=3)	67%(n=3)	100%(n=3)	100%(n=3)	100%(n=3)	67%(n=3)	100%(n=3)	100%(n=3)
Croatia	0%(n=1)	0%(n=1)	N/A (n=0)	0%(n=1)	0%(n=1)	N/A (n=0)	N/A (n=0)	0%(n=1)	N/A (n=0)
Czech Rep.	100%(n=15)	100%(n=15)	80%(n=15)	80%(n=15)	100%(n=15)	93%(n=15)	93%(n=15)	100%(n=15)	93%(n=15)
Denmark	86%(n=37)	82%(n=38)	77%(n=35)	78%(n=37)	89%(n=38)	89%(n=38)	81%(n=36)	87%(n=38)	97%(n=35)
Estonia	100%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)
Finland	50%(n=8)	50%(n=8)	50%(n=8)	71%(n=7)	75%(n=8)	75%(n=8)	71%(n=7)	63%(n=8)	83%(n=6)
France	79%(n=67)	79%(n=67)	61%(n=66)	66%(n=68)	84%(n=68)	79%(n=67)	87%(n=60)	79%(n=67)	82%(n=65)
Germany	94%(n=793)	94%(n=793)	79%(n=786)	87%(n=795)	97%(n=794)	92%(n=786)	91%(n=783)	95%(n=787)	93%(n=777)
Greece	93%(n=14)	93%(n=14)	71%(n=14)	77%(n=13)	93%(n=14)	92%(n=13)	83%(n=12)	86%(n=14)	86%(n=14)
Hungary	100%(n=6)	100%(n=6)	50%(n=6)	67%(n=6)	83%(n=6)	83%(n=6)	83%(n=6)	100%(n=6)	100%(n=5)
Ireland	88%(n=16)	88%(n=16)	63%(n=16)	80%(n=15)	100%(n=16)	100%(n=16)	100%(n=16)	94%(n=16)	100%(n=16)
Italy	94%(n=51)	94%(n=48)	78%(n=46)	88%(n=48)	94%(n=48)	90%(n=48)	98%(n=48)	94%(n=48)	91%(n=45)
Lithuania	67%(n=3)	67%(n=3)	67%(n=3)	67%(n=3)	67%(n=3)	67%(n=3)	100%(n=3)	67%(n=3)	100%(n=3)
Luxembourg	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	N/A (n=0)	100%(n=1)	0%(n=1)
Malta	100%(n=3)	100%(n=3)	100%(n=2)	100%(n=2)	100%(n=3)	100%(n=3)	100%(n=3)	100%(n=3)	100%(n=3)
Netherlands	96%(n=118)	96%(n=118)	96%(n=118)	89%(n=117)	99%(n=115)	95%(n=115)	94%(n=114)	96%(n=114)	95%(n=116)
Poland	75%(n=12)	75%(n=12)	92%(n=12)	82%(n=11)	92%(n=12)	92%(n=12)	58%(n=12)	92%(n=12)	92%(n=12)
Portugal	95%(n=37)	97%(n=36)	81%(n=37)	86%(n=37)	97%(n=37)	97%(n=37)	94%(n=36)	97%(n=37)	92%(n=37)
Romania	88%(n=16)	88%(n=16)	75%(n=16)	75%(n=16)	88%(n=16)	88%(n=16)	81%(n=16)	81%(n=16)	81%(n=16)
Slovakia	100%(n=2)	100%(n=2)	100%(n=2)	100%(n=2)	100%(n=2)	100%(n=2)	50%(n=2)	100%(n=2)	100%(n=2)
Slovenia	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	50%(n=2)	67%(n=3)	33%(n=3)	67%(n=3)	0%(n=3)
Spain	67%(n=151)	65%(n=152)	50%(n=141)	52%(n=153)	69%(n=152)	68%(n=151)	78%(n=142)	68%(n=153)	75%(n=139)
Sweden	93%(n=29)	93%(n=29)	80%(n=30)	80%(n=30)	90%(n=30)	90%(n=30)	93%(n=28)	93%(n=30)	89%(n=28)
UK	89%(n=599)	89%(n=603)	63%(n=600)	75%(n=604)	95%(n=607)	92%(n=606)	94%(n=593)	92%(n=602)	94%(n=595)
Non-EU	90%(n=207)	90%(n=207)	70%(n=202)	80%(n=209)	95%(n=212)	88%(n=211)	93%(n=205)	90%(n=209)	93%(n=203)

The detailed figures and graphs per sub-question and per stakeholder group are available in Annex I.

6.1.4 Distribution depending on whether the respondent visits zoos or not

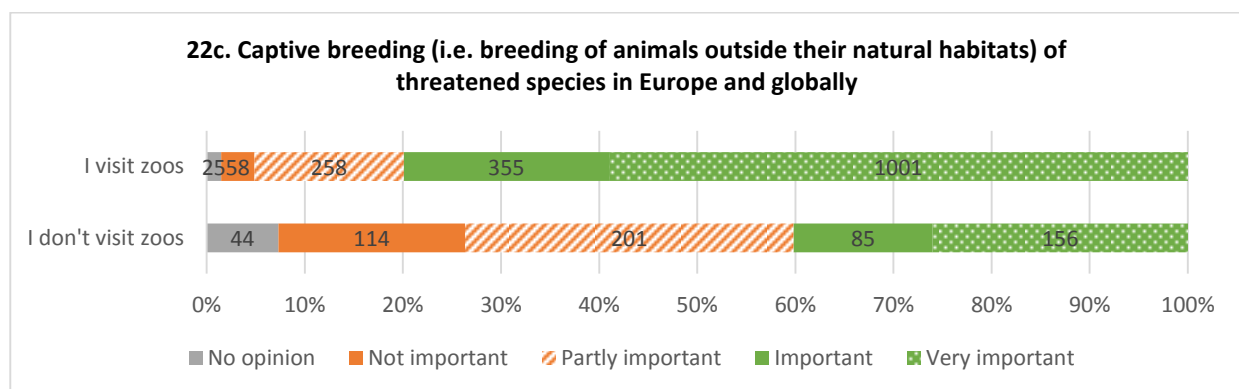
Respondents who do not visit zoos are systematically less inclined to think that EU-wide rules are needed on all points listed in question 22 of the public consultation, as illustrated in Figure 71 below. The difference between those groups of stakeholders is the greatest regarding the regulation of captive breeding at EU level. However, it should be noted that for this question, there is only a small difference between the two stakeholder groups. Also the vast majority of respondents not visiting zoos regard EU-wide rules as important or very important.

Figure 71: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters?” per share of respondents who think that it is important or very important to have EU-wide rules on the points listed in question 22, depending on whether respondents visit zoos or not (question 18 of the public consultation). Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



The figure below provides further details regarding the assessment of stakeholders on the importance of EU-wide rules on the captive breeding of species. 1356 out of 1672 respondents (83%) who visit zoos and have an opinion on the question consider the matter important or very important. In contrast, 69% of respondents (404 out of 582) who do not visit zoos and have an opinion on the matter share that perspective.

Figure 72: Answers to question 22 of the public consultation “How important do you think EU-wide rules on zoos are on the following matters? c. Captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally” per share of respondents who think that it is important or very important to have EU-wide rules on the points listed in question 22, depending on whether respondents visit zoos or not (question 18 of the public consultation)



The detailed figures and graphs per sub-question and per stakeholder group are available in Annex I.

6.1.5 Key points

- Between 1597 and 2121 of the 2297 respondents (70-92%) think that **EU-wide rules are im-**

- portant or very important on all the points** listed in question 22 of the public consultation.
- The **strongest consensus** relates to point e “**Keeping animals under appropriate conditions with good veterinary care**” for which 1943 out of 2297 (85%) consider it very important and 178 (8%) important to have EU-wide rules on the subject.
 - **Slightly more nuanced** views concern **captive breeding** (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally; and **reintroduction of species** into the wild. On the first point (i.e. captive breeding), 459 out of 2297 respondents (20%) consider the existence of EU-wide rules as “partly important” and 172 (7%) consider it not important. Regarding the second point (i.e. reintroduction of species into the wild), 361 out of 2297 respondents (16%) consider it partly important and 111 (5%) consider it not important to have EU-wide rules on the subject.
 - Break-downs analysis shows that a greater share of **NGOs** and **respondents who do not visit zoos** think that EU-wide rules on captive breeding are partly important or not important.

7 COHERENCE

The public consultation looks at the perception of the public on the positive (synergies) and negative (gaps and overlaps) aspects of the articulation between the Zoos Directive and other EU and international legal acts or policy documents, in the final questions of the document (questions 28 and 29). In addition, it should be mentioned that the answers to question 25 on benefits is also relevant in the context of analysing the level-playing field, covered under the coherence analysis.

7.1 IS THE ZOOS DIRECTIVE CONSISTENT WITH AND MUTUALLY SUPPORTIVE OF THE FOLLOWING LEGAL AND NON-LEGAL INTERVENTIONS OR DO YOU SEE SIGNIFICANT GAPS OR OVERLAPS (QUESTIONS 28 – 29)?

The public consultation aimed at collecting opinions on the interactions of the Zoos Directive with other acts and documents being implemented in the EU. To this end, in question 28, stakeholders have been asked to assess interactions in the implementation of the Zoos Directive and:

- **Two international conventions:** the Convention on Biological Diversity (CBD) and the Convention on the International Trade in Endangered Species of wild fauna and flora (CITES);
- **Six EU legal acts:** **Directive 79/409/EEC** (the Birds Directive) and **Directive 92/43/EEC** (the Habitats Directive), **Regulation (EC) No. 1143/2014** on Invasive Alien Species (the IAS Regulation), **Regulation (EC) No. 1739/2005** on animal health requirements for the movement of circus animals between Member States (the Circus animals Regulation), **Directive 92/65/EEC** on animals health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific rules referred to in Annex A(I) to Directive 90/425/EEC (the Animal Health Directive) and **Directive 90/425/EEC** concerning veterinary and zoo technical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market;
- **Two national-level tools:** National species action plans and National animal welfare acts;
- **Three tools provided by stakeholders:** the European Code of Conduct on zoological gardens and aquaria and invasive alien species from EAZA, the IUCN Technical guidelines for the management of ex situ populations for conservation and the WAZA World Zoos and Aquarium Conservation Strategies.

The possibility to name additional relevant legal or non-legal interventions was also provided, through the field “Other” (Question 29).

For each of these tools, the respondents were asked whether they observed consistency and/or mutual support, gaps or overlaps.

7.1.1 General trends

Figure 73 below presents an overview of the responses provided for each of the 12 interventions listed in question 28. The ratio of respondents who did not have an opinion on interactions between the Zoos Directive and other tools is particularly high. This is understandable, as it requires being familiar with the tools listed, which implies a certain level of technical or legal knowledge, whereas the consultation rather targeted the wider public.

Besides this main result, other trends can be observed. The respondents who expressed an opinion overall considered that the tools were **consistent and/or mutually supportive**. The highest proportion of respondents considering the tools mutually supportive can be observed in relation to:

- Stakeholders tools: the WAZA Strategies (44%) and the EAZA Code of Conduct (41%);
- EU Directives: The Animal Health Directive 92/65/EEC (39%) and the Birds and Habitats Directives (39%), as well as Directive 90/425/EEC on veterinary and zoo technical checks.

However, for some of the tools listed, the proportion of respondents observing **gaps** exceeded the number of respondents observing consistency. It is the case for:

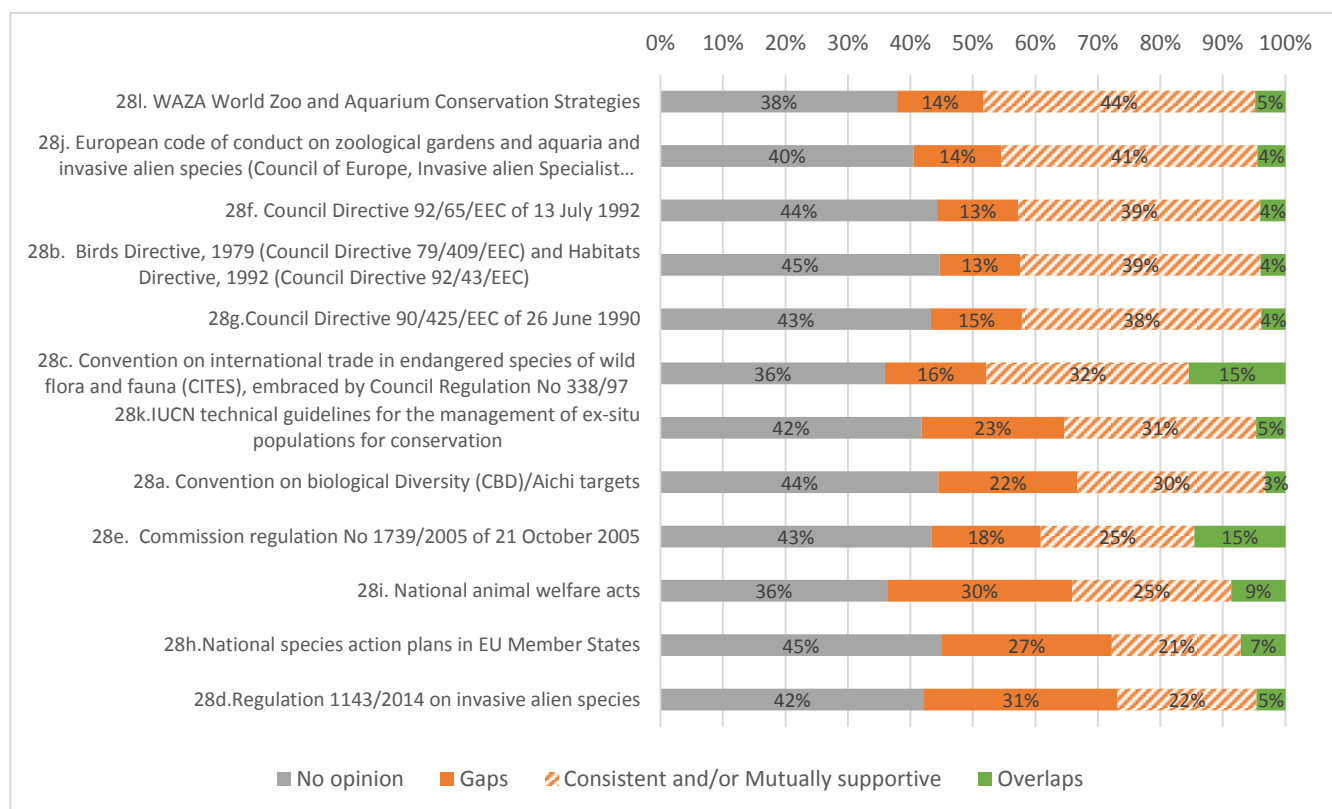
- The IAS Regulation: 31% of the respondents considered that there was a gap, against 22% observing consistency;
- National species action plans in EU Member States: 27% against 21%
- National animal welfare acts: 30% against 25%.

This ‘negative ratio’ between positive and negative answers indicates that the respondents have observed a problem of coherence in the implementation of the Zoos Directive and of these instruments. This nevertheless needs to be nuanced in relation to the national species action plans, where the level of respondents who did not have an opinion was particularly high (45%).

In addition, the results show the highest rate of respondents identifying gaps in relation to the CITES Convention (15% of the respondents) and in relation to the Circus Animals Regulation (15% as well).

Finally, only a small proportion of respondents observed **overlaps** between the tools mentioned and the Zoos Directive. This may be due to the fact that, as pointed out by some stakeholders, the concept was unclear to them.

Figure 73: Answers to question 28 of the public consultation “Is the Zoos Directive consistent with and mutually supportive of the following legal and non-legal interventions or do you see significant gaps or overlaps?” in absolute number of respondents



Question 29 provided the possibility to specify the option ‘other’ provided in question 28m. For a total

of 1052 persons selecting the option ‘other’ in question 28m, only 38% provided an opinion. Among those, a large majority of the respondents expressing an opinion referred to consistency and mutual support with other tools. The overview is provided in the Table 73 below.

Table 73: Answer to Question 28m of the public consultation “Is the Zoos Directive consistent with and mutually supportive of the following legal and non-legal interventions or do you see significant gaps or overlaps? ‘Other’” in number of respondents, and percentage of respondents to Question 28m.

Answer	Number of respondents	Percentage of the number of respondents to Question 28m
No opinion	650	62%
Consistent and/or Mutually supportive	333	32%
Gaps	59	6%
Overlaps	10	1%
TOTAL	1052	100%

Among the 402 respondents providing an opinion, 400 specified their answers in question 29. Among the replies, certain similarities can be observed in the text of 335 of the answers provided, suggesting that these answers were issued from guidance provided by interest groups (see Section 2.3.2.1 above). Three different patterns in answers to question 29 have been identified, and are clearly inspired from guidance issued by interest groups. The proportion of respondents to question 29 which provided such response are summarised below:

Table 74: Answers provided to Question 29 of the public consultation ‘Please specify other’ – Absolute numbers and percentage on the total number of answers to Question 29 (n=400) clearly influenced by public campaigns

Answer provided (in full or in part)	Number	Percentage
“National wild animal husbandry standards” Recognising each species has specific welfare needs, scientifically-validated animal husbandry standards will ensure animals are kept appropriately in zoos.	146	36,5%
EAZA Standards on Accommodation of animals, Research, Conservation and Conservation Education and Best Practice Guidelines (+ BIAZA Animal Transfer Policy in 21 occurrences).	97	24.25%
Both, and sometimes one of these two answers: 1. Providing more EU funding to zoos 2. No systematic transfer from EU legislation on agriculture or nature protection to the keeping of animals in zoos.	92	23%
TOTAL	335	83.75%

The first two answers support the observation of a mutual support and/or consistency under question 28m. For the last answer, there is no clear correlation between the answer provided here and one type of answer under question 28m, which would tend to show that, as the formulation indicates, the respondents intended to use the open field to give a message outside the structure provided by the closed questions, rather than to support one specific observation of coherence with other instruments. The other answers to question 29 can be summarised as follows:

Table 75: Answers to question 29 of the public consultation ‘Please specify other’ – Categories and proportion of isolated answers

Answer provided (in full or in part)	Number	Percentage
Animal welfare messages- not directly related to the question	31	7,75
‘Don’t know’ / ‘No’ / ‘No answer’	21	5,25
Other answers not related to the question	9	2,25
Other valid answers (not from campaigns)	4	1
TOTAL	65	16.25%

The four valid answers relate to:

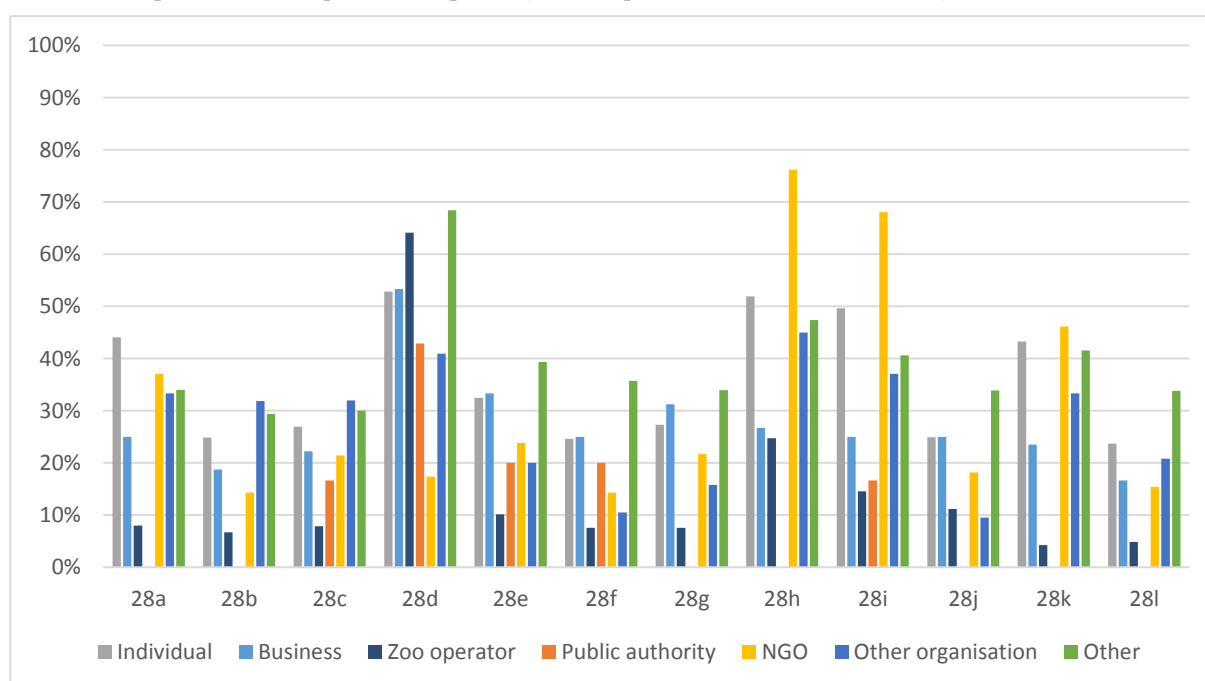
- A gap between the Directive and Article 13 of Title II of the TFEU (one answer);
- A gap between the Directive and the German Wildlife Association 2016 Certification Handbook for the Quality Campaign in Environmental Education⁵⁰⁵ (two answers).
- Consistency with the Convention on Biological Diversity (one answer), which was already covered under option 28a.

7.1.2 Distribution per type of stakeholders

This Section analyses the results of question 28 in relation to gaps and overlaps. For a more complete overview, please see Annex I to this report.

In relation to **gaps**, Figure 74 shows that gaps were identified by different groups, depending on the instrument at stake.

Figure 74: Answer to question 28 of the public consultation- Share of respondents who think that there are gaps between the Zoos Directive and the following instruments, per type of stakeholders. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



An important proportion of **NGOs** identified gaps in relation to national species action plans (point 28h- 76%), national animal welfare acts (point 28i- 68%), as well as in relation to the IUCN guidelines (point 28k- 46%). In relation to these guidelines, it is worth mentioning that all groups, but zoo operators and public authorities, pointed to gaps.

All stakeholders, except for NGOs, and in particular ‘**other**’ types of stakeholders (68%), **zoo operators** (64%), **businesses** (53%) and **individuals** (53%), identified gaps in relation to the IAS Regulation (point 28d).

Public authorities identified gaps only for five instruments, and only to a limited extent, except for the IAS Regulation (43% of responding public authorities).

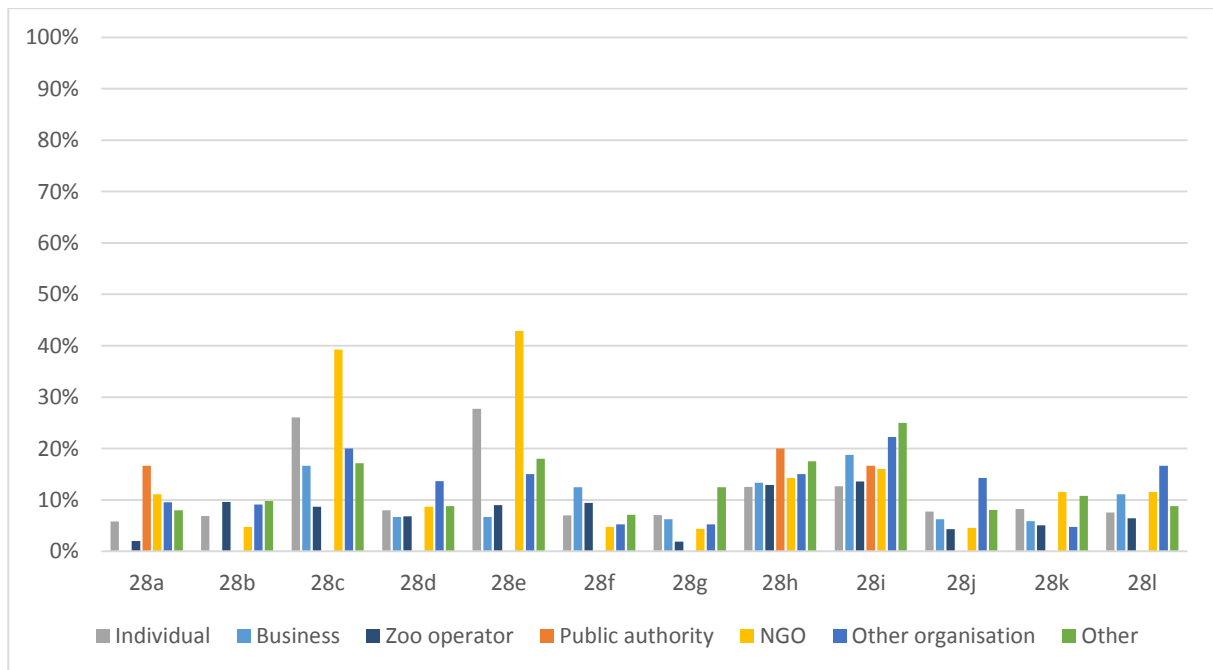
Finally, a majority of **individuals** expressed concerns in relation to gaps between the Zoos Directive and the IAS Regulation (point 28d- 53%), the national plans and welfare acts (points 28h- 52% and

⁵⁰⁵ DWV Zertifizierungshandbuch 2016 zur Qualitätsoffensive Umweltbildung

28i- 50%). A high proportion of individuals also mentioned the IUCN guidelines (point 28k- 46%), but also, unlike other groups, in relation to the CBD and Aichi Targets (point 28a- 44% of responding individuals expressing an opinion).

As mentioned in the previous section, only a limited proportion of the respondents raised issues in relation to **overlaps** between the Zoos Directive and other instruments, as illustrated by Figure 75 below.

Figure 75: Answer to question 28 of the public consultation- Share of respondents who think that there are overlaps between the Zoos Directive and the following instruments, per type of stakeholders. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



It was mainly **NGOs** identifying overlaps, in relation to CITES and the CITES Regulation (point 28c- 39% of NGOs expressing an opinion) and to the Circus Animals Regulation (point 28e- 43%). To a lesser extent, **individuals** also mentioned overlaps with the same instruments. Where NGOs mentioned gaps, **others** and **other organisations** observed overlaps between the Zoos Directive and national animal welfare acts (point 28i- respectively 25% and 22%). Finally, **public authorities** indicated overlaps mainly with the CBD and Aichi Targets (point 28a- 17%), and with national species action plans (point 28h- 20%).

7.1.3 Distribution per country

As the previous one, this section focuses on the results of question 28 in relation to gaps and overlaps. A more complete overview is presented in Annex I.

In terms of **gaps**, looking at the countries where most respondents are (Germany, the UK, Spain, the Netherlands and non-EU countries) in Table 76, a similar pattern can be observed in Germany and the Netherlands, where gaps were identified primarily in relation to the IAS Regulation. This is consistent with the fact that most respondents in these countries are zoos operators and other organisations. In contrast, respondents in Spain, in the UK and in non-EU countries raised issues primarily relating to gaps between the Zoos Directive and national species action plans and national animal welfare acts. This correlates with the main type of respondents in these countries, i.e. NGOs and individuals.

Table 76: Answer to question 28 of the public consultation- Share of respondents who think that there are gaps between the Zoos Directive and the following instruments. Percentages and, in brackets, absolute number of total respondents per Member State excluding “No opinion”

	28a. CBD/Aichi targets	28b. Birds and Habitats Directives	28c. CITES and Regulation No 338/97	28d. IAS Regulation	28e. Circus animals Regulation	28f. Animal health Directive	28g. Directive 90/425/EEC	28h. National species action plans	28i. National animal welfare acts	28j. European code of conduct	28k. IUCN technical guidelines	28l. WAZA Strategies
Austria	15%(n=13)	6%(n=16)	11%(n=18)	60%(n=15)	14%(n=14)	7%(n=15)	6%(n=16)	38%(n=16)	26%(n=19)	6%(n=16)	8%(n=13)	0%(n=16)
Belgium	35%(n=20)	45%(n=20)	48%(n=23)	47%(n=19)	56%(n=18)	33%(n=18)	35%(n=17)	64%(n=22)	46%(n=26)	32%(n=19)	32%(n=19)	24%(n=21)
Bulgaria	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=2)	0%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)
Croatia	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)
Czech Rep.	22%(n=9)	0%(n=9)	0%(n=9)	63%(n=8)	0%(n=8)	0%(n=8)	0%(n=9)	33%(n=6)	25%(n=8)	11%(n=9)	20%(n=10)	0%(n=10)
Denmark	44%(n=18)	25%(n=20)	22%(n=23)	67%(n=21)	35%(n=20)	32%(n=22)	27%(n=22)	50%(n=20)	54%(n=24)	30%(n=23)	42%(n=24)	30%(n=23)
Estonia	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)
Finland	50%(n=2)	67%(n=3)	25%(n=4)	50%(n=2)	50%(n=4)	50%(n=2)	0%(n=2)	20%(n=5)	60%(n=5)	33%(n=3)	67%(n=3)	25%(n=4)
France	53%(n=32)	38%(n=34)	36%(n=42)	56%(n=36)	49%(n=37)	39%(n=31)	42%(n=36)	57%(n=35)	60%(n=45)	41%(n=37)	54%(n=35)	40%(n=40)
Germany	31%(n=497)	17%(n=506)	16%(n=548)	58%(n=515)	21%(n=482)	15%(n=488)	16%(n=495)	31%(n=513)	34%(n=583)	19%(n=535)	27%(n=505)	16%(n=548)
Greece	56%(n=9)	44%(n=9)	50%(n=10)	71%(n=7)	50%(n=8)	50%(n=8)	43%(n=7)	71%(n=7)	44%(n=9)	40%(n=10)	55%(n=11)	50%(n=10)
Hungary	33%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)	25%(n=4)	0%(n=3)	33%(n=3)	100%(n=3)	67%(n=3)	0%(n=3)	67%(n=3)	0%(n=4)
Ireland	57%(n=7)	50%(n=8)	67%(n=9)	56%(n=9)	75%(n=8)	38%(n=8)	44%(n=9)	83%(n=6)	50%(n=10)	43%(n=7)	43%(n=7)	29%(n=7)
Italy	42%(n=24)	27%(n=22)	46%(n=26)	56%(n=27)	52%(n=25)	30%(n=23)	38%(n=24)	65%(n=23)	62%(n=26)	26%(n=23)	46%(n=24)	27%(n=22)
Lithuania	50%(n=2)	0%(n=2)	0%(n=2)	0%(n=3)	0%(n=2)	0%(n=2)	50%(n=2)	100%(n=3)	67%(n=3)	0%(n=2)	50%(n=2)	0%(n=2)
Luxembg	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Malta	50%(n=2)	100%(n=1)	0%(n=1)	50%(n=2)	50%(n=2)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	N/A (n=0)	0%(n=1)
Netherlands	5%(n=83)	5%(n=82)	9%(n=94)	74%(n=88)	10%(n=81)	6%(n=86)	5%(n=85)	8%(n=48)	6%(n=54)	3%(n=89)	3%(n=87)	4%(n=90)
Poland	44%(n=9)	0%(n=10)	0%(n=11)	25%(n=8)	13%(n=8)	0%(n=8)	0%(n=8)	75%(n=8)	75%(n=8)	13%(n=8)	0%(n=8)	14%(n=7)
Portugal	8%(n=26)	4%(n=26)	14%(n=29)	71%(n=28)	15%(n=26)	11%(n=28)	21%(n=28)	73%(n=15)	50%(n=16)	11%(n=27)	19%(n=27)	7%(n=27)
Romania	17%(n=12)	17%(n=12)	9%(n=11)	100%(n=11)	18%(n=11)	18%(n=11)	25%(n=12)	40%(n=5)	33%(n=9)	25%(n=12)	18%(n=11)	17%(n=12)
Slovakia	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Slovenia	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	67%(n=3)	100%(n=1)	100%(n=1)	100%(n=1)
Spain	72%(n=75)	31%(n=68)	30%(n=77)	39%(n=76)	36%(n=76)	34%(n=67)	36%(n=72)	72%(n=75)	81%(n=80)	32%(n=73)	72%(n=74)	34%(n=74)
Sweden	12%(n=17)	24%(n=17)	26%(n=19)	88%(n=16)	29%(n=17)	19%(n=16)	19%(n=16)	38%(n=13)	28%(n=18)	11%(n=18)	17%(n=18)	10%(n=20)
UK	58%(n=322)	35%(n=320)	38%(n=391)	45%(n=339)	43%(n=351)	34%(n=340)	39%(n=340)	74%(n=341)	62%(n=402)	33%(n=354)	59%(n=359)	33%(n=370)
Non-EU	48%(n=88)	28%(n=78)	34%(n=117)	36%(n=90)	43%(n=93)	34%(n=90)	33%(n=93)	53%(n=95)	48%(n=108)	26%(n=93)	50%(n=92)	25%(n=114)

As for **overlaps**, as can be seen in Table 77 below, in the same countries, CITES (point 28c) and the Circus Animal Regulation (point 28e) are, by far, the main instruments considered as overlapping with the Zoos Directive. The only exception is the Netherlands. The number of Dutch respondents identifying these two instruments as overlapping with the Directive is very restricted. However, they have considered to an important extent that overlaps were occurring with their national species action plans and national welfare acts.

