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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Digitalisation brings opportunities to the EU farming sector and rural areas…

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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Digitalisation brings opportunities to the EU farming sector and rural areas…

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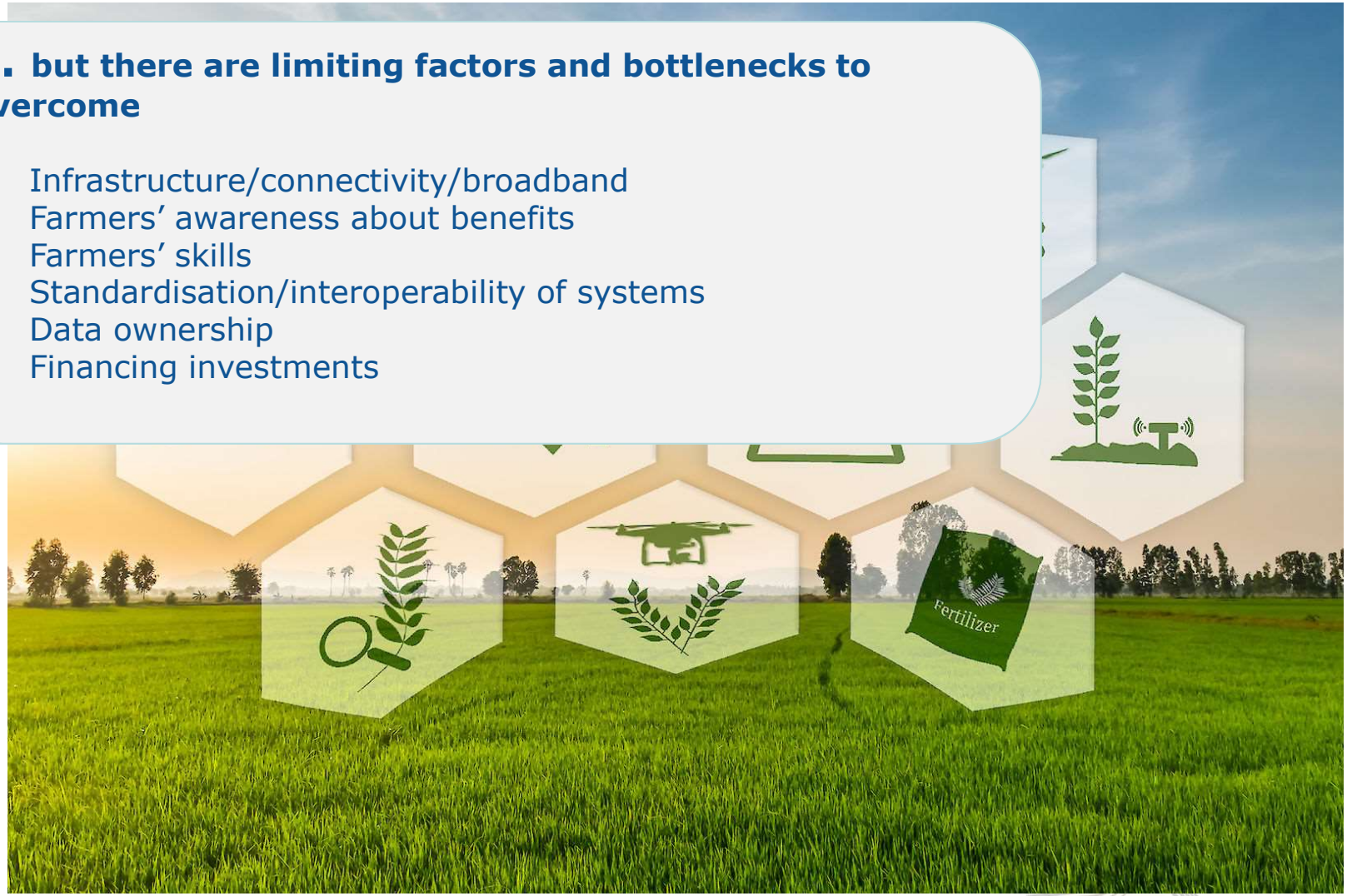
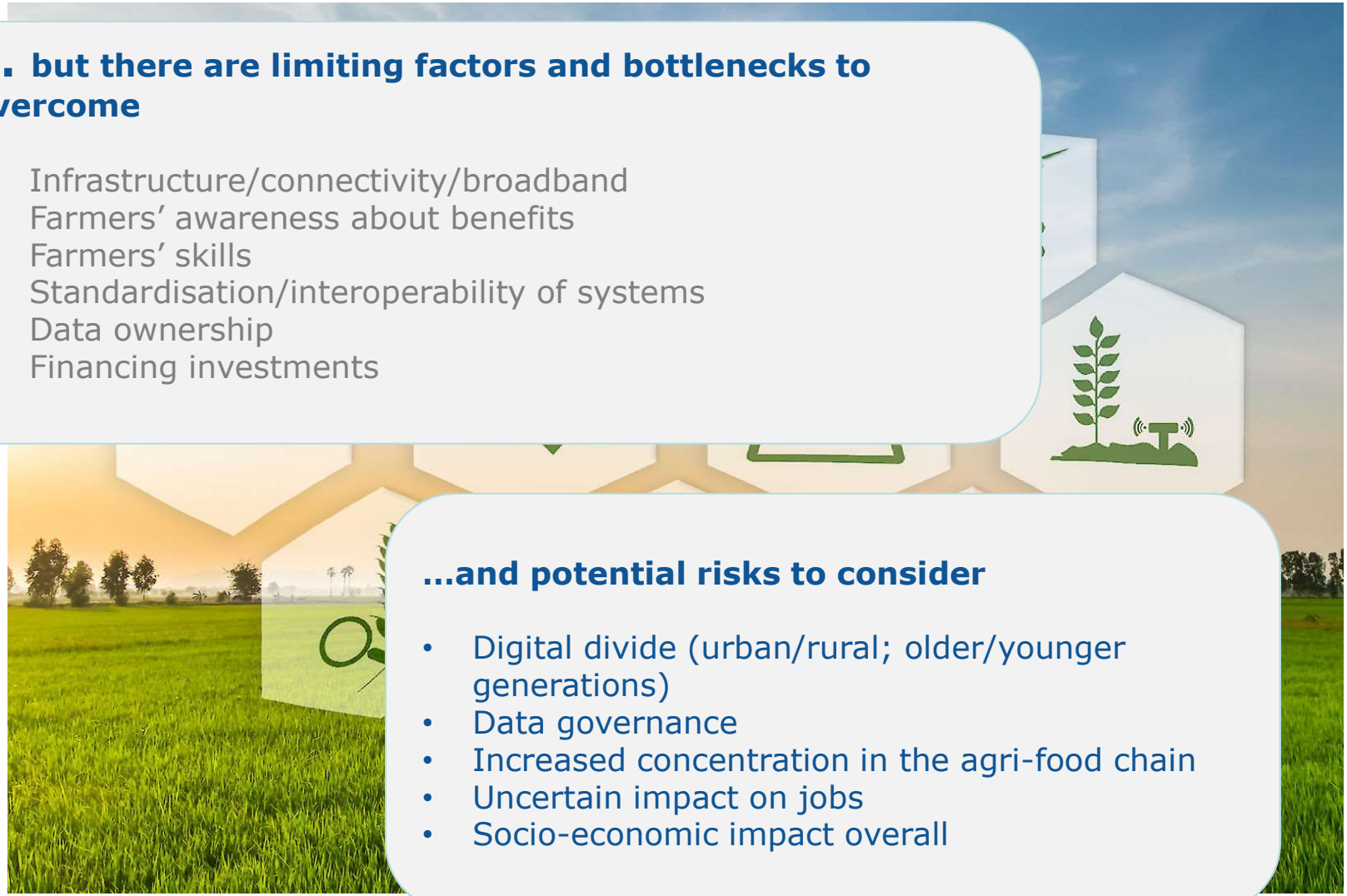
… but there are limiting factors and bottlenecks to overcome

