



Workshop on the Common European Agricultural Data Space in the Digital Europe Programme

2 DECEMBER 2021

Summary Report

DG AGRI AND DG CONNECT

Setting the context

On 2 December 2021, following the first call for proposals of the Digital Europe Programme (DIGITAL), the European Commission held an information workshop on the common European agricultural data space. The workshop provided participants with an opportunity to learn more about the call for the preparatory action for the data space, to share ideas and views on the development of the data space and network with potential consortium partners.

Max Lemke (Head of Unit, DG CNECT E.4 "Internet of Things") welcomed the participants and introduced the Information Session on a common European agricultural data space as an opportunity for interested stakeholder groups to get a first impression of the main objectives of the European agricultural data space and the respective Coordination and Support Action (CSA), to be funded under the Digital Europe Programme (DIGITAL).

Lemke started by highlighting the importance of a European agricultural data space for the increased availability and interoperability of data not only within the sector but also across multiple sectors. He then presented the big picture of the European Data Strategy and the role of DIGITAL. The DIGITAL plan for common European data spaces is in sync with other important European activities such as the private initiative GAIA-X; programme like the Important Project of Common European Interest (IPCEI) on the next-generation cloud.

Agriculture is currently at the crossroads of European priorities and the sector needs to be strengthened in order to reach the high targets set in the Farm to Fork (F2F) Strategy of the European Green Deal. Agriculture must embrace digital technologies to achieve the F2F strategic objectives and maintain a competitive position in the targeted digital platform market. The clear benefits and challenges for farmers, businesses, and governments were also highlighted.

Lemke also outlined opportunities in terms of added value creation and services potentially resulting from the agriculture data space. Some key goals of the upcoming CSA for preparing the future implementation of the agricultural data space are to bring together relevant stakeholder and Member States, define clear governance structures and a business model and achieve consensus in a broad network.

Kerstin Rosenow (Head of Unit, DG AGRI B.2 "Research and Innovation") provided a perspective of this information session as being a kick-starter for the agricultural domain to reach its potential by leveraging innovations in digital and data technologies.

The huge amount of data originating from multiple sources in agri-food, and generated in the context of policy implementations, has the potential to create additional services for farmers by providing them with assistance in their decision-making processes and helping them to benchmark against their competitors.

Moreover, there are even more potential benefits of sharing agricultural data amongst the several ecosystem players for developing production approaches and applying data technologies at larger scales to enhance sectoral performance.

The European Commission is pulling together its strengths to use this potential and shape the foundation for an effective common European agricultural data space with the CSA being the key cornerstone. A very important factor to be taken into consideration in this effort will be synergies with other initiatives across domains, frames by cross-sectoral legislation that will facilitate data sharing and the re-use of data for all sectors.

Cross-sectoral legislation and support for data sharing

Federico Milani (Deputy Head of Unit, DG CNECT G.1 "Data Policy and Innovation") introduced the main pillars of the European Data Strategy and highlighted the four key instruments of its legislative aspects. An important political agreement was reached on 30 November 2021, on trust in data transactions that enabled the voluntary availability of public, private, and personal data of EU citizens, thereby enabling the creation of high added value from a huge amount of data sets.

Following the European way of sharing data that is built on trust and fairness, the Commission aspires to create sectoral common European data spaces, where vast amounts of data are made available on a voluntary basis and data holders are in control of who can access their data and decide how this is used and at what price.

For the deployment of data spaces in DIGITAL, there is a need for technical infrastructure or framework, and the tools to engage the users and data holders to share their data. Next to that, the creation of middleware solutions that will allow the building of data spaces is necessary. The creation of sectoral data spaces will then bring together different stakeholders that will identify governance models and data infrastructure needs. With the support of the Data Spaces Support Centre (DSSC) that will work closely with CSAs to ensure the alignment between the different data spaces, the process will expand gradually in the future towards the creation of a single European data space – a genuine single market for data, open to data from across the world.

In the DSSC, there will be several activities to support the deployment of data spaces. A network of stakeholders will be created who will be engaged in the definition of common elements for the sectoral data spaces and the creation of the appropriate infrastructure. They will work with CSAs and coordinate their activities to collect and organise common requirements that are necessary from a governance and technical standpoint and will transform them into specifications.

The expected result of the collaboration of the CSAs with help from the DSSC is a platform for knowledge exchange that will support the deployment of data spaces. The DSSC will function as the operational arm of the expert groups. In addition, it will act as technical support for standards that may serve as a basis for the development of guidelines that might be issued by the Data Innovation Board.

Finally, Milani discussed the data space technical infrastructure; it is an open-source smart middleware that will be available for everyone to use and will consist of the necessary blocks to build, customise, and deploy data spaces.