Table 77: Answer to question 28 of the public consultation- Share of respondents who think that there are overlaps between the Zoos Directive and the following instruments. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

	28a. CBD/Aichi targets	28b. Birds and Habitats Directives	28c. CITES and Regulation No 338/97	28d. IAS Regulation	28e. Circus animals Regulation	28f. Animal health Directive	28g. Directive 90/425/EEC	28h. National species action plans	28i. National animal welfare acts	28j. European code of conduct	28k. IUCN technical guidelines	28l. WAZA Strategies
Austria	8%(n=13)	13%(n=16)	33%(n=18)	13%(n=15)	14%(n=14)	7%(n=15)	13%(n=16)	6%(n=16)	16%(n=19)	13%(n=16)	15%(n=13)	19%(n=16)
Belgium	5%(n=20)	5%(n=20)	13%(n=23)	5%(n=19)	11%(n=18)	6%(n=18)	6%(n=17)	9%(n=22)	12%(n=26)	5%(n=19)	11%(n=19)	5%(n=21)
Bulgaria	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=2)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Croatia	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)	N/A (n=0)
Czech Rep.	11%(n=9)	11%(n=9)	33%(n=9)	0%(n=8)	25%(n=8)	0%(n=8)	11%(n=9)	50%(n=6)	38%(n=8)	0%(n=9)	10%(n=10)	10%(n=10)
Denmark	0%(n=18)	0%(n=20)	13%(n=23)	5%(n=21)	20%(n=20)	5%(n=22)	5%(n=22)	25%(n=20)	25%(n=24)	4%(n=23)	0%(n=24)	0%(n=23)
Estonia	0%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Finland	0%(n=2)	0%(n=3)	25%(n=4)	0%(n=2)	0%(n=4)	0%(n=2)	0%(n=2)	20%(n=5)	20%(n=5)	0%(n=3)	0%(n=3)	0%(n=4)
France	13%(n=32)	6%(n=34)	24%(n=42)	8%(n=36)	32%(n=37)	3%(n=31)	6%(n=36)	14%(n=35)	9%(n=45)	11%(n=37)	14%(n=35)	10%(n=40)
Germany	6%(n=497)	9%(n=506)	20%(n=548)	9%(n=515)	22%(n=482)	8%(n=488)	8%(n=495)	11%(n=513)	12%(n=583)	8%(n=535)	9%(n=505)	8%(n=548)
Greece	0%(n=9)	0%(n=9)	10%(n=10)	0%(n=7)	13%(n=8)	0%(n=8)	0%(n=7)	0%(n=7)	0%(n=9)	0%(n=10)	9%(n=11)	0%(n=10)
Hungary	33%(n=3)	0%(n=3)	67%(n=3)	0%(n=3)	50%(n=4)	0%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)	0%(n=3)	0%(n=3)	25%(n=4)
Ireland	0%(n=7)	0%(n=8)	11%(n=9)	0%(n=9)	25%(n=8)	13%(n=8)	11%(n=9)	0%(n=6)	10%(n=10)	0%(n=7)	0%(n=7)	0%(n=7)
Italy	8%(n=24)	5%(n=22)	19%(n=26)	7%(n=27)	20%(n=25)	0%(n=23)	0%(n=24)	22%(n=23)	15%(n=26)	0%(n=23)	4%(n=24)	0%(n=22)
Lithuania	0%(n=2)	0%(n=2)	50%(n=2)	0%(n=3)	50%(n=2)	0%(n=2)	0%(n=2)	0%(n=3)	0%(n=3)	0%(n=2)	0%(n=2)	0%(n=2)
Luxembg	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Malta	0%(n=2)	0%(n=1)	100%(n=1)	50%(n=2)	50%(n=2)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	100%(n=1)	0%(n=0)	100%(n=1)
Netherlands	5%(n=83)	6%(n=82)	6%(n=94)	9%(n=88)	6%(n=81)	7%(n=86)	6%(n=85)	60%(n=48)	59%(n=54)	10%(n=89)	6%(n=87)	10%(n=90)
Poland	11%(n=9)	10%(n=10)	9%(n=11)	13%(n=8)	13%(n=8)	13%(n=8)	13%(n=8)	13%(n=8)	13%(n=8)	13%(n=8)	13%(n=8)	14%(n=7)
Portugal	8%(n=26)	8%(n=26)	17%(n=29)	0%(n=28)	15%(n=26)	4%(n=28)	0%(n=28)	0%(n=15)	13%(n=16)	0%(n=27)	0%(n=27)	0%(n=27)
Romania	0%(n=12)	0%(n=12)	0%(n=11)	0%(n=11)	0%(n=11)	0%(n=11)	0%(n=12)	20%(n=5)	11%(n=9)	0%(n=12)	0%(n=11)	0%(n=12)
Slovakia	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)
Slovenia	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	33%(n=3)	0%(n=1)	0%(n=1)	0%(n=1)
Spain	12%(n=75)	12%(n=68)	53%(n=77)	9%(n=76)	51%(n=76)	9%(n=67)	11%(n=72)	12%(n=75)	9%(n=80)	8%(n=73)	12%(n=74)	7%(n=74)
Sweden	0%(n=17)	0%(n=17)	0%(n=19)	0%(n=16)	0%(n=17)	0%(n=16)	0%(n=16)	31%(n=13)	44%(n=18)	0%(n=18)	0%(n=18)	10%(n=20)
UK	2%(n=322)	4%(n=320)	31%(n=391)	7%(n=339)	33%(n=351)	7%(n=340)	5%(n=340)	7%(n=341)	9%(n=402)	6%(n=354)	6%(n=359)	7%(n=370)

	28a. CBD/Aichi targets	28b. Birds and Habitats Directives	28c. CITES and Regulation No 338/97	28d. IAS Regulation	28e. Circus animals Regulation	28f. Animal health Directive	28g. Directive 90/425/EEC	28h. National species action plans	28i. National animal welfare acts	28j. European code of conduct	28k. IUCN technical guidelines	28l. WAZA Strategies
Non-EU	9%(n=88)	12%(n=78)	26%(n=117)	9%(n=90)	30%(n=93)	9%(n=90)	11%(n=93)	15%(n=95)	16%(n=108)	15%(n=93)	15%(n=92)	13%(n=114)

It is indeed particularly interesting to look at the results of the consultation distributed by country in relation to **national instruments** (i.e. points 28h and i), while keeping in mind the differences in the number of respondents by country.

A majority of respondents identified gaps between the Directive and national instruments in more than **half of the Member States** (Belgium, Denmark, Estonia (one respondent), Finland, France, Greece, Hungary, Ireland, Italy, Lithuania, Poland, Portugal, Slovenia, Spain and the UK). A majority of respondents pointed to overlaps between the Directive and their national instruments in far less Member States: in the Czech Republic (in relation to the national species action plan), in Malta (three respondents) and in the Netherlands. The rate was also quite high in Sweden.

Looking at the results obtained both in terms of gaps and overlaps in relation to these two points, while focusing on countries where it can be considered that the sample is sufficiently high to provide some elements of representativeness (n>30), criticism seems to be higher on the consistency between national instruments and the Directive in countries like **Spain, Italy, Denmark, the UK, France and Sweden** (on average between 35% and 44% of the respondents pointing to gaps or overlaps in these countries).

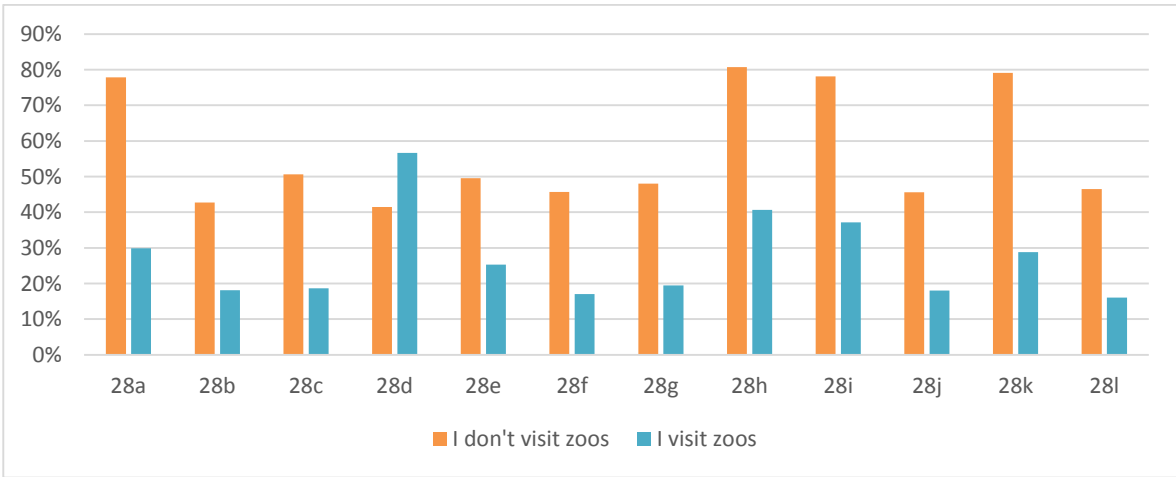
7.1.4 Distribution depending on whether the respondent visits zoos or not

Since coherence is based mainly on a prior knowledge of the legal acts and policy documents listed, there is in our view little correlation, if at all, between being a zoo visitor and assessing the application of the various texts listed in question 28. The analysis here is therefore of limited relevance.

One potentially interesting observation can however be drawn from Figure 76 below, looking at respondents observing overlaps between the Directive and the various instruments listed. The figure illustrates a significant difference in the rates of zoos visitors and those who do not visit zoos, with much higher rates of respondents pointing to issues among persons who do not visit zoos. Criticism is particularly high among non-visitors in relation to the coherence between the Zoos Directive and:

- National plans (81%) and animal welfare acts (78%)
- The IUCN guidelines (79%)
- The CBD and Aichi Targets (78%).

Figure 76: Answer to question 28 of the public consultation- Share of respondents who think that there are gaps between the Zoos Directive and the following instruments, depending on whether they visit zoos or not. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



All other elements of answers according to this criterion are presented in Annex I.

7.1.5 Key points

- Question 28 of the public consultation looks at the perception of the public on synergies, gaps and overlaps aspects of the articulation between the Zoos Directive and 12 other EU and international legal acts or policy documents. Answering this question required a prior knowledge of the instruments mentioned. The level of responses expressing an opinion was therefore logically quite low (on average, 57% of respondents to question 28 across all sub-questions 28a to 28m).
- In general, the respondents expressing an opinion considered the instruments listed as being consistent or mutually supportive with the Directive. A more significant proportion of people not visiting zoos pointed to gaps (57% on average), as compared to persons visiting zoos (27% on average).
- On the one hand, the following tools were considered consistent and/or mutually supportive with the Directive:
 - the European Code of Conduct on zoological gardens and aquaria and invasive alien species from EAZA and the and the WAZA Strategies;
 - Directive 79/409/EEC (the Birds Directive) and Directive 92/43/EEC (the Habitats Directive), Directive 92/65/EEC on animals' health and Directive 90/425/EEC concerning veterinary and zoo technical checks.
- On the other hand, several instruments were pointed as sources of inconsistencies with the Zoos Directive. In particular:
 - Regulation (EC) No. 1143/2014 on Invasive Alien Species (the IAS Regulation);
 - Regulation (EC) No. 1739/2005 on animal health requirements for the movement of circus animals between Member States (the Circus Animals Regulation);
 - National species action plans and National animal welfare acts.

The **IAS Regulation** was pointed as lacking consistency (gap) by all types of stakeholders, but most notably by zoos operators and businesses, while the **Circus Animals Regulation** was mainly mentioned by NGOs and individuals.

The **national species action plans and national animal welfare acts** were identified as sources of inconsistencies with the Zoos Directive in specific countries, such as Spain, Italy, Denmark, the UK, France and Sweden.

To a lesser extent, the **IUCN Technical guidelines** were considered as inconsistent (gap) with the Zoos Directive by specific groups, and in particular, NGOs and individuals, as well as British and Spanish respondents, and persons who do not visit zoos.

- Question 29, as an open question, allowed to identify three distinctive patterns in the types of responses provided, thus indicating **results based on guidance by external sources**. Out of the 400 answers provided to question 29, 36.5% corresponded to animal welfare concerns and 24.25% referred to EAZA standards, both being considered as mutually consistent with/supportive of the Zoos Directive. 23% (in nearly all cases provided in German) related to concerns about EU funding to zoos and coherence between EU regulations on zoos and on nature protection and agriculture. These replies didn't show any link to the question of consistency/gaps/overlaps with the Directive. In total, 335 answers were clearly inspired by external sources. This represents however a small proportion of the number of respondents to the previous question 28m on which Question 29 follows up (31% of 1052 respondents), and an even smaller share of the total number of respondents to the public consultation (14.5% of 2297 respondents).

8 EU ADDED VALUE

The public consultation explored the perception of stakeholders on the consequences of not having an EU legislation on activities required by the Zoos Directive (question 24, Section 8.1). Answers to other questions of the public consultation will constitute valuable input for the assessment of the EU added value of the Directive, namely the answers to questions 22, 23, 25 and 26 (see Sections 5.1 and 6.1).

8.1 IN YOUR OPINION, WOULD THE FOLLOWING ACTIVITIES TAKE PLACE WITHOUT EU LEGISLATION ON ZOOS (QUESTION 24)?

The public consultation aimed at collecting opinions on the perceived consequences of not having an EU legislative framework on zoos. To this end, in question 24, stakeholders have been asked to assess the likelihood that certain activities take place without an EU legislation on zoos. The activities were identified in line with the intervention logic of the Directive, and are namely:

- a. To fulfil EU's global commitments on biodiversity (point 24a);
- b. Captive breeding of threatened species (i.e. species on European and global red lists) (point 24b);
- c. Reintroduction of species into the wild (point 24c);
- d. Research on conservation issues (point 24d);
- e. Training on relevant conservation skills (point 24e);
- f. Exchange of information relating to species conservation (point 24f);
- g. Public education on and awareness of biodiversity conservation and nature (point 24g);
- h. Public education on and awareness of conservation of species, wild animals and habitats (point 24h);
- i. Provide information on exhibited species and their habitats (point 24i);
- j. Provide information on broader biodiversity and nature protection topics (point 24j);
- k. Keeping animals under appropriate conditions with good veterinary care (point 24k);
- l. Prevent escape of animals and intrusion of outside pests and vermin (point 24l);
- m. Keeping appropriate, sharable data records of the zoos' animals (point 24m).

Stakeholders were asked to indicate whether they thought such activities would certainly/likely/unlikely/not take place at all in the absence of an EU legislation.

8.1.1 General trends

In question 24 of the public consultation, the public was asked “Would the following activities take place without EU legislation on zoos?”. As Figure 77 below illustrates, the views of stakeholders are mixed on nearly all the points listed in question 24 of the public consultation.

Figure 77: Answers to question 24 of the public consultation “In your opinion, would the following activities take place without EU legislation on zoos?” in absolute number of respondents. (“No opinion/don’t know” is excluded).

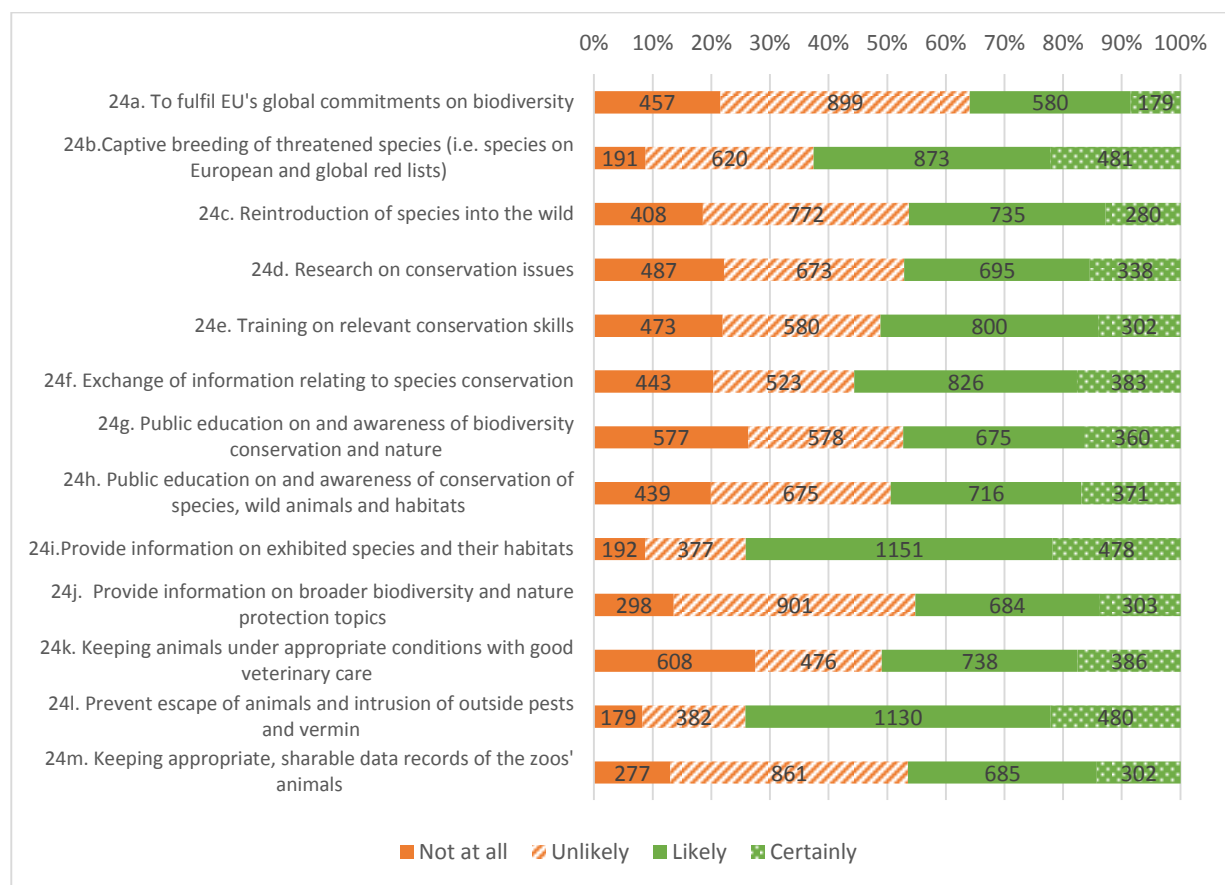


Table 78 below summarises which activities stakeholders think would take place without EU-rules on the matter, and which would not. Further details are provided further down in this section.

Table 78: Activities that would take place or not in the absence of EU rules, according to answers to question 24 of the public consultation

Activities would take place	Activities are likely not to take place/would certainly not take place
Captive breeding of threatened species (i.e. species on European and global red lists) (point 24b)	To fulfil EU's global commitments on biodiversity (point 24a)
Exchange of information relating to species conservation (point 24f)	Reintroduction of species into the wild (point 24c)
Provide information on broader biodiversity and nature protection topics (point 24j)	Research on conservation issues (point 24d)
Prevent escape of animals and intrusion of outside pests and vermin (point 24l)	Training on relevant conservation skills (point 24e)
/	Public education on and awareness of biodiversity conservation and nature (point 24g)
/	Public education on and awareness of conservation of species, wild animals and habitats (point 24h)

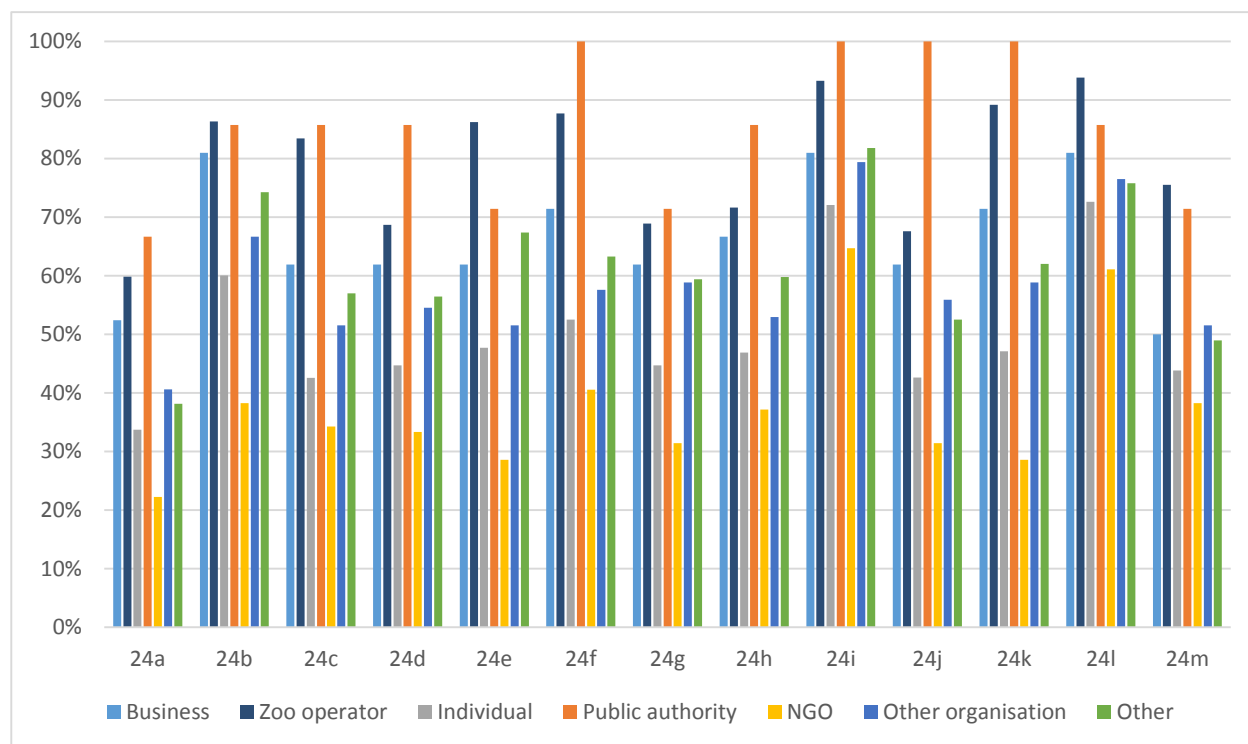
According to respondents to the public consultation, two activities are likely or certain to take place in zoos without the existence of EU-rules: (i) providing information on exhibited species and their habitats (1629 out of 2198 respondents expressing an opinion); (ii) preventing escape of animals and intru-

sion of outside pests and vermin (1610 out of 2171). Conversely, according to the public, the activity that is most likely not to take place in the absence of EU rules regards the fulfilment of EU’s commitments on biodiversity: out of 2115 respondents, 457 think it would not take place at all (21%) and 899 think it is unlikely (42%). Regarding the provision by zoos of information on broader biodiversity and nature protection topics, out of 2186 respondents, 298 think that it would not happen at all (13%) and 901 that it is unlikely (41%).

8.1.2 Distribution per type of stakeholders

As the figure below illustrates through a synthetic overview per sub-question of the opinion of each stakeholder group, the opinion of the public varies significantly depending on the type of stakeholders. Mirroring the general trends described in the previous section, the activities that, based on an average of the answers of all stakeholder groups, are the most likely to take place regardless of the existence of EU rules are: (i) provide information on exhibited species and their habitats and (ii) prevent escape of animals and intrusion of outside pests and vermin. By contrast, the activity that is the least likely to take place is the fulfilment of EU’s global commitment on biodiversity.

Figure 78: Answers to question 24 of the public consultation “In your opinion, would the following activities take place without EU legislation on zoos?” per share of respondents who think that it is likely or certain to have EU-wide rules on the following matters, per type of stakeholder. Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



As illustrated in Figure 78, **public authorities** tend to have a higher confidence than all other stakeholder groups in the fact that these activities would take place regardless of the existence of EU-wide rules on the matter. For four activities, 100% of public authorities think that these would take place without EU-rules. The activities are the following:

- exchange of information relating to species conservation,
- providing information on exhibited species and their habitats,
- providing information on broader biodiversity and nature protection topics, and
- keeping animals under appropriate conditions with good veterinary care.

Zoo operators seem to overall share the views of public authorities with some exceptions. By contrast, zoo operators think it more likely than the public authorities that, without EU-rules, activities would take place on (i) captive breeding of threatened species (i.e. species on European and global red lists); (ii) training on relevant conservation skills; (iii) preventing escape of animals and intrusion of outside pests and vermin; and (iv) keeping appropriate, sharable data records of the zoos' animals. Conversely, zoo operators think it less likely than public authorities that, without EU rules, activities would take place on all other points.

In contrast, the opinions expressed by **NGOs** demonstrated the least confidence that those activities would take place without EU-rules. 9 out of 36 NGOs (25%) think that it is certain that the EU's global commitments on biodiversity would not be achieved; additional 19 out of 36 (52%) think that it is unlikely. Regarding training on relevant conservation skills, 12 out of 35 NGOs (34%) think that these would not place at all without EU-rules and 13 other (37%) think that it is unlikely. Regarding activities on public education on and awareness of conservation of species, wild animals and habitats, 8 out of 35 NGOs (23%) think that these would not place at all without EU-rules and 14 other (40%) think that it is unlikely.

The opinion of **individual respondents** is closer to the ones expressed by NGOs than the one of zoo operators and public authorities.

8.1.3 Distribution per country

Table 79 below presents an overview of the public opinion on all the points listed in question 24 of the public consultation, broken-down per country of the respondent. In italics are highlighted the lowest rates of agreement of the public (i.e. activities would not take place at all or unlikely to take place without EU rules) and in bold are the highest rates of support (i.e. activities are likely or certain to take place without EU rules).

The results of this break-down correspond with the trends identified above. On the one hand, regardless of the country of origin of the respondent, stakeholders think that the activity that is the least likely to take place without EU rules is the fulfilment of EU's global commitment to biodiversity conservation (point 24a). On the other hand, stakeholders think that the two activities that are most likely to be maintained without EU rules are: firstly, preventing escape of animals and intrusion of outside pests and vermin (point 24l), and secondly, providing information on exhibited species and their habitats (point 24i).

Some countries do not follow this general trend. For the Czech Republic and Hungary, stakeholders reported that the activity that is most likely not to take place is research on conservation issues (point 24d). In Finland and Austria, it is keeping animals under appropriate conditions with good veterinary care (point 24k). Regarding Greece, providing information on broader biodiversity and nature protection topics (point 24j) and keeping appropriate, sharable data records of the zoos' animals (point 24m) were reported as unlikely to be carried out without EU rules. French respondents also assessed that keeping appropriate, sharable data records was likely not to take place (point 24m). For Ireland, it is activities related to the reintroduction of species into the wild that are the least likely to continue (point 24c). With regards to the activities that are likely to take place without EU rules, Belgian, Dutch and Finnish respondents think that captive breeding of threatened species (point 24b) is likely to take place without EU rules.

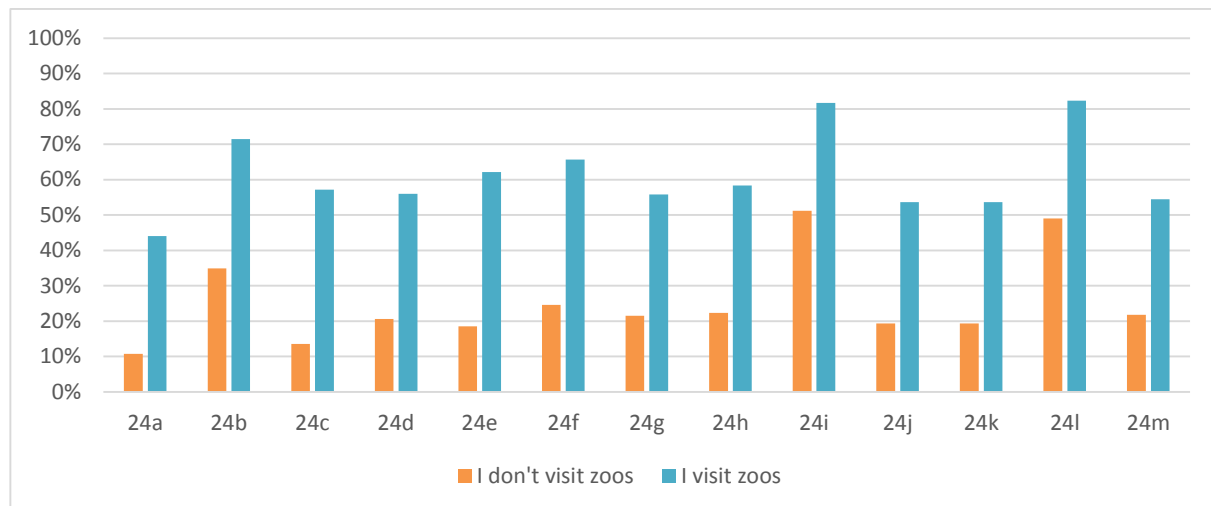
Table 79: Answers to question 24 of the public consultation “In your opinion, would the following activities take place without EU legislation on zoos?” (per share of respondents who think that it is likely or certain that the following activities would take place without EU rules, per country). Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).

