



Horizon Europe partnership Agriculture of Data

SRIA of the Horizon Europe candidate partnership Agriculture of Data

Co-Chairs:

Nicola Pirrone, Jesper Stendal Sørensen, Jose F. Aldana Montes,
On behalf of the Core Drafting Group



Agriculture of Data – general objectives and domains

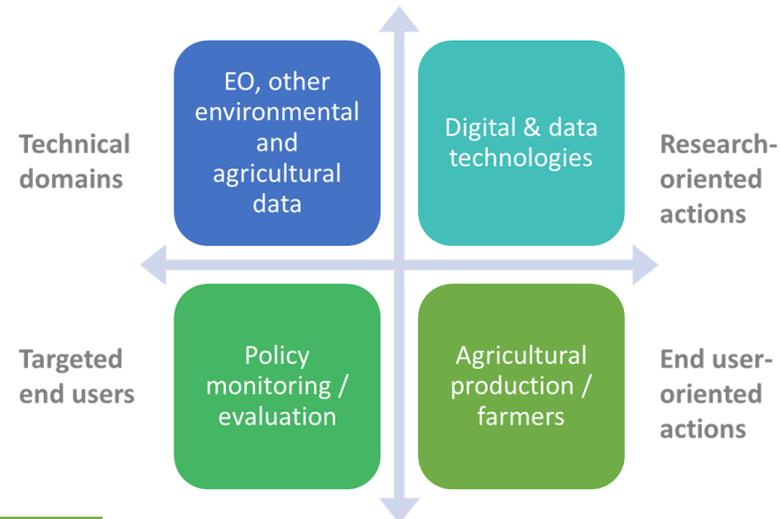
What?

Support to **sustainable agriculture** in Europe as well as **policy monitoring and implementation** by using the possibilities that **digital and data technologies** in combination with **environmental observation and other data** offer.

How?

- Development of **innovative data-based solutions and services** for the private and public domain them up (geographically and from innovation to deployment) through the capitalization of data

Domains covered:





Agriculture of Data – EU added value

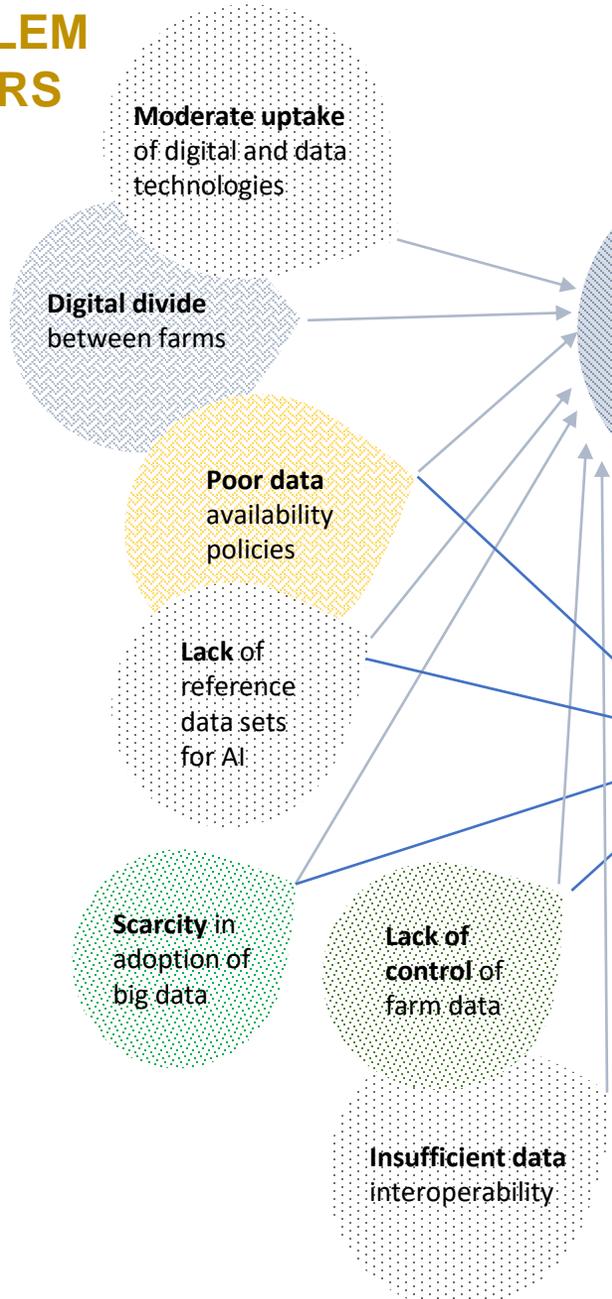
Why a partnership?

