

Horizon Europe candidate partnership “Agriculture of Data”



SWG SCAR AKIS

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New approach to European Partnerships

Conditions for launching a partnership:

- SRIA to demonstrate partners' common strategic vision
- Ex-ante long-term commitment from partners



New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives

Key features

- **Strategic orientation**
- **Common set of criteria for the life-cycle (Horizon Europe regulation Article 10 and Annex III)**
- **Systematic approach**
- **Simple architecture and toolbox**

Co-programmed

Based on contractual arrangement / MoU; implemented independently by the partners and by Horizon Europe

Co-funded

Based on a joint programme agreed by partners (Grant Agreement); MS/ACs design a common programme to be implemented under their responsibility.

Institutionalised

Partnerships based on Articles 185 /187 of TFEU and the EIT-Regulation supported by Horizon Europe. Implementation by a dedicated structure.

The partnership approach

- Bringing the **European Commission** and private and/or **public partners** together.
- Addressing some of Europe's most pressing challenges through **concerted research and innovation** initiatives.
- Key in implementing Horizon Europe, and contributing significantly to **achieve the EU's political priorities**.
- Helping to **avoid the duplication of investments** and contribute to reducing fragmentation.
- **49 candidate partnerships** across Horizon Europe Programme.

Co-funded European Partnership

- Relevant current actions: European Joint Programme/EJPs and ERA-NET Cofund.
- **MS/AC design a common programme** to be implemented under their responsibility. It pools national funding/resources with **co-funding from the Union**.
- **Legal form:** Grant Agreement (“programme co-fund action”) signed between a consortium of beneficiaries and the Commission.
- **EU co-funding is at a constant rate** [typically 30%, in exceptional cases 50%] per grant agreement and is based on eligible costs.

Agriculture of Data within Horizon Europe



Connected to multiple parts of Cluster 6 as well as to other Clusters

Planned for Horizon Europe WP 2023/24

Candidate partnership “Agriculture of Data”

Principle objective:

Using the possibilities offered by **data technologies** in the field of **environmental observation** to

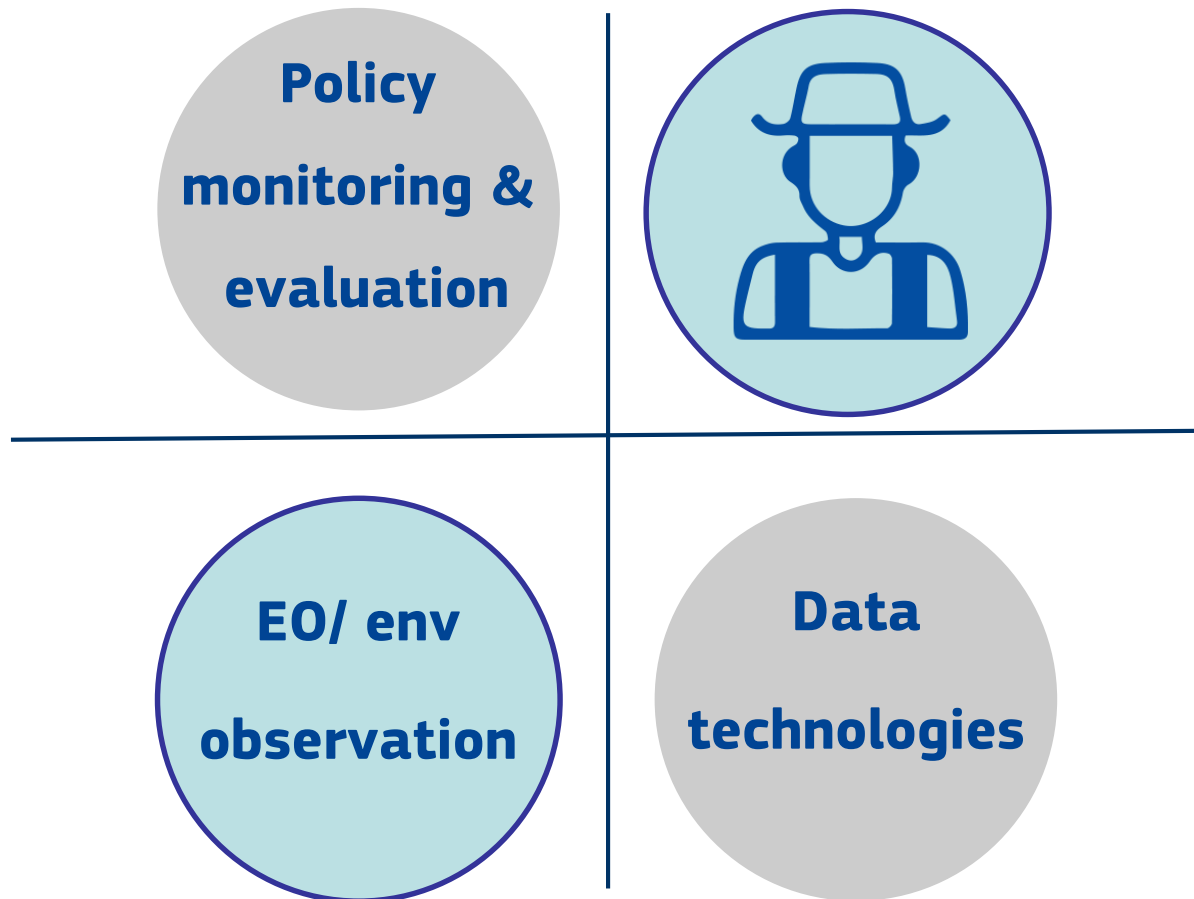
- provide support to improve the **sustainability performance of agriculture**
- improve the capacities for **policy monitoring and evaluation**



