

JUN
10

Data sharing in agriculture.
Towards a European agriculture
data space.

Organised by:

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CREATE-IoT



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<https://european-iot-pilots.eu/data-sharing-in-agriculture-webinar-2020/>



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Data sharing in agriculture.
Towards a European agriculture
data space.



Luis Pérez-Freire

Executive Director - Gradient
Chair "Smart farming and food
security" - AIOTI

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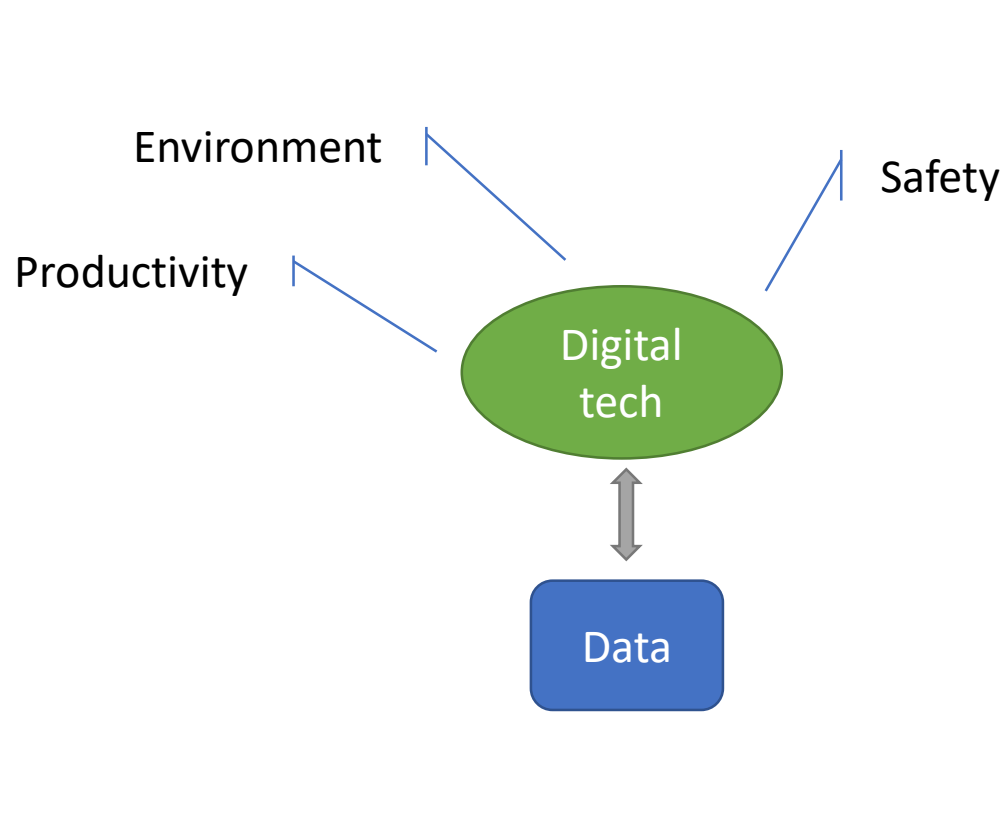
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Data sharing in agriculture. Towards a European ag. data space



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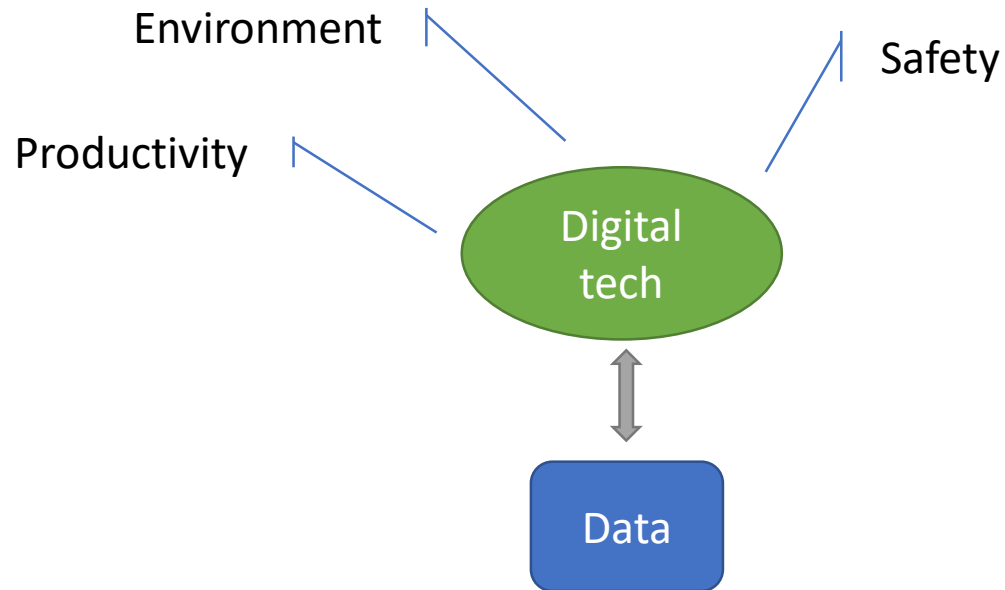


Alliance for Internet of Things Innovation

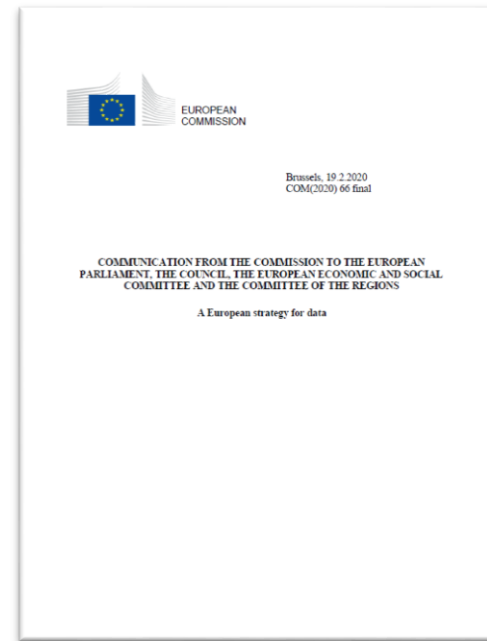


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Data sharing in agriculture. Towards a European ag. data space



European strategy for data



European Data Space
*a genuine **single market for data**, open to data from across the world where personal as well as non-personal data, including sensitive business data, are secure and businesses also have easy access to an almost infinite amount of high-quality industrial data, boosting growth and creating value, while minimising the human carbon and environmental footprint.*

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**Data sharing in agriculture.
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data space.**



Joel Bacquet

European Commission
DG CONNECT

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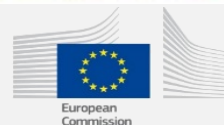


Doris Marquardt
European Commission
DG AGRI

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After the webinar:
questionnaire for helping in the
definition of the agriculture
data space

<http://www.agridataspace.eu/>

During the webinar:
questions for the
speakers



Morning session agenda

Welcome and Introduction	
10:00-10:20	Luis Pérez-Freire. Gradiant , Executive Director. AIOTI , chair of WG06 “smart farming and food security” Joel Bacquet. European Commission. DG CONNECT Doris Marquardt. European Commission, DG AGRI
Presentations	
10:20-10:30	Code of conduct for agricultural data sharing by contractual agreement Daniel Azevedo. COPA-COGECA , agricultural technology director.
10:30-10:40	Societal relevance of data sharing: reflections beyond the Code of Conduct Simone van der Burg. Wageningen University & Research . IoF2020 work package leader
10:40-10:50	Strategy for full deployment of agricultural machinery data sharing Vik Vandecaveye. European Agricultural Machinery Association , chair project team “Digital Farming”. CNH Industrial , Mgr Advanced Data Analysis and Application Development.
10:50-11:20	National approaches to agriculture data sharing Steffen Beerbaum. German Ministry of Food and Agriculture . Théo-Paul Haezebrouck. Agdatahub , Products and Services Manager. Miguel Ángel Arroyo-Alcaraz. Spanish Ministry of Agriculture, Fisheries and Food , Sub-Directorate General of Innovation and Digitalisation
Roundtable discussion	
11:20-12:05	Moderated by Thomas Engel. John Deere , Manager Technology Innovation Strategy
Closing of the morning session	
12:05-12:15	Summary/wrap-up and closing

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**10.20 h. Code of conduct for
agricultural data sharing by
contractual agreement**



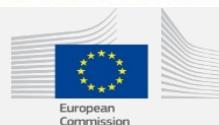
Daniel Azevedo

COPA-COGECA

Agricultural technology director



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The united voice of Farmers and their cooperatives at European Level

copa

european farmers



cogeca

european agri-cooperatives

Created in **1958**

23 million European farmers and family members

60 full members from the EU Member States and 36 partner organisations

Created in **1959**

22.000 European agricultural cooperatives

35 full members from the EU Member States, 4 affiliated members and 36 partner organisations



In **1962**, a joint Secretariat was created, making it one of the largest and most active organizations in Brussels for the past **60** years.