- Infrastructure/connectivity/broadband
- Farmers' awareness about benefits
- Farmers' skills
- Standardisation/interoperability of systems
- Data ownership
- Financing investments



European Commission

Digitalisation brings opportunities to the EU farming sector and rural areas…



… but there are limiting factors and bottlenecks to overcome

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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/digital-single-market/en/policies/digitising-european-industry

https://ec.europa.eu/digital-single-market/en/policies/building-european-data-economy

https://ec.europa.eu/agriculture/events/rural-development-2016_en

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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

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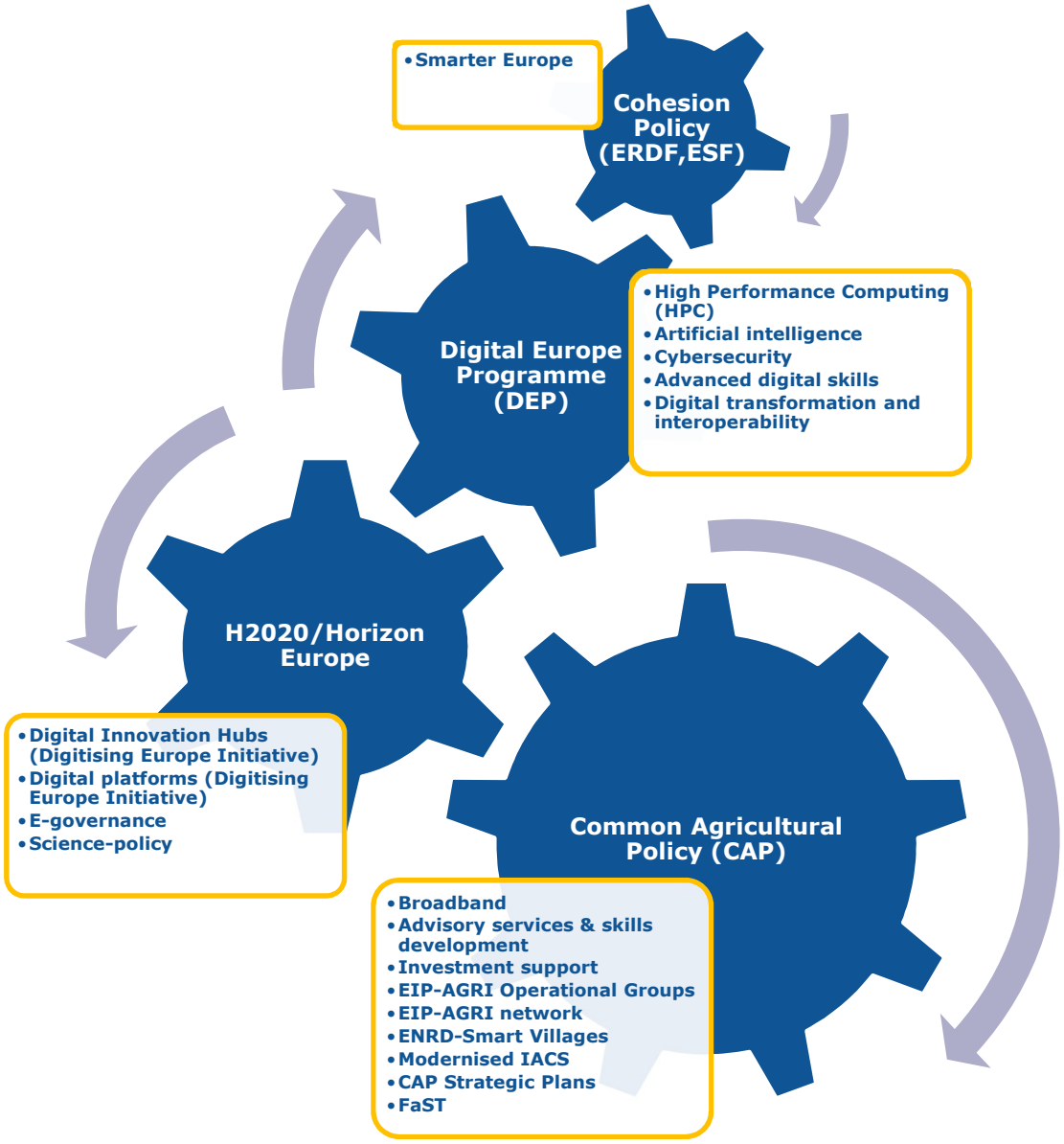