- **Increased demand** for sustainability, adaptation to climate change, and performance orientation
- **Avoiding digital divides** and closing of market gaps
- Achieving an **"umbrella effect"** and **contribute to "defragmentation"** in the field of the development of data-based solutions for the agriculture sector and policy monitoring and evaluation following a common approach
- Achieving a **"critical mass" of the provision of reference data sets** needed for the effective application of **"Big data"** technologies
- Covering several biogeographic zones to allow for the development of **climate adaptation approaches** for the sector.
- **Covering whole Europe** to create data sets for policy monitoring and evaluation and avoiding "white spots" in the provision of independent data services to the sector and stakeholders

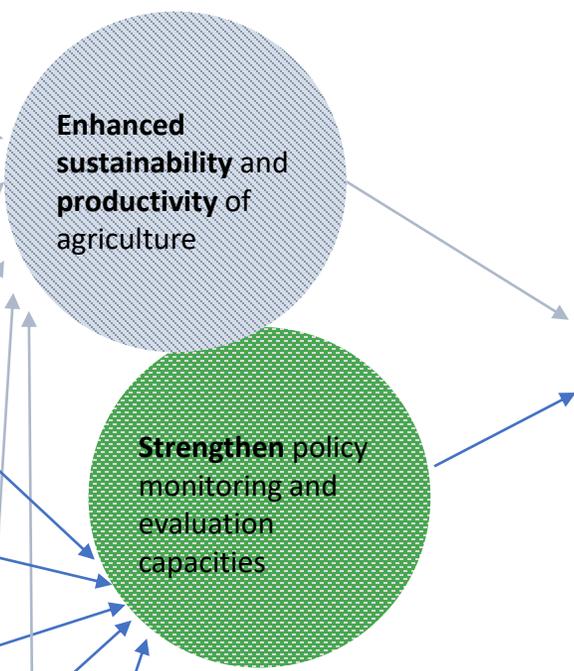


Vision / Intervention Logic → from Drivers to Expected Impacts

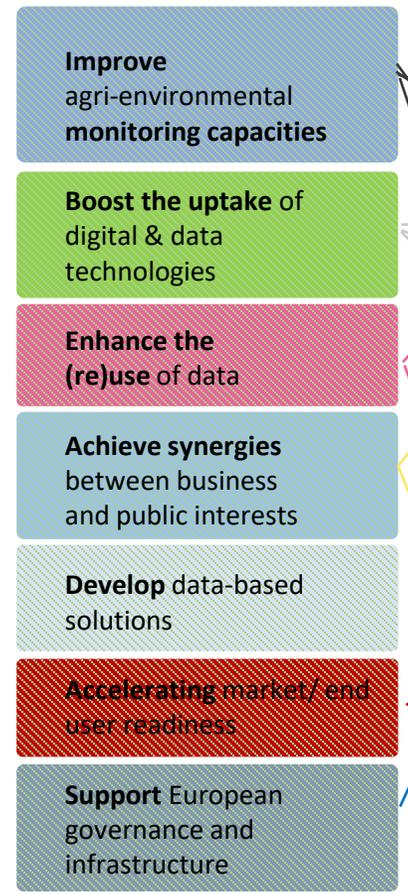
PROBLEM DRIVERS



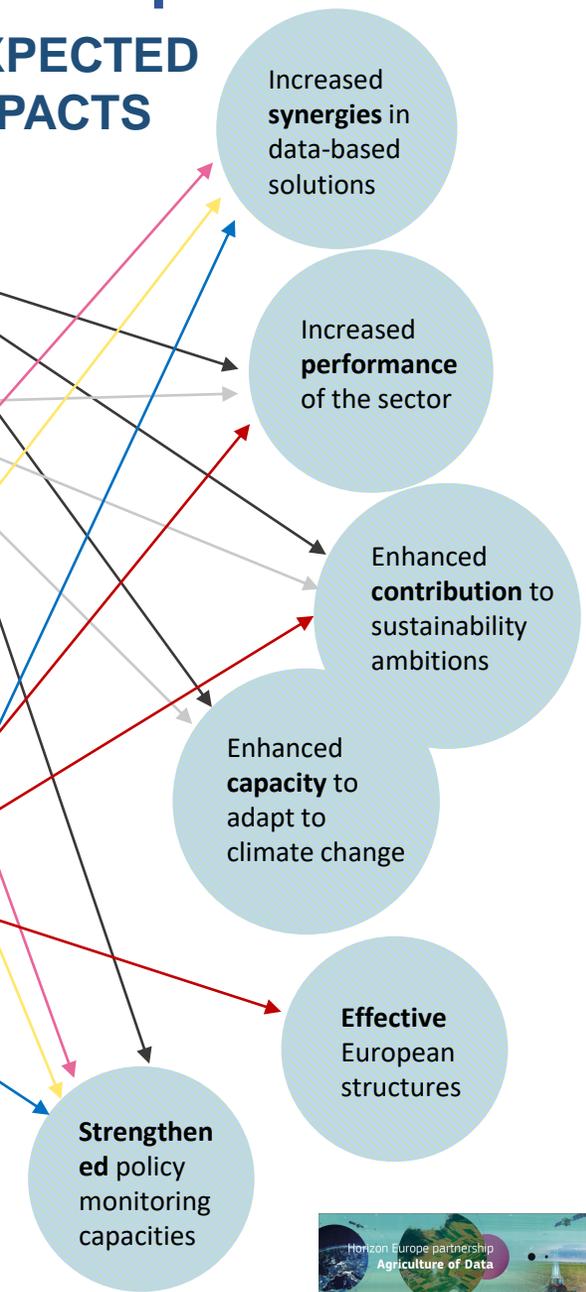
GENERAL OBJECTIVES



SPECIFIC OBJECTIVES



EXPECTED IMPACTS





Agriculture of Data – Actions/activities

Two main types of actions:

- a) Core actions** (R&I actions, upscaling and delivering end-user tailored innovative data-based solutions), *can include*:
 - Development of novel reference data sets;
 - innovative data-based solutions;
 - techniques in EO-based mapping and monitoring,
 - capitalisation of sensor data

- b) Strategic framing actions** (essential to ensure/increase effectiveness of the Core actions, *can include*:
 - Identification of policy monitoring needs,
 - data provision,
 - ensure consistency in approaches,
 - umbrella function in bringing together initiatives,
 - alignment of data formats





Overview of Activities envisaged by the partnership (1)

The main types of core actions identified in the **Strategic Research and Innovation Agenda (SRIA)** can be broadly summed up as:

- **Mapping of available data sets** (at different geographical levels);
- **Mapping of data and knowledge gaps** (e.g. for impact assessment, reducing administrative burdens, climate adaptation data for production);
- **Identifying priority actions in generating data sets and data-based solutions achieving synergies between different interest groups;**
- **Enhancing the availability reference data sets for the application of AI at European level** (e.g. through achieving interoperable data sets across countries);
- **Development of innovative data-based solutions** for farmers and for policy monitoring;
- **Development and use of novel techniques** in applying AI EO-based mapping and monitoring;
- **Capitalisation of (sensor) data generated on farms** for the benefit of the wider farmer community;
- **Development of innovative business and governance models** for sustainable management of data flows.