Mission

To ensure a viable, innovative, competitive EU agriculture and agri-food sector guaranteeing food security to half a billion people throughout Europe.



Objective

Promoting the view of European farmers and agri-cooperatives to **influence** the EU decision-making process and public opinion.

Farming Community committed to EU common policies

Green Deal – need for a coherent and supportive framework

- Common Agricultural policy
 - Internal market, Food safety, environment, animal health and welfare
- Climate Change
 - Committed to the implementation of Paris agreement
 - Limit the world's temperature increase to 1.5°C above pre-industrial levels while not endangering food security;

* Digital Single Market (EU Data strategy, GDPR)

The EU farming community is committed and proud of the EU model of production!

Please enable our investment on modernization and sustainability of EU agriculture!





Agri-food Chain is a driver of the EU economy...

.... Increasingly, European foodstuffs gain attention for their sustainability

- * 44 million jobs in the EU
- * representing 3.7% of EU GDP
- * contributing to the EU trade surplus – almost €21.5 (1/3 of EU's total net trade balance)

Agriculture is the backbone of EU rural areas

- * provides food at affordable prices as well as raw materials for the processing industry
- * agriculture and forestry cover more than 75% of the land
- * play a crucial role in protecting the environment and managing our natural resources sustainably.
- * culture & traditions

Agriculture is key to deliver on the United Nation's Sustainable Development Goals and moving towards a climate-neutral European continent

Technology needs to deliver....

Innovation needs to provide concrete solutions and all farmers need to access latest technology in order to respond to dynamic markets, improve sustainability and maintain high quality of EU agricultural produce!





Optimise the use of resources

Precision agriculture provide the tools and knowledge for farmers to take more precise and sustainable decisions. Right time, right place, right dose!

* Most adopted PLF technologies are:

- Sensors for production, GPS, etc
- Management information system
- Health monitoring

* Expected to be adopted within 5 years:

- Camera monitoring in barn, Health monitoring, Animal tracking, etc.

* Hopefully other technologies such as AI and robotics could be widely available soon..

* Improve functioning of food-chain, find new markets, improving the life conditions of farmers and their families, etc...



Simplification and modernization of administrative procedures

- * Digital technologies enable online applications for payments, pre-filling of application forms, decrease costly controls but increasing compliance;
- * Copernicus, Galileo
- * Give farmers a larger room of manoeuvre to make good farming decisions;
- * Provide online advisory and training, etc.

It should provide clear benefits for the farmer in the form of simplification, smarter regulation (e.g. friendly innovation regulation), access to data & services (e.g. soils maps, records), anticipate payments, and incentives to use new technologies.



It is Strategy - Not technology – the Real Driver for Technological and Digital Transformation!

**ALL EU POLICIES TO
ALIGN THEIR EFFORTS
TOWARDS CREATING
THE BASELINE FOR THE
UPTAKE OF
TECHNOLOGIES BY ALL
FARMERS**

Cross sectorial Integrated decision making systems, supported by AI;

Transparency and Trust on Data Sharing, Improve the access of data by farmers;

Infrastructure - connectivity & interoperability, reliability, standards and security;

Digital Skills and Jobs Coalition - Advisory and Training

Access to investment, financing, capacity building

Digital Innovation Hubs

Access to talent and generational renewal

Innovation , research – starting in the farm...

Innovative friendly regulatory framework (e.g. drones)



EU code of conduct on agricultural data sharing by contractual arrangement

Transparency, defining responsibilities, creating trust!

- Right on data produced on the farm or during farming operations is attributed to the farmer and may be used extensively by him/her;
- Leading role in controlling the access to and use of data from their business
- Benefit from sharing the data with different partners
- It addresses, portability of data, opt out, sensitive information, security, etc;
- National codes (e.g. FR);
- Referred in the Commission data strategy;





EU code of conduct on agricultural data sharing by contractual arrangement

Transparency, defining responsibilities, creating trust!

- Implementation (e.g. translation ES, IT, FR, FI), IoF 2020 data package, Smart AgriHubs
- Usability: Technological facilitators of Code of conduct (e.g. Multipass)
- Brochure with clear evidence of data sharing and its benefits
- Should we explore the possibility to move towards governance rules? Under what conditions?

How can we ensure that we create more value

How can we ensure that the farming community benefits from data sharing?





Thank you for your attention!



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**10.30 h. Societal relevance of data
sharing: reflections beyond the
Code of Conduct**



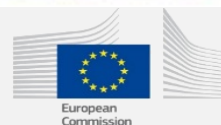
Simone van der Burg

IOF2020

Wageningen University & Research



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An aerial photograph of a Dutch landscape. A straight road and a canal run parallel through a vast, green field. The road is on the right, and the canal is on the left. In the distance, there are some buildings and trees. The sky is clear and blue.

Beyond the Code of Conduct

Simone van der Burg

Europe chooses its own strategy

- China: the state determines what is being done with data
- US: large companies are in charge of farm data
- Europe: avoid power concentrations; strive towards a diverse landscape of larger and smaller parties that determine together how data should be governed (avoid monopolies/oligopolies)
- Complex and exciting task!



Request for self-regulation

- GDPR protects personal data, which concerns *'any information which is related to an identified or identifiable natural person'*
- For non-personal data: free flow regulation.
- Article 6 of FFR asks to foster self-regulation, such as by means of the creation of codes of conduct



Five principles

- Data ownership
- Data access/control/portability
- Data protection and transparency
- Privacy and security
- Liability and intellectual property rights



EU Code: Shape trust by means of a contract, which

- Acknowledges the right of all parties to protect sensitive information (like IPs)
- Recognizes the right of the 'data originator' to control the use of the data and determine who can have access to it
- Contract should be stated in a clear language, which specifies
 - (a) terms and definitions,
 - (b) the purpose of collecting, sharing and processing data,
 - (c) rights and obligations that parties have related to data,
 - (d) information on how data are stored,
 - (e) verification mechanisms for the data originator,
 - (f) transparent mechanisms for adding new/future uses



Evaluation?