If well combined, the different instruments available can constitute a powerful framework for the digitalisation of agriculture and rural areas

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CAP post 2020

More digitalisation and innovation

Cross-cutting objective

Specific objective

CAP strategic plans

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CAP post 2020

More digitalisation and innovation

Cross-cutting objective

…modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake (Art. 5)

Specific objective

CAP strategic plans

European Commission

CAP post 2020

More digitalisation and innovation

Cross-cutting objective

…modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake (Art. 5)

Specific objective

…enhance market orientation and increase competitiveness, including greater focus on research, technology and digitalisation… (Art. 6 b)

CAP strategic plans

European Commission

CAP post 2020

More digitalisation and innovation

Cross-cutting objective

…modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake (Art. 5)

Specific objective

…enhance market orientation and increase competitiveness, including greater focus on research, technology and digitalisation… (Art. 6 b)

CAP strategic plans

…A description of the strategy for the development and use of digital technologies in agriculture and rural areas… (Art.102)

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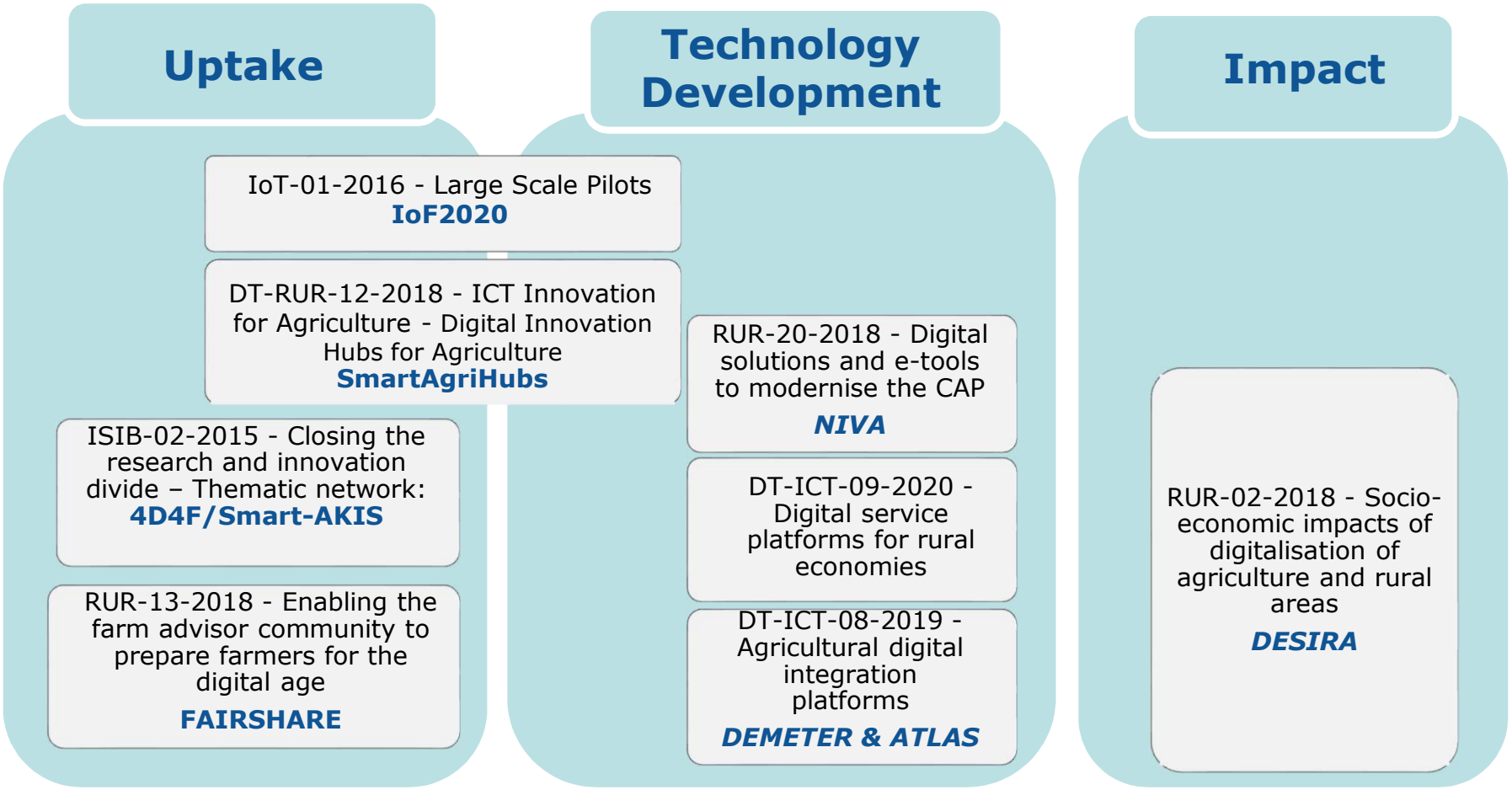
Research & Innovation