Overview of Activities envisaged by the partnership (1)

Main R&I actions are supplemented by actions aiming at **sustaining the partnership on the medium- and long-term by:**

- **Upscaling of promising pilots/building on earlier results** within the partnership, including for instance, geographically (from use case level to EU-level) or from innovation to deployment;
- **Providing data services** (e.g. farmers, administration, start-ups).
- **Building capacities to ensure end user uptake** by making data sets and data-based solutions easily available, strengthen data literacy and linking up to other initiatives, such as the Common European Agriculture Data Space





Overview of activities foreseen by subcategory (draft)

Data technologies and data management

- Data integration and quality
- Input to and solutions for Data hubs and marketplaces
- Applications of AI techniques

Data driven sustainable agriculture

- Further development and generating input to decision support systems including FMIS
- Strengthening capacities of farm modelling systems
- Assessment of farm performance
- Data-based solutions for addressing environmental challenges, incl. climate change mitigation, biodiversity, water, soil
- Data-based solutions for climate change adaptation by the agricultural sector





Overview of activities foreseen by subcategory (draft, *cont'd*)

Data-driven Policy (monitoring)

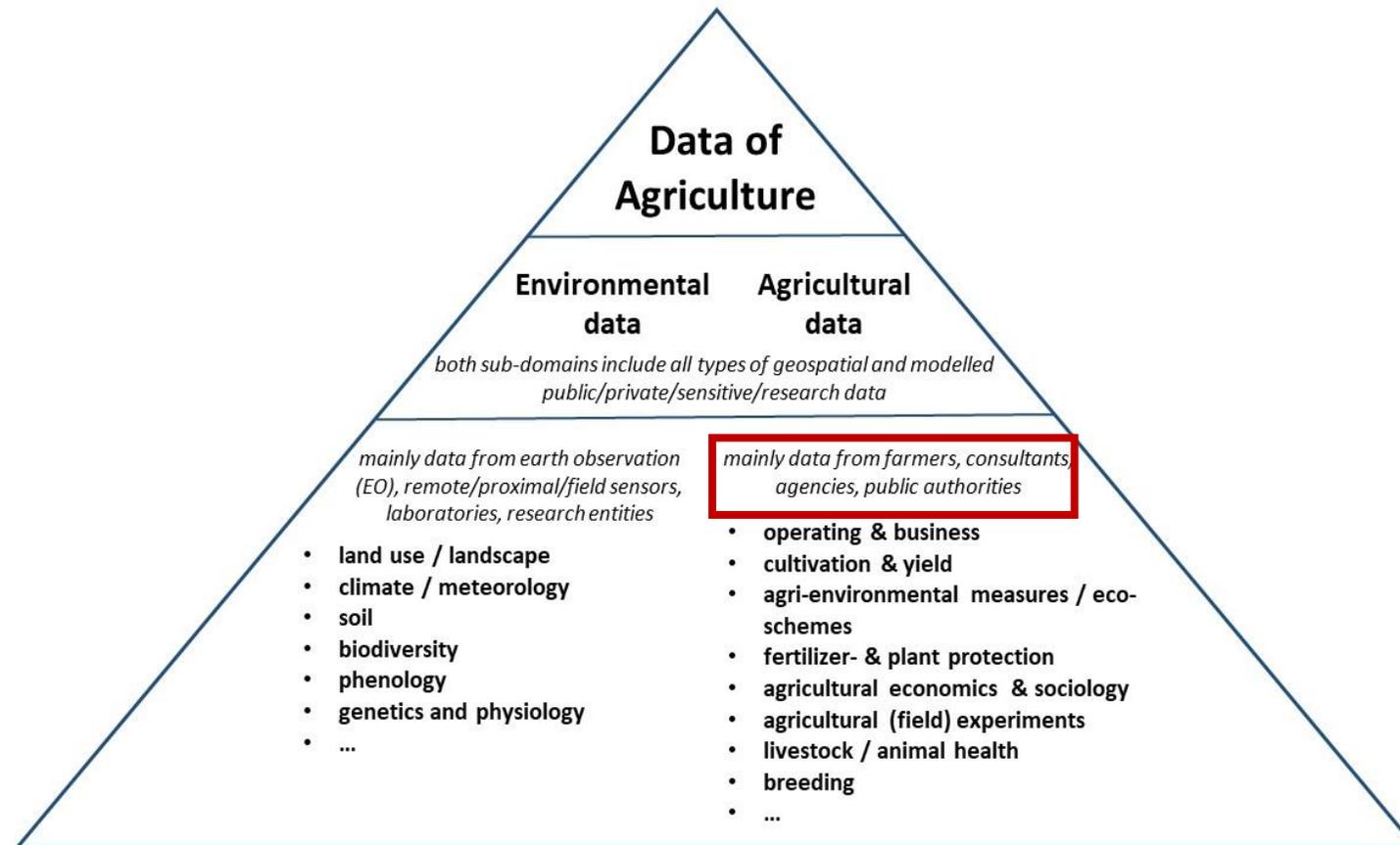
- Data-based solutions for policy-makers and administration (including strengthening capacities for long-term and short-term monitoring)