Strengths

- Serious attempt to protect personal interests, rights and freedoms
- Shaped by actors in the ecosystem; is therefore supported by them
- Helps to move towards a practical solution: a contract

Weaknesses

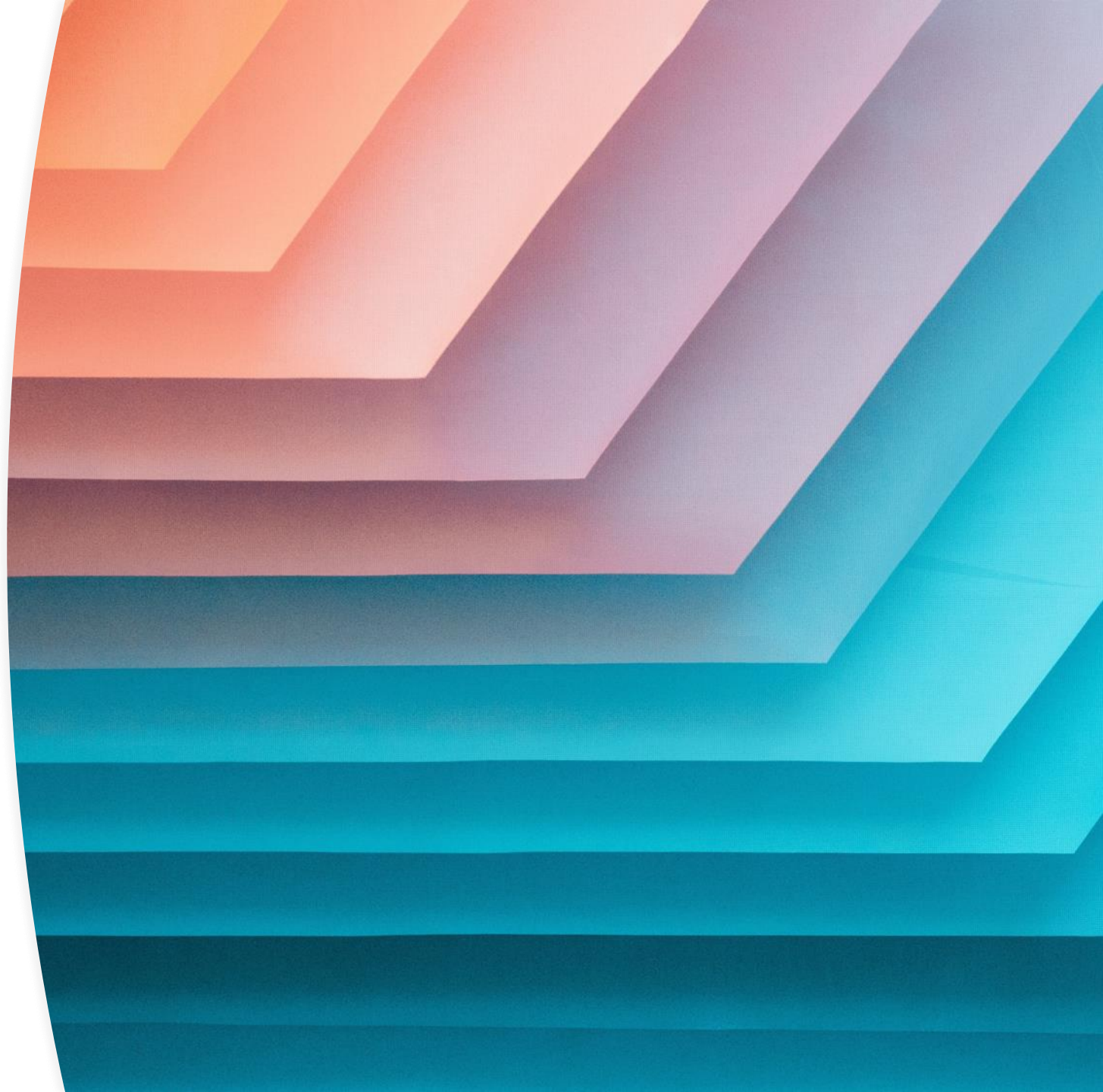
- No specific attention for societal values that are at stake in data sharing
- Actors think like business (wo-) men, but not like citizen 'self-regulators' of a shared European society
- A contract is not that practical when the data sharing network expands...digitization of contracts helps, but tends to make contracts a bit hollow....

Beyond the EU Code?

Proposal: a layered approach

1. Contracts when data originators start sharing data on a platform
2. We develop 'playrules' together for the use of data on data platforms, which also specify who can use what data for societal purposes

-> Look at data on platforms as 'commons'





Societal values?

Society has high expectations:

Investments in digital farming are expected to contribute to the goals explained in Food 2030 and the Green Deal

- Increase production of high quality, nutritious and safe food for the growing population
- Less burden for the environment
- Less use of natural resources
- https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf

Demand to share data for societal purposes

- Need to monitor whether and to what extent digital farming actually contributes to realizing these ends
 - Access to data by researchers and policy makers?
 - Access of citizens at large?
 -data are also a basis for knowledge which could be considered a 'common'?
- 'Citizens should be empowered to make better decisions based on insights gleaned from non-personal data. And that data should be available to all – whether public or private, big or small, start-up or giant. This will help society to get the most out of innovation and competition and ensure that everyone benefits from a digital dividend. This digital Europe should reflect the best of Europe - open, fair, diverse, democratic, and confident.' (A European Strategy for Data (2020), p.1)

Questions to consider for the 'playrules'...

- About what data are we talking?
- Who can use these data?
- How can they use the data?
- For what (private, societal) goals do we allow to use the data?
- What conditions should use of our data satisfy?
- Who can decide how we use the data?





WAGENINGEN
UNIVERSITY & RESEARCH

- Thank you!

- Simone.vanderburg@wur.nl

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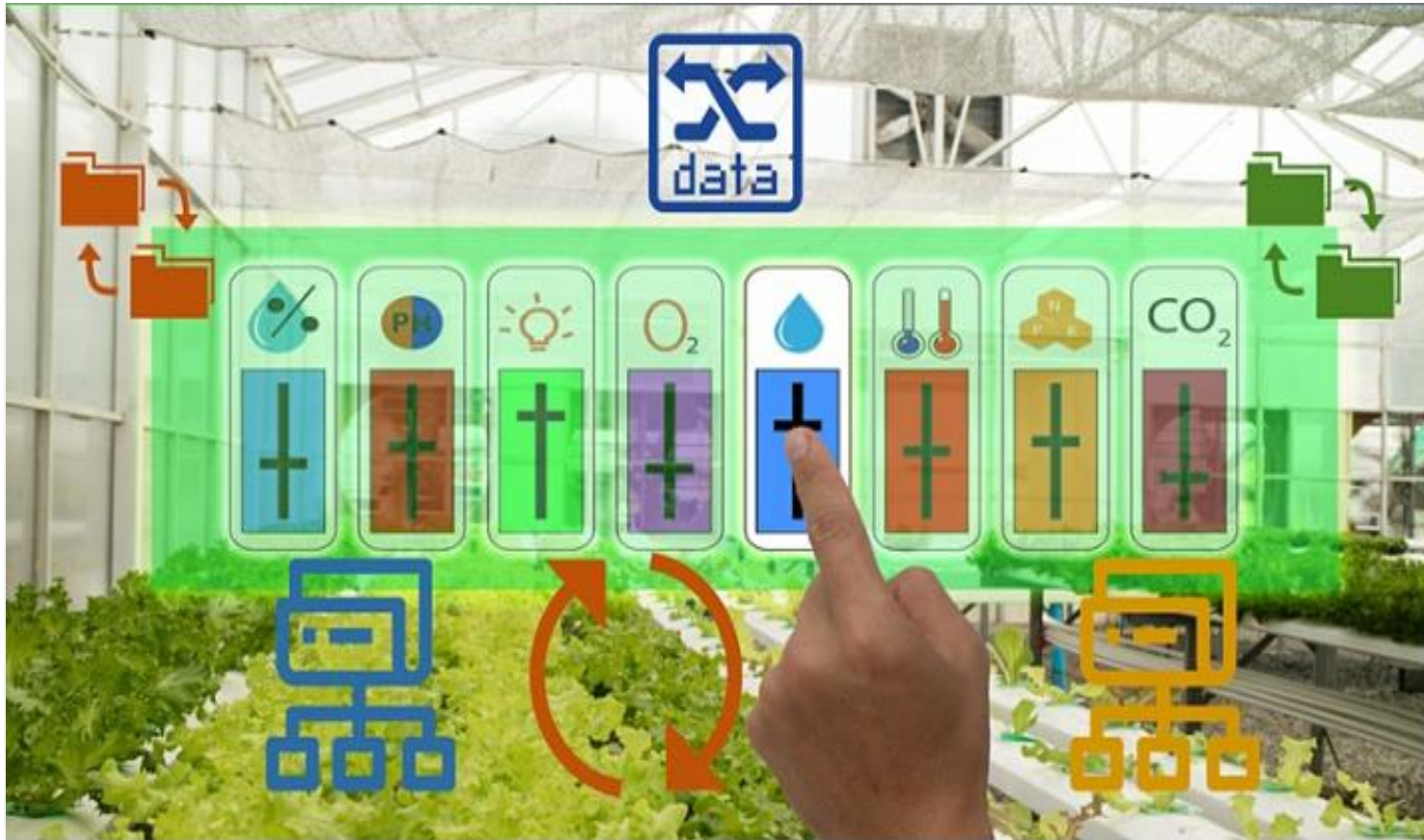
**10.40 h. Strategy for full
deployment of agricultural
machinery data sharing**



Vik Vandecaveye

[European Agricultural Machinery Association](#), chair
project team "Digital Farming".