Practical information on the CSA

Joël Bacquet (Programme Officer, DG CNECT E.4 "Internet of Things") introduced DIGITAL and its key objectives with a clear key message: this new funding programme focuses on the deployment of digital technologies and not on research and development. With this programme, the European Commission wants to offer the best services to citizens and businesses in the EU.

DIGITAL is complementary to other programmes with investments in digital, such as the Horizon Europe Programme. The deployment of technologies will accelerate the best use of digital capability and will focus on five key tech sectors: AI, digital connectivity, high-performance computing, cybersecurity and digital skills. The focus of this call is on data spaces that lies under the AI topic. Testing and experimentation facilities is one of the activities for agri-food that will supported by the programme.

Doris Marquardt (Programme Officer, DG AGRI B.2 "Research and Innovation") presented the key objectives for the agricultural data space as described in DIGITAL. The focus is on facilitating the

trustworthy sharing and pooling of data for the sector, by creating a single data space, which in turn will be based on a set of data spaces/platforms. To achieve this goal, there is a clear need for governance structure and business models.

The implementation of a data space for agriculture is rolled out in two phases: first, with the CSA preparatory action, followed by a first implementation project under the Work Programme 2023-2024. In terms of expected activities and outcomes, Marquardt highlighted the creation of an inventory of existing data platforms and marketplaces, taking stock of experiences with the Code of Conduct (CoC) on sharing agricultural data, the exploration of design approaches, and the development of a roadmap for step-by-step roll-out and deployment of the data space. The selected consortium will work in close liaison with DSSC to ensure alignment with the design of the European data spaces in other sectors with respect to common elements, such as the data space building blocks and reference architecture, some common standards, and protocols.

Finally, key information about the dates and the application and evaluation process were provided regarding the first call under the first DIGITAL Work Programme, which opened on 17 November 2021. The session provided the opportunity to elaborate on programme-technical questions, such as eligibility, as well as aspects related to the possible scope of the action.

A Q&A session followed with questions ranging from the presence of sectoral provisions in the forthcoming Data Act (*answer: "more generic/horizontal scope, rather than sectoral"*), the support of the vast amount of semantic coherence specifications and implementations (*answer: "the preparatory action will examine how to tackle the issue interoperability"*), all the way to the form/type that the agricultural data space will assume and the responsibility of maintaining/enhancing and engaging with new stakeholders (*answer: "the CSA will have the responsibility for following a participatory approach in the development of the approach towards the data space, and thereon for the development of a proposals for the form/type as well as the governance and business model of the agricultural data space"*).

Networking session: presentations from stakeholders

There were nine presentations from stakeholders summarising their positions towards data sharing in the agricultural sector and the potential of a common European agricultural data space.

The International Data Spaces Association (IDSA) recalled the "Design principles for data spaces v1" paper, which together with the open reference Architecture Model of IDSA (IDS-RAM) and the IDSA Rulebook form the basis for the soft infrastructure for data spaces in Europe.

Copa Cogeca, represented by the Fédération nationale des syndicats d'exploitants agricoles (FNSEA), emphasised the need to implement a sovereign infrastructure; such a need is contingent upon the inclusion of (and the adherence to) the CoC in the CSA, which Copa Cogeca indicated their clear support for its implementation.

The European Agricultural Machinery Industry (CEMA) in a combined contribution with Agricultural Industry Electronics Foundation (AEF), presented a proposal from the agriculture machinery that contributes to making a common European agricultural data space a reality; their proposal includes trust and reliability ensured by well-known security and conformance measures in the network.

The iSHARE Foundation elaborated on their "trust framework" and how it enables sovereign data sharing of a large number of companies.

The presentation from the Fraunhofer Institute for Software and Systems Engineering highlighted their contribution to the Eclipse Dataspace Connector, a framework for sovereign, inter-organisational data exchange implementing the IDS standard as well as relevant protocols associated with GAIA-X.

Agdatahub's presentation focused on the development of an approach that offers digital identity and consent (in terms of authorisations) for farmers, related to overcoming factors like competing, non-interconnected, and scattered data.

The Alliance for the Internet of Things Innovation (AIOTI) mentioned the proactive stimulation of dialogue among stakeholders in the farm management system landscape and how that relates to the CSA.

T-Kartor Geospatial AB discussed how the climate and long-term sustainable agriculture can only be achieved with integration of moisture data, like weather, soil and organic.

Finally, the Universitat de Lleida presented their view on how the agricultural data ecosystem could be strengthened by more trustful and appealing data sharing that could facilitate its reuse by addressing all stakeholders' expectations.

Disclaimer: Views expressed in this report do not necessarily represent the views of individual participants. Neither do they represent the view of the European Commission.