	24a	24b	24c	24d	24e	24f	24g	24h	24i	24j	24k	24l	24m
Austria	52%(n=25)	72%(n=25)	54%(n=24)	64%(n=25)	64%(n=25)	71%(n=24)	67%(n=24)	67%(n=24)	88%(n=25)	64%(n=25)	52%(n=25)	88%(n=25)	72%(n=25)
Belgium	19%(n=37)	67%(n=39)	27%(n=37)	33%(n=39)	38%(n=37)	39%(n=36)	37%(n=38)	30%(n=40)	54%(n=41)	38%(n=40)	37%(n=41)	66%(n=38)	29%(n=35)
Bulgaria	0%(n=3)	0%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)	0%(n=3)	33%(n=3)	33%(n=3)	100%(n=3)	33%(n=3)	67%(n=3)	100%(n=3)	67%(n=3)
Croatia	N/A(n=0)	0%(n=1)	0%(n=1)	N/A(n=0)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	N/A(n=0)	0%(n=1)	0%(n=1)	N/A(n=0)	N/A(n=0)
Czech Rep.	21%(n=14)	71%(n=14)	60%(n=15)	20%(n=15)	47%(n=15)	71%(n=14)	29%(n=14)	29%(n=14)	79%(n=14)	21%(n=14)	60%(n=15)	80%(n=15)	47%(n=15)
Denmark	29%(n=34)	66%(n=35)	41%(n=37)	42%(n=36)	54%(n=35)	49%(n=35)	31%(n=35)	31%(n=36)	70%(n=37)	35%(n=34)	54%(n=37)	76%(n=34)	34%(n=32)
Estonia	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)
Finland	43%(n=7)	71%(n=7)	38%(n=8)	38%(n=8)	25%(n=8)	57%(n=7)	33%(n=6)	33%(n=6)	71%(n=7)	29%(n=7)	14%(n=7)	67%(n=6)	33%(n=6)
France	26%(n=66)	58%(n=64)	38%(n=66)	37%(n=65)	40%(n=63)	51%(n=65)	45%(n=65)	38%(n=65)	66%(n=65)	37%(n=63)	33%(n=66)	62%(n=65)	24%(n=62)
Germany	63%(n=757)	76%(n=774)	65%(n=779)	71%(n=776)	71%(n=759)	73%(n=777)	71%(n=775)	71%(n=778)	85%(n=778)	70%(n=775)	69%(n=781)	86%(n=774)	68%(n=751)
Greece	23%(n=13)	57%(n=14)	38%(n=13)	31%(n=13)	29%(n=14)	57%(n=14)	46%(n=13)	43%(n=14)	64%(n=14)	21%(n=14)	46%(n=13)	54%(n=13)	21%(n=14)
Hungary	0%(n=5)	60%(n=5)	20%(n=5)	0%(n=4)	25%(n=4)	40%(n=5)	20%(n=5)	25%(n=4)	100%(n=5)	20%(n=5)	20%(n=5)	80%(n=5)	40%(n=5)
Ireland	7%(n=15)	43%(n=14)	0%(n=15)	25%(n=16)	25%(n=16)	38%(n=16)	38%(n=16)	31%(n=16)	67%(n=15)	19%(n=16)	29%(n=14)	50%(n=14)	20%(n=15)
Italy	38%(n=48)	58%(n=50)	46%(n=50)	53%(n=49)	55%(n=49)	57%(n=51)	46%(n=50)	51%(n=51)	73%(n=51)	41%(n=51)	52%(n=50)	77%(n=48)	43%(n=49)
Lithuania	67%(n=3)	67%(n=3)	33%(n=3)	33%(n=3)	0%(n=3)	33%(n=3)	0%(n=3)	0%(n=3)	67%(n=3)	0%(n=3)	33%(n=3)	100%(n=3)	0%(n=2)
Luxembg	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	0%(n=1)	100%(n=1)	0%(n=1)
Malta	0%(n=3)	33%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)	50%(n=2)	0%(n=3)	0%(n=3)	33%(n=3)	0%(n=3)	0%(n=3)	0%(n=3)	33%(n=3)
Netherlands	18%(n=108)	89%(n=114)	82%(n=114)	33%(n=112)	80%(n=112)	88%(n=113)	33%(n=116)	34%(n=116)	90%(n=115)	30%(n=115)	82%(n=116)	87%(n=115)	33%(n=116)
Poland	17%(n=12)	54%(n=13)	23%(n=13)	31%(n=13)	31%(n=13)	62%(n=13)	31%(n=13)	31%(n=13)	54%(n=13)	31%(n=13)	31%(n=13)	75%(n=12)	62%(n=13)
Portugal	12%(n=34)	77%(n=35)	61%(n=36)	31%(n=36)	61%(n=36)	72%(n=36)	24%(n=37)	32%(n=37)	83%(n=36)	31%(n=36)	69%(n=36)	92%(n=36)	36%(n=36)
Romania	19%(n=16)	69%(n=16)	60%(n=15)	20%(n=15)	60%(n=15)	56%(n=16)	25%(n=16)	31%(n=16)	75%(n=16)	31%(n=16)	75%(n=16)	94%(n=16)	44%(n=16)
Slovakia	50%(n=2)	50%(n=2)	100%(n=1)	50%(n=2)	50%(n=2)	50%(n=2)	100%(n=2)	100%(n=2)	100%(n=2)	100%(n=2)	50%(n=2)	50%(n=2)	50%(n=2)
Slovenia	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	33%(n=3)	67%(n=3)	33%(n=3)	33%(n=3)	67%(n=3)	67%(n=3)
Spain	17%(n=135)	32%(n=138)	21%(n=149)	25%(n=146)	25%(n=146)	37%(n=143)	26%(n=146)	29%(n=146)	54%(n=145)	28%(n=143)	27%(n=146)	57%(n=143)	26%(n=141)
Sweden	12%(n=26)	80%(n=30)	54%(n=28)	27%(n=30)	50%(n=26)	64%(n=25)	21%(n=29)	24%(n=29)	86%(n=28)	22%(n=27)	54%(n=28)	76%(n=29)	19%(n=27)
UK	15%(n=559)	49%(n=568)	27%(n=580)	33%(n=583)	33%(n=571)	34%(n=573)	32%(n=577)	39%(n=580)	65%(n=580)	27%(n=578)	32%(n=585)	64%(n=575)	34%(n=559)
Non-EU	34%(n=188)	52%(n=193)	37%(n=195)	42%(n=196)	40%(n=194)	46%(n=196)	44%(n=198)	45%(n=199)	68%(n=197)	41%(n=197)	42%(n=197)	62%(n=192)	41%(n=193)

8.1.4 Distribution depending on whether the respondent visits zoos or not

In general, respondents who do not visit zoos are much more pessimistic that activities would take place without EU legislation on zoos. The answers to question 24 of the public consultation widely differ (between 30 and 44% gap) depending on whether respondents visit zoos or not, as the figure below illustrates. The smallest gap concerns the fact that providing information on exhibited species and their habitats (point 24i) is likely to take place without EU rules: respondents of both categories (279 out of 545 non-visitors; 1350 out of 1653 of visitors) think that such activity would take place. The largest gaps were found in relation to reintroduction of species into the wild (point 24c) and training on relevant conservation skills (point 24e). With regards to the reintroduction of species into the wild, 477 out of 552 (86%) respondents who do not visit zoos think that reintroduction of species is unlikely to/will not at all take place without EU-rules; while 703 out of 1643 (42%) of respondents who visit zoos had that assessment. On training, 444 out of 545 (81%) of respondents who do not visit zoos think that this activity is unlikely to/will not at all take place; while only 609 out of 1610 (37%) of respondents who visit zoos share that view.

Figure 79: Answers to question 24 of the public consultation “In your opinion, would the following activities take place without EU legislation on zoos?” per share of respondents who think that it is likely or certain that the following activities would take place without EU rules, depending on whether respondents visit zoos or not (question 18 of the public consultation). Percentages are calculated on the number of respondents that expressed an opinion (i.e. “No opinion/don’t know” is excluded).



8.1.5 Key points

- According to the respondents to the public consultation, two activities are **likely or certain to take place** in zoos without the existence of EU-rules:
 - Providing **information on exhibited species** and their habitats (1629 out of 2198 respondents who gave their opinion);
 - **Preventing escape** of animals and intrusion of outside pests and vermin (1610 out of 2171).
- Activity that is **most unlikely to occur** in the absence of EU rules regards the **fulfilment of EU’s commitments on biodiversity**: out of 2115 respondents, 457 think it would not take place at all (21%) and 899 think it is unlikely (42%).
- Regarding the provision by zoos of **information on broader biodiversity** and nature protection topics, out of 2186 respondents, 298 think that it would not happen at all (13%) and 901 that it is unlikely (41%).
- Those trends are confirmed through all break-downs (per type of stakeholders, country and zoo visits). The most striking differences are linked to the fact that respondents are zoos visitors or not. The **largest gaps** were found in relation to reintroduction of species into the wild and training on relevant conservation skills. With regards to the reintroduction of species into the wild, 477 out of 552 (86%) respondents who do not visit zoos think that reintroduction of species is unlikely

ly to/will not at all take place without EU-rules; while 703 out of 1643 (42%) of respondents who visit zoos had that assessment. On training, 444 out of 545 (81%) of respondents who do not visit zoos think that this activity is unlikely to/will not at all take place; while only 609 out of 1610 (37%) of respondents who visit zoos share that view.

9 CONCLUSIONS

The public consultation's purpose was to obtain the views and perceptions of a wide set of stakeholders on the contribution of the Directive to strengthen the role of zoos and enhance biodiversity conservation, including stakeholders that were not consulted in the targeted consultation, i.e. stakeholders from other countries than the 14 selected for questionnaires, as well as EU citizens across the EU-28.

The public consultation received 2297 answers. The main categories of respondents are individuals (zoo visitors) with 1944 answers, and zoos operators with 148 answers. 105 respondents chose the category 'other' types of respondents (including zoos and aquarium workers, persons working with animals, academics/scientists). The largest groups of respondents are from Germany, the United Kingdom, Non-EU countries, Spain and the Netherlands. German and British respondents represent 60% of the respondents.

Several interest groups (mainly animal welfare or zoos organisations) have provided their members and/or the wider public with guidance on how to answer the consultation. The analysis of answers to the consultation suggests that only a limited number of stakeholders followed completely the pre-determined set of answers provided by the interest groups, thus suggesting that the influence of such groups over the results of the consultation remains minimal.

In terms of **effectiveness**, respondents to the consultation assessed positively the achievements of the Directive's objectives. On average, the rate of positive perceptions among public authorities and zoos operators was higher than among NGOs and individual respondents. In general, all respondents considered that educational measures and measures relating to the prevention of escape were best implemented. The level of adhesion to the statements relating to the living conditions of animals and the contribution of animal shows was significantly lower. In addition, activities resulting for the implementation of the Article 3 measures have been considered as being sufficiently promoted by the persons who responded to the public consultation. The perception of the implementation of Article 3 measures is particularly positive among public authorities, zoo operators and business, especially for activities relating to information. Perception is however less positive among individuals, NGOs and other organisations, in particular in relation to animal conditions and care.

As regards **efficiency**, on the one hand, the consultation shows that the Zoos Directive has produced significant benefits in terms of creation of a common legal framework across the EU; improved systems for licensing and inspections and promotion of better knowledge on biodiversity among the public. The benefits on economic activities around zoos appear less relevant. On the other hand, the Directive has also implied additional costs related to its implementation, both for zoos (e.g. costs for the renovation of the enclosures, costs to run research programs, educational activities), and for Member State authorities (for setting up a licensing and inspection system and monitoring its implementation). Overall, benefits of the Zoos Directive appear nevertheless greater than the costs of its implementation. The results of the public consultation clearly, including responses provided by zoos operators, support this perception.

In relation to **relevance**, a vast majority of respondents considers EU-wide rules as important or very important. This is especially the case regarding the keeping of animals under appropriate conditions with good veterinary care. The views of stakeholders are more nuanced on the relevance of rules on captive breeding and reintroduction of species into the wild. A greater share of NGOs and respondents who do not visit zoos think that EU-wide rules on captive breeding are partly important or not important.

The answers to the **coherence** related questions of the consultation did not reveal major problems of gaps or overlaps between the Zoos Directive and other EU instruments. Respondents expressing an opinion overall considered the instruments listed as being consistent or mutually supportive with the Directive. Issues were raised mainly in relation to the IAS Regulation, where zoos operators and busi-

nesses pointed to gaps, and to the Circus Animals Regulation, where NGOs and individuals observed inconsistencies. The national species action plans and national animal welfare acts were also identified as sources of inconsistencies with the Zoos Directive in specific countries, such as Spain, Italy, Denmark, the UK, France and Sweden.

Finally, regarding **EU added value**, respondents to the public consultation considered that the provision of information on exhibited species and their habitats and the prevention of escape were the two activities most likely to take place in zoos without the existence of EU-rules. However, they considered that activities concerning the fulfilment of EU's commitments on biodiversity by zoos were most unlikely to occur in the absence of EU rules. Likewise, they estimated that zoos would most likely not provide information on broader biodiversity and nature protection topics without the Directive.

ANNEX VIIIA – PUBLIC CONSULTATION QUESTIONNAIRE

Public consultation as part of the REFIT evaluation of the Zoos Directive

Fields marked with * are mandatory.

Public consultation as part of the REFIT evaluation of the Zoos Directive (Council Directive 1999/22/EC relating to the keeping of wild animals in zoos)

The evaluation is part of the European Commission's Regulatory Fitness and Performance Programme (**REFIT**). This programme involves a comprehensive, evidence-based assessment of whether the current regulatory framework is proportionate and fit for purpose, and delivering as expected.

With this evaluation, the European Commission (Directorate General for Environment) will assess the results achieved by the EU legislation on zoos ([Directive 1999/22/EC relating to the keeping of wild animals in zoos](#), hereinafter the 'Zoos Directive'). This Directive aims to improve the protection of wild animals and strengthen the role of zoos in preserving biodiversity.

The aim of this consultation is to gather the views of interested parties and the wider public on the current EU legislation on zoos (the 'Zoos Directive'), and input on which aspects work well and which ones do not.

We will use your responses to help us assess the current situation, ensuring that as many opinions as possible are taken into account. It is therefore important that you complete this questionnaire as fully as possible.

Further information on the evaluation and the different activities it involves can be consulted on the Commission's [evaluation website](#).

Directive 1999/22/EC relating to the keeping of wild animals in zoos ('Zoos Directive')

The objective of the Zoos Directive is to promote the conservation of wild animal species (i.e. maintain or restore the species' populations at a favourable level), thereby strengthening the role of zoos in the conservation of biodiversity.

To achieve these objectives, Member States are responsible for setting up a licensing and inspection system of zoos. This system aims to ensure that zoos put in place adequate conservation measures, including appropriate accommodation of the animals.

In order to obtain and keep a licence, zoos have to carry out the following conservation measures:

- Participate in one or more of the following: Research benefitting conservation, training in relevant conservation skills, exchange of information relating to species conservation, breeding of animals outside their natural habitats, reintroduction of bred species into the wild;
- Promote public education on and awareness raising of conservation topics (for example by providing information about the species exhibited and their natural environments);
- Keep animals under appropriate conditions with good veterinary care;
- Prevent the escape of animals which can negatively impact the local ecosystems, and the intrusion of pests from outside that can adversely affect zoo animals;
- Keep appropriate and sharable data records of the zoo's animals.

Structure of the questionnaire

All questions are based on the [Roadmap](#) for the REFIT evaluation of the Zoos Directive. For methodological reasons, all questions are compulsory. However, it is possible to answer 'no opinion' or 'don't know'. Free text boxes enable you to give additional answers to the options provided in a multi-choice reply.

Replies may be submitted in any EU official language. Given possible delays in translating comments submitted in some languages, contributions in English are welcome, as they will help the Commission to process the survey more swiftly.

You may interrupt your session at any time and continue answering at a later stage. Once you have submitted your answers online, you will be able to download a copy of the completed questionnaire.

Important notice on the publication of contributions

Replies to this public consultation will be published on the European Commission's website (for further information, please consult the privacy statement).

Please note: regardless of the option chosen below, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In such cases, the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

*¹ ***Please indicate whether your reply:***

- Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- Cannot be published but only used for statistical and analytical purposes

Background information

*²

Please indicate here the language that you will use in your replies:

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese Po-
lish
- Portuguese
- Romanian
- Slovak
- Slovene
- Spanish
- Swedish

*³

I am replying to this questionnaire as...

- Individual (e.g. zoo visitor)
- Zoo operator
- Business or business representative
- Non-governmental organisation
- Organisation or association (other than NGO)
- Government or public authority
- European institution or agency
- Academic/research institute
- Other (please specify below)

*⁴ **Please specify "other".**

200 character(s) maximum

*⁵ **What is your name or the name of your organisation?**

*⁶ **Are you registered in the EU Transparency Register?**

In the interests of transparency, organisations, networks, platforms or self-employed individuals engaged in activities aimed at influencing the EU decision making process have been invited to provide the public with relevant information about themselves, by registering in Transparency Register and subscribing to its Code of Conduct.

Please note: If the organisation is not registered, the submission is published separately from the registered organisations. During the analysis of replies to a consultation, contributions from respondents who choose not to register will be treated as individual contributions (unless the contributors are recognised as representative stakeholders through Treaty provisions, European Social Dialogue, Art. 154-155 TFEU).

If your organisation is not registered, you have the opportunity to [register now](#).

- Yes
 No

⁷ **If yes, what is your EU Transparency Register ID number?**

100 character(s) maximum

* 8

In which Member State are you based?

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland Ita-
- ly
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- Spain
- Sweden
- United Kingdom
- Non-EU country

9 Please specify the country.

*¹⁰ **At which level do you operate?**

- International
- EU
- National
- Regional
- Local

*¹¹ **Which of the following topics best describe your main field of activity?**

Please select one or more answers

- Environment, nature
- Zoo management
- Biodiversity, in-situ conservation (conservation of species in their natural environment)
- Biodiversity, ex-situ conservation (conservation of species outside their natural environment)
- Animal welfare
- Education
- Recreation
- Tourism
- Other (please specify below)
- I don't carry out activities in any of the fields above

*¹² Please specify "other".

200 character(s) maximum

- * 13 **Regardless of your field of activity, which of the following topics best describe your main field of interest?**

Please select one or more answers

- Environment, nature
- Zoo management
- Biodiversity, in-situ conservation (conservation of species in their natural environment)
- Biodiversity, ex-situ conservation (conservation of species outside their natural environment)
- Animal welfare
- Education
- Recreation
- Tourism
- Other (please specify below)
- None of those

- * 14 Please specify "other".

200 character(s) maximum

- * 15 **Are you a member of any organisation active in the following fields?**

- Nature conservation
- Animal welfare
- Zoos association
- Other (please specify below)
- I'm not member of any organisation relevant to the topic

- * 16 Please specify "other".

200 character(s) maximum

Questionnaire

* 17 **How familiar are you with the Zoos Directive?**

- I don't know the Zoos Directive
- I've heard about the Zoos Directive, but I'm not familiar with its provisions

Slightly familiar

- Very familiar

* 18 **What are your main reasons for visiting a zoo?**

- Recreation (e.g. seeing exotic/wild animals, animal shows)
- Learning about nature, animals and their habitats, biodiversity conservation
- Teaching about nature, animals and their habitats, biodiversity conservation Professional reasons
- Other (please specify below)

I don't visit zoos

* 19 Please specify "other".

300 character(s) maximum

20 **To what extent do you agree or disagree with the following statements regarding zoos in your country?**

	Totally disagree	Somewhat disagree	Somewhat agree	Totally agree	Don't know
*Information on species and their habitats is usually well presented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>*After a zoo visit I know more about conservation of wild animals, protected species, threatened species</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*After a zoo visit I know more about biodiversity and conservation of nature in general</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*I have noticed improvements of education activities (e.g. school visits, educational shows) provided by zoos over the last 15 years</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*I have noticed improvements in research activities carried out by zoos over the last 15 years</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Animals live in conditions that satisfy their needs</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>*I have noticed improvements in the size and design of spaces where animals are kept over the last 15 years</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Animal shows are adapted to animals' natural behaviours</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*In the zoos I've visited, I received information on the species and/or its conservation status</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Zoo visits encourage visitors to become more engaged in the protection of species</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Zoo visits encourage visitors to become more engaged in the protection of biodiversity and nature in general</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Zoos are adequately designed to prevent the escape of animals</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you think the following activities are sufficiently promoted in zoos across the EU?

Background information – Under the Zoos Directive Member States have to establish a licencing and inspection system of existing and new zoos in order to ensure that zoos meet the following provisions:

- Participate in one or more of the following: research benefitting conservation, training in relevant conservation skills, exchange of information relating to species conservation, breeding of animals outside their natural habitats, reintroduction of bred species into the wild;
- Promote public education on and awareness raising of conservation topics (for example by providing information about the species exhibited and their natural environments);
- Keep animals under appropriate conditions with good veterinary care;
- Prevent the escape of animals which can negatively impact the local ecosystems, and the intrusion of pests from outside that can adversely affect zoo animals;
- Keep appropriate and sharable data records of the zoo's animals.

	Yes	No	No opinion
*Research on species conservation issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Training on relevant species conservation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Exchange of information relating to species conservation, between zoos, authorities, other organisations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Provide education on and raise awareness of biodiversity and broader nature protection topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Provide education on and raise awareness of species, wild animals and their natural habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Provide information on exhibited species and their habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Keep animals under appropriate conditions with good veterinary care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Collect data on the animals in the zoo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22

How important do you think EU-wide rules on zoos are on the following matters?

Background information - The overall objectives of the Directive are to protect wild species and to conserve biodiversity. The Directive aims to strengthen the role of zoos in the conservation of biodiversity by provisions relating to zoos and to Member State authorities.

	Not important	Partly important	Important	Very important	No opinion
*Protecting Europe's threatened species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>*Protecting globally threatened species</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Captive breeding (i.e. breeding of animals outside their natural habitats) of threatened species in Europe and globally</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Reintroduction of species into the wild</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Keeping animals under appropriate conditions with good veterinary care</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>*Making zoos shift from pure exhibition to modern conservation centres, where education, research, captive breeding and reintroduction programmes are undertaken</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Avoiding the escape of animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Increasing awareness of the wider public on biodiversity and nature protection by offering education and information on these topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Keeping appropriate, sharable data records of the zoo's animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23 Please specify "other".

200 character(s) maximum

24

In your opinion, would the following activities take place without EU legislation on zoos?

	Not at all	Unlikely	Likely	Certainly	No opinion
*To fulfil EU's global commitments on biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Captive breeding of threatened species (i.e. species on European and global red lists)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Reintroduction of species into the wild	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Research on conservation issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Training on relevant conservation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Exchange of information relating to species conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Public education on and awareness of biodiversity conservation and nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Public education on and awareness of conservation of species, wild animals and habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Provide information on exhibited species and their habitats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Provide information on broader biodiversity and nature protection topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Keeping animals under appropriate conditions with good veterinary care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Prevent escape of animals and intrusion of outside pests and vermin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Keeping appropriate, sharable data records of the zoos' animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25

To what extent do you consider that the Directive has brought the following benefits?

	Not at all	Minor benefits	Significant benefits	Crucial benefits	No opinion
*Benefits for overall biodiversity conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Benefits for protecting species from extinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Benefits for ex-situ conservation efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Benefits for public education and better knowledge on biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Benefits for positive changes of behaviour towards biodiversity protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Benefits for higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Benefits for conditions under which animals are kept and standard of animal husbandry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Created legal certainty for zoos as businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Ensured a coherent legal framework for zoos to operate across the EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Increased tourism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Increased employment in areas where zoos are located	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Increased offer of cultural and recreational opportunities to the public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Improved licensing and inspection schemes of zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*²⁶ Please specify "other"

400 character(s) maximum

*²⁷ ***In your view, how do the costs of implementation of the Zoos Directive compare with the benefits brought about from their implementation?***

Background information - The implementation of the Zoos Directive and the related licensing and inspection system by Member States could have prompted additional costs for:

- Zoos, such as investments (e.g. costs for the renovation of the enclosures, provision of information on exhibited animals, improvement of spaces where animals are kept and/or displayed, systems to prevent escape of animals and/or intrusion of outside pests and vermin, and systems for the collection of information on animals kept), and recurrent costs (e.g. to run research programmes, training, awareness raising and educational activities, collecting data). These costs may have been incurred by zoos in order to ensure the compliance of the zoo with the requirements introduced;
- Member State authorities, such as costs for licensing and inspections, costs for the closure of non-compliant zoos and the accommodation of animals, etc.

- The costs of implementation are more or less equal to the benefits The costs of implementation are somewhat greater than the benefits The costs of implementation far exceed the benefits
- The benefits are somewhat greater than the costs of implementation The benefits far exceed the costs of implementation
- No opinion

²⁸ ***Is the Zoos Directive consistent with and mutually supportive of the following legal and non-legal interventions or do you see significant gaps or overlaps?***

	Consistent and/or Mutually supportive	Gaps	Overlaps	No opinion
*Convention on biological Diversity (CBD)/Aichi targets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Birds Directive , 1979 (Council Directive 79/409/EEC) and Habitats Directive , 1992 (Council Directive 92/43/EEC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Convention on international trade in endangered species of wild flora and fauna (CITES), embraced by Council Regulation No 338/97 on the protection of species and wild fauna and flora by regulating trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Regulation 1143/2014 on invasive alien species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Commission regulation No 1739/2005 of 21 October 2005 laying down animal health requirements for the movement of circus animals between Member States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>*Council Directive 92/65/EEC of 13 July 1992 laying down animal health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific rules referred to in annex A (I) to Directive 90/425/EEC</p>	●	●	●	●
<p>*Council Directive 90/425/EEC of 26 June 1990 concerning veterinary and zoo technical checks applicable in intra-Community trade in certain live animals and products with a view to the completion of the internal market</p>	●	●	●	●
<p>*National species action plans in EU Member States</p>	●	●	●	●
<p>*National animal welfare acts</p>	●	●	●	●
<p>*European code of conduct on zoological gardens and aquaria and invasive alien species (Council of Europe, Invasive alien Specialist Group, EAZA)</p>	●	●	●	●
<p>*IUCN technical guidelines for the management of ex-situ populations for conservation</p>	●	●	●	●

*WAZA World Zoo and Aquarium Conservation Strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 29 Please specify "other".

200 character(s) maximum

Final remarks

If you are aware of specific documents that should be taken into account in the evidence gathering process, please submit them through the [evaluation website](#).

Thank you for your participation!

ANNEX IX – WORKSHOP REPORT

INTRODUCTION

This report presents the work that was carried out regarding the organisation of the workshop under the project on an evaluation study to support the Commission’s evaluation of the Zoos Directive (Directive 1999/22/EC). The lead for this task was Milieu with significant contribution of VetEffecT. The purpose of the workshop was to present the main findings of the Draft Evaluation Report and to provide an opportunity for important stakeholders to input on the conclusions on the effectiveness, efficiency, relevance and coherence of the Directive, through a robust debate and an informative exchange of opinions. At the workshop, the study team presented the main findings of the draft evaluation report as a basis for the discussion. Stakeholders were asked to focus and provide input in particular on any existing gaps or misrepresentations that they identified in the study’s findings.

The workshop was a one-day event in Brussels, held on 16 May 2017 in the “Charlemagne” building of the European Commission (Rue de la Loi, 170, 1040 – Brussels). The workshop was designed to accommodate 100 participants from the following target stakeholder groups: Member States, NGOs, sectoral representatives and academia. The workshop was supported by interpretation in English, French, German, Italian and Spanish.

This report contains the agenda of the workshop (Section 1), the list of participants (Section 2), the workshop materials (Section 3), a summary of the discussions (Section 4) and the way in which feedback from stakeholders will taken into account for the Final Evaluation Report (Section 5). The Annexes contain the list of participants (Annex I), the Workshop Background Note (Annex II) and the presentations (Annex III).

1 AGENDA

The agenda of the workshop was drafted in collaboration with the European Commission with a view to ensure meaningful feedback from stakeholders. The presentations were done by the European Commission, to introduce the study and the purpose of the workshop, and by members of the study team, to present key findings of the Draft Evaluation Report. It was agreed with the European Commission that no additional speakers were required or break-out sessions organised in order to optimise the time available for plenary discussion with the stakeholders. The discussions were chaired by the European Commission (Micheal O’Brian). The detailed agenda is reproduced below.

Table 80 – Agenda of the Workshop

8:30 - 9:30	Welcome coffee - Registration
9:30 - 10:15	<p>Introductory session</p> <p><i>Introductory speech: Humberto Delgado Rosa, European Commission, Directorate D – Natural Capital</i></p> <p><i>Approach and methodology: Milieu</i></p> <p><i>Opportunity for initial feedback from participants</i></p>
10:15 - 16:00	<p>Emerging Findings</p> <p><i>For each session: - Presentation/Introduction and overview of the evidence and key issues by Milieu; perspectives/reactions from the audience.</i></p> <p><i>All sessions were chaired by the Commission.</i></p>
10:15 - 11:45	<p>Effectiveness</p> <p>This session focused on the extent to which the objectives of the Zoos Directive have been met, and any significant factors which may have contributed to or inhibited progress towards meeting those objectives.</p>
11:45 - 12:30	<p>Efficiency</p> <p>This session considered evidence on the costs and administrative burden associated with the Directive, whether they are reasonable and proportionate to the results achieved, and any evidence of excessive costs or unnecessary administrative burdens and the reasons for them.</p>
12:30 - 14:00	Lunch break
14:00 - 15:00	<p>Coherence and Relevance</p> <p>This session considered the coherence of the legislation with other policies and legislation, including complementarities and/or contradictions that might be standing in the way of their effective implementation or preventing the achievement of their objectives. It will also cover the correspondence between the objectives of the Directive and the current (legal, policy and scientific) situation.</p>
15:00 - 16:00	<p>EU added value</p> <p>This session focused on the extent to which the objectives of the Zoos Directive are consistent with the needs of species, whether the Directives have made a difference beyond what would have happened if they had not existed and if so, how.</p>
16:00 - 16:30	Coffee break
16:30 - 17:00	<p>Final discussion and concluding remarks</p> <p><i>Feedback from participants</i></p> <p><i>Concluding remarks Commission</i></p>

2 PARTICIPANTS

The selection and invitation of the workshop participants is crucial to the success of the workshop to ensure that the results have been rigorously tested. The study team discussed this issue with DG Environment and ensured that selected invitees were informed of the workshop and its date as soon as possible. The key stakeholders to be invited to the event were from different sectors and institutions, including amongst others:

- Representatives of the European Commission, across policy units in e.g. DG ENV, DG GROW, DG TRADE, DG DEVCO, DG EAC, DG RTD and the Secretariat General;
- Representatives of Member States, including governments and agencies, regional and local authorities, environmental / nature conservation authorities and other relevant authorities (e.g. inspectorates);
- Sectoral representatives (such as zoo operators.);
- NGO representatives and civil society;.

The study team based the invite list on the stakeholders contacted for the targeted surveys. The contacted stakeholders were encouraged to disseminate the invitation to any relevant stakeholder. Given the limited number of possible participants (i.e. 100), it was however clearly stated that participation could, if needed, be limited to a maximum of one representative per organisation.

Registration to the workshop was done online through a registration form based on Google forms. The registration form was open between 27 February and 10 May 2017. Stakeholders first had the possibility to highlight their interest in the workshop and provide all relevant information (profile of stakeholder, security details for accessing workshop facilities). Upon review of the list of registrations, the study team sent confirmation of registration. The timeline for contacting and informing stakeholders about the workshop is illustrated in the Table below. The full list of the 81 attending participants (including the study team and the European Commission) is presented in Annex I to this report.

Table 81 – Contacts with workshop participants

Date	Contact
27.02	Sent out invitations (personalized emails) and link to the registration form to: <ul style="list-style-type: none"> ▪ Competent Authorities (MSCA) (49); ▪ Survey participants: NGOs, Zoos, Zoo associations, Other federations (80); ▪ Experts/Academia (7).
10.03	Sent out reminders to all non-responding contacts
20.03	Sent out reminders (personalized emails) to non-responding competent authorities
23.03 - ...	Sent confirmation of attendance emails after Commission approval, including venue and logistical details
28.03	Disseminating reminders supported by European Commission letter to non-responding competent authorities
02.05	Sent out the Agenda and Workshop Background Note (see section 3 on workshop materials) to all confirmed participants (including a reminder of the venue and logistical details for the meeting). These two documents were also sent progressively to newly confirmed participants, alongside the confirmation email.
10.05	Sent out the meeting's presentations and list of participants to all confirmed participants (as well as the agenda and background document anew, as a reminder) (see section 3 on workshop materials).
15.05	Sent out an email to all participants reminding them about the venue address and access.

3 WORKSHOP MATERIALS

To ensure meaningful discussions focused on the findings (and gaps) of the study team, participants were provided with a range of materials informing them on the progress done on this study and the findings reached:

- All reports and documents provided on the website dedicated to the evaluation exercise⁵⁰⁶, including:
 - The evaluation roadmap;
 - The reference database;
 - The Targeted Surveys Report;
 - The Interviews Report;
 - The Public Consultation Report.
- The Workshop Background Note that summarized the findings of the Draft Evaluation Report (see Annex II) was communicated to all participants to the workshop two weeks ahead of the workshop (i.e. on 2 May 2017);
- All the presentations prepared by the study team (see Annex III) were sent to the participants one week ahead of the workshop (i.e. on 10 May 2017).

⁵⁰⁶ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

4 SUMMARY OF DISCUSSIONS

The discussions on all the agenda items were structured in the following manner:

1. Introduction and chairing by the European Commission (Humberto Delgado Rosa for the introduction; Michael O' Briain for the other points);
2. Presentation by the study team of the emerging findings (see presentations in Annex III);
3. Discussion chaired by the European Commission.

The following sections summarize the key points expressed during the discussions.