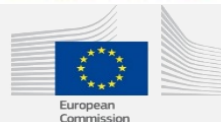
[CNH Industrial](#), Mgr Advanced Data Analysis and
Application Development



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Strategy for full deployment of agricultural machinery data sharing

Vik Vandecaveye
Chair PT3 Digital Farming

10 June 2020

AIOTI Workshop “Data sharing in agriculture.
Towards a European agriculture data space.”

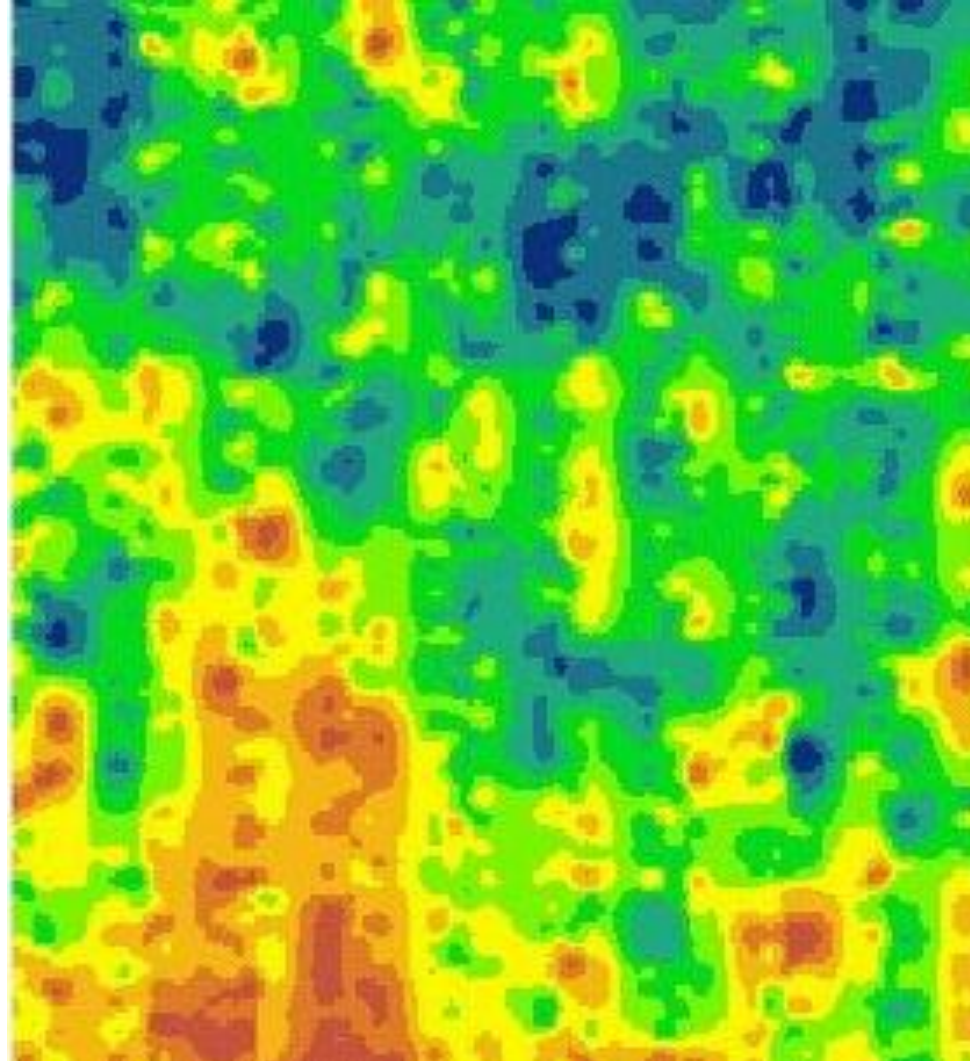
Agricultural machinery and data



- ▶ Big data generators
- ▶ Need data to operate
- ▶ Committed to farmers
- ▶ Data for better equipment

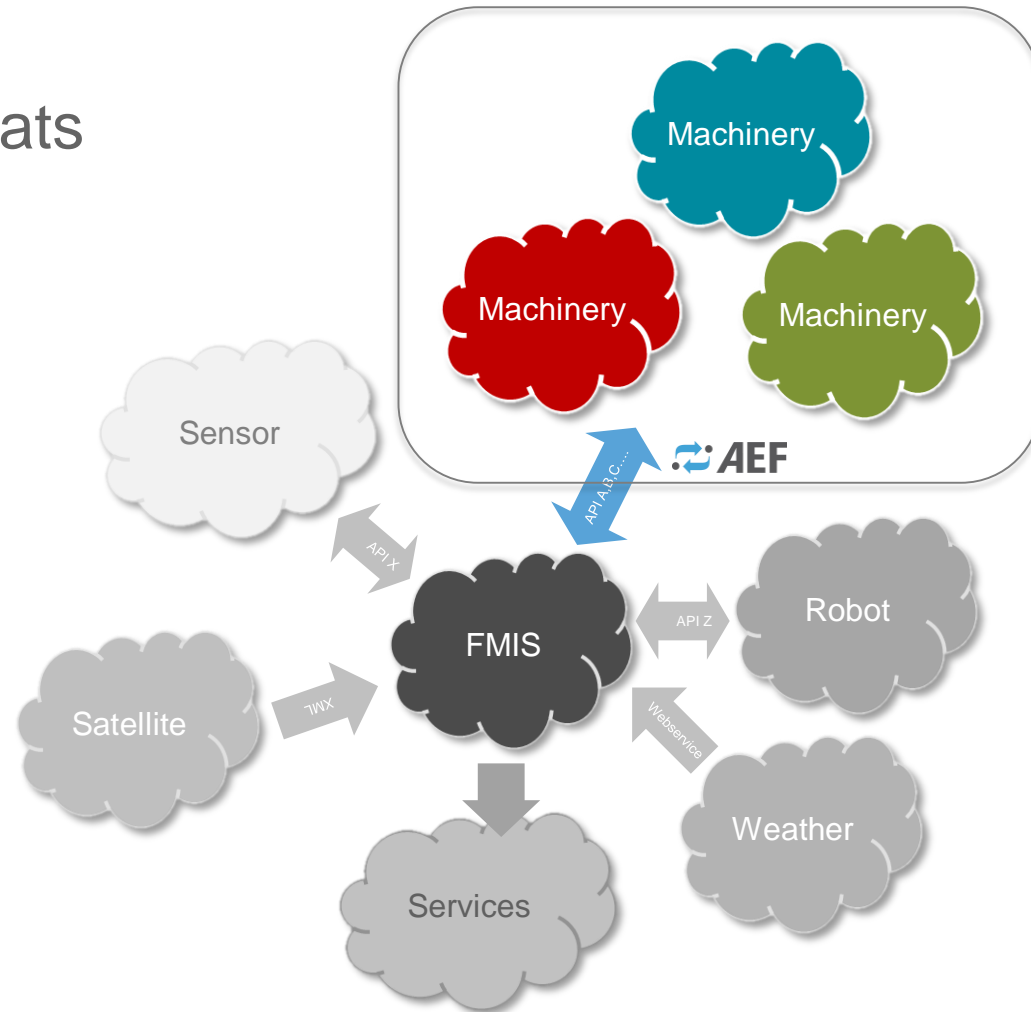
Requirements

- ▶ Easy
- ▶ Protected
- ▶ Automated
- ▶ Different platforms
- ▶ Code of conduct



Approach

- ▶ Value data
- ▶ In the cloud
- ▶ Minimal and compatible data formats
- ▶ Standardised access with API
- ▶ Certification
- ▶ Governance scheme
- ▶ Automatic consent