Horizontal/crosscutting activities

- Synergies between public and private sectors
- Ensuring uptake of tools and solutions developed in the partnership
- Data governance
- Data and processing standards and good practices
- Innovation management of the results of the partnership



Which data?



Data
+
Data technologies

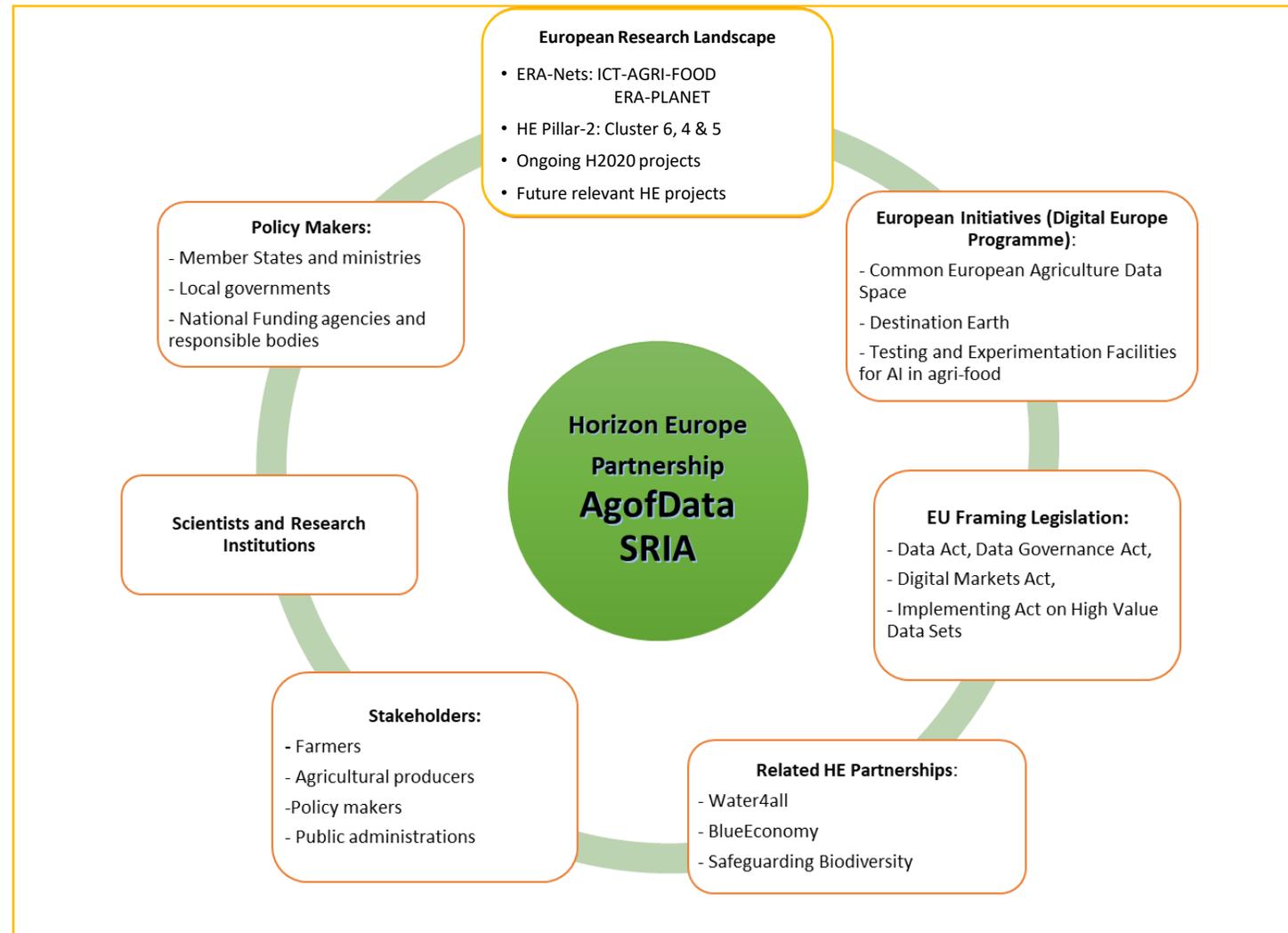


Data based solutions





Stocktaking and initiatives expected to run in parallel, “umbrella effect”