4.1 GENERAL DISCUSSION

4.1.1 Welcome speech

Welcome speech by Humberto Delgado Rosa (European Commission, Director of Directorate D – Natural Capital)

- Looking back at the situation in 1980, many zoos did not meet any standards, very few zoos had concerns on conservation. Only five out of 12 MS had legislation on zoos, more focused on animal welfare and licensing than on conservation activities.
- The greatest efforts for the conservation and sustainable use of biodiversity must of course focus primarily on measures in the wild. This is reflected in EU nature legislation (Birds and Habitats Directives), EC wildlife trade regulations implementing CITES, the IAS Regulation, the EU 2020 biodiversity goals and of global action under the Convention on Biological Diversity & other international agreements.
- However, as more species and habitats decline and an increasing number of wild populations need management, the role of ex situ conservation becomes more important. The Zoos Directive responds to these needs by implementing Article 9 of the CBD which lays down the requirements for ex situ conservation.
- The first key findings from the evaluation study show that a licencing and inspection system has been established in all 14 Member States subject to the evaluation. Zoos are implementing conservation measures required under Article 3 of the Directive but to a different extent. The Zoos Directive created a common legal framework with minimum requirements applicable to all zoos with positive effects mainly on zoos which were not part of zoo associations. However, implementation and enforcement issues remain and the overall impact of the Directive on the protection of wild fauna and conservation of biodiversity is subject to debate. The purpose of the evaluation exercise is to look at what worked, what did not work in the implementation of the Directive, and why. Which objectives were achieved, which were not. The study of the consultants gathers the evidence and provides findings upon which the evaluation carried out by the Commission will be based.
- Many stakeholders provided constructive inputs to the study through the different consultation processes. The workshop is the last consultation to discuss the results of the evidence gathered and the findings of the study. All relevant information can be found on the REFIT evaluation website.
- The objective of the workshop is to identify missing information and potential misinterpretations.

4.1.2 Approach and methodology

Presentation by Nathy Rass-Masson (Milieu Ltd) (*see Workshop Background Note in Annex II and slides in Annex III*)

4.1.3 Discussion

- **Objectives of the study** - The study will be the key source of information for the Commission to evaluate the Directive. It is important to obtain as comprehensive and representative data in this study as possible in order to allow a meaningful evaluation process by the Commission. Focus of the Commission is to answer to the 4 evaluation questions on effectiveness to understand the progress made compared to general and specific objectives set in the Directive. Key mechanisms in place are the licensing and inspection systems applicable to all zoos. Evidence gathering is therefore heavily dependent on the feedback from the Member States' Competent authorities and the zoos community. Unfortunately, the contributing zoos are a very small sample of the overall EU zoos community. This is a point that both the study team and the Commission bear in mind. This being said, it is key to ensure peer review through this workshop of the findings achieved on this basis.
- **Data collection and monitoring** - The 360 Species database could be used to (partly) tackle the issue of lack of historical data. The system gathers more than 40 years of data on species conservation in hundreds of zoos. The Aichi Target 19 underlined that species data is essential: Species 360 partly addresses that need, although it focuses on ex-situ conservation. Only EAZA members are required to take part in 360 Species system – this system is worth mentioning as a tool for all zoos to report and monitor their zoos collections.
- **Data limitations on surveys** - The number and types of zoos that responded to the targeted surveys is not representative of the situation in all EU zoos. 70 zoos represent a limited number, among which there is a strong overrepresentation of EAZA zoos (37) compared to the share of EU zoos that are members of EAZA (circa 17%). The study must underline this limitation in relation to the findings based on the answers to the targeted survey of zoos.
- **Questionnaires from other actors** - Zoos received several questionnaires also from other actors (such as NGOs) outside the scope of this evaluation. This was reported by a stakeholder as a cause for confusion. This situation led to uncertainty as to the use of the answers, and induced some reluctance in providing too extensive information.
- **Positive impacts** - The background note seems to overlook some of the positive impacts of the Zoos Directive on biodiversity conservation, in particular regarding financial contribution to conservation projects, e.g. EAZA invested about EUR 9,7 million in projects across many countries.
- **MS selection** - The selection of 14 Member States for the targeted survey and interviews is a consequence of the terms of reference for the study that the contractors had to follow and represent a wide variety of EU countries, although only half of them. However, the public consultation and evidence gathering were open to stakeholders of all 28 Member States. All stakeholders were invited to provide further evidence and inputs in writing by 30 May 2017.
- **Wording and access to public consultation** – Some zoos visitors found it very difficult to access and answer to the public consultation. Its accessibility and its drafting may have been too complex for a wide public.

- **Reaching out to stakeholders** - The overall consensus reached during this workshop should not underestimate that the key difficulty is to access and convince the stakeholders who have not shown interest in participating in the evaluation process.

4.2 EFFECTIVENESS

4.2.1 Presentation

Valentina Parziale and Nathy Rass-Masson (Milieu Ltd) (*see Workshop Background Note in Annex II and slides in Annex III*)

4.2.2 Discussion

- **Licensing and inspection requirements** - Implementation of licensing and inspection requirements is challenging for competent authorities in terms of the resources and knowledge that must be mobilized. It was reported that there are still many non-compliant zoos across the EU, which leads to unfair and unacceptable competition for well performing and dedicated zoos.
- **Further support from zoos associations** - Stakeholders in general underlined the need to translate and disseminate the Good Practices Document, to set up a platform for exchange to identify means of improving licensing and inspection; and further support for inspection. In some aspects EAZA and national zoo federations could support competent authorities and contribute to this support to the implementation of the Zoos Directive, although conflict of interest should be prevented, leaving the authority fully in hands of the competent authorities.
- **Importance of captive breeding** - Captive breeding had an impact on wider conservation – which the background note does not stress sufficiently. 68 species targeted by conservation measures saw an improvement in their conservation status, in 17 cases zoos were involved.. 25% of conservation measures were due to captive breeding. This points to the importance of the role of zoos in wider biodiversity conservation. The incentive induced by the Directive for zoos to further engage in conservation is critical.
- **Complexity of conservation** - Conservation is a complex issue: the background note seems to overlook the scale of conservation’s impacts. The Directive itself focuses on macro-scale conservation (species and habitats conservations). Essential components of conservation successes include the management of the supply chain and consumer demand on problematic resources. The assessment of the Directive seems to only look at the success criteria related to public education and awareness raising – which are only some of the essential components of conservation successes: others should be considered. It was mentioned that the EU can have a huge impact on several CBD Targets, including Target 19 on knowledge improved, shared and applied. In this regard, the Commission mentioned that the study is focused on the implementation of the Zoos Directive and its achievements rather than the overall EU policy in the area of conservation. It was also specified by the Contractor that the study does not look at the content of conservation measures or at single conservation measures adopted by individual zoos (that is outside the scope). The logic of the Zoos Directive is to set up licensing and inspection systems that ensure conservation measures are included as part of zoos activities.
- **Research** - Stakeholders felt that zoos research performance was judged too negatively in the key findings. Zoos perform a lot of research that might not be immediately visible and might not always be published. Zoos are often not considered as co-authors by academics. There's a huge contribution of zoos to research on veterinary issues.

- **Animal welfare** - To ensure conservation, it is important to have healthy animals. The conditions under which animals are kept in zoos therefore cannot be ignored. Stakeholders indicated the general need for measurable indicators to evaluate the implementation of Article 3 measures (e.g. biological indicators like natural behaviour for Article 3 3rd indent). However, it was noted that the consultant did not consider animal welfare as specific study target, but that the focus was on the Zoos Directive's main goal of biodiversity conservation.
- **EC support** – Bearing in mind that the Zoos Directive is strongly based on the principle of subsidiarity, which implies that limited means of action were conferred to the EC, stakeholders urged the Commission to further support MS and zoos in implementation:
 - Through funding – including increase visibility of available funding instruments to zoos.
 - Through enforcement. Infringement procedures triggered important changes and improvements of implementation; and increased standards e.g. Iberian lynx.
- Through greater involvement in coordination, for instance by ensuring translation of the Good Practices Document, which was acknowledged as extremely useful to the implementation of the Directive, and dissemination of the Document, by setting up a platform for exchange of information between stakeholders (in particular for inspectors/enforcement authorities). **Entertainment** - Entertainment in zoos (e.g. animal shows) did not seem covered in the background note; nor does it focus on whether or not animals display natural behaviour. In this respect, it was reported that the 3rd indent of Article 3 is extremely vague.
- **MSCAs knowledge and resources limitations** - MSCAs struggle to have the appropriate knowledge to properly carry out inspections. It is a very specialist field for which consultation of experts and coordination are needed. In this regard, a stakeholder suggested the creation of a database of international experts in order to support and improve licensing and inspections, while ensuring independence. It is important to reach out to MSCAs to understand their needs and constraints in terms of resources and knowledge. Training are not adapted to the gaps and needs of each MSCA. This point is developed in the 2016 Born Free report on training needs of MSCAs. The report underlines the serious lack of knowledge, expertise and resources of MSCAs. More comprehensive and coordinated training program is needed.
- **Other positive impacts** – It was noted that the increase in the number of members of zoos associations can be linked to the Zoos Directive that urged zoos to increase conservation activities.
- **Interlinkages between in situ and ex situ conservation** - The interlinkages between in-situ and ex-situ conservation projects ran by zoos are extremely important. Such projects are however not well documented, hence a limited public awareness of the existing interlinkages.
- **Understanding of in situ conservation** – In situ conservation in the background note is very much focused on re-introduction of species. In-situ conservation mostly covers protection of wild population and a wider range of measures which should be reflected. In that respect, re-introduction of species is exceptional and minor. The most important contribution of zoos to biodiversity conservation is through the protection of wild species still in the wild. The EAZA database provides many examples of such actions. It was also mentioned that zoos work a lot with local or regional authorities to contribute to the protection of local protected areas or species (examples of amphibians threatened by the chytrid fungus, protection of vultures, captive breeding of hamsters, corncrakes).
- **Education** - With the continued growth in the share of urban population, providing links to wildlife has become increasingly important. The best places for such connection are zoos – rather than natural habitats. Climate change will heavily impact wild populations

that can easily be protected in zoos, such as amphibians. The educational impact of zoos is published and documented. It is clear from research that zoo visitors are much more aware of the value of wildlife compared to non-visitors. Research shows that providing species information is not sufficient to induce behaviour changes. This finding is quite recent and changes in the information provided to the public and zoos educational programmes are taking place at the moment. However, while it is hard to achieve and measure long-term changes in behaviour due to zoos visits, smaller achievements should be recognised as well, such as cherishing nature. It was otherwise mentioned that long-term impact on behaviour is questioned in the study. Research demonstrated that educational programs of zoos are more effective than school education. Zoos are asked by international conservation bodies (e.g. IUCN) to step in conservation activities: this recognises the role of zoos at an international scale. Finally, the background note contained only questions to quantitatively assess education measures in zoos – without consideration of quality and content. It would be useful to have better understanding of the content of the education programmes – although it is beyond the scope of this study.

- **Enforcement** – All stakeholders considered that the Zoos Directive is a very important piece of legislation: it ensures consistency in performance, status and standards. The background note however seems to overestimate the progress achieved in enforcement: a lot of improvements remains to be done. This assessment is backed-up by the EU Zoo Inquiry that Born Free carried out across EU zoos.
-
- **Contributing factors** – The study should acknowledge the role of:
 - NGOs in providing valuable information directly to MSCAs, and in giving training to e.g. veterinarians and other practitioners (e.g. Born Free in collaboration with EAZA).
 - The study should not judge zoos too harshly. No zoo was created from the outset with the primary objective of promoting conservation. But zoos increasingly include those objectives, and carry out numerous relevant activities. The importance of conservation activities in zoos at a small scale, i.e., at local level, should also be mentioned.
 - The work done by veterinarians in zoos is also a significant contribution to conservation. Veterinarians carry out substantial research, including in the context of the One Plan Approach. This may however not be very visible because their work is not published in conservation oriented reviews.
- **Hindering factors**
 - It was underlined that the alternative wording of Article 3, first indent, of the Directive constitutes a factor hindering its effectiveness. Only some Member States e.g. Italy have established all the measures of Article 3, first indent, as mandatory. The wording of Article 3, 3rd indent, was felt by several stakeholders to be vague and to allow for abuse and misinterpretations.
 - Article 2 should include clearer requirements for exemptions. This seems to be particularly problematic in Italy.
 - The broad definition of ‘zoos’ might limit the effectiveness of the Zoos Directive. Zoos as defined and regulated by the Zoos Directive should have conservation activities, and should not only be decent animal enclosures. On the other hand, some stakeholders expressed the opinion that the Directive should be extended to cover all institutions that have wild animals in human care, including sanctuaries.
- **Call for more regulation** – The Zoos Directive triggered the adoption of legislative measures at national level. Some national stakeholders said that more stringent/binding means of improving implementation should be considered.

4.3 EFFICIENCY

4.3.1 Presentation

Valentina Parziale (Milieu Ltd) – (see *Workshop Background Note in Annex II and slides in Annex III*)

4.3.2 Discussion

- **Data limitations** – It is acknowledged by the Commission that given the lack of reporting and monitoring obligation, very limited information was available on costs. Besides, all legislative actions have costs. The focus of the study is on disproportionate, unnecessary costs. The study tried to isolate costs of Zoos Directive compared to other legislations. It was made as clear as possible in questionnaires and interviews. But it is difficult for stakeholders to disentangle the different costs. Hence no clear quantitative finding was produced regarding the costs triggered by implementation.
- **Proportionality of costs and overall efficiency**– In the light of the increased focus in the fight against illegal trade, the inspection and licensing schemes required by the Directive are increasingly essential. The costs induced by the legislation definitely seem necessary. Concerning the costs that competent authorities must bear, measures to reduce them are possible, such as the combination of inspections by different authorities. Costs of implementing Zoos Directive are very low compared to costs under other legislations (animal welfare laws for instance). It was also mentioned that the Zoos Directive is the most efficient instrument possible for MS to implement Article 9 of the CBD. There is still a lot to do, but the Zoos Directive was the most efficient tool – with very low costs.
- **Involvement of zoos and zoos association** in the licensing and inspection system: the Dutch example of self-screening of its zoos by the Dutch Zoo association was mentioned as a good practice to reduce costs and effort for competent authorities as they could work more risk-based and focus more on zoos without such self-inspection. A multi-stakeholder process to support licensing and inspection was mentioned as an option to increase efficiency. It was nevertheless pointed out that it should not give rise to overrepresentation of the interests of particular stakeholders' group (i.e. animal welfare, zoos associations). A committee of experts to support MSCAs in the implementation of the Directive was suggested. It was suggested that regional federations could also contribute, especially in states where there are no national federations, or where national federations do not have a screening process. A non-decisive role as advisor to the competent authorities was considered important to ensure impartiality.
- **Costs of ex-situ conservation** - The costs of ex-situ breeding are hard to tackle, only zoos can take care of it – this should be further underlined in the report.
- **Closure of zoos** - Zoo closures induce important costs for society. Often no rehoming options are introduced by zoos; and NGOs and rescue centres will be involved in the relocation of animals. This cost should not be placed on citizens to address animal welfare aspects. Article 6 on closure of zoos places too much responsibility on a single MSCA/department. Further support from guidance document is needed. A multi-stakeholder approach should be favoured in order to keep the process as transparent as possible – for both closure and inspection.
- **Organisation of MSCAs** - Often competencies are shared across different ministries (agriculture/environment). When responsibility is shared, there tends to be a lack of coordination and exchange among the competent authorities. There is also often a lack of communication between zoos and authorities. Observations by MSCAs pointed out:

- **Italy** - The Italian Environment Ministry is the only competent authority for the implementation of the Directive. But it cooperates with experts from other ministries as support for the implementation.
- **Belgium** - Differences singling out Belgium compared to other countries can be explained by the fact that Belgium already had a system in place before the adoption of the Zoos Directive. Hence no cost could be pointed as due to the implementation of the Directive itself. The supervision of zoos and welfare is a shared priority for many authorities in Belgium, and competences are divided between different ministers. They try to cooperate, but sometimes the objectives of what the supervision entails are not clear. Some objectives lack clarity, such as on animal welfare. Therefore, there is room for improvement for them: to clarify the objectives of the Directive will facilitate supervision. The problem is that the wording of the Directive is not without ambiguity.

4.4 COHERENCE

4.4.1 Presentation

Nathy Rass-Masson (Milieu Ltd) – (see *Workshop Background Note in Annex II and slides in Annex III*)

4.4.2 Discussion

- The Directive is coherent with EU legislation on biodiversity and animal welfare. No issues of incoherence were raised.
- **IAS Regulation** – The implementation of the Directive is fully coherent with the IAS Regulation so far, but some stakeholders consider that inconsistencies might occur in the future when other species may be included in the IAS list. Therefore, coherence between the two acts should be monitored also in the future.
- **Balai Directive** - The Zoos Directive and the Balai Directive strengthen each other through the licensing requirements and the need to guarantee high quality veterinary care. Both instruments are important and mutually reinforcing.

4.5 RELEVANCE

4.5.1 Presentation

Philip McGowan (VetEffect) – (see *Workshop Background Note in Annex II and slides in Annex III*)

4.5.2 Discussion

- **Biodiversity crisis** – There is an increased importance of ex-situ conservation in the light of the biodiversity crisis. Zoos and zoos associations are relevant actors to highlight it to the attention of the public. The biodiversity crisis shows that zoos might hold species that are not *yet* threatened but that can become threatened in the near future.
- **Implementation of CITES** - It is important to underline the relevance of the Zoos Directive for the implementation of CITES. Zoos and record keeping have a very important role in fighting illegal trafficking. Record keeping in a shareable format should be part of the requirements of the Directive. It is also a key material for policy-maker to enable informed decision making. The Article 3 record keeping is too broad, and does not allow connectivity of information. The key benefit of record keeping is to share the information.
- **Cross-border aspects** – There is an international component to the exchange of data. An international framework should be put in place and interphases should be better used.

- **Academic research and the role of zoos** - Academia could generate better and more useful research for practitioners and zoos. The amount of research available is not reflected in the background note. There is a huge increase of research on wildlife in controlled environment offered by zoos. The relevance of zoos in that sphere should be further emphasised. There is a wide range of academic research on wildlife. It is a varied and quite dispersed literature. Historically, zoos have not always been given co-authorship on research taking place in their facilities. This might lead to underestimating the amount of research carried out by zoos. What would be more useful is to have a holistic research strategy for zoos.
- **Management plans and captive breeding-** To improve contribution of zoos to conservation, zoos could adopt well-developed management plans and Member States could set up wild animal management plans at national level. The EU Zoo Inquiry concluded that zoos underperform when it comes to species conservation, information provided to the public, educational programmes, share of threatened species, participation in coordinated breeding programmes. Some stakeholder called for an EU wide strategy or a centralised multi-stakeholder process identifying which species need conservation measures how, where, by whom. Some participants argued that focus should be placed on EU threatened species – which are currently underrepresented in zoos. Depending on numbers presented, between 5% and 27% of EU threatened species are in zoos. The opinions on the value of keeping non-threatened species in zoos varied. For some, species that are not yet vulnerable should also be prioritised in captive breeding to avoid losing an opportunity to ensure their protection, and species of least concern can also have a conservation value for their endangered relatives. For others, captive breeding is not the best answer for threatened species, and there is a need to carefully review where resources are placed to ensure the best use.
- **The framework nature of the Directive** – there is a benefit to the fact that the Directive is a framework act and not too prescriptive. Because of its framework nature, the Directive can adapt to new developments.

4.6 EU ADDED VALUE

4.6.1 Presentation

Lucie Meura (Milieu Ltd) – (*see Workshop Background Note in Annex II and slides in Annex III*)

4.6.2 Discussion

- **Progress in harmonization** - EU legislation was an important catalyst for adoption of legislation at national level, and, though the Zoos Directive leaves an important margin of interpretation, there is a certain level of harmonization through minimum standards. The existence of the Directive has raised political interest and action. The Zoos Directive is a framework that pushes implementation not only by MSCAs but also at the level of cities and communities. An EU Directive makes a big difference. A tremendous gap remains among zoos in particular in respect of conservation. Most conservation and coordination take place through EAZA and other associations. A noticeable gap exists between zoos that are members of associations and zoos that are not members: the Directive is key in bridging this gap. The difference is made obvious in countries outside of the EU where no legislation ensures that minimum requirements are applied to all zoos.

- ***Cross-border nature of conservation issues*** - Conservation is not a national issue; it is an international issue with important cross-border implications. It should not be left to national levels.
- ***Role of EC*** –The EC has an important role to play through enforcement procedures, but also in ensuring the data can be gathered, monitored and exchanged. Given the principle of subsidiarity, the role of the EC is limited but stakeholders expressed the view that further coordination would be useful, maybe in line with the coordination implemented by DG SANCO on food.
- ***Consequences of removal of the Directive*** - Removing the Directive would have many unpredictable outcomes. Zoos that are part of organisations are likely to keep standards. Others will not. The gap between “good” and “bad” zoos would be expected to increase. Illegal trade would be expected to soar. Animal welfare would be expected to collapse. Similarly, gaps would be expected to appear between Member States: Member States that went beyond the requirements of the Directive and effectively implemented it are likely to keep the existing legislation. On the other hand, authorities that struggle with implementation might get rid of the Zoos Directive's requirements. There was broad consensus of stakeholders at the workshop that the instrument should be kept – supported by increased enforcement and implementation. Besides, the Zoos Directive is needed to keep and raise veterinarian standards.

4.7 NEXT STEPS

Conclusions – summary of the key points:

- Translation of Good Practices Document would be welcome by all stakeholders;
- The Zoos Directive is not only still relevant, but is considered as more needed than ever in the context of the biodiversity crisis;
- Stakeholders demonstrated a strong commitment to better implementation of the Directive;
- Many good practices and good examples exist;
- Overall a strategy is needed for holistic (ex situ and in situ) conservation.

Next steps:

- The study is about to be finalised. The feedback of stakeholders will be used exclusively for fine-tuning the current findings.
- Targeted comments regarding the key findings, gaps, misrepresentations, missing evidence can be submitted by 30th May to zoos.directive@milieu.be
- The study will be finalised by mid-July 2017.
- This will be used by the Commission, who will finalise the evaluation, which will be published as a Staff Working Document , following consultations with all relevant Commission servicesThe aim is to publish this by the end of the year 2017.

5 INCLUSION OF STAKEHOLDERS' FEEDBACK

The points raised during the discussions will be taken into account for the revision of the Draft Evaluation Report and the submission of the Final Evaluation Report in July 2017.

Stakeholders were also encouraged to submit additional written comments by the 30th May 2017 to the functional email address of the study team (i.e. zoos.directive@milieu.be). Stakeholders were asked to submit concise comments targeted to any missing information, gaps or misrepresentation that they identified in the findings. The table below provides an overview of the comments that were received.

Stakeholder	Evaluation criteria	Topics covered
MSCAs		
IT MSCA	Effectiveness Efficiency	Wording of the Directive Involvement of federations in licensing and inspections Good Practice Document
NL MSCA	Efficiency	Number of man days for inspection
Federations		
French association of zoological parks (AFdPZ)	Effectiveness Relevance Coherence	Wording of the Directive Involvement of NGOs in licensing and inspections Good Practice Document Closure of zoos Impact of zoos on biodiversity conservation through education of visitors, financing and holding of other than threatened species. IAS Regulation
German Wildlife Park Association	All criteria	Completed survey addressed to zoos federations
NGOs		
AssoVegan	N/A	Importance of animal welfare, and negative impact of zoos on conservation of biodiversity.
Orca Research Trust and Fre morgan Foundation	Effectiveness	Points to be clarified in the wording of the Directive + Good Practice Document
Endcap	N/A	Position statement on the EU Zoos Directive REFIT Evaluation
Dolphinaria-Free Europe	N/A	Position statement on the EU Zoos Directive REFIT Evaluation
Born Free	N/A	Position statement on the EU Zoos Directive REFIT Evaluation
Zoos		
Zoological Society of East Anglia	Effectiveness	Emphasis on problems of implementation: importance and weakness of inspections.
Academia		
Olivier Duriez-University of Montpellier	Effectiveness	The secondary effect of the Zoos Directive: the importance and impact of a successful collaboration between scientists and zoos for research on biology and conservation of birds of prey

ANNEX I – LIST OF PARTICIPANTS

No	Surname	Name	Affiliation
1	AGUZZI	Irene	Public official, Zoo Commission, Ministry of environment, protection of the territory and of the Sea
2	ALMUNIA	Javier	Responsible for research, education and conservation, Loro Parque, Spain
3	ANDREWS	Brad	President, European Association for Aquatic Mammals
4	ANGELINI	Gaia	Campaigner, wild animals, LAV Animal Protection, Italy
5	ANSONE	Liene	Veterinary and Food Department, Head of Division of Animal Welfare, Ministry of Agriculture
6	AVESANI ZABORRA	Cesare	Italian Association of Zoos and Aquaria - UIZA
7	AYLMER	Sophie	Parliamentary Assistant, European Parliament
8	BATTERS	Gary	Council Member, British and Irish Association of Zoos and Aquariums
9	CASTROGIOVANNI	Federico	Legal advisor, Ministry of environment, protection of the territory and of the Sea
10	CHRISTOFI	Athena	Consultant, Milieu Ltd
11	CIRILLO	Pier Paolo	Vice President, Animalisti Italiani Onlus, Italy
12	CONDE OVANDO	Dalia	Associate Professor (Max Planck/University of Southern Denmark)/Director of Science (Species360)
13	CRESS	Douglas	Executive Director, World Association of Zoos and Aquariums
14	DELGADO ROSA	Humberto	Director, Directorate D – Natural Capital, DG Environment
15	DE RUIGH	Lisette	Chairman, WILDLANDS Adventure Zoo Emmen, The Netherlands
16	DI SILVESTRE	Ilaria	Wildlife Programme Leader, Eurogroup for Animals
17	DIEZ	Alberto	NGO official contact point for zoos set up by the Spanish Ministry, ANDA (INFOZOOS)
18	DOMB	Eric	Chairman, PAIRI DAIZA, Belgium
19	DUPONT	Claire	Consultant, Milieu Ltd
20	EBERHADTNE BALOGH	Anita	Referent, Environmental Affairs, Nyíregyházi Állatpark Nonprofit Kft., Hungary
21	ENCKE	Dag	Director, Tiergarten der Stadt Nürnberg, Germany
22	ENDRE	Papp	Vice director of zoology, Nyíregyházi Állatpark Nonprofit Kft, Hungary
23	ERNY	Cécile	Executive Director, French Association of Zoos
24	GODDARD	Samantha	Programmes Officer, The Born Free Foundation
25	GOERRES	Ute	Administrative Agent, Directorate D – Natural Capital, Entity 3 Nature Protection, DG Environment
26	GRIFFITH	Myfanwy	Executive Director, European Association of Zoos and Aquaria (EAZA)
27	GRUNWELL	Lily	Research and communications intern, The Born Free Foundation
28	GRUSCHWITZ	Michael	EU-Representative of Environment and Agriculture, Ministry of Environment and Agriculture - Saxony
29	HEß	Karoline	Department for Species Protection, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
30	HÖGGREN	Mats	Director/CEO, Nordens Ark Foundation, Sweden
31	EIRINAIYOU	Kallirroï	International Affairs, PanHellenic Animal Welfare and Environmental Federation
32	FAGES	Chloé	Consultant, Milieu Ltd
33	KLAAS	Kristi	Head of section, Counsellor for environment, Permanent Representation of Estonia to the EU
34	KÖGLER	Julia	Deputy Executive Director, Association of the Zoological Gardens (Verband der Zoologischen Gärten (VdZ))

35	KONIECZNA	Magdalena	Vice Head, Poznan Zoo, Poland
36	KORCZAK	Malgorzata	Expert, General Directorate for Environmental Protection
37	LAWRENZ	Arne	Chair of the veterinary committee, European Association of Zoos and Aquaria (EAZA)
38	LENZI	Renato	CEO, Zoomarine, Italy
39	LIÈGEOIS	Jean-Louis	Manager of the falconry team, Grand Parc du Puy du Fou, France
40	LISKER	Rosina	Board Member, Free Morgan Foundation
41	LOIR	Joël	Veterinary Expert, Public Service of Wallonia - Animal welfare
42	MACH	Jiri	Head of Unit of International Conventions, Deputy Director, Department of Species Protection and Implementation of International Commitments, Ministry of Environment
43	MALJKOVIC	Davorka	Vice director, Head of research and development, Zoological Garden of Zagreb, Croatia
44	MANTECA	Xavier	Researcher, Autonomous University of Barcelona, Spain
45	MCGOWAN	Philip	Consultant, VetEffect
46	MCKEOWN	Sean	Director, Fota Wildlife Park, Ireland & Vice-Chair of the British and Irish Association of Zoos and Aquariums
47	MEURA	Lucie	Consultant, Milieu Ltd
48	MOORE	Alan	Assistant Principal, Zoo Licensing, Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs
49	MORENO	María	Scientific Expert, Spanish Foundation for Advice and Defense of the Animals (FAADA)
50	MORITZ	Johanna	Head of Animal Welfare department, Bavarian Health and Food Safety Authority
51	NOTARO	Nicola	Head of Unit, Directorate D – Natural Capital, Entity 3 Nature Protection, DG Environment
52	NUIJTEN	Jacobus (Daniel)	EU Policy Manager, Planckendael Zoo, Belgium
53	O'BRIAIN	Michael	Deputy Head of Unit, Directorate D – Natural Capital, Entity 3 Nature Protection, DG Environment
54	PANDURSKA	Elena	Senior expert European Programmes and Projects, Municipality of Blagoevgrad, Bulgaria
55	PANINI	Laura	Wild animals-projects and research, LAV Animal Protection, Italy
56	PARZIALE	Valentina	Consultant, Milieu Ltd
57	PEREBOOM	Jeffrey	Professor of Conservation Genetics (including Zoo Population Management), University of Antwerp, Belgium
58	PFENDER	David	Policy Manager, Whale and Dolphin Conservation (WDC)
59	RASS-MASSON	Nathy	Consultant, Milieu Ltd
60	ROOSE	Eveline	Policy advisor - exotic and laboratory animal, Flemish Environment, Nature and Energy Department
61	ROSSI-CROY	Cornelia	Delegate, FVE
62	SANDERSON	Stephanie	Executive Director, European Association of Zoo and Wildlife Veterinarians
63	SCHALLER	Marek	Parliamentary Assistant, European Parliament
64	SCHMIDT	Harald	General Curator/ Head Collection Management, Rotterdam Zoo, The Netherlands
65	SCHRIJVER	Remco	Consultant, VetEffect
66	SOTO-LARGO	Barbara	Spanish Ministry of Environment
67	STEFANOVA	Diana	Chief Expert Ecologist, Blagoevgrad Municipality, Bulgaria
68	SVAMPA	Gloria	Scientific Consultant for EAZA and International Relations, Parco Faunistico La Torbiera, Italy
69	TAVZES	Branka	Undersecretary, Ministry of the environment and spatial planning
70	THORPE	Susannah	Zoologist, University of Birmingham, United Kingdom
71	TURNER	Daniel	Associate Director, The Born Free Foundation

72	VAN DEN STEEN	Wendy	Animal Welfare (Dienst Dierenwelzijn) – Flemish Environment, Nature and Energy Department
73	VAN AGGELEN	Marielle	Director, Dutch Zoos association (Nederlandse Vereniging van Dierentuinen)
74	VAN DER MEER	Laura	Legal representative, European Association of Aquatic Mammals
75	VERGOSSEN-OTTEN	Alide	Policy Officer Animal Welfare, Ministry of Economic Affairs
76	VISSER	Ingrid	Founder & Principal Scientist, Orca Research Trust
77	WIESENTHAL	Eckhard	President, German Wildlife Park Association (Deutscher Wildgehegeverband e.V.)
78	WIESENTHAL	Pascale	Ethologist (Wolf specialist), Member of the Scientific Advisory Board, German Wildlife Park Association (Deutscher Wildgehegeverband e.V.)
79	WÜNNEMANN	Klaus	CEO, Zoo Heidelberg, Germany
80	ZGRABCZYNSKA	Ewa	Head, Poznan Zoo, Poland
81	ZODROW	Laura	CEO, animal public e.V.

