Precision Agriculture and the future of farming in Europe

Country: Belgium

The study is performed for the scientific foresight unit STOA (Science and Technology Options Assessment) of the European Parliament (EP). The study is forward looking, and to support members of EP. The overall purpose of the project is to identify legislative pathways for the EU Parliament towards a sustainable, efficient and competitive agriculture in the EU, and for supporting development of skilled workforces in the farming sector in the EU in the future.

The study consisted of the preparation of 6 briefing papers for 6 different topics as Technical Horizon Scan, and subsequently to develop a envisioning report and to develop scenario's with a foresight team including social scientists. See here the main STUDY PAGE LINK

The Technical Report on the study on Precision Agriculture (274 pages!) can be downloaded HERE

Further information on the study is published on the STOA website and is online accessible HERE

The final results were presented at the STOA panel and for members of the European Parliament AGRI Committee in Strasbourg and can be viewed HERE

A video compiled to illustrate the key findings of the study can be viewed HERE

Members of parliament discussed the report on August 30, 2017 in the Agriculture Committee. The discussion can be viewed HERE

Technological advances in modern agriculture are incorporated on the following topics:

- available Precision Agriculture practices with the barriers and opportunities (including costs and benefits, and feasibility on farms of different scale and type) and related legislation

- Information and Communication Technologies (ICT)(computer science, data management, integrated systems), including issues such as data ownership and use of collected data

- Advanced machinery: auto-steered equipment, robots, drones

- Alternative education systems for compensating school dropouts (Internet-based courses, self-learning (computer-based modules), mentoring…

- Environmental management (sustainable use of water, efficient use of land, yield optimization, energy) also looking into data about the environmental impact of precision farming;

- Managerial skills for competing on global markets/trade;

- Benefits of the 'service industry' developed to support PA for other economic sectors in Europe.