Links to other (EU level) initiatives

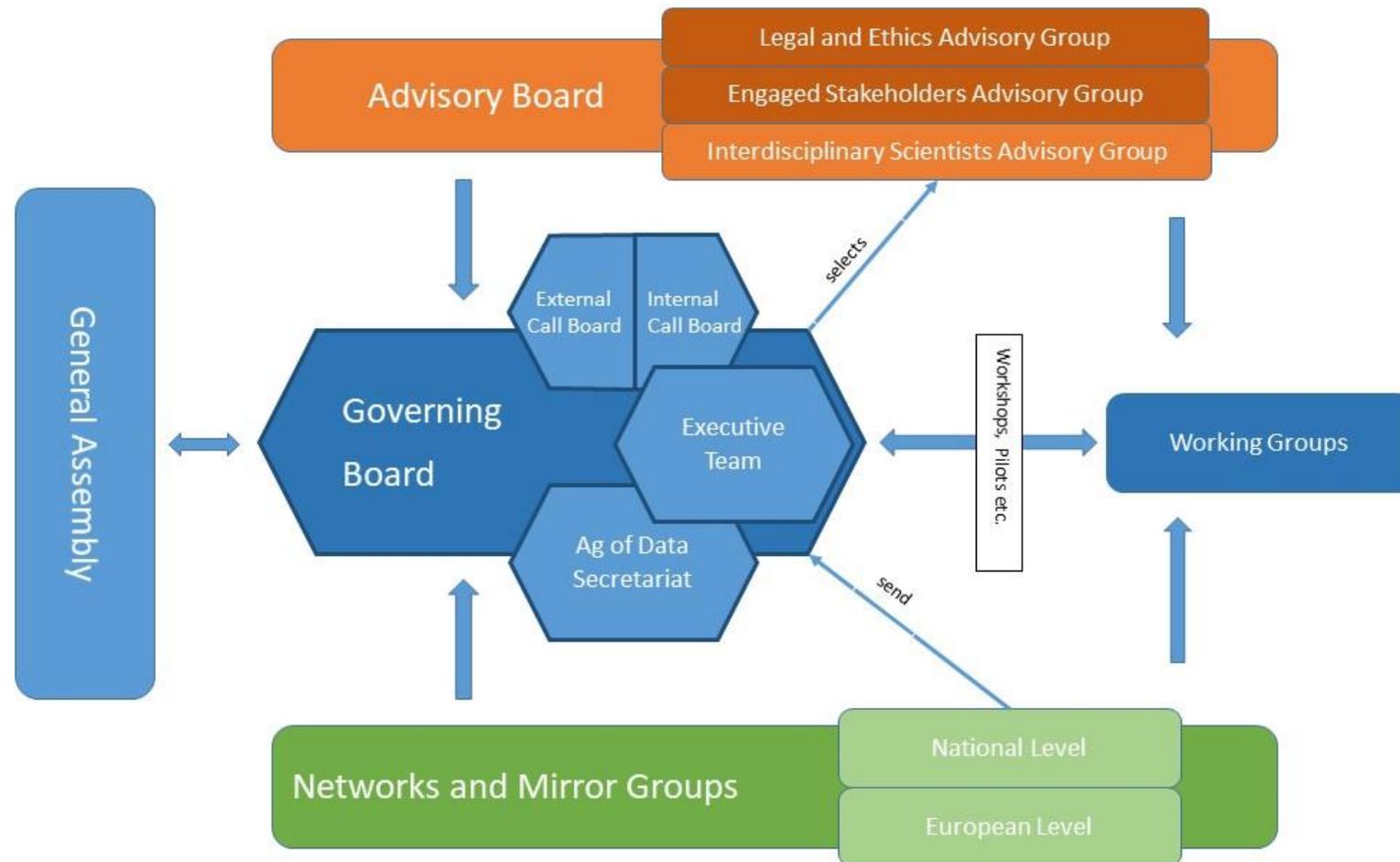
- Umbrella for and building upon relevant R&I initiatives
- Supplementary to data collection initiatives and data spaces
 - adding an “additional layer”
 - showing how data can be capitalised (*main focus of partnerships is not on data collection, but reuse and generation of data sets and data-based solutions*).
- Support to policy implementation (Monitoring & Evaluation Data, Adding up to FaST)
- Closing market gaps in the provision of data-based solutions (e.g. in the field of climate mitigation and adaptation).
- Ongoing programming (“active steering”) allowing for responsiveness to policy developments.