ANNEX II - WORKSHOP BACKGROUND NOTE

INTRODUCTION

The Zoos Directive

Directive 1999/22/EC, relating to the keeping of wild animals in zoos (the ‘Zoos Directive’), was adopted on 29 March 1999 and came into force in 2002. The Directive aims to fulfil the obligations deriving from the 1992 Convention on Biological Diversity (CBD) to adopt measures for *ex situ* conservation. Its objectives are ‘to protect wild fauna and to conserve biodiversity by providing for the adoption of measures by Member States for the licensing and inspection of zoos in the EU. In order to achieve these objectives, the Directive focuses on the role of Member States’ authorities in putting in place a system for inspection and licensing of zoos to ensure that zoos implement the conservation measures listed in Article 3.

The REFIT Programme and the evaluation study

As part of its Smart Regulation policy, the Commission initiated the Regulatory Fitness and Performance Programme (REFIT); a rolling programme that keeps the entire body of EU legislation under review and aims at making EU law more simple and less costly. The Zoos Directive is covered under the REFIT programme, meaning that its implementation needs to be evaluated by the European Commission.

Milieu Ltd and VetEffect were awarded a contract in June 2016 to carry out a study supporting the Commission in this evaluation. Based on the Commission REFIT Roadmap setting out the scope and terms of reference of the Zoos Directive evaluation⁵⁰⁷, the purpose of this supporting study was to assess the relevance, effectiveness, efficiency, coherence and EU added value of the Directive (the study is articulated around these five ‘evaluation criteria’, further divided in 16 ‘evaluation questions’) and to provide an evidence-based judgement to support the REFIT evaluation carried out by the Commission to inform future decisions relating to EU biodiversity policy and ex-situ conservation in particular.

Methodology and sources of information

The study gathered all available evidence in order to answer the 16 evaluation questions of the REFIT Roadmap. To this end, it included a literature review, targeted surveys aimed at key stakeholder groups (i.e. Member States competent authorities (MSCAs), zoo operators, NGOs and zoo federations), in-depth interviews and a public consultation. The targeted surveys and interviews, and part of the documentary review, focused on 14 Member States (Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, France, Ireland, Italy, Germany, Lithuania, the Netherlands, Poland, Portugal, Spain) selected as representative case studies⁵⁰⁸. This in-depth research in the 14 Member States was complemented by the public consultation and general literature review, in order to broaden the scope and geographical coverage of the evaluation study to all Member States.

The targeted surveys received answers from the competent authorities of the 14 selected Member States, 13 NGOs, 13 zoo federations, 70 zoos and one expert⁵⁰⁹. In-depth interviews were carried out with 44 stakeholders (13 MSCAs, 8 zoo federations, 6 NGOs, 9 zoo operators and 8 EU and international stakeholders). The public consultation received 2297 answers (1944 answers from

⁵⁰⁷ http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_env_071_zoos_directive_evaluation_en.pdf

⁵⁰⁸ This sample allowed the study to cover half of the EU Member States, and has been defined with the aim of satisfying the following main criteria: a mix of both smaller and larger (or densely populated) Member States, with a significant number of zoos; geographical coverage of the EU (balancing North/South, West/East) and of different administrative models (e.g. federal and centralised states, etc.); a combination of older and newer EU Member States, to assess different implementation periods; general availability of information, and different progress towards the implementation of the Zoos Directive, including Member States where issues related to the implementation of the EU legislation have been raised.

⁵⁰⁹ 39 NGOs were contacted (response rate = 59%); 22 zoo federations contacted (response rate = 33%); 514 zoos contacted (response rate = 14%); 10 contacted experts, academia (response rate = 10%).

individuals, 148 from zoo operators, 21 from business or business representatives, 7 from public authorities, 38 from NGOs, 34 from other associations and 105 “other”). The results of all consultations are published on the dedicated consultation website⁵¹⁰.

Purpose of the workshop

The consortium presented its draft key findings to the European Commission in the first trimester of 2017. The purpose of the workshop is to share these findings of the supporting REFIT evaluation study with representatives of governments and stakeholders, including representatives from relevant economic sectors and non-governmental organisations at both EU and national level directly concerned with implementation of the Zoos Directive to ensure that:

important findings are not overlooked in the conclusions;
there is no misrepresentation of evidence in findings;
adequate regard is given to the different inputs and the evidence that supports different views.

This Study will be a key contribution to the Zoos Directive evaluation, whose findings are intended to provide a solid and informed basis for any follow-up actions.

In order to enable constructive and informed discussions during the workshop, this Background Workshop Document presents the key findings of the Study per evaluation criteria. Each section contains an introduction on the scope of the criterion, an overview of the sources used, the methodological challenges that were faced and the key findings underlined by the analysis.

KEY FINDINGS

Effectiveness

This section analyses the extent to which the general and specific objectives of the Zoos Directive have been achieved, notably:

Protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity (general objective);

Ensure that zoos implement Article 3 conservation measures (i.e. research and training on conservation, exchange of information, captive breeding, repopulation or reintroduction into the wild; promotion of public education and awareness; accommodation of animals satisfying the biological and conservation requirements and a high standard of animal husbandry; prevent of escapes in order to avoid threats to indigenous species and of intrusion of outside pest and vermin; keeping appropriate records of the zoo’s collection) and that closures of zoos are appropriately handled (specific objectives).

In order to achieve these objectives, the Zoos Directive places obligations on Member States authorities, which are required to set up inspection and licensing systems and, thus, ensure that all zoos implement Article 3 conservation measures as a condition for them to operate and be open to the public. The setting up of adequate licensing and inspection systems and the implementation of conservation measures by zoos are expected to result in a strengthened role for zoos in biodiversity conservation, increased knowledge and public awareness in relation to the conservation of biodiversity and, ultimately, in the protection of wild species and prevention of biodiversity loss.

The analysis is based on literature and documentary review, data and information collected through the targeted surveys and interviews, and the results of the public consultation.

The supporting study was constrained by the limited amount of information on the baseline situation (i.e. before the entry into force of the Zoos Directive) and the lack of data on the implementation of the Zoos Directive, as there is no reporting obligation for Member States under the Directive.

⁵¹⁰ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

Information was therefore mainly obtained through consultations with stakeholders. In spite of this, two main issues still limit the analysis: the lack of reliable data on the performance of the licensing and inspection system (including the lack of historical data), which has only been partly offset through the targeted consultation with MSCAs; and a high representation of zoos belonging to zoo federations (and particularly to EAZA) among the respondents to the targeted survey, which can lead to bias in the evidence collected on application of conservation measures by zoos.

Nevertheless, the combination and triangulation of sources has allowed us to draw general conclusions. The results of the analysis show that progress has been made towards the achievement of the general and specific objectives of the Zoos Directive, although open issues remain, especially in relation to its inconsistent application across the EU Member States and to the capacity of the Member States to implement and enforce a fully effective licensing and inspection system. The following paragraphs discuss in more detail the achievements and open issues, along with the contributing and impeding factors.

Achievements and contributing factors

Little information exists on the status of zoos in the EU and the activities promoted prior to the adoption of the Zoos Directive. However, a comprehensive and consistent approach to ex-situ conservation was generally missing in the EU. In 1993, only five⁵¹¹ out of the then twelve Member States had relevant legislation on the subject, although it was not focused on conservation objectives⁵¹². Moreover, the European Survey of Zoological Collections⁵¹³, conducted five years earlier in 12 Member States⁵¹⁴, found that there was no widely used definition of ‘zoo’, limited information was available on the number of zoos in existence, and few zoos broadly met ‘the standards required by international guidelines of modern zoo practice in the areas of animal husbandry, species conservation and public education’, whilst a considerable number did not meet any acceptable standards. The survey also found that there was little significant consideration of the conservation activities or potential of zoos. **Against this baseline, the Zoos Directive has represented an important step forward.**

There have been initial delays and issues in the transposition and implementation of the EU legislation⁵¹⁵. However, Member States have gradually overcome these issues and have established **legislative and practical conditions** to ensure the implementation and enforcement of the Directive, by identifying the entities subject to regulation, designating competent authorities and defining roles and procedures for the licensing and inspection of zoos (including periodical monitoring inspections).

In order to ensure that zoos implement conservation measures, most Member States have set up a structured process for inspection, by using **inspection forms** that contain the elements mentioned in Article 3 and, in some cases, go beyond the measures defined in Article 3, by establishing additional requirements for visitors’ safety, or standards for animal accommodation (both as binding **minimum standards** for the accommodation of animals or not binding guidelines⁵¹⁶).

In addition, out of the 14 Member States selected for the evaluation study, eight (Belgium, Bulgaria, Czech Republic, Denmark, Ireland, the Netherlands, Poland and Portugal⁵¹⁷) make use of **specialised external experts** (mostly experts from zoo associations, or retired zoo experts that participate on a personal basis in zoo commissions) in inspections. In the absence of detailed criteria for assessing

⁵¹¹ Belgium, Denmark, France, Spain, United-Kingdom.

⁵¹² European Parliament. 1993. Second report of the Committee on the Environment, Public Health and Consumer Protection on the Commission proposal for a Council Directive laying down minimum standards for the keeping of animals in zoos (COM (91) 0177 final-C3-0340/91). Strasbourg: European Parliament.

⁵¹³ W Travers, et R Straton. 1988. European Survey of Zoological Collections. Zoo Check contract for EEC (contract 6681 (87) 07.

⁵¹⁴ Namely Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom.

⁵¹⁵ In 2002, the European Commission launched an infringement procedure for non-communication of national transposition against eight Member States (Germany, Denmark, Spain, France, Ireland, Italy, the Netherlands and Portugal). Subsequently, other infringement procedures for non-conformity with the Zoos Directive or bad implementation were launched against three of the 14 Member States in the sample. Other infringements were launched by the European Commission for bad application of the Directive,

⁵¹⁶ Binding: Bulgaria, Belgium, Italy, Lithuania, Poland; non-binding: Germany and Ireland.

⁵¹⁷ In Germany and Spain, external expertise is activated, respectively, in exceptional circumstances or depending on the Region.

whether zoos respect their legal obligations, the recourse to external expertise can represent an important means to ensure that the assessment is adequate. Some Member States have also issued **guidance documents** (e.g. Ireland and the Netherlands) for inspections, or are active in the organisation of workshops and trainings addressed to inspectors, in order to improve the effective implementation of conservation measures across EU zoos (e.g. Bulgaria, Spain and Ireland).

Understanding to what extent the licensing and inspection systems set up by the Member States have been translated into an improved conservation role among EU zoos is challenging given the lack of consolidated data on the activities performed by EU zoos and thus, on their **contribution to the conservation of biodiversity**. However, our survey addressed to zoos provides some indications. Results show that many zoos implement several conservation measures and participate in research (52 out of 70), in training in conservation skills (35 out of 70), or conservation breeding programmes. Regarding the latter point, out of 70, 44 zoos are involved in two breeding programmes coordinated by EAZA; the European Endangered Species Programme (EEP) and European Stud Books (ESB),⁵¹⁸. Moreover, it is interesting to note that several of the zoos participating in these programmes are non-EAZA facilities⁵¹⁹.

Most of the zoos surveyed have also defined a written education strategy (51 out of 70) and have set up the conditions necessary to ensure the application of high standards of animal husbandry (through environmental enrichment measures, implemented by 39 zoos out of 70; in-house or external veterinarians available, respectively, in 58 and 45 zoos).

These achievements also concern small-medium entities operating in different Member States. Although data collected does not enable a solid comparison, participation in conservation measures does not appear to be limited to EAZA zoos or to zoos belonging to national or international federations, which are typically more involved in conservation activities⁵²⁰.

Moreover, a majority of respondents to the public consultation consider that the different conservation measures defined in the Zoos Directive are sufficiently promoted across the EU, and improvements have been noticed in the past 15 years in relation to educational activities provided by zoos and in the size and design of spaces where animals are kept⁵²¹. Specifically, positive feedback was given in relation to the activities of zoos aimed at providing information and raising awareness of species, wild animals and their natural habitats⁵²². Moreover, 72% of the respondents to the public consultation indicated they received information on species and conservation during a visit, and 74% considered (fully or partly) the information of species and their habitats well presented.

Finally, the Zoos Directive represents an important instrument **contributing to the overarching objectives set at European and global level** for the protection of wild fauna and the conservation of biodiversity (in particular, in the EU Biodiversity Strategy, the Birds and Habitats Directives, the Convention on Biological Diversity - CBD⁵²³ and the CITES). For example, more than 80 LIFE Nature projects have included *ex situ* measures; between 1995 and 2014, 17 zoos have been involved

⁵¹⁸ EEP and ESB are breeding programmes, coordinated by EAZA, which aim at “conserving healthy populations of animals in captivity while safeguarding the genetic health of the animals under the care” of their zoos (EAZA Conservation Programmes. <http://www.eaza.net/conservation/programmes/>).

⁵¹⁹ According to the results of the survey, 10 non-EAZA zoos take part in EEP (out of the total 44 zoos participating in this programme) and 11 non-EAZA zoos take part in ESB (out of the total 45 zoos participating in this programme). In this regard, EAZA pointed out that participation of non-EAZA zoos in these programmes has increased in the last years with, in 2015, almost 50% of zoos participating in this programmes being non-EAZA facilities (interview carried out during the study).

⁵²⁰ Among the 70 zoos replying to the survey, only 6 zoos reported not to belong to any federation and 11 did not provide information about their membership to any federation. Although this small sample does not allow us to draw conclusions, it appears that also this group of zoos take part in several of the conservation measures defined by Article 3. For example: almost half of these zoos (8 out of 17) participate in research projects; most of them (13 out of 17) take part in information sharing activities; 11 out of 17 have a written education strategy; and 16 out of 17 have a record keeping system of the zoo’s collection.

⁵²¹ 69% of the respondents (or 1,588) observed improvements in the educational activities provided by zoos in the past 15 years; 66% of the respondents (or 1,533) observed improvements in the size and design of spaces where animals are kept.

⁵²² Particularly positive feedback is provided in relation to the following conservation measures: providing information on exhibited species, wild animals and their natural habitats: 70% or 1,607 of positive answers; providing education on and raise awareness of species, wild animals and their natural habitats: 62% or 1,424 of positive answer.

Less positive feedback is related to: Animal conditions and care (point 21g): 46% or 1,056 of negative answers; research in species conservation issues (point 21a): 43% or 987 of negative answers.

⁵²³ i.e. the Zoos Directive directly implements *ex situ* conservation measures envisaged under Article 9 of the CBD.

in LIFE projects and contributed to conservation actions supported by this programme⁵²⁴. In addition, over 300 species included in the Annexes to the Birds and Habitats Directives, and which are among Europe's most vulnerable species, have benefited from such projects⁵²⁵.

Overall, we conclude that the Zoos Directive has been successful in introducing **rules on a subject which had previously been largely unregulated** and has **driven the establishment of licensing and inspection systems** aimed at ensuring that common minimum standards are in place in EU zoos. Moreover, although available evidence is scarce and not conclusive, the data collected through the public and targeted consultations suggests that **EU zoos are participating in different conservation measures**, including research and captive breeding programmes, offering better animal husbandry conditions, and to promoting education and awareness among visitors and the general public. Compared to the baseline situation, when the limited information available pointed to the lack of conservation focus and acceptable standards among EU zoos, progress has been achieved, with **improved standards** across EU zoos and participation in conservation of biodiversity.

Moreover, according to some stakeholders⁵²⁶, substantial positive effects of the Zoos Directive can be observed in relation to the **accommodation and housing conditions of animals** (including environmental enrichment measures, consideration of species specific needs, etc.), directly leading to better conditions across the EU for animals in zoos. As mentioned above, several Member States have integrated minimum standards in their legislation for animal accommodation, or provided non-binding guidance on this matter.

These are all significant achievements prompted by the Zoos Directive, along with several contributing factors. The European Commission has partly compensated the lack of a monitoring and reporting system and the earlier lack of guidance on the implementation of the Zoos Directive through the launch of several infringement procedures⁵²⁷, and the publication of the Good Practice Document in 2015. Moreover, funding opportunities are available to zoos through programmes such as LIFE and ERASMUS. In addition, several stakeholders have contributed to the effective implementation of the Zoos Directive:

While the Zoos Directive has provided a framework of minimum requirements to apply across EU zoos, Member States have provided for **additional requirements** in the transposing legislation (e.g. more detailed definition of zoos, or more detailed description of Article 3 measures including animal accommodation standards). Moreover, as mentioned above, the preparation of guidance documents and the organisation of training and workshops has significantly contributed to the application of the zoo legislation and the achievement of the Directive's objectives.

EU and national zoo and aquaria **federations** (particularly EAZA) have also been very active in supporting the implementation of the Zoos Directive, through their membership requirements, standards, training, breeding programmes, workshop and conferences and public awareness raising activities. Similarly, international stakeholders (IUCN, WAZA) have adopted key documents assisting the implementation of the Directive (e.g. IUCN Technical Guidelines on the Management of *Ex Situ* Populations for Conservation or the World Zoo and Aquarium Conservation Strategy).

NGOs have played an important role in monitoring the implementation of the Directive's requirements (a key area of work for NGOs active in this field such as Born Free, promoter of an independent EU Zoo Inquiry), informing the public and raising awareness.

Finally, actions taken by individual **zoos** as part of their commitments and response to changing attitudes among visitors, have been a driver behind the changes observed and the increasing attention to conservation of biodiversity.

Open issues and related impeding factors

⁵²⁴ Information provided by the European Commission, DG Environment.

⁵²⁵ European Commission. 2011. LIFE preventing species extinction- Safeguarding endangered flora and fauna through ex-situ conservation. European Commission.

⁵²⁶ In particular, 8 stakeholders (zoos, zoo federations and MSCAs) out of the 44 interviewed.

⁵²⁷ 27 infringement actions and five pilot procedures.

The assessment has identified several open issues related to the transposition, practical implementation and enforcement of the Zoos Directive.

A first point relates to the licensing and inspection systems set up in the Member States and the **inconsistent application of the requirements across the EU**. Member State's enforcement authorities use inspection forms and inspections usually cover the proper implementation of the conservation measures listed in Article 3 of the Directive. However, enforcement authorities have rarely detailed or specified the requirements of Article 3 in terms of operational criteria and measurable parameters. When this has been done, detailed criteria mainly relate to minimum requirements for animal accommodation and other aspects, such as safety of visitors, which are not directly relevant to the conservation objectives pursued by the Zoos Directive. This approach can be explained by the wide differences among zoo collections (making it difficult to define and apply standard criteria). Nevertheless, it remains difficult to assess how, in practice, it is ensured that conservation measures are implemented by zoos, and there is the risk of inconsistent application of the requirements, both across Member States and within each Member State (when the inspection system is managed at local or regional level).

The inconsistent application is also explained by the **lack of monitoring and of reporting requirements**, and the absence of other instruments to coordinate actions between Member States, such as a forum for exchange among Member State Competent Authorities. The Commission's Good Practice Document on the Zoos Directive has been an important instrument in this regard. However, it has only been issued in 2015 and has been disseminated and used at a level that is not yet fully satisfactory (due to its limited visibility and absence of translation in national languages).

Secondly, **closure of non-compliant zoos** remains an exceptional measure, and Member States' authorities have resorted to it in only a few cases. The accommodation of animals under adequate conditions in the case of closure of a zoo remains a significant challenge for authorities, even in Member States where solutions for the relocation of animals have been put in place (mainly based on the cooperation between the authorities, zoo owners and/or NGOs). In addition, the economic influence of zoos at local level might sometimes explain why authorities do not resort to the closure of non-compliant zoos.

Thirdly and more generally, concerns remain about the effectiveness of enforcement of the legislation on zoos. Some stakeholders (especially NGOs but, to some extent, also a limited number of zoos) point out that **unlicensed zoos still operate** in the EU. This would indicate that Member States do not only fail to close non-compliant zoos, but are also unable to identify all entities that should be subject to the legislation⁵²⁸.

The possibility of verifying these claims is out of the scope of our evaluation. However, shortcomings affecting the proper implementation and enforcement of the Zoos Directive have been identified: stakeholders (including Member States, zoos, zoo federations, NGOs and experts reached through the targeted consultation) seem to agree on the fact that the full effectiveness of the current licensing and inspection systems is hindered by a **lack of resources and capacity**. In most Member States, inspectors in charge of zoos are usually also in charge of enforcing other legislations (animals used for scientific purposes, exotic animals, companion animals, farms, transport, slaughter, food safety, animal health, epidemics control, environmental and safety risks). Consequently, this means that human and financial resources allocated to the inspection of zoos are limited. It also means that inspectors do not necessarily have a sufficient knowledge and understanding of conservation activities undertaken by zoos, and of the specific requirements that apply to them.

Summary: achievement of the objectives of the Zoos Directive

Overall, the main achievements, against the general and specific objectives of the Zoos Directive, can be summarised as follows:

In line with the activities promoted by the Zoos Directive and the expected outputs, Member States

⁵²⁸ This is also in line with conclusions of the Born Free EU Zoo Inquiry 2016 (in course of publication).

have set up operational licensing and inspection systems, in order to ensure that zoos implement conservation measures and that cases of non-compliance are handled. However, although progress has been achieved, the study supporting the evaluation has also highlighted that implementation and enforcement issues remain.

The establishment of licensing and inspection systems is expected to translate into the actual implementation of conservation measures by all zoos (i.e. the expected result of the Zoos Directive). Although available evidence does not allow us to draw overall conclusions, the data collected during this study shows that zoos apply conservation measures (as defined in Article 3 of the Zoos Directive) at different degrees and in accordance with their capacity. The focus of zoos' activities is mostly on information exchange, captive breeding, education activities for the general public and keeping of animals under appropriate conditions. Moreover, the feedback from the public consultation points to gradual improvements observed across EU zoos in the last 15 years, especially in relation to educational activities and the size and design of spaces where animals are kept. As mentioned above, and further discussed under "EU Added Value", this progress has been prompted by the Zoos Directive, but other contributing factors have also played a role (e.g. the action of zoo federations, NGOs and zoo owners).

Finally, the overall impact of the Directive on protection of wild fauna and conservation of biodiversity (as outlined in its Article 1) is hard to measure, as no studies and very limited scientific literature exist. According to available literature, the overall contribution of zoos to biodiversity conservation through research, training, captive breeding or reintroductions remains limited. However, this issue is debated within the scientific community and, therefore, existing evidence is not conclusive. In parallel, it is safe to say that the Zoos Directive represents an essential condition for the achievement of the general objectives set at European and global level (particularly with the CBD) in relation to the protection of wild fauna and conservation of biodiversity.

Efficiency

Efficiency is a comparison between inputs used in a certain activity and the outputs and results produced. This section addresses the range of regulatory costs implied by the implementation of the Directive, and whether these costs are reasonable and proportionate compared to the benefits delivered. It also identifies the factors driving costs and whether unnecessary burdens result from the Directive's implementation.

The analysis focuses on the costs accrued for both Member State authorities (in charge of setting up and implementing the licensing and inspection system), and zoos (required to implement a set of conservation measures and undergo inspection and licensing procedures), and the benefits that can be attributed to the Zoos Directive across different fields (i.e. in terms of biodiversity conservation, public education, increased visitor numbers and opportunities for the local economy).

The analysis is based on the investigation of the licensing and inspection system in the selected 14 Member States, and on the information collected through stakeholder consultations (targeted surveys and interviews, and public consultation). The possibility to quantify the costs and benefits remains limited due to the following factors:

The lack of literature and any independent assessment on the topic, which would have provided a point of reference.

The paucity and low quality of information provided by stakeholders and, importantly, the difficulty to attribute the costs and benefits to the Zoos Directive. Generally, both Member State authorities and zoos were unable to identify the costs directly due to the Zoos Directive, a factor which strongly limits the possibility to provide validated and shared estimates of the costs. Similar considerations are valid in relation to the benefits.

Costs and benefits of the Zoos Directive

By introducing a licensing and inspection system, the Zoos Directive has resulted in an increase in costs for both Member State competent authorities and zoos, respectively for the enforcement of the

legislation and the application of the requirements related to conservation measures. However, despite the lack of reliable data, the extent of increased costs appears relatively limited.

On the one hand, for Member State authorities, new or additional costs (compared to the situation before the entry into force of the Zoos Directive) are borne in relation to the treatment of **license applications**, and for the preparation, execution and follow-up of **inspections**. The magnitude of these costs largely vary across Member States depending on the organisation of the licensing and inspection system (frequency of the inspections, number of inspectors involved in each on-site visit, existence of a pre-inspection phase). Where estimates have been provided, however, the resources fully dedicated to the enforcement of the Zoos Directive appear **relatively limited** (in some cases, less than one full time equivalent), or are difficult to quantify as zoo inspectors are usually also responsible for the enforcement of other legislative acts concerning biodiversity protection and animal welfare, as explained above. While there is agreement among MSCAs on the increase in costs directly related to the performance of the inspections, only half of the Member States that provided an answer reported an increase in training costs. This data is in line with the issues raised by stakeholders, including MSCAs, about the lack of appropriate knowledge of zoo inspectors, and the need for better promoting targeted training activities. Finally, no MSCA was able to quantify the costs occurred following the closure of a zoo and, according to Article 6 of the Zoos Directive, the relocation and accommodation of animals.

Regarding zoos, the information collected through the targeted consultation is extremely fragmented. A significant number of zoos in the sample (between 20 and 31 zoos of 70) report an **increase in recurrent expenditures** related to Article 3 conservation measures and **investment** across different fields: renovation of the enclosures, provision of information on exhibited animals, improved standard of animal husbandry and enclosures, systems to prevent escape and record keeping/animal identification systems. Where zoos have reported investing money, these costs are usually **not seen as a direct consequence of the Directive**. For example, out of the 31 zoos that reported investments for enclosure renovation, only 12 attributed part of these costs to the Zoos Directive. Similarly, for the other types of expenditures, the majority of responding zoos did not consider their expenditure a direct consequence of the Directive. The same pattern appears to hold for recurrent expenditures, where some zoos report a wide range of expenditures, but do not see these as attributable to the Directive. In general terms, it has been difficult for zoos involved in the targeted consultation, to disentangle the costs borne as a direct consequence of the Directive from expenses that would have occurred anyway, i.e. in absence of the Directive, and as part of the evolution of their role towards one of “modern zoos”.

Different considerations are valid in relation to the **administrative burden**, which has also been introduced along with the licensing and inspection system. In this case, efforts of zoos related to licensing and inspection procedures have **increased** (i.e. preparing an application for the license, preparatory work for the inspection, send documents to authorities, fill-in pre-inspection questionnaires, taking part in the visit of the MSCAs, providing answer to the inspection report). However, administrative costs appear to be strictly related to the requirements for obtaining the license, and in very few cases are considered by zoos as not **proportionate to the overall benefits** achieved or unnecessary.

Overall, costs have been considered as **proportionate for competent authorities and zoos** in the wide majority of cases, despite the uncertainty about the extent of costs and the benefits that can be attributed to the Directive.

According to all categories of stakeholders (consulted through the public and targeted consultation), the Zoos Directive has brought **benefits** across different areas, particularly by contributing to: public education and knowledge on biodiversity, improved accommodation of animals and standards for animal husbandry, efforts for *ex situ* conservation, and higher engagement of the public and stakeholders in biodiversity protection. Still, it remains difficult to establish to what extent these benefits can be attributed directly to the implementation of the Zoos Directive, and to what extent other factors (the evolution of zoos as institutions, and the change in expectations of the general public) have played a role. Moreover, benefits in terms of increased numbers of visitors and income

for zoos as economic operators, and on the local economy, have generally been considered limited.

Despite this lack of clarity, as previously mentioned, costs were generally considered proportionate to the benefits by the large majority of zoos. Moreover, **no significant difference emerged between zoos of different sizes**, with no strong evidence that smaller zoos have faced higher difficulties in adapting to the legislation.

Results of the analysis of unnecessary burden and of the factors contributing to efficiency

No major issues have been raised in terms of unnecessary burdens by zoos or MSCAs. In parallel, it has not been possible to clearly identify how the different licensing and inspection systems, implemented in the 14 Member States, affect the level of costs and benefits achieved.

The information collected on the costs, the achievements and benefits associated with the Zoos Directive does not enable a systematic comparison between the Member States and the drawing of conclusions about casual links between the level of costs and achievements/benefits on the one hand, and the key features of the national implementation system on the other. However, the qualitative information gathered suggests that the issues hindering the proper and efficient functioning of the licensing and inspection system are mainly associated with the resources and capacity of national inspectorates, rather than with specific requirements of the national implementing legislation (such as the frequency of inspections).

In this view, possibilities for enhancing the efficiency of the Zoos Directive are mainly related to improved guidance and involvement of external experts in the inspection process (in order to provide specialised expertise during the inspections), and elimination of possible duplications due to controls carried out under different legislative acts (i.e. under Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, and Directive 92/65/EEC on animal health requirements for trade in and imports into the EU).

Relevance

The relevance analysis relies on a comparison of the current needs and objectives with those defined at the time of adoption of the Directive. The Zoos Directive was adopted in 1999, and has been in force since 2002 without further amendments. The purpose of the analysis was to identify any disparity between the objectives of the Directive and the current (legal, policy and scientific) situation.

The analysis is mainly based on relevant scientific literature and policy documents. Information was also drawn from the targeted surveys⁵²⁹ and public consultation⁵³⁰. The evidence gathered in the context of the analysis of relevance is therefore based both on documented evidence and on the stakeholders' perception.

Overall, the evidence indicates that the Directive is still relevant, as its objectives still correspond to the current needs and objectives and scientific knowledge. This observation is however to be nuanced on specific aspects, where relevance could be further enhanced.

Current needs and objectives at EU and global level

Scientific evidence shows that the status of conservation (both in terms of species and habitats) has deteriorated over the last two decades. At the same time, our understanding of the importance of the **protection of threatened species** and of **public awareness** on biodiversity conservation issues has improved. These observations are backed up by scientific literature, and the overwhelming majority of stakeholders who participated to our targeted survey and public consultation (over 88% of stakeholders) agree on the current need to protect threatened species and make the public aware of conservation issues.

⁵²⁹ Stakeholders were asked about the relevance of the needs that justified the adoption of the Directive and whether the Directive was adapted to technical and scientific progress.

⁵³⁰ The consultation sought the opinion of the public on the importance of EU-wide rules on zoos for different aspects of biodiversity conservation and zoo management.

The need to protect biodiversity conservation is significantly greater now than at the time of the adoption of the Directive, and this evolution is reflected in the **changes in policy objectives at EU and international level**. In particular, global biodiversity policy has drastically changed since adoption of the Directive. The objectives set by the Parties to the CBD, which provided the initial international context of the Zoos Directive, have evolved markedly since the Directive came into force, with the adoption in 2010 of 20 targets (**Aichi targets**) with a specific focus on biodiversity conservation, and direct references to the protection of species and to education and awareness. Similarly, some of **UN Sustainable Development Goals (SDG)** adopted in 2015, set up targets for the protection of biodiversity by 2020. These international instruments provide a **stronger legal framework surrounding the Directive than what was in place at the time of its adoption**.

In light of these new objectives, the Directive's objectives are **still relevant**. Its main general objective, the protection of biodiversity, and its specific objectives of ensuring the participation of zoos in conservation activities and the conservation promotion and awareness activities of zoos, are more needed than ever. This view is supported by all types of stakeholders (authorities, zoos and federations/NGOs) surveyed for the study, who consider the Directive as an appropriate way for *ex situ* management to meet the current needs (on average over 74% of respondents to the survey find the Directive still relevant).

The evolution of international instruments from general aspirations to focused targets has resulted in more specific objectives in relation to the conservation of biodiversity, to which *ex situ* management can contribute. These more specific objectives and indicators facilitate the implementation of the Zoos Directive's framework provisions. However, there is a general need to be more explicit about where *ex situ* management is most needed and could have the biggest impact in achieving conservation objectives. This criticism is supported by previous reports⁵³¹ and stakeholders in our survey (zoo operators, federations) pointed to the need for a more targeted approach to *ex situ* conservation to meet the new, more specific objectives set at EU and international level.

