Long term vision for European smart farming & role of large scale pilot

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IOT week 2019
Aarhus, 19th June
Digitalisation brings opportunities to the EU farming sector and rural areas...
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An increased use of precision farming is expected to bring several benefits:

• increase in farm and labor productivity (automatisation)
• decrease in input application (targeted water/fertilisers/drug use)
• promotion of generational renewal
• enhanced food value chain transparency (consumer trust)
• bureaucratic simplification
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environmental, social & economic benefits
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- Infrastructure/connectivity/broadband
- Farmers’ awareness about benefits
- Farmers’ skills
- Standardisation/interoperability of systems
- Data ownership
- Financing investments
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...and potential risks to consider

- Digital divide (urban/rural; older/younger generations)
- Data governance
- Increased concentration in the agri-food chain
- Uncertain impact on jobs
- Socio-economic impact overall
EU policy context


https://ec.europa.eu/agriculture/events/rural-development-2016_en
Digital Agenda: Integrative approach

- CAP
- H2020, Horizon Europe
- DEI, DEP
- Cohesion policy

- CAP strategic plans
- National digital strategies
- AKIS

- Digital Innovation Hubs, platforms
- Smart Specialization Strategy

- Broadband
- Smart villages
- EIP Operational Groups

Uptake - Innovation - Impact
If well combined, the different instruments available can constitute a powerful framework for the digitalisation of agriculture and rural areas.
CAP post 2020
More digitalisation and innovation

The 9 CAP Objectives

- Increase Competitiveness
- Ensure Fair Income
- Protect Food & Health Quality
- Vibrant Rural Areas
- Rebalance Power in Food Chain
- Climate Change Action
- Environmental Care
- Preserve Landscapes & Biodiversity
- Support Generational Renewal

Cross-cutting objective

Specific objective

CAP strategic plans
CAP post 2020
More digitalisation and innovation

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CAP strategic plans
...A description of the strategy for the development and use of digital technologies in agriculture and rural areas... (Art.102)
Research & Innovation

H2020 WP 2018-2020 Topics: Digital transformation in agriculture and rural areas

Uptake

- IoT-01-2016 - Large Scale Pilots
  **IoF2020**

- DT-RUR-12-2018 - ICT Innovation for Agriculture - Digital Innovation Hubs for Agriculture
  **SmartAgriHubs**

- ISIB-02-2015 - Closing the research and innovation divide – Thematic network: **4D4F/Smart-AKIS**

- RUR-13-2018 - Enabling the farm advisor community to prepare farmers for the digital age
  **FAIRSHARE**

Technology Development

- RUR-20-2018 - Digital solutions and e-tools to modernise the CAP
  **NIVA**

- DT-ICT-09-2020 - Digital service platforms for rural economies

- DT-ICT-08-2019 - Agricultural digital integration platforms
  **DEMETER & ATLAS**

Impact

- RUR-02-2018 - Socio-economic impacts of digitalisation of agriculture and rural areas
  **DESIRA**

Other SFS topic supporting the Focus Area "Digitising and transforming EU industry and services:
Connecting policies: European Innovation Partnership

CAP /Rural development (regional/national level)

EIP network(s)

HORIZON 2020 (European projects)
Connecting policies: European Innovation Partnership

CAP / Rural development (regional/national level)

- Operational Group
- Farmers
- NGOs
- Researchers
- Agri-business

Funding for:
- OG preparation
- OG projects
- Innovation support services

Horizon 2020 (European projects)

- Research projects (knowledge base)
- Multi-actor projects and thematic networks (interactive innovation)
Connecting policies: European Innovation Partnership

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Operational Group

Involvement of OGs is strongly recommended
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(European projects)

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**EIP network(s)**

**Operational Group**

**Spread the results**

**Unique EU knowledge repository**
of contacts and practice abstracts

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Horizon Europe: the next research and innovation framework programme 2021-2027

Specific objectives of the Programme

Support the creation and diffusion of high-quality knowledge

Strengthen the impact of R&I in supporting EU policies

Foster all forms of innovation and strengthen market deployment

Optimise the Programme’s delivery for impact in a strengthened ERA

Pillar 1
Open Science

European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures

Pillar 2
Global Challenges and Industrial Competitiveness

Clusters

• Health
• Inclusive and Secure Society
• Digital and Industry
• Climate, Energy and Mobility
• Food and natural resources

Joint Research Centre

Pillar 3
Open Innovation

European Innovation Council

European innovation ecosystems

European Institute of Innovation and Technology

Strengthening the European Research Area

Sharing excellence

Reforming and Enhancing the European R&I system
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Strengthening the European Research Area

Sharing excellence
Reforming and Enhancing the European R&I system

€ 10 billion

€ 15 billion
Member States commit to work together on

(i) Strengthening support for research
(ii) Establishing innovation infrastructure for a smart agri-food sector
(iii) Creating an European dataspace for smart-agrifood applications
(iv) Maximising policy impact

A smart and sustainable digital future for European agriculture and rural areas
Declaration

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Conclusion

EC supports digitalisation and large scale pilots as key instruments to foster innovation in agriculture and rural area.

Several policy programmes facilitate the uptake of digital technologies to make the transition towards a more productive and sustainable farming sector possible.
Useful links:
• Horizon Europe (HE) http://ec.europa.eu/horizon-europe

“The best way to predict the future is to create it”
A. Lincoln
Thank you!