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



Other SFS topic supporting the Focus Area "Digitising and transforming EU industry and services:
DT-SFS-14-2018: Personal nutrition, DT-SFS-26-2019: Food cloud demonstrator

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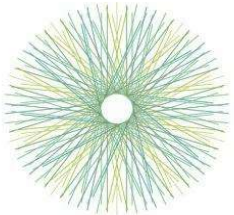
Connecting policies:
European Innovation Partnership

CAP /Rural development
(regional/national level)

(European projects)



EIP
network(s)

Connecting policies:
European Innovation Partnership

CAP /Rural development
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Funding for:

OG preparation

OG projects

Innovation support services

eip-agri
AGRICULTURE & INNOVATION

funded by European Commission

EIP network(s)

HORIZON 2020

(European projects)

- **Research projects** (knowledge base)
- **Multi-actor projects and thematic networks** (interactive innovation)

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OPERATIONAL GROUP

Involvement of OGs is strongly recommended

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EIP network(s)

Spread the results

Unique EU knowledge repository of contacts and practice abstracts

HORIZON 2020

(European projects)

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OPERATIONAL GROUP

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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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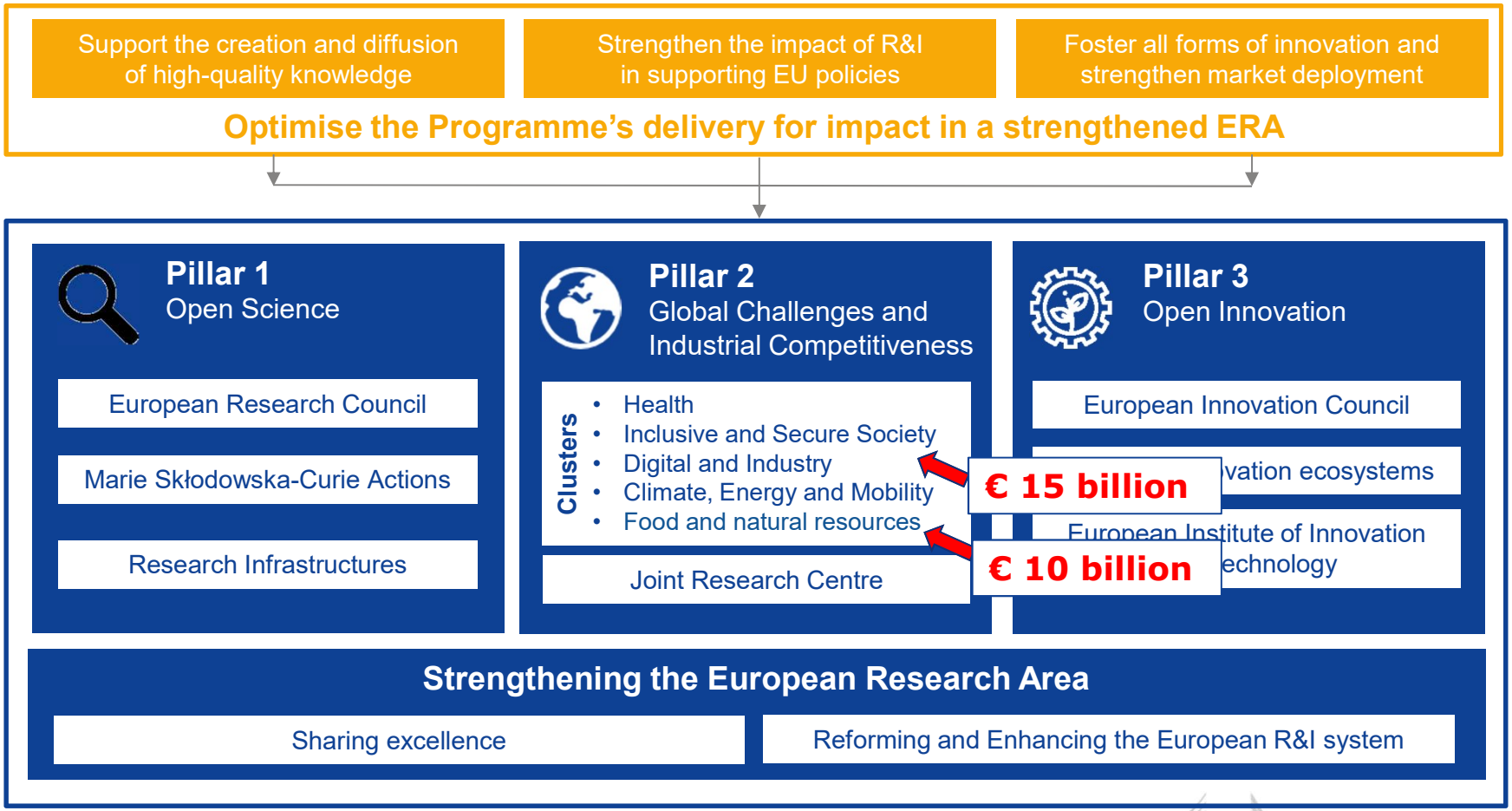
Specific objectives of the Programme



European Commission

Declaration

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

9th of April 2019

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

European Commission

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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.

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"The best way to predict the future is to create it"

A. Lincoln

Useful links:

- **CAP post 2020:**

https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en

- **Horizon Europe (HE)**

http://ec.europa.eu/horizon-europe

- **Digitising European Industry (DEI)**

https://ec.europa.eu/digital-single-market/en/pillars-digitising-european-industry-initiative

- **Digital Europe Programme (DEP)**

https://ec.europa.eu/digital-single-market/en/news/commission-welcomes-agreement-digital-europe-programme-2021-2027

- **New cohesion policy**

https://ec.europa.eu/regional_policy/en/2021_2027/

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

https://ec.europa.eu/digital-single-market/en/news/eu-member-states-join-forces-digitalisation-european-agriculture-and-rural-areas

European Commission

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Thank you!

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