What we're doing



Standards development



European projects



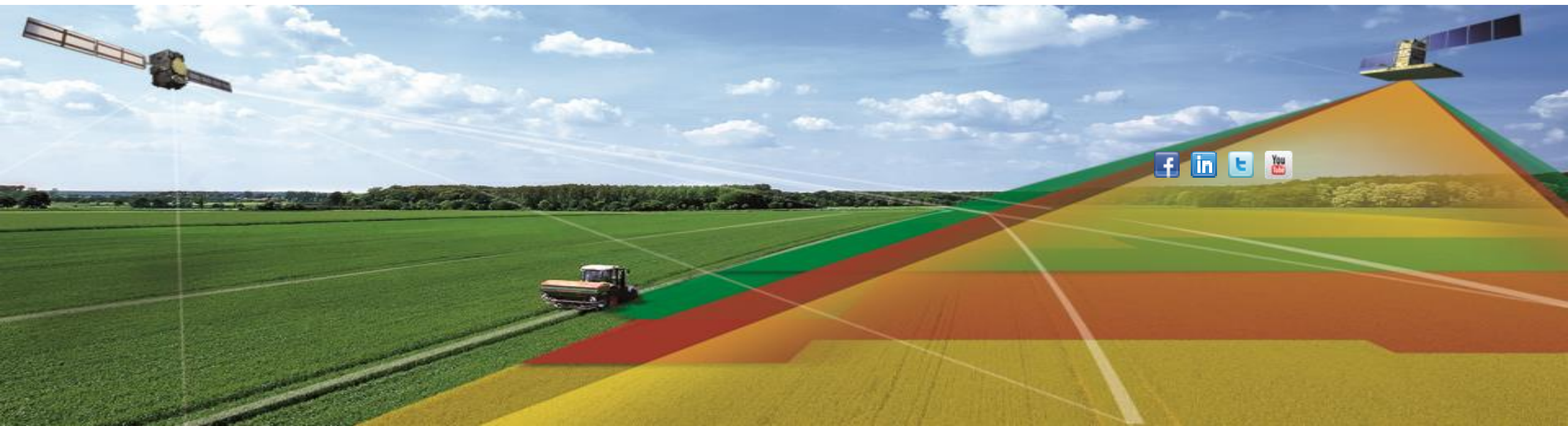
- ▶ https://www.cema-agri.org/images/publications/position-papers/2020_02_05_CEMA_PT3_PP_Strategy_paper_agricultural_machinery_data_sharing.pdf

Thank you!



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www.cema-agri.org



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**Data sharing in agriculture.
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**10.50 h. National approaches to
agriculture data sharing**

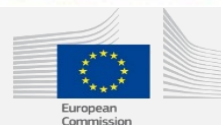


Steffen Beerbaum

German Ministry of Food and Agriculture



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Bundesministerium
für Ernährung
und Landwirtschaft



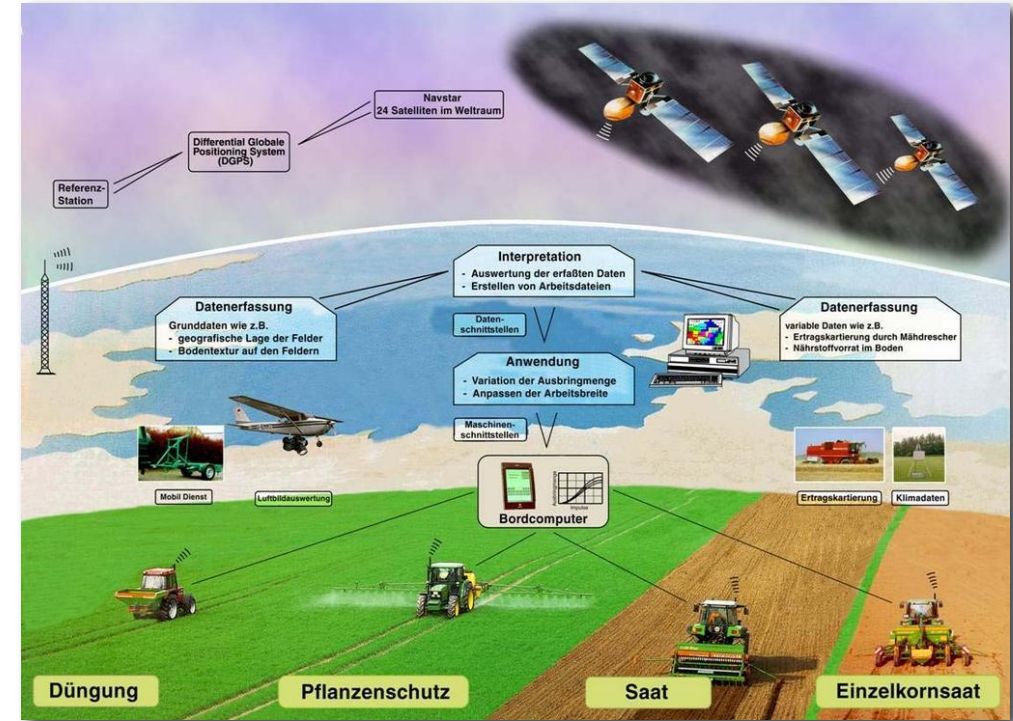
Digital innovation for agriculture

Federal Ministry of Food and Agriculture (BMEL)

[bmel.de](https://www.bmel.de)

Questions about data sovereignty, data security and the provision of data.

- Agricultural machines generate a lot of data.
- Farmers are primarily entitled to the **right of use** of this data.
- The BMEL supports and promotes an **open and transparent data use** in agriculture which serves both farmers and the common good.
- Currently conducted: **Feasibility study**



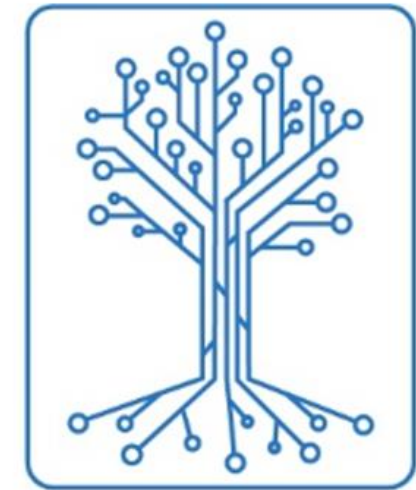
Questions of data sovereignty, data security and the provision of data - by whom?

- Looking into questions such as:
 - **Technological challenges**
 - **Legal aspects/ data handling**
 - **Analysis of individual stakeholders**
(farmers, authorities, companies etc.)
- End of 2019: Interviews/ Questionnaires with stakeholders
- First results: Autumn of 2020.

“Consideration of the entire emerging ecosystem that can develop around a public digital platform.”

GAIA-X: A federated data infrastructure as the cradle of a vibrant European ecosystem.

- Joint forces with France – further MS and other countries welcome to take part in the project.
- Currently 8 domains in various areas (e.g. **agriculture**, health, finance, ...), over 40 Use Cases established.
- Two parallel approaches:
 - **Workstream 1:** user perspective and use cases.
 - **Workstream 2:** conception of the technical foundations.



GAIA-X
daten-infrastruktur.de

GAIA-X and the BMEL: The emerging agricultural domain and the identification of Use Cases.