Context

- Need of more information for supporting **sustainable agricultural practices** and the competitiveness of the sector.
- **Agriculture** already benefits from environmental and Earth observation, but potential has not been fully exploited.
- Need for more tailored data for **policy monitoring and evaluation**.
- More sharing and integration of data, data collection, and approaches is still needed.
- **Data technologies** can add to providing data-based solutions.

The potential – across domains



Selected relevant policy priorities

Digital Age



Green Deal



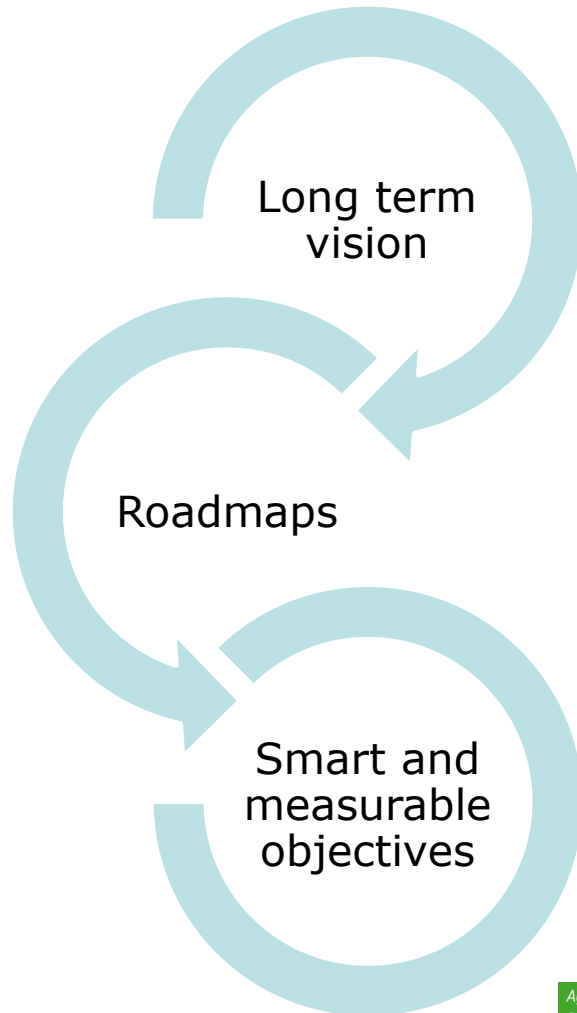
Expected impacts (1)

- Contribute to transitioning to a more sustainable and long-term competitive farming sector.
- Develop data-based and digital solutions improving efficiency, environmentally and socio-economically sustainable food production, including a basis to climate adaptation.
- Improve forecasting/modelling capabilities for governmental decision making.