Scientific and technical developments

There has been a wide range of scientific and technical developments in the field of biodiversity conservation since 1999, in particular in terms of:

population management,

identification of species in need of conservation action,

identification of the actions needed for threatened species.

More specifically, in relation to scientific and technical developments in the field of *ex situ* management, a lot of progress has been made since the adoption of the Directive in relation to the interaction between *in situ* and *ex situ* conservation.

Due to its broad scope and formulation, the Directive does not contain any outdated requirements in relation to these developments. The results of stakeholders' consultations support this conclusion. The majority of stakeholders responding to the targeted surveys (82%) consider that the **Directive remains appropriate** in light of subsequent technical and scientific developments. There is a strong sense that it is in particular well adapted given scientific and technical progress in the field of biodiversity generally.

Stakeholders nevertheless also indicated that the interaction between *in situ* and *ex situ* conservation could be significantly enhanced.

Coherence

Evaluating the coherence of an EU act involves looking at the wider policy and legal framework in

⁵³¹ LIFE preventing species extinction, Safeguarding endangered flora and fauna through ex-situ conservation, European Commission 2011 at <http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/reintroduction.pdf>

relation to a policy field. It evaluates how well the different interventions work together, by providing evidence of synergies and complementarities that could reinforce the achievement of common objectives, but also analyses inconsistencies and overlapping obligations that could lead to inefficiencies. The evaluation on coherence also seeks to examine the extent to which the Directive has supported the EU internal market and the creation of a level playing field for zoos across the EU. The primary objective of the Directive is the conservation of biodiversity through establishing a conservation role of zoos. The Zoos Directive hence fits within a wide net of laws and policies at EU and national level aimed at the conservation of biodiversity, including in relation to conditions for accommodation of animals.

The coherence analysis is primarily based on the legal examination of the strategic objectives and specific provisions of relevant legal acts, with a view to assessing their consistency with the Zoos Directive. The results of the targeted consultations and public consultation were also taken into account.

The evaluation study reached the conclusion that there are no major inconsistencies and that, by the creation of a coherent legal framework, the Directive contributed to establishing a level-playing-field between all EU zoos. However, it also noted that this has not yet been achieved fully, and would be strengthened by better and more coordinated implementation.

A comprehensive and consistent framework for biodiversity conservation

The legal analysis has not revealed any inconsistencies between the Zoos Directive and the legislation examined⁵³². On the contrary, there are examples of positive interactions that strengthen the achievement of the objective of biodiversity conservation. Biodiversity conservation is not only the primary objective of the Zoos Directive, but also of the Birds and Habitats Directives, the EU Wildlife Regulation and the IAS Regulation. Taken together, these instruments establish a comprehensive system for biodiversity conservation in the EU, and contribute to the compliance of the Union with its obligations under the CBD.

At the same time, there is scope for further synergies in order to reinforce the effectiveness of the legal framework applicable to zoos and their contribution to biodiversity conservation. For instance, **reintroduction programmes for native species** are foreseen under both the Zoos Directive and the Habitats Directive, and zoos should be encouraged and provided with funding to participate and develop such programmes. Further synergies can also be enhanced with regard to the inspections carried out by the competent authorities in each Member State to check the compliance of zoos with their obligations, notably under the Zoos Directive, the EU Wildlife Regulation and Directive 92/65/EEC on animal health requirements. Instead of making zoos subject to several inspections, the **organisation of joint inspection procedures** to ensure compliance with the different pieces of legislation applicable to zoos was observed as a good practice to prevent inefficiencies and the duplication of the work required from zoos and competent authorities to prepare and carry out the inspections.

Certain stakeholders and members of the wider public participating in the public consultation considered that there are some inconsistencies between the Zoos Directive and Regulation No. 1739/2005 on the movement of circus animals ('Circus Regulation'), as well as with the IAS Regulation. However, the legal analysis concludes that there are no coherence issues. With regard to the Circus Regulation, it should be noted that given the **clear exclusion of circuses** from the scope of the Zoos Directive, there is no interaction between the two acts. Concerning the IAS Regulation, even though zoos are required to **ban the keeping and breeding of IAS**, this is fully in line with the biodiversity conservation objectives embodied in the Zoos Directive and the IAS Regulation, in view

⁵³² The legislation examined included: Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive), Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive), Regulation (EC) No 338/07 on the protection of species of wild fauna and flora by regulating trade therein (CITES Regulation), Regulation (EU) 1143/2014 on invasive alien species (IAS Regulation), Directive 92/65/EEC laying down animal health requirements for trade in and imports into the EU of animals, semen, ova and embryos not subject to other specific rules, and Regulation (EC) 1739/2005 laying down animal health requirements for the movement of circus animals between Member States.

of the particularly negative impact that a spread of invasive alien species may have on local biodiversity. While it is acknowledged that zoos are not the main pathways for invasive alien species, there is evidence that they can still function as pathways, which justifies the strict approach taken.

Creation of a level-playing-field

The coherence analysis examined the extent to which the Zoos Directive has supported the EU internal market and the creation of a level-playing field for zoos across the EU. Prior to the adoption of the Directive, not all Member States had legislation in place to regulate the activities of zoos. Therefore, by making zoos in the EU subject to certain minimum requirements, such as the obligation to hold a license, to be subject to inspections and adopt the conservation measures provided in Article 3, the Zoos Directive constitutes an important step towards the establishment of a **coherent legal framework** for all EU zoos.

However, the establishment of a real level-playing field requires consistent and coordinated implementation of the Directive by the Member States. In practice, the analysis of the implementation of the Directive indicates that there are **discrepancies** in the legal obligations imposed on zoos in the different Member States⁵³³, as well as in the level of control and enforcement mechanisms put in place presented under the analysis of effectiveness above. These discrepancies prevent the full achievement of a level-playing field.

This partial completion of the level-playing field is well reflected in the nuanced results of the targeted consultation, where 53% of stakeholders who expressed an opinion on this matter believe that the Directive has brought no benefits or minor benefits through establishing a level-playing field between zoos in different Member States.

EU Added Value

The criterion of EU Added Value aims at examining, from a qualitative perspective, to what extent the Zoos Directive has contributed to strengthening the role of zoos and to promote the adoption of conservation measures in a way that could not have been achieved by Member States on their own and/or by other stakeholders, and whether there is a need for continued EU action.

The analysis of the added value of the Directive was impaired by two critical limitations in the data available. Firstly, due to the absence of an impact assessment prior to the adoption of the Directive, only limited information was available to understand the situation in the Member States before the regulation of this issue at EU level. To overcome this lack of information, we defined the baseline by analysing the legislative frameworks applicable in countries member of the European Communities in 1992, by reviewing the 1988 European Survey of Zoological Collections and by interviewing experts in biodiversity conservation involved in the adoption of the Zoos Directive. The second data limitation concerns the lack of monitoring and reporting requirements under the Directive. Such data would have helped us fully grasp the evolution in the implementation of the Directive across Member States. Information to understand this evolution was instead gathered through the targeted surveys, in-depth interviews and the public consultation.

The results of our analysis indicate that the Zoos Directive has, to some extent, achieved more than what would have been achieved by Member States on their own, and is perceived as a needed instrument for continued EU action in the field of *ex situ* conservation.

EU wide results achieved by the Directive

The Zoos Directive has played a crucial role in **setting a legal framework for the implementation of conservation measures by zoos**. It is the main achievement and added value of this EU legislative instrument: the Directive has set binding rules on all European zoos and, as such, prompted the

⁵³³ The framework wording of the Directive has given Member States a big margin of discretion in the transposition and implementation of the Directive's requirements. This resulted in a situation where Member States have adopted legislation which varies significantly in terms of the obligations with which zoos must comply, e.g. different definitions of 'zoo', varied use of the exemption clause, use of cumulative instead of alternative wording in transposing Article 3, 1st indent, adoption of different standards, etc.

adoption of conservation measures among them through the compulsory requirements of licensing. Without an EU Directive, **this overall result would probably not have been achieved under national legislation**, through participation in international agreements or the membership requirements of zoos federations. Before the adoption of the Zoos Directive, national legislation regulating the matter was absent in most Member States. Where national rules were in place - in five out of the twelve then Member States (i.e. Belgium, Denmark, France, Spain, and the United Kingdom) - (European Parliament 1993) they included requirements for licensing and inspection, but mainly in relation to conditions for animal accommodation and animal welfare, while missing objectives on biodiversity conservation. Standards and guidelines were provided by zoo federations such as EAZA prior to the adoption of the Directive. These nevertheless had a limited impact due to their coverage (17% of licensed zoos are part of EAZA), scope (before the adoption of the Directive, EAZA standards covered exclusively accommodation and care of animals) and non-binding nature.

Regarding the implementation of conservation measures, the results of the targeted consultation, especially from zoo operators, highlighted that the Zoos Directive has partly contributed to the implementation of conservation measures and to a strengthened role of zoos. While EU action has certainly prompted the setting-up of a common framework, **it is less obvious to what extent it has led to increased conservation activities among zoos**. As outlined under the section on effectiveness, external factors also led zoos to implement conservation measures. The work done by zoo federations (i.e. definition of guidance and standards) as well as individual ambitions of zoo owners are important elements behind the increased efforts conservation activities of zoos. In that regard, it should be mentioned that 50% of the zoos belonging to a zoo federation that responded to our survey considered that the Zoos Directive did not contribute to implementing new conservation measures or improving the existing ones. These zoos expressed the view that, regardless of legal obligations, they would have implemented conservation measures as a consequence of broader changes at a global scale, the evolution of the role of zoos as conservation centres, and to meet visitors' expectations on animal welfare, education and biodiversity conservation. It can be stated that the Zoos Directive and external factors exerted a mutually reinforcing effect on strengthening the role of all zoos in the conservation of biodiversity. According to a majority of MSCAs, NGOs and zoos, the Directive has caused a more efficient and faster implementation of conservation measures, especially in zoos that are not part of a zoo federation.

The results achieved with the implementation of the Zoos Directive were limited by several key factors, as discussed in the previous sections. Besides the external factors mentioned above, some factors are also related to the design and practical implementation of the Directive itself. According to both literature⁵³⁴ and stakeholders⁵³⁵, the alternative wording of Article 3, first indent, diminished the potential of the Directive to make all zoos evolve from entertainment to more conservation-oriented entities. On this note, it is important to bear in mind that the choice between several conservation options accommodates the wide differences in zoos' capacities to implement these measures. The absence of requirements on the prioritization by zoos of ex-situ conservation of protected and threatened species hinders the contribution of the Directive to wider conservation objectives, especially in the absence of complementary and targeted strategies on this aspect. Limitations on the implementation of the Directive also had a critical impact, with its lack of monitoring or reporting requirements, absence of coordinated action at EU level, and late issuance of the Guidance Document.

Need for continued EU intervention

Several elements suggest that there is still a need for EU intervention. Firstly, as explained under effectiveness, the objectives of the Directives have not yet been fully achieved. As a consequence, differences exist across Member States in terms of implementation and enforcement, which has led to discrepancies in the obligations applying to zoos. As explained above, this affects the level-playing field between zoos operators in the different Member States. This also impairs the proper protection of biodiversity sought by the Directive. These difficulties can only be overcome with full implementation

⁵³⁴ See for instance Rees, 2005.

⁵³⁵ In interviews with MSCAs and NGOs, see also Born Free Inquiry.

of the Directive.

In parallel, existing international (i.e. Conventions such as CBD and CITES) and non-legislative instruments (standards and guidelines of zoo federations) enhance the role of zoos in conservation. However, these instruments do not enable the full achievement of the objectives of the Zoos Directive. Firstly, the Zoos Directive is instrumental to the practical implementation of the principles enshrined in international agreements such as the CBD and CITES, in order to fulfil the EU's obligation as a party to the CBD. Secondly, as already mentioned, standards and guidelines defined by zoo federations can contribute only to a limited extent. These instruments, compared to the Zoos Directive, miss a key feature: a legally binding value that enables enforcement across all EU zoos. As such, the Directive remains important for ensuring the implementation of conservation measures by zoos.

The need for continued EU action in the field of *ex situ* management is recognised by all stakeholder groups surveyed for the evaluation study. EU-wide rules in relation to different aspects of *ex situ* conservation (e.g. keeping animals under appropriate conditions, promoting education, protecting threatened species), are deemed important by the large majority of all stakeholder groups responding to the public consultation (on average, by more than 80% of the respondents). Moreover, while zoos and public authorities tend to agree on the fact that most of the activities currently promoted by zoos would be continued also in absence of the Directive, other stakeholder categories, including individuals and NGOs, are less affirmative (on average, less than half of the respondents believe that all activities would be continued). Concerns were raised by NGOs regarding the political message of not having an EU legislation on zoos. One of the key concerns was that an absence of EU legislation on zoos would trigger repeals of national legislation or cuts in the budgets for enforcement.

ANNEX III – PRESENTATIONS

METHODOLOGY



Study to support the evaluation of the
Zoos Directive

Approach and methodology

Workshop 16 May 2017
Nathy Rass-Masson

Content

- I. Purpose and scope of the Study
- II. Methodology
 - 1. Evaluation criteria and questions
 - 2. Data collection and analysis
 - 3. Challenges and mitigation measures
- III. Timeframe of the Study

16 May 2017



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Purpose of the study

- Support to the evaluation of the Zoos Directive as part of the Commission's Regulatory Fitness Check and Performance (REFIT) programme.
- Study aims to 'assist the European Commission in the evaluation of the Zoos Directive. This entails compiling, assessing and synthesising evidence for the evaluation'.
 - Evidence-based critical analysis regarding how well the Directive has performed,
 - Mapping of differences in implementation across MS,
 - Identification of good practices and issues in MS,
 - Magnitude of costs and assessment of benefits.

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Scope of the study

- Focus on recognized and registered zoos
 - In-depth analysis of 14 representative Member States:
 - Mix of both smaller and larger Member States,
 - Geographical coverage of the EU and of different administrative models ,
 - Combination of old and new EU Member States,
 - General availability of information, and different progress towards the implementation
- ✓ BE, BG, CY, CZ, DK, FR, IE, IT, DE, LT, NL, PL, PT and ES

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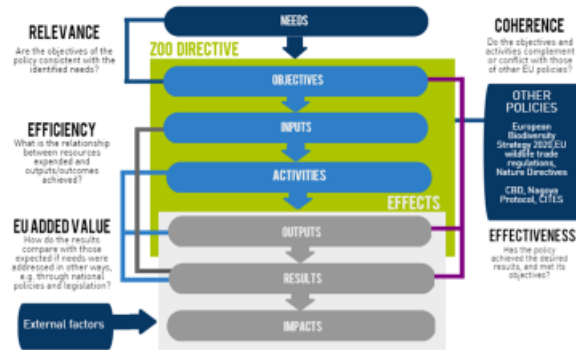


Part II – Methodology

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Evaluation criteria



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Evaluation questions

Effectiveness	
EQ 1	What progress has been made over time towards achieving the objectives set out in the Directive? To what extent is this progress in line with initial expectations? In particular, what progress has been made to achieve the conservation measures set out in Article 3? To what extent have adequate licensing and inspection systems been put in place?
EQ 2	What is the contribution of the Directive towards ensuring the protection of wild fauna and the conservation of biodiversity in the EU and globally (including its contribution to implementing the EU Biodiversity Strategy and EU commitments under international conventions such as the Convention on Biological Diversity)?
EQ 3	Which main factors (e.g. implementation by Member States, action by stakeholders) have contributed to or stood in the way of achieving these objectives?
EQ 4	Beyond these objectives, what, if any, other significant changes both positive and negative can be linked to the Directive?
Efficiency	
EQ 5	What are the costs and benefits (monetary and non-monetary) associated with the implementation of the Directive for the different stakeholders, at local, national and EU level? Where possible, an estimate of costs broken down by size of enterprise (micro/small/medium-sized enterprises) should be provided.
EQ 6	To what extent are the costs associated with the Directive proportionate to the benefits that it has brought?
EQ 7	What factors influenced the efficiency with which the achievements observed were obtained? In particular, what, if any, good or bad practices can be identified? If there are significant cost/benefit differences between Member States, what is causing them?
EQ 8	Taking account of the objectives and benefits of the Directive, what evidence is there that it has caused unnecessary regulatory burden or complexity? What factors identify this burden or complexity as unnecessary or excessive?
Relevance	
EQ 9	How well do the (original) objectives (still) correspond to the needs within the EU and globally?
EQ 10	How relevant is the Directive to achieving legal and policy biodiversity objectives at EU and global levels?
EQ 11	How well adopted is the Directive to (subsequent) technical and scientific progress?
Coherence	
EQ 12	To what extent does the Zoos Directive complement or interact with other EU sectoral policies affecting biodiversity conservation and relevant animal welfare issues at Member States and EU levels, in particular as regards wild animals kept in captivity for commercial reasons (notably circuses) and how do these policies affect positively or negatively the implementation of the Zoos Directive?
EQ 13	To what extent does the Directive support the EU internal market and the creation of a level playing field for economic operators, especially SMEs?
EU added value	
EQ 14	What has been the EU added value of the Zoos Directive compared to what could be achieved by Member States at national and/or regional levels?
EQ 15	To what extent do the issues addressed by the Directive continue to require action at EU level?
EQ 16	What would be the consequences of not having the Directive?

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Data collection (desk research)

- Literature review at EU, national and international levels :
 - scientific literature,
 - legally binding documents,
 - media sources,
 - studies and reports from stakeholders and authorities active.
 - ✓ Reference database
- Desk research in the 14 selected Member States
 - Overview of national literature,
 - Identification of relevant stakeholders,
 - Understanding of the transposition and implementation level in the Member States
 - ✓ Country fiches annexed to report

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Data collection (consultation of stakeholders)



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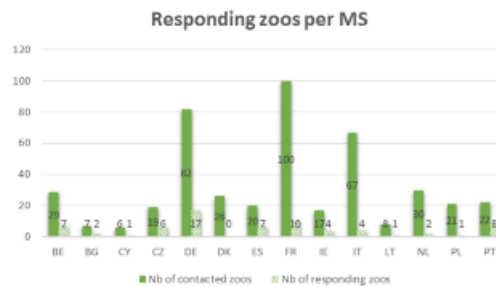
Data collection (targeted surveys)

- Exploratory interviews with several key EU stakeholders to prepare the questionnaires
- Surveys targeting:
 - International and EU stakeholders, and national stakeholders in the 14 selected Member States
 - Three types of stakeholders: MSCAs, NGOs/Federations/Experts, zoos operators
 - ✓ Three sets of questions tailored to each type of stakeholders
- Results:
 - EU/International stakeholders: 19 contacted, 6 replies
 - MSCAs: replies from all 14 Member States
 - National NGOs/Federations/Experts: 52 contacted, 21 replies
 - Zoos: 514 contacted, 70 replies

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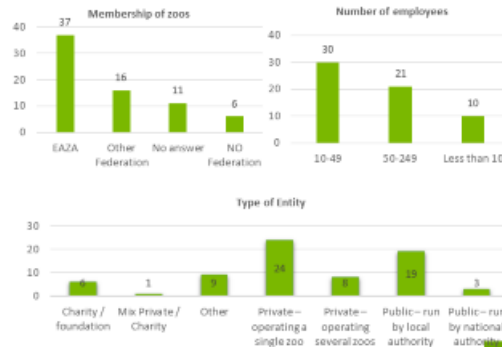
Types of responding zoos



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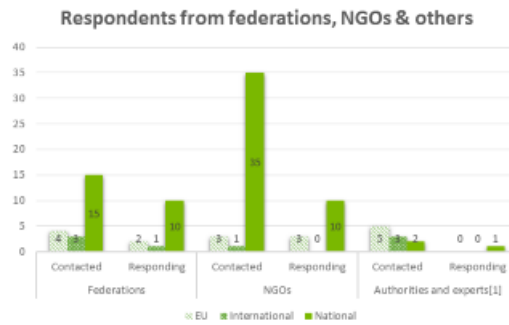
Types of responding zoos



19/05/2017



Other respondents



19/05/2017



Data collection (in-depth interviews)

- Objective: obtain an in-depth view of the issues covered by the study in each of the selected countries, and an overview of the situation at the EU and international level
- Interviews organized with:
 - National stakeholders in each of the 14 MS
 - EU/International stakeholders
- ✓ 44 stakeholders interviewed: 13 MSCAs, 8 zoo federations, 6 NGOs, 9 zoo operators and 8 EU and international stakeholders
- ✓ Interviews report

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Data collection (Public consultation)

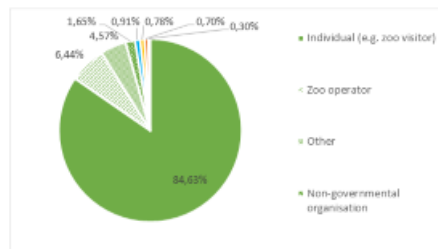
- Extended to all EU Member States (available in all EU languages)
- Ten closed questions targeted at the broader public
- Questions on each of the evaluation criteria
- Overall and breakdown analysis by groups of respondents
- ✓ Public consultation report

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Public consultation (results)

Number of responses: 2297



19/05/2017



Public consultation (results)

Member State	Nb of respondents	Member State	Nb of respondents
Germany	796	Czech Republic	15
United Kingdom	612	Greece	14
Non-EU country	214	Poland	13
Spain	157	Finland	8
Netherlands	118	Hungary	6
France	68	Malta	3
Italy	51	Lithuania	3
Belgium	43	Slovenia	3
Denmark	39	Bulgaria	3
Portugal	38	Slovak Republic	2
Sweden	31	Luxembourg	1
Austria	25	Estonia	1
Ireland	16	Croatia	1
Romania	16		

Answers from non-EU countries mainly come from the United States (99 answers), Australia (19 answers), Canada (14 answer) and Switzerland (11 answers). Respondents are also based in South Africa (5), the Channel Islands (5), New Zealand (3), Norway (3), Argentina (2), the United Arab Emirates (2), China (2), Singapore (1), Malaysia (1), Chile (1), Vietnam (1), Israel (1), Colombia (1), India (1), Saudi Arabia (1), Mexico (1).

19/05/2017



Workshop

- **Purpose:**
Share findings with representatives of governments and stakeholders, including representatives from relevant economic sectors and non-governmental organisations at both EU and national level directly concerned with implementation of the Zoos Directive
- **Ensure that:**
 - important findings are not overlooked in the conclusions;
 - there is no misrepresentation of evidence in findings;
 - adequate regard is given to the different inputs and the evidence that supports different views.

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Main challenges and mitigation measures

- **Challenges:**
 - Lack of reporting obligations and consolidated data on the implementation of the Zoos Directive: limited historical data
 - Lack of evidence/available information supporting the analysis of the evaluation questions: limited data on costs
 - Duplicate responses and campaigns affecting the targeted and public consultation
- **Mitigation measures**
 - Extensive collection of primary data
 - Combination of available quantitative data with data on perceptions expressed by stakeholders
 - Identification of campaigns and their influence on the overall results. Separate analysis of campaign replies where necessary.

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Part III – Timeframe of the study

19 May 2017



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Timeframe

Month	2016											2017					
	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	
Task 1: Methodology/workplan		X	X														
Task 2: Desk research				X	X	X	X	X	X	X							
Task 3: Targeted consultation				X	X	X	X	X	X	X							
Task 4: Public consultation				X	X	X	X	X	X	X							
Task 5: Evaluation of evidence										X					X		
Task 6: Draft Final report											X						
Task 7: Workshop												X	X	X	X		
Task 8: Final evaluation report															X	X	



Effectiveness



Study to support the evaluation of the
Zoos Directive

*Draft findings on the effectiveness of
the Zoos Directive*

Workshop 16 May 2017

Valentina Parziale and Nathy Rass-Masson

Content

- I. Introduction
- II. Progress made and contributing factors
 1. Baseline: situation before the Zoos Directive
 2. Licensing and inspection systems
 3. Conservation measures implemented by zoos
 4. Contribution to the conservation of biodiversity
- III. Open issues and impeding factors
- IV. Conclusions
- V. Discussion



19 May 2017

2

Part I - Introduction

19 May 2017



2

Evaluating the effectiveness of the Zoos Directive

Key question: To what extent have the general and specific objectives of the Zoos Directive been achieved?

Issues addressed:

- Progress towards the general and specific objectives of the Zoos Directive:
 - Actions taken by the Member States to ensure implementation and enforcement of the Zoos Directive
 - Conservation measures implemented by zoos
 - Contribution of the Zoos Directive to the conservation of biodiversity
- Factors that have contributed to or inhibited progress
- Negative or positive changes beyond the intended effects of the Zoos Directive

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Part II – Progress made and contributing factors

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Baseline: situation before the Zoos Directive

- Before the adoption of the Zoos Directive, only five Member States (BE, DK, FR, ES, UK) with legislation on zoos (including licensing requirements, but not pursuing comprehensive conservation objectives)
- In 1988, the Survey of Zoological Collection found :
 - no widely used definition of “zoo”;
 - limited information available on number of zoo;
 - only a few zoos broadly meeting “the standards required by international guidelines of modern zoo practice”;
 - little significant consideration of the conservation activities or potential of zoos.

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Objectives of the Zoos Directive

The Zoos Directive:

- Establishes minimum standards for the keeping of animals in zoos in the EU;
- Recognises and promotes the role of zoos in the conservation of biodiversity;
- In practical terms, requires Member States to establish a licensing and inspection system, ensuring that:
 - Zoos implement a set of conservation measures;
 - Animals are treated or disposed of under appropriate conditions in case of closure of a zoos.

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Licensing and inspection systems: progress achieved

- Initial issues and delays in the setting up of the national licensing and inspection systems:

In the 14 Member States, a significant part of the existing zoos licensed only after the four-year transitional period established by the Zoos Directive.

In some cases, no license issued within the four-year period (e.g. NL, IE, IT).
- Member State competent authorities have gradually improved their systems and, between 2010 and 2015, the share of licensed zoos has increased.

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Licensing and inspection systems: main features and differences among Member States

- Licensing and inspection systems widely vary across the EU
- Effectiveness influenced by :
 - Use of national inspection forms (BE, CY, CZ, ES, IE, NL, PT) or detail criteria provided in legislation (BG, IT, FR)
 - Use of external expertise for carrying out or assisting inspections (BG, BE, CZ, DK, NL, PL and, if needed/depending local bodies, FR, ES and PT)
 - Guidance documents on conservation measures provided to zoos (e.g. IE, NL)
 - Availability of a centralised zoo database (CY, CZ, IE, PL, PT)

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Licensing and inspection systems: main features and differences among Member States

- Elements checked during the inspections also vary across Member States and influence the quality of inspections:
 - Requirements of Article 3 of the Zoos Directive not specified in terms of operational criteria and measurable parameters.
 - Detailed criteria mainly for minimum standards for animal accommodation (binding in BG, BE, IT, LT, PL; or non binding guidelines in DE, IE) and other aspects, such as safety of visitors (BG, BE, CY, CZ, FR, ES, IE, IT, PT), outside the scope of the Directive.

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Implementation of conservation measures by zoos – Evidence from the survey on zoos

- 70 zoos replied to the survey. Overall positive picture:
 - Many zoos engaged in research projects, population management programmes (EEP and ESB), education and awareness raising activities;
 - Measures on animal husbandry, prevention of escapes and record keeping in place.
- Zoos member of EAZA (37 out of 70, or 53%) or other national/international federations (16 out of 70, or 23%) might bias the results. But similar positive trends in non EAZA/other federations zoos, and no significant difference between smaller and larger zoos.

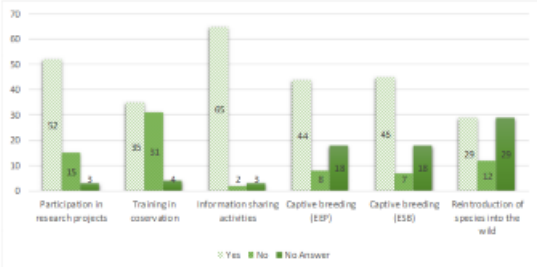
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Implementation of conservation measures by zoos – Evidence from the survey on zoos

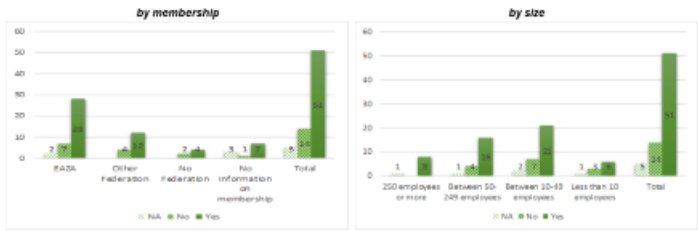
Art. 3, first indent: Participating in Research, and/or training in relevant conservation skills, and/or exchange of information, and/or captive breeding, repopulation or reintroduction of species into the wild: these measures are alternative options in all Member States, except in BG, PL, PT (and FR).



Implementation of conservation measures by zoos – Evidence from the survey on zoos

Art. 3, second indent: Education and awareness in relation to the conservation of biodiversity

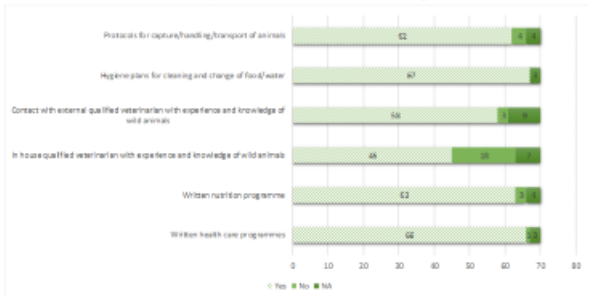
Number of surveyed zoos that have a written education strategy



Implementation of conservation measures by zoos – Evidence from the survey on zoos

Art. 3, third indent: Accommodation of animals and animal husbandry

Zoos capabilities in the field of animal husbandry



Implementation of conservation measures by zoos

- *Art. 3, fourth indent:* Most zoos with formal plan/protocol to prevent both the escape of animals and the intrusion of outside pests and vermin.
- *Art. 3, fifth indent:* 68 out of 70 declare with record keeping system. Mainly:
 - electronic system;
 - With record per individual animal (in line with national legislation in BE, IE, PT, ES).
 - Complete collection covered in 40 out of 70 zoos

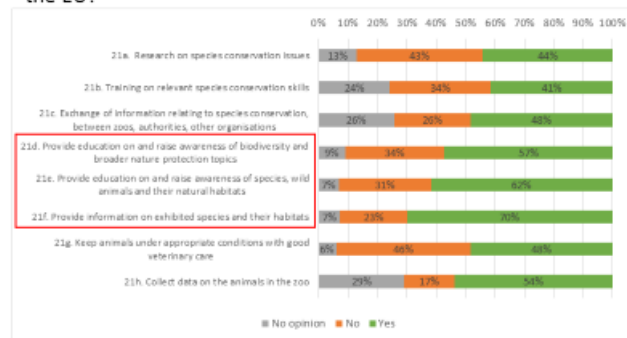
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Implementation of conservation measures by zoos – Results of the public consultation

Answer to the question of the public consultation “Do you think the following activities are sufficiently promoted in zoos across the EU?”



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Contribution to the conservation of biodiversity in the EU and globally

- Concrete contribution of zoos’ activities to overall biodiversity conservation difficult to measure.
- Based on existing literature:
 - Participating in **research**: limited impact of zoos activities because of limited research activities;
 - Contribution to conservation of captive **breeding** and **reintroduction** subject to debate;
 - Contribution to **financing** of conservation is observed for some zoos;
 - Benefits (or lack thereof) of keeping **non-threatened species** also subject to debate;
 - According to recent studies, real benefit of **public education** for awareness of visitors on conservation issues, but limited impact on their **long-term behaviour** towards biodiversity conservation.
- Implementation of the Directive contributes to EU and international targets for the protection of wild fauna and the conservation of biodiversity.