- Identification of **agricultural Use Cases**: currently ongoing
- relevant for the agricultural domain:
 - **Data sharing and storage**
 - **Ownership/sovereignty of data**
 - **Data availability and interoperability**
- For farmers, agtech, research, start-ups.
- Innovations, technological advances, new applications
- Next steps: Selection of Use Cases, further formation of the agricultural domain

National Initiative on data sovereignty, data security and the provision of data - by whom?

- **Creating model terms involving different stakeholders**
 - respecting the farmers interest in the use of data generated by agricultural machines
 - balancing the relationships and interests between the different stakeholders in the industry
 - establishing the use of the FAIR data principles (findable, accessible, interoperable, reusable) within the data flow
 - Consideration to stipulate the establishment of API's (application programming interfaces)
- The results of the feasibility study will be taken into account

Stakeholder consultation on a European level

- **German Council Presidency 2020**
- Taking the Commission's **European strategy for data** into account
- Taking stock of the experiences gained with **the stakeholder code of conduct** on agricultural data sharing by contractual agreement
- Consultation of various stakeholders in summer
- Conference on the digitalisation of agriculture, 2nd – 3rd December 2020

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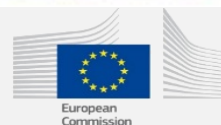
Théo-Paul Haezebrouck

Agdatahub

Products and Services Manager.



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Creating a collaborative digital future for agriculture

#ActForAgriData

Agriculture is one of the sectors most affected by the digital transition

2,5

billion of billion data
produced daily worldwide*

67%

of French farmers
use new technologies
to manage their farms**

15

billion invested in
Agtech during 5 last
years worldwide, only
2% in France***

FACILITATING THE ACCESS TO AND USE OF AGRICULTURAL DATA
IS A CRUCIAL ISSUE IN PROMOTING THE DEVELOPMENT OF
INNOVATIVE SOLUTIONS FOR SUSTAINABLE AND EFFICIENT
AGRICULTURE.

Meeting the needs of the agricultural ecosystem

CREATING VALUE FOR THE BENEFIT OF FARMERS AND CONSUMERS

Managing the use of farmers' data.

SHARING TECHNOLOGICAL TOOLS

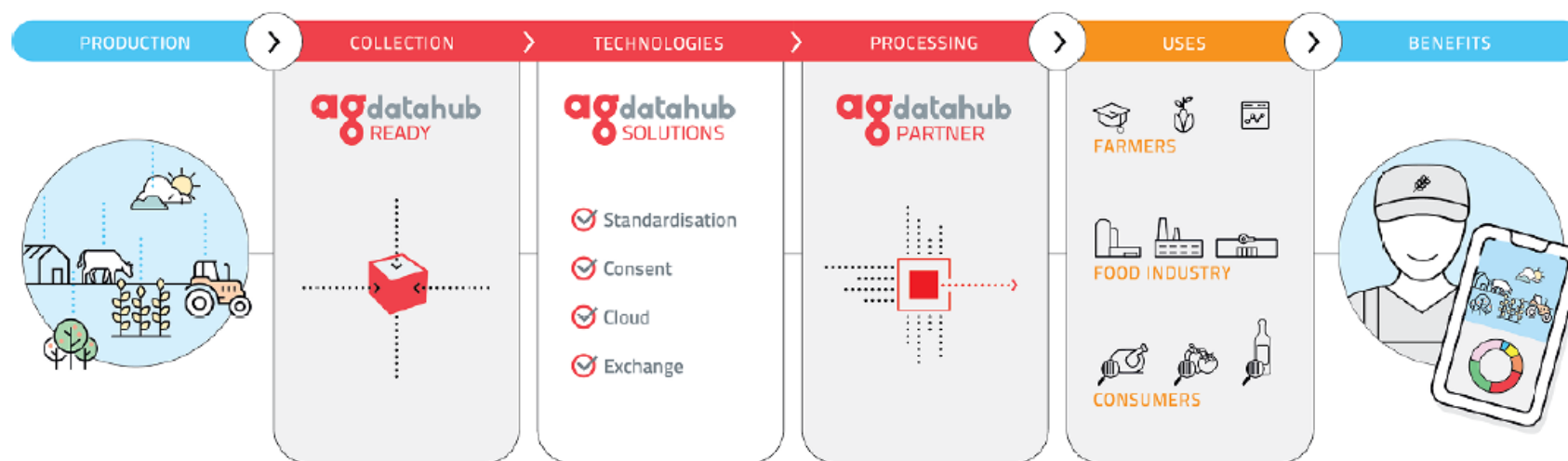
Creating shared technological infrastructure to send and/or receive data in an industrial, secure and standardised manner, while respecting the consent of farmers.

DISSEMINATING INNOVATIONS IN VALUE CHAINS AND TERRITORIES

Sharing innovative models and tools to boost the number of projects closely matching the needs of end users.

Rolling-out collaborative digital technology for agriculture

Created to meet the needs of farmers and value chains, Agdatahub employs shared and **sovereign technological infrastructure** combined with a **collective and structured standardisation process** to guarantee the development of agricultural digital technology.



"A la carte" service offer

Agdatahub supports economic actors and agricultural value chains in the implementation of their projects.



AGDATAHUB CONSULTING

SUPPORTING THE DEVELOPMENT OF YOUR DIGITAL ACTIVITIES WITH OUR PROJECT MANAGERS.



AGDATAHUB SOLUTIONS

BUILDING YOUR BESPOKE EXPERIENCE ACCORDING TO YOUR NEEDS.

✓ STANDARDIZATION

Analysing, managing and developing new standards for farms in all sectors.




✓ CONSENT

Management: administering data usage via a dedicated interface.
Router : collecting and centralising the consent of farmers.





✓ CLOUD

Storing data and applications securely in a trusted cloud environment.



✓ EXCHANGE

Disseminating, exchanging, sharing and drawing value from data on a secure and sovereign platform.





EXCHANGE PLATFORM

api-agro

PN Paul Nareff

DashboardData marketplaceInboxMy data offeringsMy purchasesProfileMy organization

API-AGRO PLATFORM

Explore data

Enter one or more keywords

Stay informed about offerings that match your needs

Add an alert

License type

☐ Open Data

☐ Commercial

Business sectors

☐ Aquaculture

☐ Arable crops

☐ Aromatic plants

☐ Beekeeping

☐ Bovines


☐ Breeding - Pigs

☐ Breeding - Poultryes

☐ Breeding - Ruminants


OFFERING


Open Data



Graphic plot register


The Graphic Parcel Register (RPG) administered by the Service and Payment Agency (ASP) and updated by the[...] [\(See original\)](#)

 France


 Arable crops, Fruit crops, Specialized crops, Vegetable crops, Viticulture


COMPANY

Assur'Agri




Insurer of your field crops, livestock and viticulture activity for and by farmers [\(See original\)](#)

 France

 Arable crops, Breeding - Pigs, Breeding - Ruminants, Viticulture

COMPANY


Qualit'Agri



Qualit'Agri [\(See original\)](#)

COMPANY


APCA-Chambres d'agriculture France




Chambers of Agriculture at the service of agricultural and territorial development The Chambers of Agric[...] [\(See original\)](#)


THEME

FERTILIZATION: COEFFICIENTS B AND BQ OF VARIETIES




In order to meet the challenges of wheat quality in the various production chains in terms of grain prote[...] [\(See original\)](#)

 France

 Arable crops

THEME

VARIETIES - CHOICE, PHYSIOLOGY



The choice of varieties is not always easy in view of the quantity of varieties offered on the market and[...] [\(See original\)](#)

Aide

agri-consent



- 1 plenary session
- 7 workshops
- 3 months



- 82 irritants identified



- 35 expectations expressed



- + 700 contributions



- ~ 65 cumulative days



- 20 participants per session (average)

- 180 requirements



Located in the heart of territories

With a presence in France and elsewhere in Europe, Agdatahub relies on a network of partners to encourage the emergence of collective initiatives led by actors in innovation.