Expected impacts (2)

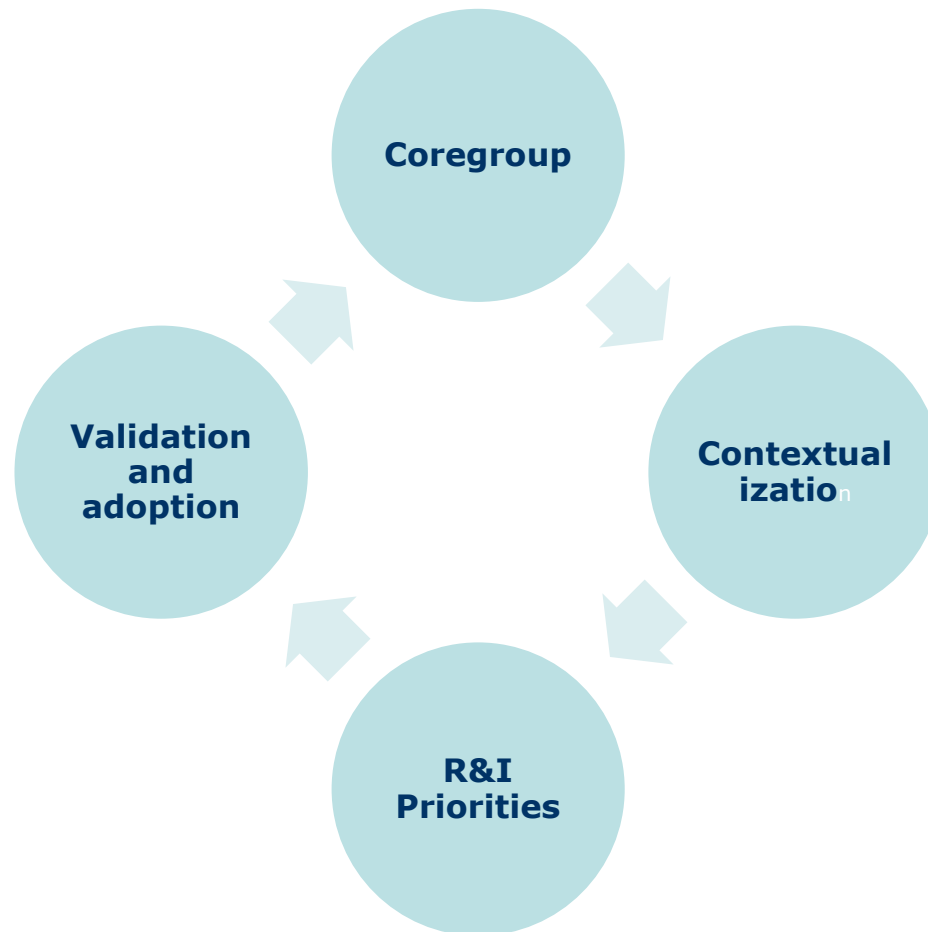
- Supportive role in the delivery of the CAP and environmental and climate policy objectives and to policy monitoring and evaluation in general
- Defragmenting the current environmental observation landscape
- Deepening the understanding of future needs for datasets

Strategic Research and Innovation Agenda



SRIA

Strategic Research and Innovation Agenda



State of play

- In 2020: Initial collection of feedback from MS/AC on short partnership fiche
- April/May 2021: Surveys and webinars with countries and stakeholders
- In 2021:
 - **Set-up of core group** with country representatives
 - Elaboration of an extended partnership document and a **Strategic Research and Innovation Agenda** (SRIA)
- 2022/23: Step by step towards the launch of the partnership

For questions or proposals, please, write to
AGRI-DATA-RI-PARTNERSHIP@ec.europa.eu

Survey among MS and AC

Main objectives of the survey

- To take stock of ongoing initiatives relevant for the partnership.
- To take stock of interests and needs possibly to be approached through the partnership.

Operational objectives

- Identification of key actors in countries and among stakeholders
- Generating input for the discussion (at this webinar) and for the development of the Strategic Research and Innovation Agenda
- 45 contributions from MS and AC
- A similar survey is carried out among stakeholders.