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Contributing factors

Transposition, implementation and enforcement by the Member States' authorities

- **Transposition**
 - Pre-existing legislation (BE, DK, FR, ES, UK)
 - Additional requirements provided in transposing legislation.
- **Implementation:**
 - Proactive attitude of MSCAs (e.g., guidance documents, training and workshops).
- **Enforcement:**
 - Additional enforcement activities
 - Use of external expertise
 - Use of synergy with other acts (e.g. CITES)

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Contributing factors

Activities of the European Commission, the Federations, NGOs and zoos themselves

- **Activities by the EC:**
 - Enforcement activities (infringement procedures)
 - Issuance of the Good Practice Document
- **Activities by federations:**
 - E.g., membership requirements, standards, training, breeding programmes, workshop and conferences and public awareness raising activities
- **Activities by NGOs:**
 - Monitoring of implementation of the Directive
 - Flagging issues to the authorities
 - Information to the public
- **Activities by IUCN, WAZA (e.g. key documents)**
- **Activities by zoos, academia and media**

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Positive impacts beyond conservation

- **Creation of a common framework among the Member States contributing to raising the quality of zoos and to increase public awareness on the role of zoos in conserving biodiversity:**
 - 63% of the respondents to the public consultation rated the benefits achieved in terms of establishment of a coherent legal framework as crucial or significant.
- **Increased standards for the welfare of animals kept in zoos:**
 - increased attention by Member State authorities and better conditions for animals kept in captivity.

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Part III – Open issues and impeding factors

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Open issues

- Inconsistent application of the requirements on conservation measures across the EU:
 - Additional requirements in some Member States (definition of zoos, specification of Article 3 measures, animal accommodation or safety standards);
 - Licensing and inspection systems differ in relation to elements checked and criteria.
- Closure of non-compliant zoos rarely observed
- Lack of resources and capacity for inspections by MSCAs:
 - Zoo inspectors are usually responsible for a **range of different duties** (e.g. animals used for scientific purposes, compliance with other legislation dealing with invasive alien species and CITES);
 - **Skills** of zoo inspectors are generally broad and not necessarily focused on wild fauna and species specific issues.
- Concerns raised about unlicensed zoos still operating

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Hindering factors

- Directive's **framework nature** preventing consistency in transposition and effective implementation. Mainly:
 - definition of zoos
 - alternative options provided under Article 3 first indent
 - lack of detail of the requirements of Article 3
- In terms of **transposition**:
 - Late transposition and delayed implementation
 - Non-conformity of the transposing legislation
- **Implementation** particularly challenging regarding:
 - organisation of national administrations (division of competence, portfolio, absence of communication);
 - identification and inventory of establishments;
 - closure of zoos (absence of rehoming, organisation by the MSCAs).

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Hindering factors

- **EC's contribution is limited:**
 - **Limited means** were conferred to the Commission in terms of monitoring and coordinating implementation due to subsidiarity
 - Dissemination of **Good Practice Document** not satisfactory (low awareness and no translation).
- Economic factors mentioned by surveyed stakeholders as problematic for implementation:
 - impact of the 2008 **economic crisis**;
 - **economic influence of zoos at local level** sometimes detrimental to the proper implementation of the Directive.

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Part IV – Conclusions

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Conclusions

- Overall **progress has been made** in achieving the general (protect wild fauna and conserve biodiversity by strengthening the role of zoos in the conservation of biodiversity) and specific objectives of the Zoos Directive (Article 3 conservation measures).
- Although enforcement issues remain and implementation is inconsistent across the EU, operational **licensing and inspection systems** are set up and represent a condition for ensuring that all zoos are licenses.
- Zoos that took part in the survey are implementing **several** conservation measures.
- Consultations show that **improvements** have been achieved in EU zoos.

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Conclusions

- The **impact** of conservation measures promoted by zoos on biodiversity conservation is debated in literature. However, the Zoos Directive represents an **essential instrument** for achieving the objectives set at EU and international level.
- **Stakeholders** play an instrumental role in the proper implementation of the Directive, and in the achievement of its objectives.
- The Zoos Directive and the work of stakeholders are mutually reinforcing in order to strengthen the role of zoos in the conservation of biodiversity. However this **main goal is not yet fully achieved**.

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Part V – Discussion

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Points for discussion

- Feedback on the findings: are there important gaps or misinterpretations? Do you have different views and supporting evidence?
- Do you have further inputs on the achievements, remaining issues, contributing and impeding factors?
- Are there other impacts, positive or negative changes, that have not been mentioned?

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Efficiency



Study to support the evaluation of the Zoos Directive

Draft findings on the efficiency of the Zoos Directive

Workshop 16 May 2017
Valentina Parziale

Content

- I. Introduction
- II. Costs and benefits of the Zoos Directive
 - I. Costs for zoos and Member States competent authorities
 - II. Benefits
 - III. Relationship between costs and benefits
- III. Factors affecting efficiency, best practices and unnecessary burden
- IV. Conclusions
- V. Discussion

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2

Part I - Introduction

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2

Evaluating the efficiency of the Zoos Directive

Key question: Is the range of regulatory costs implied by the implementation of the Directive reasonable and proportionate compared to the benefits delivered?

Issues addressed:

- Costs and benefits produced and proportion between them
- Factors driving costs and benefits
- Evidence of unnecessary regulatory burden or complexity, and best practices

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Part II – Costs and benefits of the Zoos Directive

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Costs for zoos and Member State competent authorities

The Zoos Directive implied increased costs for zoos and Member State competent authorities (MSCAs). Relevant information has been collected through consultations with stakeholders.

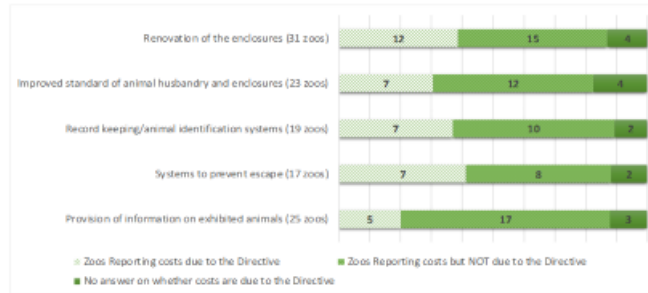
Costs for zoos	Costs for MSCAs
<ul style="list-style-type: none">• One-off investments and recurrent expenses to implement Article 3 measures• Administrative costs to obtain and keep the license• Charges• Costs due to delays in obtaining the license	<p>Enforcement costs:</p> <ul style="list-style-type: none">• Setting up and running the licensing and inspection system• Possible costs for accommodating animals in case of a zoo closure

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Costs for zoos – Implementation of Art. 3

One-off investments were incurred by zoos along a range of expenditure types, but only part of them was attributed to the Zoos Directive



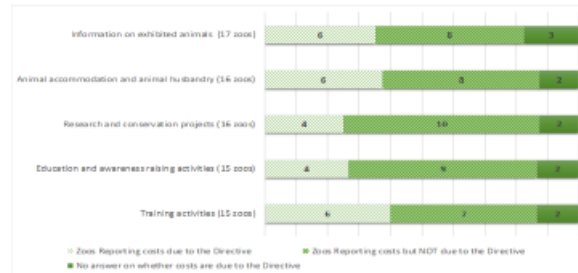
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Costs for zoos – Implementation of Art. 3

Similar considerations are valid for recurrent expenditure



Overall, zoos have incurred costs for conservation measures, but most of these costs are:

- not seen as attributable to the Directive
- difficult to disentangle from “business as usual” expenses

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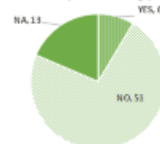
Costs for zoos- Administrative costs and delays

Administrative burden has been introduced along with the licensing and inspection system, but it appears limited:

- Time needed for license applications and for inspections is variable. Zoos consulted have provided estimates ranging from less than 1 man/day to up to 40 man/days
- Frequency of regular inspections also varies: from every 3 years to twice a year

A small share of zoos reported that delays in licensing had caused additional costs (e.g. missed visitors)

Costs due to delays in licensing (No. of zoos)



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Costs for Competent authorities – Enforcement costs

- New enforcement costs for treating license applications, preparing, carrying out and following-up on the inspections, in all Member States (except Belgium)
- The human resources fully dedicated to the enforcement of the Zoos Directive appear relatively limited:
 - Less than 1 man/day in Denmark, the Netherlands and Ireland; between 1 and 2 man/days in Italy, Portugal and Belgium
 - Inspectors are usually responsible for a range of duties, including inspections for the enforcement of the Zoos Directive
- Training costs increased in half of the Member States
- Limited evidence is available on costs following the closure of a zoo

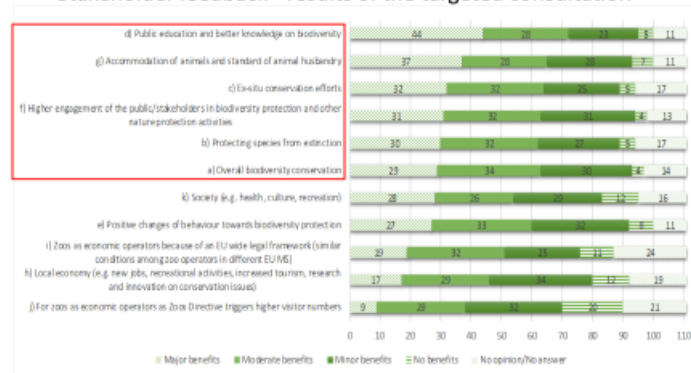
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Benefits

Stakeholder feedback - results of the targeted consultation



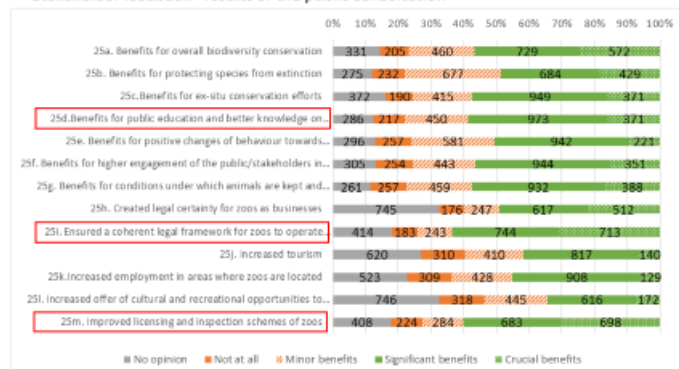
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Benefits

Stakeholder feedback - results of the public consultation



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Relationship between costs and benefits

The costs, in the most of the cases, are not considered to be disproportionate compared with the benefits:

- Only 1 Member State Competent Authority considered enforcement costs to be disproportionate
- Between 5 and 9 zoos (out of 70) considered one-off investment, recurrent costs or administrative costs as disproportionate to the benefits. This pattern is confirmed also among smaller zoos.
- The results of the public consultation confirmed this trend: the majority of zoos operators declares that the benefits exceed the costs (94 zoos out of 148 or 63.5% of total)

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Part III – Factors affecting efficiency, best practices and unnecessary burden

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Factors affecting efficiency

Costs vary widely across the EU due to a range of factors:

- Knowledge and capacity of inspectors (perceived as the most important factor affecting efficiency)
- More or less demanding requirements in relation to conservation measures
- System set up for the inspection (steps followed, use of inspection protocols/forms, involvement of zoo federations and/or other external experts)
- Involvement of regional or local administrations
- Frequency of the controls (from once every three years to once every six months)

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Best Practices

Stakeholders have indicated the following elements as examples of cost-effective implementation:

- Involvement of national zoo federations in the inspection process
- Guidelines on the requirements provided to zoos
- Tendering publicly for a zoo inspectorate
- Defining requirements proportionate to the size of the zoo

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Unnecessary burden

Stakeholders do not identify unnecessary burden, but simplification might be achieved by:

- Making sure that subsequent (i.e. repeated) inspections from national authorities are coordinated (i.e. one inspection should build on the other)
- Avoiding overlaps with other legislations and duplications of inspections (particularly, under Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, and Directive 92/65/EEC on animal health requirements for trade in and imports into the EU)

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Part IV – Conclusions

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Conclusions

- The Zoos Directive prompted additional regulatory costs for zoos and Member States authorities, however:
 - Zoos report that part of the investment (e.g. on enclosures) would have happened anyway;
 - Administrative costs for both zoos and Member States authorities are difficult to quantify, but appear to remain limited.
- Costs are generally considered in proportion to the benefits.
- No major issues related to unnecessary burden have been raised.
- There is room for improvement of the licensing and inspection process through, inter alia, the involvement of zoo federations and the elimination of overlaps with controls under other legislations.

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Part V – Discussion

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Discussion points

- Feedback on the findings: are there important gaps or misinterpretations? Do you have different views that are supported by evidence?
- Could the limited additional costs be linked with weak implementation and enforcement of the Zoos Directive?
- Are there other examples of cost-effective implementation (i.e. best practices)?
- Is there the need for further simplification of the licensing and inspection process?

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Coherence



Study to support the evaluation of the Zoos Directive

Draft findings on the coherence of the Zoos Directive

Workshop 16 May 2017

Nathy Rass-Masson

Content

- I. Coherence of the Zoos Directive and other EU instruments
 - A. Biodiversity instruments
 - B. Animal health instruments
- II. Level-playing field for economic operators
- III. Conclusions
- IV. Discussion

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2

Part I - Coherence of the Zoos Directive and other EU instruments

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2

Coherence (Biodiversity)

Overall, EU instruments are coherent and interact positively with the Zoos Directive:

- The Nature Directives
 - The CITES Regulation
 - The IAS Regulation
-
- ✓ Common objective to conserve biodiversity
 - ✓ Clear articulation (e.g. cross-references, derogations)
 - ✓ Consistent requirements (e.g. escape of animals, inspections)
 - ✓ Synergies in implementation (e.g. education, funding through LIFE)

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 - ✓ Consistent requirements (e.g. escape of animals, inspections)
 - ✓ Synergies in implementation (e.g. education, funding through LIFE)

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Coherence (animal health)

- Animal Health Directive 92/65/EEC
 - ✓ Complementary requirements (e.g. veterinary care, records)
 - ✓ Synergies to be enhanced (e.g. common inspection systems)
-
- Circus Regulation 1739/2005
 - ✓ Potential inconsistencies in the level of animal welfare required under both acts
 - ✓ But no interaction from a legal perspective (exclusion of circuses from definition of zoos)

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Part II - Level-playing field for economic operators

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Level-playing field

- Positive contribution towards the establishment of a level-playing field for zoos across the EU:
 - Before: no regulation for zoos in some Member State
 - Now: all zoos must comply with the minimum requirements imposed by the Directive (e.g., hold a permit and implement the conservation measures listed in Article 3).
- Significant discrepancies in the Member States in relation to:
 - obligations imposed on zoos
 - enforcement of the Directive
- ✓ Full level-playing field has not yet been achieved among European Zoos.

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7

Part III – Conclusions

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8

Conclusions

- Overall, EU instruments in the field of conservation are coherent and interact positively with the Zoos Directive;
- No inconsistencies are observed in relation to other EU instruments;
- Synergies in implementation however need to be enhanced;
- A full level-playing field among zoos as economic operators has not yet been achieved.

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9

Part V – Discussion

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10

Points for discussion

- Feedback on the findings: are there important gaps or misinterpretations? Do you have different views and supporting evidence?
- Do you have further inputs regarding the coherence of the Zoos Directive with other EU instruments?
- Are there other instruments that should be included in the analysis?

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Relevance



Study to support the evaluation of the
Zoos Directive

*Draft findings on the relevance of the
Zoos Directive*

Workshop 16 May 2017
Philip McGowan

Content

- I. Introduction
- II. Current needs and objectives
- III. Scientific and technical developments
- IV. Conclusions
- V. Discussion

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2

Part I - Introduction

19 May 2017



2

Relevance

The relevance analysis relies on a comparison of the current needs and objectives with those defined at the time of adoption of the Directive:

- adopted in 1999;
- entered into force 2002; and
- no amendments since.

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Increasing attention since 1999

Key trends over time include:

- Biodiversity continues to deteriorate;
- There is **increasing specificity** in understanding of what the needs of biodiversity are; and
- The **political importance** given to biodiversity conservation has continued to rise.

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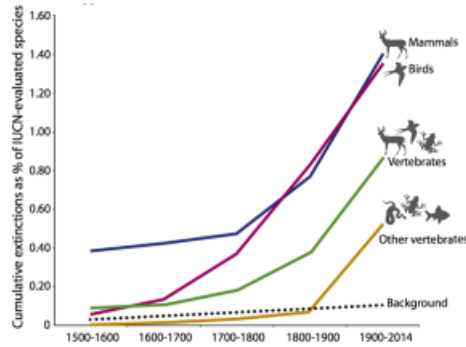


Part II - Current needs & objectives

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6th Mass extinction



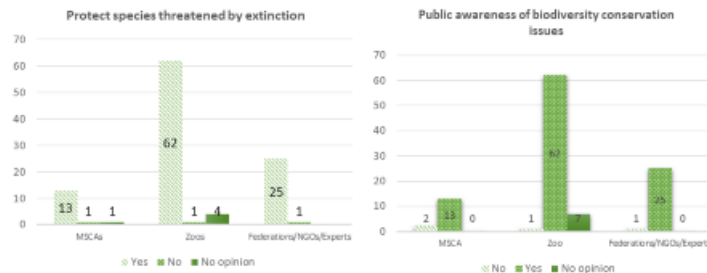
Source: Ceballos et al. Sci Adv 2015, 1:e1400253



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Stakeholder opinions: relevance for protection and awareness



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Development of global policy



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Relevance to biodiversity & development targets



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Part III – Scientific and technical developments



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Context for conservation

Rough timeline	Framing of conservation	Key ideas	Science underpinning
1950-1970	Nature for itself	Species Wilderness Protected areas	Species, habitats and wildlife ecology
1980-1990	Nature despite people	Extinction, threats and threatened species Habitat loss Pollution Overexploitation	Population biology, natural resource management
2000-2005	Nature for people	Ecosystems Ecosystem approach Ecosystem services Economic values	ecosystem functions, environmental economics
2010	People and nature	Environmental change Resilience Adaptability Socioecological systems	Interdisciplinary, social and ecological sciences

Source: Mace, G (2014) Science 345: 1558-1560



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Scientific and technical responses

- Population management
- Identifying species in need of conservation action
- Action needed for threatened species



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IUCN-SSC 5 step process

The five-step decision making process to decide when *ex situ* management is an appropriate conservation tool:

- STEP 1. Compile a status review of the species, including a threat analysis.
- STEP 2. Define the role(s) that *ex situ* management can play in the overall conservation of the species.
- STEP 3. Determine the characteristics and dimensions of the *ex situ* population needed to fulfil the identified conservation role(s).
- STEP 4. Define the resources and expertise needed for the *ex situ* management programme to meet its role(s) and appraise the feasibility and risks.
- STEP 5. Make a decision that is informed (i.e. uses the information gathered above) and transparent.

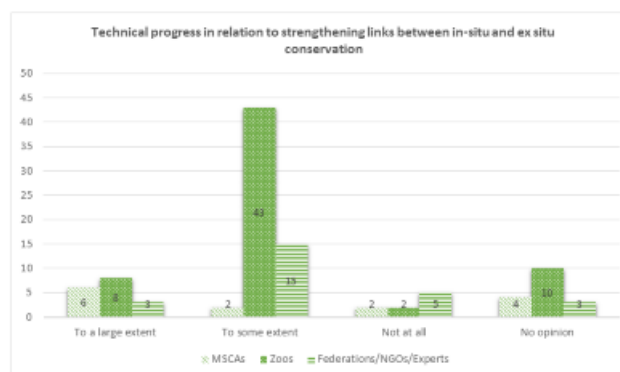
Source: IUCN/SSC 2014

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Stakeholder opinions



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Ex situ management and overall species conservation

Stronger integration of *ex situ* management capacity into holistic species conservation strategies and plans is possible and has considerable potential to improve the status of species. This is because:

- lessons are being learnt about the capacity of zoos can contribute to conservation;
- there is an increasingly clear understanding of what is driving declines in individual species in the wild, the pressures that is causing them, and the constraints that exist on tackling the pressures; and
- it is increasingly understood that species conservation requires a strategic approach to addressing problems (both threats and constraints) so that scarce resources are not wasted.

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Part IV – Conclusions

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Conclusions

- The Zoos Directive is framed as an EU response to the Convention on Biological Diversity, and at present this encompasses the 20 Aichi Targets that comprise the Convention's 2011-2020 Strategic Plan for Biodiversity.
- The Directive remains relevant to the CBD Aichi Targets, the EU Biodiversity Targets and the UN SDGs.
- The development of more specific objectives and indicators in global biodiversity policy clarifies what is needed for species and biodiversity more widely. It, therefore, allows clear links to be made between zoos and these global needs: all of this allows the Zoos Directive to have greater impact.

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Conclusions

- The Directive remains appropriate in the light of subsequent technical and scientific developments.
- There is considerable scope for a better integration of ex situ and in situ species conservation and the contribution of zoos to *in situ* conservation to be increased.
- Given the continuing deterioration in the status of species, and the increasing pressures on biodiversity, the potential for the Zoos Directive to encourage support of EU and global targets remains, and is arguably greater than in when it was adopted.

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Part V – Discussion

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Discussion points

- **Feedback on the findings:**
 - Are there important gaps in scientific or technical developments since 1999 that have not been described?
 - Are there important gaps in policy developments since 1999 that have not been described?
- **Interpretation of the findings:**
 - Has the current Relevance of the Directive been interpreted appropriately? Please support views with evidence.

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EU Added Value



Study to support the evaluation of the
Zoos Directive

*Draft findings on the EU added value
of the Zoos Directive*

Workshop 16 May 2017
Lucie Meura

Content

- I. Introduction
- II. Comparison with results achievable at national or regional levels
- III. Need for continued action at EU level
- IV. Conclusions
- V. Discussion

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2

Part I - Introduction

19 May 2017



2

EU Added Value

The EU Added Value ('EUAV') analysis examines :

- What the Directive achieved compared to what would have been achieved :
 - By Member States on their own
 - By other stakeholders
- If EU action is still needed.

EUAV is strongly linked to the analysis of Effectiveness and Relevance.

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Part II – Comparison with results achievable at national or regional levels

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EU Added Value

Creation of an EU common legal framework

- Before adoption of Directive, only 5 Member States had some legal requirements on zoos, mainly focused on animal welfare provisions
- All zoos must now abide by minimum requirements
 - Including zoos that are *not* part of zoo federations
 - Including taking conservation measures
- Licensing and inspection set up in all Member States
- Legally binding nature of the Directive, added value as compared to membership schemes of zoo associations

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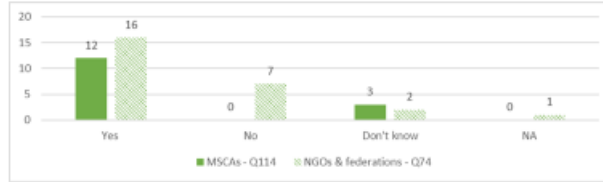


6

EU Added Value

Results of targeted consultations

- The Directive contributed to faster and more efficient implementation of conservation measures (Art. 3)



Answers to "Do you think that the EU intervention has contributed to make zoos adopt or implement the Article 3 conservation measures more efficiently or more quickly as compared to national law or non-legal initiatives?"

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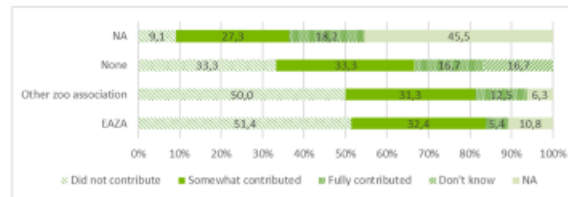


7

EU Added Value

Results of targeted consultations

- Effects of legislation more striking for zoos not belonging to zoos associations



Answers to "In your zoo, to what extent has the Zoos Directive contributed to implementing new conservation measures or improving the existing ones?"

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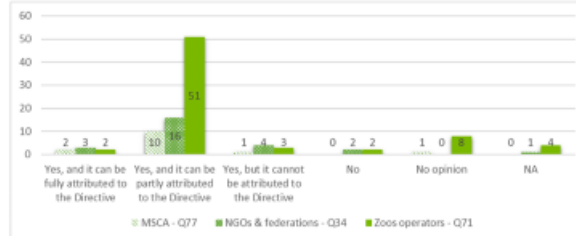


8

EU Added Value

Results of targeted consultations

- Directive partly contributed to strengthen role of zoos



Answers to "In your opinion, has the role of zoos in the conservation of biodiversity been strengthened over the last 15 years? Can this be attributed to the Zoos Directive?"

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Part III – Continued need for EU action

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EU Added Value

- Similar results would not have been achieved:
 - By international conventions - different scope
 - By memberships to zoos federations - voluntary (e.g. 17% of EU zoos affiliated to EAZA)
- Mutually reinforcing effect of Zoos Directive and standards and guidelines from associations
- Zoos Directive needed for EU implementation of CBD
- Important differences remain on implementation – better coordination needed among Member States through EU level
- Directive gave higher visibility and illustrated political engagement on the conservation role of zoos

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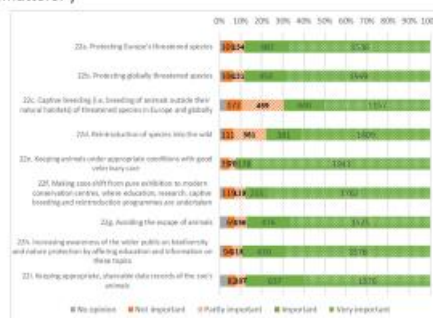


11

EU Added Value

Results of public consultation

All stakeholders agree that EU-wide rules are important on all matters covered by the Directive (Answers to 'How important do you think EU-wide rules on zoos are on the following matters?')



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Part IV - Conclusions

19 May 2017



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EU Added Value

- Key EUAV : creation of a common EU wide legal framework
- Partly contributed to the strengthening of role of zoos in conservation, along with other factors
- Continued need for EU intervention – with more focus on coordinated implementation and common understanding of certain requirements.

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Part V – Discussion

19 May 2017



15

Points for discussion

- Feedback on the findings: are there important gaps or misinterpretations? Do you have different views and supporting evidence?
- Do you have further inputs on the added value of the Directive?
- In your view, would the same results have been achieved in the absence of a Directive?
- In your view, what could be the consequences of not having a Directive on zoos?

ANNEX X – SYNOPSIS REPORT

1 OVERALL APPROACH

In line with the Better Regulation Guidelines on Stakeholders Consultation, this report aims at summarizing the methodology and results of all the stakeholders' consultation activities undertaken for the study to support the evaluation of the Zoos Directive. It is the result of the Consultation Strategy that was developed for DG ENV and approved by the Steering Group.

It draws from information provided in the Targeted Surveys Report, the Interviews Report and the Public Consultation Report in which each activity is more extensively described. Key issues raised in each of the separate stakeholder consultations will be presented. The overview of quantitative and qualitative results of the consultation activities is contained in the relevant specific reports.

Based on the intervention logic of the Directive, the evaluation framework and specific needs for information, stakeholders were selected on the basis of: (i) their involvement in the implementation of the Zoos Directive, (ii) the way that they are impacted by the EU legislation, and (iii) their knowledge and/or interest in the topics concerned. The following stakeholder groups were directly targeted by the consultation process:

- **CAs** including enforcement authorities, responsible of the implementation and enforcement of the Zoos Directive in the 14 Member States selected as case studies.
- **Zoos** (including public, private, charity supported and mixed entities), in the 14 Member States selected as case studies. As far as possible, and based on the information provided by the CAs and other stakeholders (such as zoos federations and NGOs), a mix of different types of zoos was involved: membership/non-membership to the European Association of Zoos and Aquaria (EAZA), large and small operators, single/multiple operator, aquaria, animal parks, safari parks, collections of birds, reptiles, etc.).
- **Zoos associations/representative organisations**, acting at international, EU and (for the 14 Member States selected as case studies) national level, including federations and unions of zoo operators and, when relevant, of zoo and wild animals' veterinarians, keepers and/or trainers.
- **NGOs**, focused on biodiversity conservation in general and/or on *ex situ* conservation, and on animal welfare, at international, EU and (for the 14 Member States) national level.
- **Experts/academics** with expertise on the topics of biodiversity conservation, *ex situ* conservation, wild fauna, etc.

Moreover, a broad range of stakeholders (including **national stakeholders of the 14 Member States not involved in the case studies**) and the **civil society** at large, including **individual citizens**, were informed and reached through the **public consultation** and the [evaluation dedicated webpage](http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm)⁵³⁶.

More in detail, the collection and analysis of stakeholders' inputs were core tasks of the supporting study, as demonstrated by the overall methodology of the project. The consultation strategy comprised four **forms of consultation**: (i) **Targeted surveys** for competent authorities (CAs) and zoo operators, zoos federations, non-governmental organisations (NGOs) and experts from the 14 selected Member States as well as at EU and international level (17 August – 28 November 2016); (ii) **Open public consultation** (15 September – 8 December 2016); (iii) **In-depth interviews** with CAs, zoos federations, NGOs and zoo operators from the 14 selected Member States, and with EU and international stakeholders (18 October – 12 December 2016); and (iv) **validation workshop** with stakeholders (CAs, zoo operators, zoo federations, NGOs and experts) from all EU Member States.

⁵³⁶ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

The evaluation framework guided the data collection and formed the basis for the detailed review of evidence and analysis of each evaluation question. The evaluation framework maps the links between the evaluation questions and the questions posed by the different surveys (targeted and public) in the study.

The main analytical method used was content analysis, based on the aggregation and analysis of information collected through the interviews, targeted questionnaires (open-ended answers) and public consultation. Replies to closed questions were analysed using descriptive statistics. It was the main method of analysis of the results of the public consultation. The replies to the targeted questionnaires were organised according to the relevant evaluation questions (on the basis of the correspondence matrix) and, for each survey, replies were analysed in order to establish and compare the opinions of different types of stakeholder. Zoo replies were investigated according to sub-groups, i.e. membership of a national, European or international federation, and number of employees. Replies to the questionnaire addressed to federations, NGOs and experts were disaggregated according to the category of stakeholder, and to level of action (EU, national, international or mixed). Open-ended replies were also screened and represented an important means of gaining deeper insights and better understanding of the reasons behind the answers provided, with examples integrated into the analysis for illustrative purposes.

2 CONSULTATION METHODS

2.1 TARGETED SURVEYS

The targeted surveys were aimed at all stakeholder categories with a high and medium interest according to the stakeholder analysis matrix. It covered (i) Member States Competent Authorities (MSCAs) in the 14 selected Member States; (ii) NGOs, zoos federations, and experts in the 14 selected Member States, at EU and international level; and (iii) zoo operators in the 14 selected Member States.

In total, the study team contacted: 19 MSCAs; 53 NGOs, federations and experts; 19 EU and international stakeholders; and 514 zoos.

The questionnaires were structured to meet the needs of the evaluation questions according to the evaluation framework. A major focus was placed on those evaluation questions for which the information was particularly scarce (such as state of play, effectiveness, efficiency and EU added value). The questionnaire for the targeted survey included closed questions, to facilitate comparability and quantification, and open questions for explanations and qualitative information. The questionnaires were also tailored to each different type of respondents.

The CAs of the 14 selected Member States responded to the survey. Regarding the survey addressed to zoos federations, NGOs and experts, 27 stakeholders replied (13 federations of zoos, 13 NGOs and 1 expert). Organisations active in the field of biodiversity conservation (IUCN, CITES, CBD) were non-responsive to repeated invitations to contribute to the study. 70 zoos (i.e. 16% of contacted zoos) from the 14 selected Member States have replied to the survey. 12 additional zoos responded only by emails. The results of the survey targeting zoos display an overrepresentation of EAZA zoos: in the 14 selected Member States only 20% of zoos are members of EAZA, yet 52% of zoos responding to the survey are members of EAZA.

More information about the targeted surveys is available on the website of the European Commission in the report dedicated to this consultation⁵³⁷.