AgriData Governance Structure

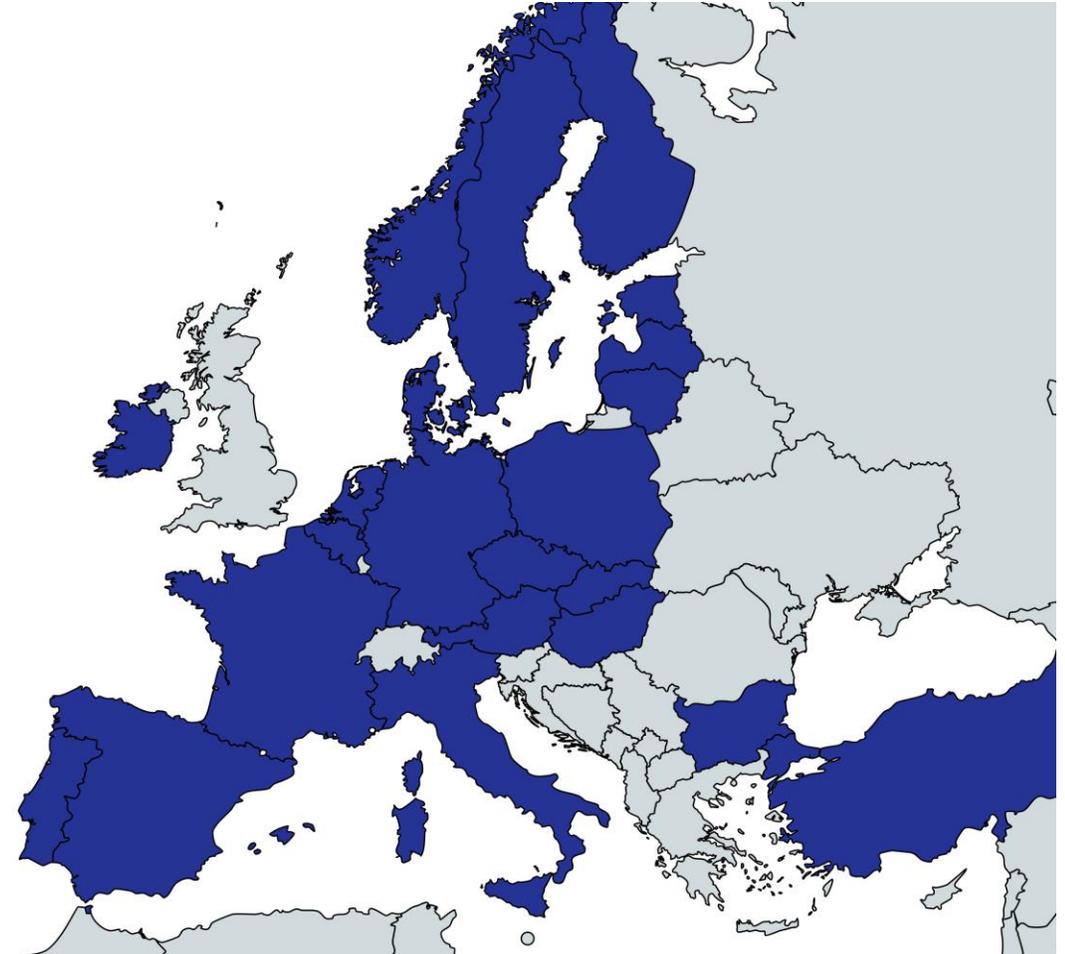
- preliminary draft -





Who is already actively involved?

- **Composition drafting Core group:**
Austria, Belgium, Bulgaria, Czech Republic, Denmark (co-chair), Estonia, Finland, France, Germany, Hungary, Ireland, Italy (co-chair), Latvia, Lithuania, Norway, Poland, Portugal, Slovakia, Spain (co-chair), Sweden, The Netherlands, and Turkey.
- **Also involved:** *ICT-AGRI-FOOD ERA-Net and ERA-PLANET ERA-Net*





Partnership Agriculture of Data: state of play

- Preparing the **SRIA** (team of Core group members under the lead of the co-chairs (DK, IT, ES):
 - Webinars before the summer break to identify R&I needs (with R&I community, stakeholders and potential data providers)
 - Workshop with R&I community on 17 November based on list of planned R&I activities
 - Open consultation on revised draft planned by end of 2022
 - Final draft SRIA : by the end of the year
- **20 countries** are active in the Core Group
- **Supported by** ERA-Nets ICT-AGRI-Food and ERA-Planet
- **No SCAR working group or CSA**
- **Commitments by** 17 countries, and some countries still undecided (68.5 Mio in-kind and 91 Mio in-cash, Total: 159.5 Mio Euro)





Partnership Agriculture of Data: state of play

Open issues:

- Formation of the consortium (on-going preparation of the proposal)
- Compilation of types of in-kind contribution (e.g. cloud capacities, manpower, data)
- Achieving synergies with parallel evolving initiatives, such as the Common European Agriculture Data Space





Agriculture of Data – Timeline

Rest of November + early December	Late November / early December	December 6	December 13	January 13	January 13 - 27	February 5
Revision and editing of SRIA	HE WP 23/24 publication	SRIA circulated to CG	1. CG-meeting, approve first draft of SRIA 2. Public consultation on SRIA starts	Public consultation on SRIA ends	Updating SRIA based on public consultation (+one week for CG to review)	1. CG-meeting – approval of Final draft of SRIA 2. Publication of SRIA

CG = Core Group of Country representatives





**Horizon Europe partnership
Agriculture of Data**

Questions and Feedbacks?