AGDATAHUB LOCATIONS

AGDATAHUB'S PARTNERS NETWORK

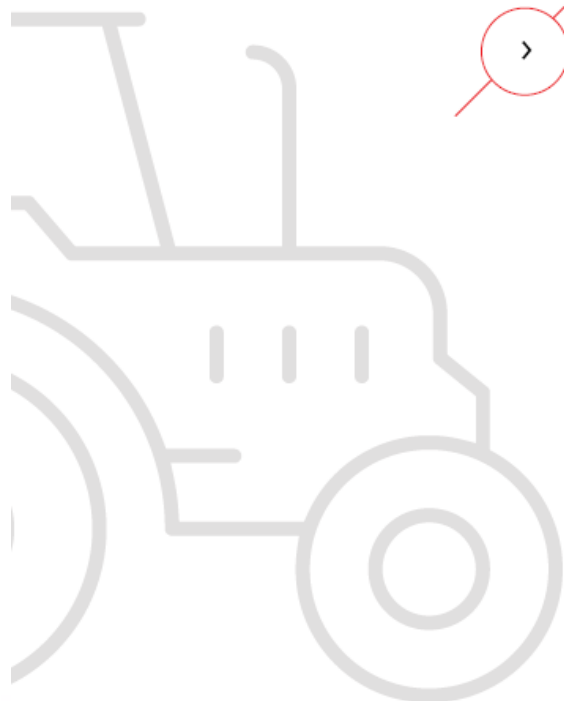


AGDATAHUB IS AN ACTOR IN
INNOVATIVE EUROPEAN PROJECTS
DEDICATED TO AGRICULTURAL DATA.



A network of **expert partners**

With a presence in all sectors and regions, Agdatahub relies on a network of operational partners who support the roll-out of its solutions.



>

AGDATAHUB READY

—
SECURING THE COLLECTION
OF DATA ON FARMS.

>

AGDATAHUB PARTNERS

—
PROMOTING AND
INTEGRATING AGDATAHUB
SOLUTIONS.

Values to be shared

Acting together for Europe's food future and the sovereignty of agricultural data.

GUARANTEEING DATA SECURITY

Managing the expression of informed consent by agricultural producers and value chain actors.

PROMOTING EUROPEAN DIGITAL INDEPENDENCE

Storing and securing farm data on independent infrastructure free from extraterritorial measures such as the American Cloud Act.

SHARING THE VALUE

Ensuring the fair distribution of value between all actors in value chains. Creating business data standards, open to all and accessible for free.

#ActForAgriData

Digital independence: a shared priority

“ To build the Europe of tomorrow, our norms can't be under American control. Our infrastructures, our ports and airports can't be controlled by Chinese capital, neither can our digital networks be under Russian pressure.”

“ With Christiane Lambert, President of FNSEA, we are working to support farmers in the digital transformation on the issues of data sharing and the development of Agtech.”

“ It's on industrial platforms that the successive, sector by sector, layers of software will be found, ultimately supporting sectoral or specific artificial intelligence applications.”



#ActForAgriData

Emmanuel Macron

French President

LA TRIBUNE / 10 FEBRUARY 2020

Cédric O

Secretary of State for digital technology

TWITTER / 16 DECEMBER 2019

Thierry Breton

European Commissioner for the Internal Market

LES ECHOS / 23 FEBRUARY 2020

A collective commitment

Agdatahub's approach follows the logic of the 'Manifesto for Europe's food future and the sovereignty of agricultural data' launched in 2019 by API-AGRO, DAWEX and 3DS OUTSCALE, supported by FNSEA, France's Agricultural Technical Institutes (ACTA) and the country's Chambers of Agriculture (APCA).



#ActForAgriData

—
ACTING TOGETHER
FOR THE EXPERT USE OF
AGRICULTURAL DATA

—
COMING TOGETHER
TO SHARE THE VALUE OF
AGRICULTURAL DATA

—
INNOVATING
ITS USES

—
BUILDING SECURE AND
SOVEREIGN TECHNOLOGICAL
INFRASTRUCTURE



THANK YOU

#ActForAgriData

Join at
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#40905



JUN
10

**Data sharing in agriculture.
Towards a European agriculture
data space.**

**10.50 h. National approaches to
agriculture data sharing**



Miguel Ángel Arroyo-Alcaraz

Spanish Ministry of Agriculture, Fisheries and
Food

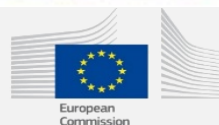
Sub-directorate general of digitization and innovation



**Co-organised and
supported by:**



European
Large-Scale Pilots
Programme



Alliance for Internet of Things Innovation



CREATE-IoT



DATA SHARING IN AGRICULTURE

TOWARDS A EUROPEAN AGRICULTURE DATA SPACE

ONLINE WORK / 10 June 2020 / Digitalization

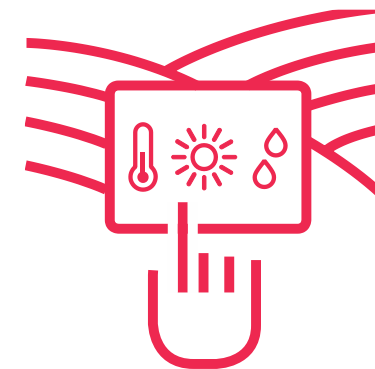


AGRI-FOOD AND FORESTRY SECTOR CONTEXT IN SPAIN

- ▶ **Significant economic impact:** 900.000 agricultural holdings, 28.000 agri-food industries; 95% SME , +/- 10% GDP, **2 million jobs**, main sectors in rural areas, heavy impact on other sectors (services...)
Exports: 50 billion €. Main player in global market and leadership within EU market.
- ▶ **Rural territories** : 84% of Spanish surface area but 16% of population; 66.000km2 sparsely populated areas (inner peripheries); 1.350 municipalities <100 inhabitants; masculinized, and aged.
- ▶ **Digital infrastructure:** 78% homes in rural areas have internet connection (82% in the EU). 26 Digital Innovation Hubs with capacities in the agri-food and forestry sectors (55% of total) lower than EU average.

**10% GDP SPAIN =
AGRI-FOOD AND
FORESTRY SECTORS,
WITH OVER 2 MILLION
JOBS. POSITIVE
TRADE BALANCE**

BIG CONCERN ABOUT
DEPOPULATION AND
MASCULINIZATION AS
WELLAS DIGITAL
DIVIDE.



PREPARATORY WORKS TIMELINE



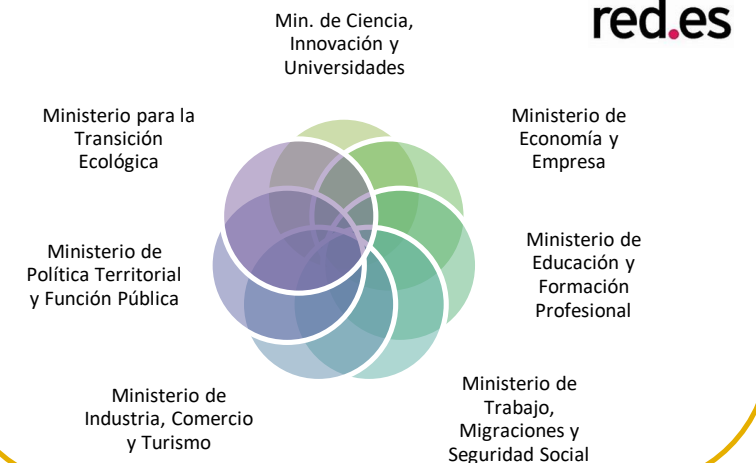
2010 Europe 2020
 SWG SCAR-AKIS
2012 EIP, EIP-Agri
2013 RIS3
2014 H2020
2015 Digital Single Market
2016 Cork 2.0
2017 Smart Villages
2018 New ACP, proposal:
 Strategic Plans
 idea
2018 Startup Cities