Survey results

Proposals for Sub-/Operational objectives

- **Making results matter** – achieving feasible impacts
- **End-user orientation**, particularly provision of support to farmers
- **Knowledge generation**
- Development of **indicators/ monitoring approaches**
- Exploitation of **public and private data** in synergy in a systematic way
- Reflecting on **data flows**

Survey results

Aspects stressed

- Sustainability
- Potential for disease and risk prevention
- Contribution to the Global System of Earth observation
- Reducing administrative burdens for farmers and administration
- Digital applications, including FaST
- Purpose-driven development of digital infrastructure
- Contribution to efforts under the Open Data Directive (ODD)

Survey results

Frequently mentioned means needed to achieve objectives

- EU-wide reference data
- Common approach/ standards
- Farmers' data
- Data from the administration (especially IACS)
- Identification of barriers to data sharing
- Data of high quality
- Improved interoperability
- Public-private cooperation
- Identification of knowledge gaps jointly by the "agricultural, earth observation and digital communities"

Survey results

Observations

- In some contributions, it was more focussed on the **analytical approach** (software); other contributions also addressed the aspect of **data infrastructure** needs.
- Some participants stressed the **need for cooperation across countries**.
- **Lessons from other sectors** and/or cross-sectoral cooperation was frequently mentioned along the side.

Survey results

4 Topical blocks

- Agriculture
- **Monitoring and Evaluation**
- Earth and environmental observation
- Data and Data analytics

Monitoring & Evaluation

... in the proposed partnership

- Support of capacities to monitor and evaluate policies
 - Agricultural, environmental and climate policies
 - Long-term and ongoing monitoring
 - Strengthening capacities for policy development through monitoring data

Initiatives at European level

- Farm Accountancy Data Network (FADN) /Farm Sustainability Data Network (FSDN)
- Development of approaches towards “ongoing monitoring”
- Horizon 2020 projects, like MEF4CAP or NIVA
- Activities in neighbouring fields like LULUCF, Sustainable Finance

Monitoring & Evaluation

Opportunities and needs identified at European level

- **Reducing administrative burdens** through the generation of indicator data through data technologies (rather than collecting data).
- **Exploiting new data sources and flows** in the public and private domains.
- Developing, implementing and maintaining **common approaches** towards monitoring and evaluation.
- Linking monitoring efforts in the **public domain to monitoring of relevance in the private sector** in a more systematic way.

Survey results - Monitoring & Evaluation

Initiatives in countries

General observation: *Less examples mentioned in the survey related to this thematic block than in other thematic blocks, especially a low number of initiatives with a direct link to policy implementation.*

Main groups of initiatives frequently mentioned

- Projects related to crop and soil monitoring
- Development of the area monitoring system and exploration of its use for the generation of data for agri-environmental indicators
- Preparation for FaST implementation

