EU initiatives in support of data for the agricultural sector and policies

NIVA Webinar – Data sharing and IACS Data

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Outline

• « Digital Package » and a European Strategy for Data
• Common Agriculture Data Space
• High Value Data Sets
• Digital Europe Programme – selected measures
• Digital Declaration
• Horizon Europe
  - Overview of the portfolio of relevant measures
  - Candidate partnership « Agriculture of Data »
« Digital package »

• Adopted in February 2020
• Reflects on Commission priority - *A Europe fit for the digital age*
• Includes:
  • *Communication* “Shaping Europe’s digital future” ,
  • *European Data strategy* ,
  • *White Paper* on Artificial Intelligence: a European approach to excellence and trust.

→ Announcement of strategic approaches, legislation, and investment initiatives.

A European strategy for data
A European Strategy for Data

Creation of a single market for data, where

• Data can flow within the EU and across sectors, for the benefit of all;

• European rules, in particular privacy and data protection, as well as competition law, are fully respected;

• The rules for access and use of data are fair, practical and clear.
A European Strategy for Data

Becoming an attractive, secure and dynamic data economy by

- Setting clear and fair rules on access and re-use of data;

- Investing in next generation standards, tools and infrastructures to store and process data;

- Joining forces in European cloud capacity;

- Pooling European data in key sectors, with EU-wide common and interoperable data spaces;

- Giving users rights, tools and skills to stay in full control of their data.
Common Agricultural Data Space

- One data space in a set of data spaces;

- To facilitate the sharing and pooling of data for the sector;

- Building on experiences with the Code of conduct of agricultural data sharing;

- Design of data space still to be defined, e.g. the role of public data and contribution to “common good”, e.g. R&I or policy monitoring;

- Potential to well supplement Horizon Europe Partnership Agriculture of Data;

- Accompanied by act on data governance.
Digital Europe Programme

**Digital Europe Programme (DEP) will**

- foster building strategic digital capacities and facilitating the wide deployment of digital technologies;
- supplement Horizon Europe and CEF.

**Elements relevant in the context of agricultural data**

- **Common Data Spaces**, incl. an Agriculture Data Space;
- Testing and Experimentation Facilities for AI, including in the agri-food sector;
- Support to the preparation of **High Value Data Sets**.

**DEP Strategic Orientations under discussion; and DEP Work programme under preparation.**
High Value Data Sets

• *with important benefits for economy and society will be identified*

• *are subject of a forthcoming implementing act as follow-up of the Open Data Directive;*

• *should be available free of charge, in machine readable formats, provided via APIs and, where relevant, as bulk download.*
High Value Data Sets

**Thematic scope (as defined in the Annex of the ODD)**

- Geospatial
- Earth observation and environment
- Meteorological
- Statistics
- Companies and company ownership
- Mobility
The Digital Declaration

*Declaration* on “A smart and sustainable digital future for European agriculture and rural areas”

- signed by 25 Member States since April 2019;
- fosters a comprehensive approach towards digitalisation and synergies between policy programmes and instruments;
- referred to in the “*European Strategy for Data*”; and
- includes concrete actions, related to e.g. a common agriculture data space, High Value Data Sets, Testing and Experimentation Facilities for AI, and Digital Innovation Hubs.
Horizon Europe

Pillar 1
Excellent Science
- European Research Council
- Marie Skłodowska-Curie Actions
- Research Infrastructures

Pillar 2
Global Challenges and European Industrial Competitiveness
- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment
- Joint Research Centre

Pillar 3
Innovative Europe
- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Widening Participation and Strengthening the European Research Area
- Widening participation and spreading excellence
- Reforming and Enhancing the European R&I system
Pillar 2 - Clusters

Global Challenges & European Industrial Competitiveness: boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals

Commission proposal for budget: € 52.7 billion
Examples of post-2020 elements linked to Digital and Data Technologies

**Cluster 4**
- Destinations on e.g.
- Robotics and AI, Space,
- Future generation Internet

**Cluster 6**
- Some roadmaps across IAs foster Digital and Data technologies
- Partnerships on Agriculture of Data and agro-ecology

**DEP**
- e.g. Testing and Experimentation Facilities for AI, Common Agriculture Data Space, Blockchain,
- Capacity building (Digital infrastructure also for R&I)
Examples of possible supplementarity

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<tr>
<th>Cluster 4</th>
<th>Cluster 6</th>
<th>DEP</th>
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<tr>
<td>Horizontal research on digital and data technologies relevant for all sectors/ several fields of application</td>
<td>Addressing sector-/area specific needs with digital- and data technologies Possible: Uptake of Cluster 4 results to be adapted to specific context</td>
<td>Pick up of research and innovation results close to market/ end-user-uptake (high level of maturity)</td>
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Example: Research on AI in Cluster 4, Research with AI in Cluster 6, Testing and/or certification of AI-based innovation under DEP
Horizon Europe Partnership
“Agriculture of Data”
(Environmental Observations for sustainable EU agriculture)
Context

- Need of more information for supporting sustainable agricultural practices and the long-term competitiveness of the sector.
- Need for more data as basis for policy monitoring and evaluation.
- Agriculture already benefits from the use of earth observation; potential of earth observation data has not been fully harvested.
- More sharing and integration of data and data collection approaches are still needed.
- Big data technologies and Artificial Intelligence (AI) can add to providing solutions.
- Declaration on ‘A smart and sustainable digital future for European agriculture and Rural areas’ (9 April 2019).
- Ongoing work of EuroGEO/GEO.
Principal Objectives

Using the possibilities offered by data technologies in the field of Environmental Observation to

- provide support to improve the sustainability performance of agricultural production;

- improve the capacities for policy monitoring and evaluation.
Expected impacts

- Contribute to transitioning to a more sustainable and long-term competitive farming sector.

- Develop **digital solutions improving efficiency, environmentally and socio-economically sustainable food production**, including a basis to **climate adaptation**.

- Improvement of forecasting/modelling capabilities for governmental decision making.

- Supportive role in the delivery of the CAP and environmental and climate policy objectives and to monitoring and evaluation in general.

- Defragmenting the Environmental observation landscape.
Possible synergies and supplementarity

- AI applications foreseen to be supported under the **Digital Europe Programme** (e.g. Common Agriculture Data Space).

- EU Space Programme, including Copernicus.

- Work of EuroGEO/GEO.

- MS’ efforts in the context of LULUCF implementation and policy monitoring efforts in general.

- Several Horizon 2020 and other projects, such as NIVA or SEN4CAP, and forthcoming Horizon Europe projects.

- Identification of High value data sets following the Open Data Directive (ODD).
Why a partnership?

- Key data sets are managed by public authorities.

- Many monitoring and policy evaluation tasks are in the responsibility of the Member States.

- Ensuring wide outreach of benefits from the results to be channeled to individuals (e.g. farmers) as well as to organisations and businesses.

- Achieving a critical mass of geographical outreach is essential to establish a sound reference data base; EU-wide approaches would be ideal.
Thank you