CropLife Europe Annual Conference 2024

Digitalisation for Sustainable Agriculture and Plant Health

Stefan Šipka

Head of Sustainable Prosperity for Europe programme

European Policy Centre

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About the European Policy Centre (EPC)

- ► An independent think-tank committed to making European integration work

- ► Not-for-profit (AISBL)

- ► Follows and analyses the European policy-making process

- ► Promotes balanced dialogue between stakeholders

- ► Created in 1996

- ► Debating societies (e.g. Chatham House)

- ► Expertise

- ► 'Common good', not specific interests

- ► Independence and transparency

Background

Sustainability challenge
➤ Climate impact
➤ Pollution and resource depletion
➤ Biodiversity

Source: EPA-EFE/ACHILLEAS CHIRAS

In 2021, agriculture accounted for 10.7% of the EU's total gross GHG emissions *(source: EEA)*

Role for digitalisation
➤ Information transfer
➤ Improved agricultural processes
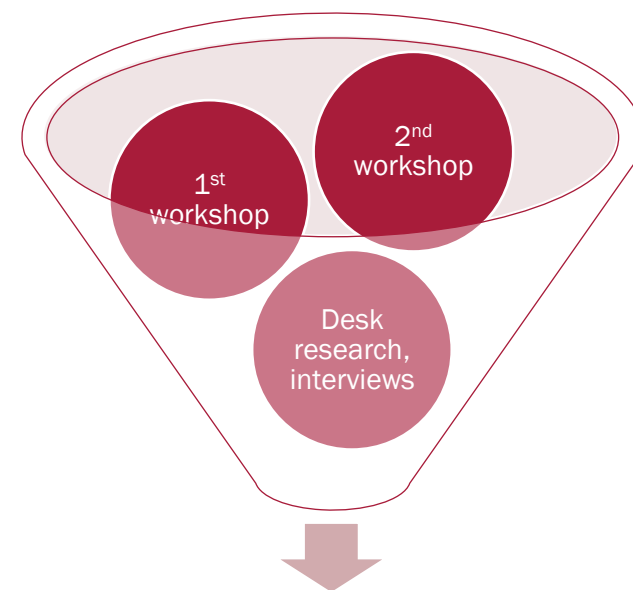

Source: Shutterstock

Digitalisation for sustainable and resilient agri-food system

Project considers the state of play, prospects, and challenges of using data and digital solutions to help make the European agri-food system more sustainable and resilient. It will discuss how the EU's policy and financial framework can support these efforts.

Steering Committee
FiBL, FAO, Joint Research Centre, EAPF, IEEP, VU, AIOTI, CropLife

With the kind support from

CropLife
EUROPE

1st workshop

2nd workshop

Desk research, interviews

Discussion paper & final event

Examples

Digital and precision agriculture innovations

- **Flourish project** uses AI for precision farming. Environmental data (on e.g. soil, crops, pests) collected by aerial robots which is then used by unmanned ground vehicles to spray optimal amounts of pesticides and fertilisers in the field.

- **DRONE VOLT** has developed drones for precision agriculture. They can, for example, spray optimal amounts of pesticides for different agricultural plots.

- **Naïo Technologie** has developed weed-killing robots that reduce the amounts of herbicides and other weed control products added to the soil.

- **Nuru** is an AI app which allows farmers to recognise plant diseases based on smartphone pictures.

- **Tellspec** applies real-time analysis of solid and liquid samples (e.g. oils, fruits, grains, soil) while relying on portable low-cost sensors and AI-based cloud spectroscopy.

Challenges

- Concerns over data quality

- Concerns over data protection

- Lack of interoperability

- Costs of digitalisation for farmers

- Risk of digital dependence

- Lack of digital skills

- Sub-optimal digital infrastructure

- Negative side-effects of digitalisation

Policy framework

European Green Deal

➢ Climate-neutrality

➢ Nature restoration

➢ Zero pollution

Agri-food agenda

➢ Common Agricultural Policy

➢ Farm to Fork strategy

Digital agenda

➢ Data Governance Act, Data Act (among others)

➢ Digital Europe and Horizon Europe

➢ Common data space for agriculture

➢ AI legislative package

*Linkages between digitalisation and sustainability rather limited

Policy recommendations

➢ Establish a sustainable digital information system for agriculture by 2030 in the EU

➢ The common data space must enable safe and effective information transfer for sustainable agriculture

➢ Develop AI rules for sustainable agriculture

➢ Invest in digital solutions and skills for sustainable agriculture (Multiannual Financial Framework, sustainable finance)

➢ Develop rules to minimize energy and resource consumption resulting from digitalisation

Stefan Šipka
Head of Sustainable Prosperity for Europe programme
European Policy Centre (EPC)

Email : s.sipka@epc.eu
Twitter: @sipka_stefan

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