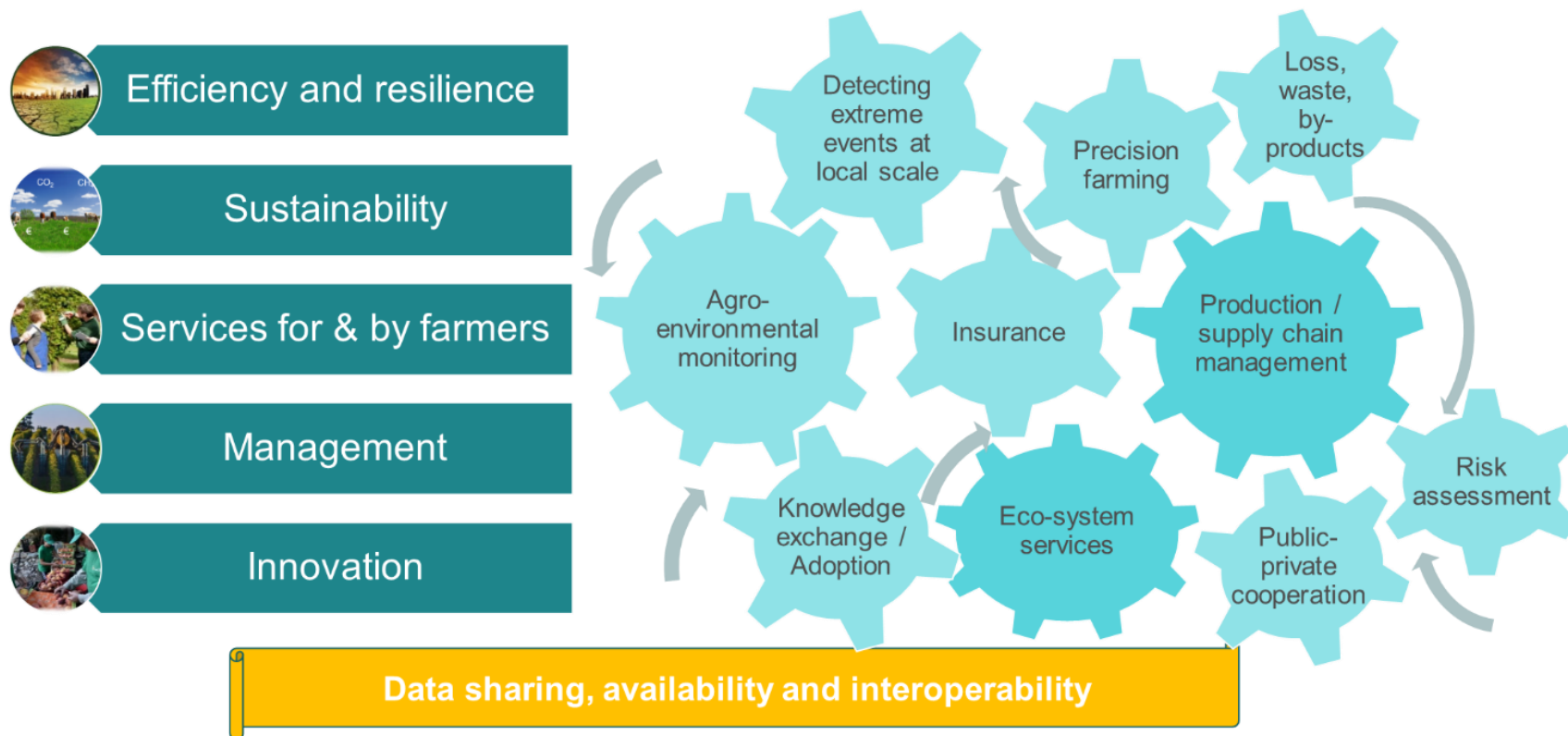
Survey results - Monitoring & Evaluation

Needs identified by countries

- Development of **agri-environmental indicators** (fields often mentioned: ecosystem services, GHG emissions, soil, inputs)
- **Generating data sets** (at parcel level)
- Increased **interactions between policy-makers, administration and scientists**
- Enhanced capacities in **real-time monitoring** (policy-related and risk preventing)
- Support to the **implementation of strategies**, e.g. in the field of climate adaptation
- Input to **FaST implementation**
- Tools to assess regulatory **compliance**

Survey results - Agriculture

Example: Synthesis of needs in the field of agriculture identified by MS/AC



Survey results – Earth observation

Needs identified by countries

- Benefit from improved data sets and information/knowledge by combining and sharing geospatial datasets in the fields of EO, agriculture, climate and environment
- The use of Earth and climate observation data for the insurance sector and what kind of impacts (negative or positive) it could have on farm management and revenues taking into account climate change and adaptation issues
- Bridging INSPIRE and Copernicus
- Use of Sen4Agri solutions for CAP monitoring north of 60 degrees North, to be solved by incorporating the new Copernicus DEM in Sen4Agri solutions

Survey results – Data & Data analytics

Needs identified by countries

- **Common rules and standards** for the format, storage, and exchange of data
- Increasing the **re-usability of public and private data**
- Enhanced **interoperability of agricultural data**
- **EU-wide reference data**
- **Pan-European data sets and services** for public and private sector purposes ("data market place")
- **Support to the private sector in legal questions** related to the handling of data to facilitate the sharing of data



Thank you!

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