2.2 PUBLIC CONSULTATION

The public consultation had the objective to get the views and perceptions of a wide set of stakeholders on the contribution of the Directive to strengthen the role of zoos and enhance biodiversity conservation. The public consultation intended to enlarge the scope of the consultation beyond the stakeholders consulted in the 14 selected Member States for the targeted surveys and in-depth interviews. It gave stakeholders from all EU countries and citizens the opportunity to express their opinion on all evaluation points. The questions were aimed at collecting opinions and input on the different evaluation questions, in order to easily evaluate the outcome of the public consultation per evaluation question and strengthen the evidence base. The public consultation focused on ten key questions⁵³⁸. The questionnaire is available on the [website](#)⁵³⁹ of the European Commission in the national languages of the 28 Member States.

The public consultation was open for 12 weeks: between 15 September 2016 and 8 December 2016, and received 2297 answers. The main categories of respondents were individuals (zoo visitors) with 1944 answers, and zoos operators with 148 answers. 105 respondents chose the category 'other' types of respondents. The involvement of interest groups was visible in the results of the public consultation. At least two NGOs involved in animal welfare (Born Free⁵⁴⁰ and Eurogroup for Animals⁵⁴¹) provided

⁵³⁷ <http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Responses.pdf>

⁵³⁸ Additional introductory questions were included to understand the respondent's profiles (questions 1-19). The core questions were questions 20-29.

⁵³⁹ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/index_en.htm

⁵⁴⁰ http://www.bornfree.org.uk/fileadmin/user_upload/files/zoo_check/EU_Zoo_Inquiry/Public_consultation_on_Zoo_Directive_REFIT.pdf

suggested replies. Such guidance was also disseminated through other EU/international associations (such as Animal Defender International, ADI⁵⁴²), and other associations at national level (such as Animal Public⁵⁴³, which is active in Germany). It is expected that additional examples may be found on other websites. A very limited number of respondents followed all indications for the closed questions (40 of the 2,297 respondents)⁵⁴⁴. Responses to semi-open fields revealed the presence of additional campaigns by other interest groups, including zoos associations at both EU and Member State level. In these cases, overall, only a limited number of stakeholders provided input in semi-open fields, most of which appear to be influenced by interest groups⁵⁴⁵. These campaigns were followed by various stakeholder categories: individuals, NGOs, other associations and zoo operators.

It is not possible to precisely assess the impact of these campaigns on the overall results (some respondents may have followed the guidance only partly, or might have answered closed questions similarly by coincidence). However, the overall impact of replies that followed all indications for the closed questions is very limited (40 of the 2,297 respondents or 1.74%). These identical reply patterns were not, therefore, analysed separately. For semi-open questions, repeated comments were considered in the overall analysis.

A full report on the online consultation is available on the webpage of DG ENV⁵⁴⁶.

2.3 IN-DEPTH INTERVIEWS

The aim of the interviews was to obtain an in-depth view of the issues covered by the study in each of the selected countries, and an overview of the situation at the EU and international levels. Where appropriate, the interviewees were asked to provide written supporting evidence (e.g. for issues that require quantitative assessments, such as on costs). The interviews outline ensured a full coverage of the evaluation questions and tailored the questions to the different types of stakeholder groups identified. The links between the evaluation questions and interview questions were added to the evaluation framework. A semi-flexible approach was adopted, meaning that: on the one hand, each interview took into account the specific context and issues raised by the stakeholder in the targeted survey; on the other hand, the same topics were covered in all interviews and information remained comparable to a certain degree. The interviews were organised with: (i) National stakeholders: within each of the 14 Member States, (ii). EU and international stakeholders (EAZA, the European Association for Aquatic Mammals (EAAM), Eurogroup for Animals and Born Free (Daniel Turner; Will Travers)). Regarding national stakeholders, depending on the number of relevant stakeholders acting at national level, at least two and up to four interviews were held.

In total, 44 stakeholders were interviewed: 13 MSCAs, 8 zoo federations, 6 NGOs, 9 zoo operators and 8 EU and international stakeholders. The Interviews Report provides the overview of the 44 stakeholders interviewed.

More information about the interviews is available on the website of the European Commission in the report dedicated to this consultation⁵⁴⁷.

2.4 WORKSHOP

The purpose of the workshop was to present the main findings of the Draft Final Report and to provide

⁵⁴¹ <http://www.eurogroupforanimals.org/wp-content/uploads/2016/10/Suggested-Replies.pdf>

⁵⁴² Suggested replies are the same as those provided by Eurogroup for animals (http://www.ad-international.org/animals_in_entertainment/go.php?id=4264&ssi=12).

⁵⁴³ Suggested replies provided by Eurogroup for animals are the same as those provided by BornFree (<http://www.animal-public.de/europas-zootiere-brauchen-ihre-hilfe/>).

⁵⁴⁴ 36 respondents followed the indications of Born Free (1.5% of the total number of respondents); four respondents followed the indications of Eurogroup for Animals (0.17% of the total number of respondents).

⁵⁴⁵ Depending on the question, from 56% to 84% of the respondents provided replies affected by campaigns.

⁵⁴⁶ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/public_consultation_report_april_2017_clean.pdf

⁵⁴⁷ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/interviews_report_2017_03.pdf

an opportunity for important stakeholders to input on the conclusions on the effectiveness, efficiency, relevance and coherence of the Directive, through a robust debate and an informative exchange of opinions. At the workshop, the study team presented the main findings of the Report as a basis for the discussion. Stakeholders were asked to focus and provide input in particular on any existing gaps or misrepresentations that they identified in the study's findings.

The notes of the workshop are published on the corresponding website⁵⁴⁸.

More information about the workshop is available on the website of the European Commission in the report dedicated to this consultation⁵⁴⁹.

2.5 AD-HOC CONTRIBUTIONS

Through the functional mailbox set-up by the European Commission in the context of this study⁵⁵⁰ or direct contacts with the contractor, ad-hoc contributions were received from the following stakeholders:

- EAZA: contact details of MSCAs; contact details of EAZA zoos; history of EAZA standards, scientific studies,
- BornFree: European Survey of Zoological Collection⁵⁵¹; Captive Polar Bears in UK and Ireland⁵⁵²; Identifying the Training Needs of EU MSCAs⁵⁵³; early findings from 2016 Zoo Inquiry⁵⁵⁴.
- University of Birmingham, S. Thorpe (Reader in Zoology, School of Biosciences): study on Enclosure Design Tool for great apes⁵⁵⁵.
- Sergiel, A.: The welfare of bears in zoos: a case study of Poland⁵⁵⁶; The Welfare of Animals in Zoos and EU Legal Standards⁵⁵⁷.
- KMDA (BE zoo and research institute): complementary documents to targeted surveys.
- NL MSCAs: complementary documents to targeted surveys.
- Tiergarten Heidelberg GmbH: complementary documents to targeted surveys.
- Individual and zoo who wished to conserve anonymity: position statements through emails on the uselessness of a Zoos Directive (breach of subsidiarity principle, inappropriate intervention logic).

⁵⁴⁸ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/workshop_en.htm

⁵⁴⁹ http://ec.europa.eu/environment/nature/legislation/refitzoosdirective/pdf/Workshop_report.pdf

⁵⁵⁰ ENV-REFIT-ZOOS-DIRECTIVE@ec.europa.eu

⁵⁵¹ Travis, W., et R Straton. 1988. European Survey of Zoological Collections. Zoo Check contract for EEC (contract 6681 (87) 07).

⁵⁵² Horsman, P., Captive Polar Bears in UK and Ireland, 1988.

⁵⁵³ BornFree, Identifying the training needs of EU Member State competent authorities - Survey to assess implementation of legislation and need for training: wild animals kept in captivity, July 2016, available at: http://endcap.eu/wp-content/uploads/2016/11/EU_Member_State_Training_Needs_report_0716_FINAL.pdf.

⁵⁵⁴ Not yet published.

⁵⁵⁵ University of Birmingham, Apeing the Apes: New Enclosure Design Tool created for UK Zoos, 11.05.2016,

<http://www.birmingham.ac.uk/news/latest/2016/05/new-enclosure-design-tool-created-for-uk-zoos.aspx>

⁵⁵⁶ Maślak, R., Sergiel, A., Bowles, D., Paško, Ł. 2016. The welfare of bears in zoos: a case study of Poland. Journal of Applied Animal Welfare Science 19(1): 24-36.

<http://www.tandfonline.com/doi/abs/10.1080/10888705.2015.1071671?journalCode=haaw20>

⁵⁵⁷ Gardocka, T., Gruszczyńska, A., Maślak, R., Sergiel, A. (eds.) 2014. The Welfare of Animals in Zoos and EU Legal Standards. ELIPSA, Warsaw.

https://www.academia.edu/30092738/The_Welfare_of_Animals_in_Zoos_and_EU_Legal_Standards

3 RESULTS OF CONSULTATION

3.1 EFFECTIVENESS

The assessment of the “effectiveness” of the Zoos Directive covered a range of issues: the key features and the adequacy of the **licensing and inspection systems** set up in the 14 selected Member States; the **actual implementation** of conservation measures by zoos; the **broader contribution** of the Zoos Directive to the protection of wild fauna and conservation of biodiversity; and **other positive or negative changes** going beyond the objectives of the Zoos Directive. Both the targeted and public consultations covered these issues. The results of the consultation activities are outlined in the paragraphs below.

All Member States have transposed the Directive into national law and established a **licencing and inspection system**. The targeted consultations, but also the workshop and in-depth interviews, allowed us to understand the functioning of the licencing and inspection systems in the selected Member States, and to gather, especially from the MSCAs, information on specific features of these systems (i.e. the use of inspection protocols; the involvement of external experts, advisory boards, zoos associations; the use of guidance documents; training for inspectors; centralised zoo database).

All stakeholder groups taking part in the targeted surveys and interviews highlighted that the Directive has represented an important instrument, as far as it introduced a legally binding framework that did not exist in most of the Member States before the entering into force of the Zoos Directive. During the interviews, MSCAs, zoo federations and NGOs also recognised that the national licensing and inspection systems have gradually improved (e.g. through the setting up of operational procedures, improved coordination, training of the staff for inspections) and that progress has been made towards the achievement of the objectives of strengthening the role of zoos and preserving biodiversity. On a similar note, most of the respondents to the public consultation think that the Zoos Directive has produced significant benefits regarding the improvement of systems for licensing and inspections.

Regarding the **actual implementation of conservation measures among EU zoos**, evidence and opinions collected through the consultations shed a light on the progress made, but also point to implementation and enforcement issues. The results of the targeted survey addressed to zoos is affected by the high participation of EAZA zoos in the consultation (37 out of 70, or 53%) and are, therefore, not representative. Despite these limitations, the targeted survey highlighted that many zoos are undertaking conservation activities, as required by the Directive. Not all conservation measures receive the same attention; for example, not all zoos take part in research that benefits conservation, and less than half of the zoos surveyed are not involved in training activities in conservation skills. Nevertheless, the survey shows that many zoos are engaged in population management programmes (EEP and ESB), education and awareness-raising activities, and many measures are in place for animal husbandry, prevention of escapes and record-keeping.

The overall positive picture emerging from the targeted survey is confirmed in the public consultation, which shows that the public considers that the implementation of conservation measures is, generally, sufficiently promoted by EU zoos. This is especially the case for activities related to the provision of information on exhibited species, wild animals and their natural habitats, and for activities related to education and awareness raising. Benefits of the Directive were also underlined by all stakeholders' groups in the various consultations in relation to better knowledge on biodiversity among the public, the ability of the Directive to promote harmonization at EU level, enhance the role and public perception of zoos as entities contributing to biodiversity conservation, increased standards for animal keeping, public information, improved measures relating to the prevention of escape of animals. The level of negative perception among stakeholders is however higher in relation to animal conditions and care and animal shows. In the public consultation, 53% of the respondents disagreed with the fact that animals live in conditions that satisfy their needs and 54% of the respondents did not adhere to the observation that animal shows were adapted to the animals' natural behaviours.

Overall, the feedback on the **broader contribution of the Zoos Directive to biodiversity conservation** is positive across stakeholder categories. The majority of stakeholders involved in the targeted surveys (63 on 111, or 56.7%⁵⁵⁸) and the majority of respondents to the public consultation (1,301 on 2,297, or 56.6%⁵⁵⁹) considered that the Directive produced benefits in terms of overall biodiversity conservation.

Together with these achievements, important issues in terms of implementation and enforcement of the legislation remain, as reported in the surveys, the interviews and at the workshop. Issues have been raised especially by NGOs, zoo federations and zoos. These issues encompass: the lack of cooperation between different authorities, the lack of human and financial resources for licensing and inspection (also raised as an issue by MSCAs), the lack of knowledge in competent authorities, the lack of inventory of all establishments that should be regulated under the Directive, the rare cases of closure of zoos as it requires a lot of resources and coordination. In particular, stakeholders present at the workshop reminded that, despite the progress made, there are still many non-compliant zoos across the EU, which leads to unfair and unacceptable competition for well performing and dedicated zoos.

Stakeholders also underlined, especially during the workshop, the need to translate and better disseminate the Good Practices Document, to set up a platform for exchange to identify means of improving licensing and inspection, and to adopt a more active approach on enforcement.

Finally, the supporting study explored whether the Zoos Directive prompted significant (positive or negative) **changes beyond the objectives of biodiversity conservation and protection of wild fauna**. Only a few stakeholders (NGOs) pointed out negative effects and these were generally related to the legitimisation of the role of zoos, even where their participation in conservation activities and contribution to conservation is very small. Conversely, most of the stakeholders agreed that the Directive had additional positive effects in terms of: increased public awareness of the role of zoos in biodiversity conservation (an opinion shared across all the stakeholder categories and confirmed by the results of the public consultation); increasing attention paid to the welfare of wild animals in zoos (according to zoos, zoos' federations and MSCAs).

3.2 EFFICIENCY

Given the lack of independent analyses on the issue, the limited information available on the situation of zoos prior to the adoption of the Directive and the lack of monitoring and reporting requirements under the Directive, the information provided by zoos and MSCAs was crucial for the assessment of the efficiency of the Directive. Information relevant for that evaluation criterion was gathered through the targeted surveys, which was complemented by in-depth interviews and the validation of findings at the workshop. Given the technicality of the issue, the public consultation was not designed to provide detailed data on this point.

Overall, the consultations allowed us to overcome the lack of data only to a limited extent: both zoos and MSCAs were, in most of the cases, not able to provide quantitative data and, especially, to disentangle the costs directly due to the Zoos Directive from costs that would have been incurred anyway (i.e. also in the absence of the EU legislation).

Zoos and MSCAs reported in all consultations that the Zoos Directive prompted additional regulatory costs. For zoos, those costs include: one-off investments and recurrent expenses to implement Art. 3 measures; administrative costs to obtain and keep the license; charges; and (in a limited number of cases) costs due to delays in obtaining licences. Small zoos find it slightly more difficult to bring their installations in line with the Zoos Directive, where costs for enclosure renovation can be significant.

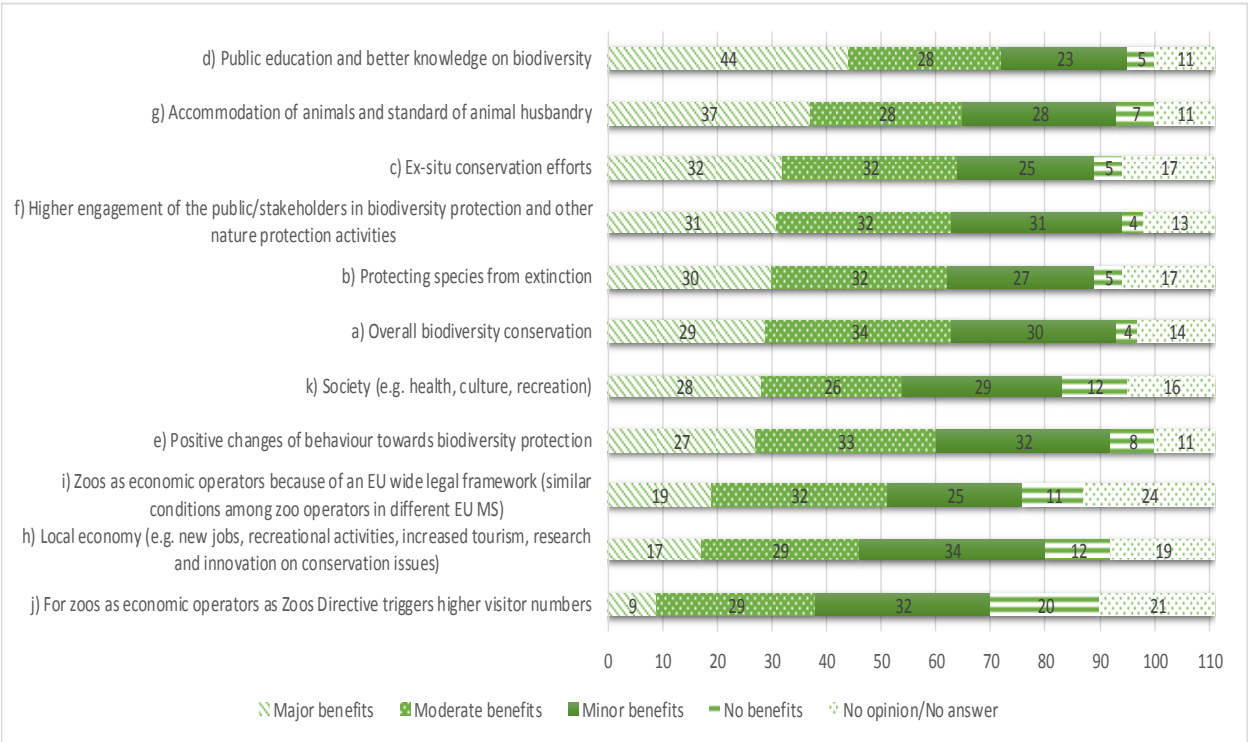
⁵⁵⁸ MSCAs, zoos and zoos' federations, NGOs and experts that, in the targeted questionnaires, rated the benefits as "moderate" or "major".

⁵⁵⁹ Respondents to the public consultation that rated the benefits on overall biodiversity conservation as "significant" or "crucial".

For MSCAs, the costs are mainly enforcement costs: setting up and running the licensing and inspection system; possible costs for accommodating animals in case of a zoo closure. However, zoos and MSCAs generally underline that costs stemming from the implementation of the Zoos Directive are difficult to quantify but appear to be limited. For instance, only 6 out of 70 surveyed zoos reported that delays in licensing caused additional costs. The zoos moreover highlighted that part of the investment would have happened anyway. They reported the costs either as, not attributable to the Directive, or difficult to disentangle from ‘business as usual’ expenses. In comparison with other legislations (animal welfare laws for instance), stakeholders confirmed during the workshop that the costs induced by the Zoos Directive are very low. In that respect, participants to the workshop assessed the Zoos Directive as the most efficient instrument possible for MS to implement Article 9 of the CBD.

The main benefits reported by all stakeholders’ categories in the targeted surveys are increased public education, improved accommodation of animals and standards of animal husbandry, stronger ex-situ conservation efforts and higher engagement of the public/stakeholders in biodiversity protection and other nature protection activities (Figure 80). These benefits were likewise mentioned in interviews and during the workshop.

Figure 80: Stakeholders’ opinions on the significance of benefits associated with the Zoos Directive (results from the targeted questionnaires addressed to MSCAs, zoos and zoos’ federations, NGOs and experts. Number of replies = 111)



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

Regarding the relation between costs and benefits, costs are generally considered by stakeholders consulted as proportionate to the benefits. In the targeted surveys, only one MSCA considered enforcement costs to be disproportionate. Between five and nine targeted zoos (out of 70) considered one-off investment, recurrent costs or administrative costs as disproportionate to the benefits. This pattern is confirmed among the smaller zoos surveyed. The results of the public consultation confirm this trend in perception: the majority of zoos operators declares that the benefits exceed the costs (94 zoos out of 148 or 63.5% of total).

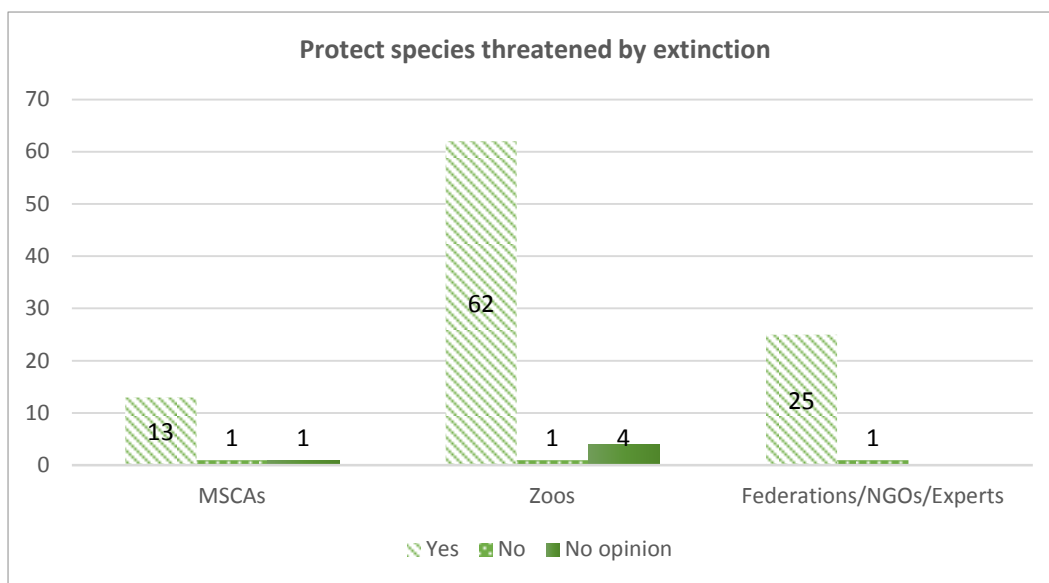
Overall, no major issues related to unnecessary burden have been raised. Stakeholders, in particular associations and federations, mentioned in targeted surveys and in interviews that there is nonetheless room for improvement of the licensing and inspection process through, inter alia, the involvement of zoo federations in the licensing and inspection process, the elimination of overlaps with controls under

other legislations, better cooperation and communication between different authorities and stakeholders, in particular regarding the closure of zoos.

3.3 RELEVANCE

The Directive remains relevant to the CBD Aichi Targets, the EU Biodiversity Targets and the UN SDGs. Stakeholders across all groups underlined indicate in the targeted surveys that the objectives of the Directive are still relevant to the current needs and even more relevant given the increased global decline in biodiversity. The impression of the majority of stakeholders, as reported under the public consultation and at the workshop, is that EU-wide rules are important or very important in order to strengthen the role of zoos in conservation (see Figure 28), and that without EU-wide rules on zoos, the fulfilment of EU’s commitments to the protection of biodiversity would be unlikely (see EU Added Value).

Figure 81: Stakeholders’s opinions on the relevance of the protection of threatened species (results from the targeted questionnaires addressed to MSCAs, zoos and zoos’ federations, NGOs and experts. Number of replies = 108)



Source: Present survey of MSCAs, federations, NGOS and experts, and zoos

As pointed by federations, experts and NGOs, both in surveys and in the workshop, the development of more specific objectives and indicators in global biodiversity policy clarifies what is needed for species and biodiversity more widely. It, therefore, allows clear links to be made between zoos and these global needs: all of this allows the Zoos Directive to have greater impact.

The Directive remains appropriate in the light of subsequent technical and scientific developments. The fact that the Directive is a framework act and not too prescriptive is considered beneficial in this respect: the Directive can adapt to new developments. Some stakeholders, especially federations, highlighted in the targeted surveys that the link between ex situ management and in situ conservation could however be better emphasized. During the workshop, it was also underlined that ex situ conservation has to be better coordinated in the future (e.g. EU wide strategy or a centralised multi-stakeholder process identifying which species need conservation measures how, where, by whom). The opinions on the value of keeping non-threatened species in zoos varies depending on stakeholders’ groups. For some participants to the workshop and interviewees, especially federations, species that are not yet vulnerable should also be prioritised in captive breeding to avoid losing an opportunity to ensure their protection, and species of least concern can also have a conservation value for their endangered relatives. For others, in particular NGOs, captive breeding is not the best answer for threatened species, and there is a need to carefully review where resources are placed to ensure the best use.

Given the continuing deterioration in the status of species, and the increasing pressures on biodiversi-

ty, it is agreed by all stakeholders that the potential for the Zoos Directive to support EU and global targets remains, and is greater than in when it was adopted.

3.4 COHERENCE

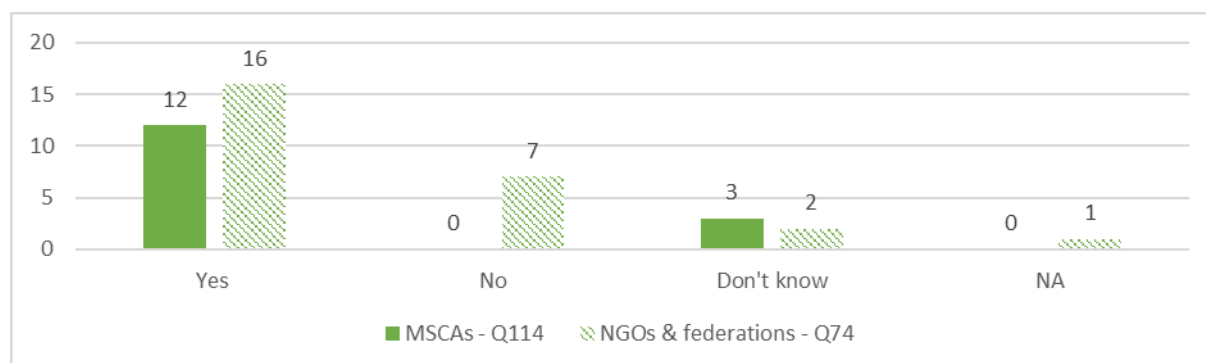
The technical nature of the questions of coherence implied that the input of stakeholders was mainly sought to complement the legal analysis, i.e. to identify whether, in practice, inconsistencies were perceived. The views gathered through all consultations are similar: the Directive is considered consistent and mutually supportive of other EU legislation on biodiversity and international guidelines, agreements and strategies. Some stakeholders, mainly zoos and competent authorities, are concerned about upcoming, potential, inconsistencies between the Zoos Directive and Regulation (EC) No. 1143/2014 on Invasive Alien Species (IAS Regulation), and overlaps with Directive 92/65/EEC (Animal Health Directive). Some other stakeholders, mainly NGOs and, in the case of the public consultation, also individuals, refer to potential issues with Regulation 1739/2005 on the movement of circus animals (Circus Regulation). Even though some stakeholders and responses to the public consultation pointed to inconsistencies between the Zoos Directive and both the IAS Regulation and the Circus Regulation, the legal analysis found no issues of coherence.

3.5 EU ADDED VALUE

As for the assessment of the effectiveness of the Directive, answering to the questions on the added value of the Directive was challenging given the limited information available on the situation prior to the adoption of the Directive and the lack of monitoring and reporting requirements that would illustrate the progress made in its implementation. The targeted surveys, public consultation, and discussions during in-depth interviews and the workshop underlined the following points.

The main added value of an EU instrument lies in the creation of a common EU wide legal framework applicable to all zoos, as the targeted surveys underlined. The set-up of such EU wide framework was considered by all stakeholders' groups surveyed as partly contributing to the strengthening of role of zoos in conservation, along with other factors (Figure 80). The Directive was also reported in targeted surveys as having acted as a catalyser for faster and more efficient implementation of conservation measures (Figure 82). In that respect, the discussions at the workshop emphasized that, although the Directive leaves an important margin of interpretation, a certain level of harmonization through minimum standards was reached.

Figure 82: Stakeholders' perceptions that the EU intervention has contributed to make zoos adopt or implement the Article 3 conservation measures more efficiently or more quickly as compared to national law or non-legal initiatives (results from the targeted questionnaires addressed to MSCAs and zoos' federations, NGOs and experts. Number of replies = 41)



Source: Present survey of MSCAs, federations, NGOs and experts, and zoos

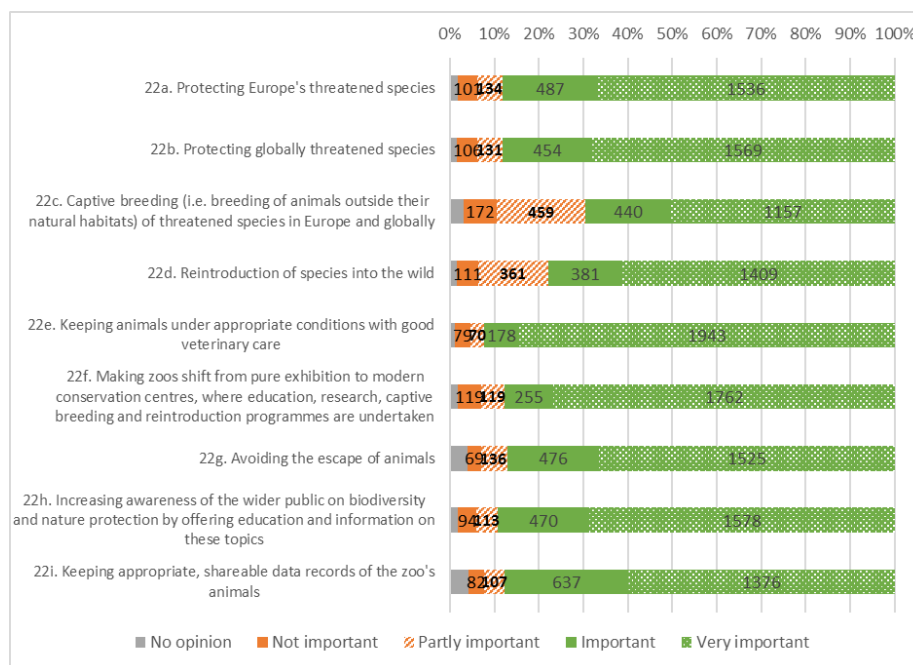
The effects of legislation are more striking for zoos not belonging to zoos associations that already require from their members to uphold certain standards on animal accommodation, and conservation measures. While participants to the workshop agreed that there is still a gap in conservation performance between zoos that are members of associations and zoos that are not members, they highlighted

that the Directive is key in bridging this gap.

Other benefits of EU intervention raised by stakeholders in the targeted surveys and in the workshop include the facilitation of cross-border cooperation and cooperation between zoos. According to the discussion held during the workshop, conservation has clear cross-border implications and should not be left to the sole regulation at national levels. In this respect, although the role of the Commission is limited (lack of monitoring/reporting system, no committee), stakeholders expressed the view that further coordination at EU level would be useful. Another added value of the Directive is related to the increased awareness that it triggered about zoos conservation role because of higher visibility and political engagement due to the EU intervention. The importance of the political message behind the existence of an EU instrument in that field was reiterated during the workshop: according to the participants, the Directive has raised political interest and action. From the point of view of MSCAs interviewed, this induced greater resources dedicated to the implementation of zoos regulation; while from the point of view of NGOs interviewed it led to a stronger leverage on authorities to ensure the enforcement of the rules.

For these reasons, nearly all stakeholders' groups in the various consultations report that there is a need for continued EU intervention, with more focus on coordinated implementation and common understanding of certain requirements. A majority of zoos, NGOs, zoos associations and experts indicated in the targeted survey that they consider that an EU legislation is necessary to ensure that zoos implement conservation measures. As illustrated by the results of the public consultation, the wider public shares that view (Figure 83). It is however not fully shared by competent authorities replying to the survey (6 out of 11 that replied that they do not deem an EU legislation as necessary), though there was a consensus from all stakeholders' groups present at the workshop, including MSCAs, on the need to keep EU wide rules on zoos.

Figure 83: Answers of the public consultation to “How important do you think EU-wide rules on zoos are on the following matters?”



Source: Present public consultation

The effects of not having the Directive were discussed during the workshop. Participants, while acknowledging that the impacts are hard to predict, mentioned most commonly as potential impacts that:

- Zoos that are part of organisations would maintain their standards;

- The gap between “good” and “bad” zoos would increase;
- Animal welfare would generally collapse;
- Illegal trade would soar;
- Member States that went beyond the requirements of the Directive and effectively implemented it would keep the existing legislation;
- Member States that struggle with implementation are more likely to get rid of the Zoos Directive's requirements.