2013 Spain Digital Agenda
2013 R+D+i Spanish Strategy
2015 Approval NRDP:
 1st call for Ogs 2016
2017-19 FG on digitalization and big data.
2017 Smart Territories Nacional Program
2018 Añora Statement
2019 Change Agenda
2019 **MAPA Digitization Strategy:**
I Action Plan 2019-2020

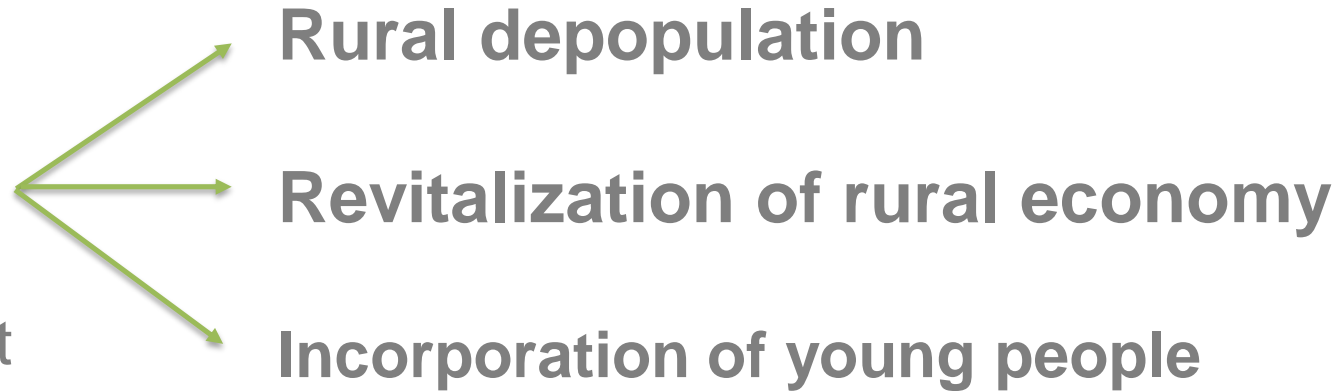


- Regional Govs. Enquiry
- Public Enquiry
- Cabinet Gov. Approval
- Public Presentation
- Web link
- I Action Plan (draft)
- Inter-Departments, Spain Gov.



INNOVATION & TICs

Key elements to fight



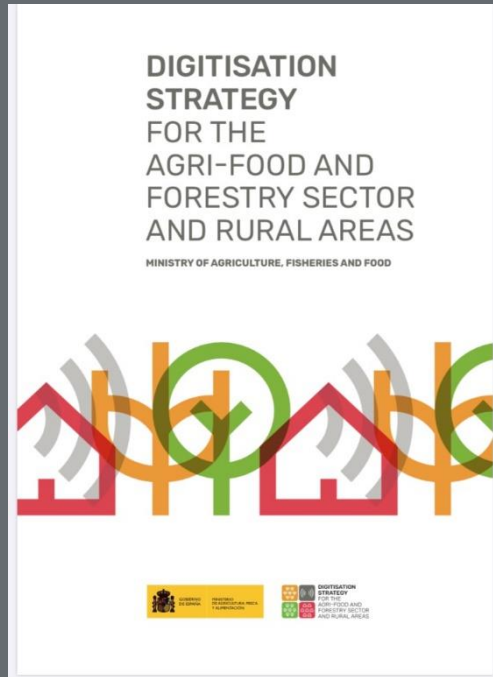
THE DIGITALIZATION OF THE ECONOMY MAKES POSSIBLE THE DEVELOPMENT OF NEW BUSINESS MODEL AND NEW FORMS OF ECONOMICAL AND SOCIAL ORGANIZATION THAT WILL CHANGE THE WAY IN WHICH THE CITIZENS RELATE WITH THEMSELVES AND WITH PRIVATE AND PUBLIC ENTITIES

Answer in crisis time
COVID-19

MAIN DIGITAL SOLUTION



DIGITIZATION STRATEGY I ACCION PLAN 2019-2020



Its main aim is to eliminate or reduce currently existing technical, legislative, economic and educational barriers, thereby helping an economically, socially and environmentally sustainable agri-food sector to lead and to actively repopulate rural areas, making them more attractive, lively, dynamic and diverse places that generate wealth and quality jobs, paying special attention to young people and women.



OBJECTIVE 01

TO NARROW THE DIGITAL GAP

between rural and urban areas, as well as between small and large companies, aiming for all parties to be connected.



To achieve this, work is to be done on connectivity in order to narrow the physical digital divide as regards infrastructure, and also on training to narrow the divide in adopting new technologies.

01 Narrowing the digital divide	L1. Connectivity	M1. Coordination to improve connectivity
		M2. Dissemination and advice in the sector as regards existing formulas for connectivity
	L2. Training	M1. Fostering the inclusion of digitisation in formal education
		M2. Non-formal continuous education and skills acquisition
		M3. Attracting young people and women as stable inhabitants in rural areas



OBJECTIVE 02

As an engine to boost the sector

Addressing the interoperability of the sector's data
and the openness of data

Understanding the latter concept in the
widest sense so as to encourage
this openness in,

- the Public Administration
- in research
- the private sector



TO FOSTER DATA USE

Fostering the use
of data

	M2. Interoperability projects that respond to specific problems in which interregional stakeholders cooperate
L2. Open data	M1. Open data in Public Administrations
	M2. Public research data
L3. Data from the value chain and environmental data	M1. Support for the Code of Conduct to exchange and use agricultural data and data from the chain
	M2. Promoting incentives to digitise farm logbooks
	M3. Cooperatives as data gatherers
	M4. Spanish and European consumption data
	M5. Collaboration to improve the Common Agricultural Policy's Integrated Administration and Control System
	M6. Fostering automatic collection of existing geospatial data on greenhouse gas emissions and removals from land use, and processing it



OBJECTIVE 03

TO BOOST BUSINESS DEVELOPMENT AND BUSINESS MODELS

taking into account Industry 4.0 and the opportunities for economic diversification provided by new technologies.

To do so, it is essential to bolster the digital innovation ecosystem as a key aspect in modernising the sector

and to provide advice for digital adoption in Knowledge and Innovation Systems in the agri-food and forestry sector and rural areas,

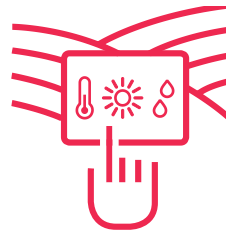
in addition to fostering new business models, which often arise on applying and adopting technologies in certain fields.

03 Boosting business development and new business models	L1. Strengthening the digital innovation ecosystem	M1. Fostering Digital Innovation Hubs (DIHs)
		M2. Innovative Public Procurement
		M3. Fostering collaboration among knowledge hubs, technological companies, and companies from the sector
		M4. Support for introducing the Living Labs method into Spain
	L2. Advice on digital adoption in the agri-food and forestry sector and rural areas' Knowledge and Innovation Systems	M1. Fostering knowledge and information exchange among digital advisers
		M2. Advice for SMEs and startups in their process of digital adoption
		M3. Bolstering advice via events and demonstration activities
	L3. Fostering new business models	M1. Platform for digital entrepreneurship in rural areas
		M2. Fostering telework
		M3. Coordination between Public Administrations to bring in line aid for entrepreneurship in rural areas
		M4. Dissemination of European initiatives linked to digitisation in the spheres of Smart Villages, rural entrepreneurship and Startup Europe
		M5. Boosting development of a Smart Rural Territories ecosystem. <i>Startup Villages</i>



1st ACTION PLAN (2019-2020)

40 actions



01. NARROWING THE DIGITAL DIVIDE

01. L1. CONNECTIVITY

01.L1.M1. Coordination to improve connectivity

A1 Connetivity analysis in rural territory

02. 01.L2. TRAINING

01.L2.M1. Fostering the inclusion of digitisation in formal education

A2 Promotion of the inclusion of digital competences in regulated training of an agrifood and forestry nature

01.L2.M2. Non-Formal continuous education and skills acquisition

A3 Competence center for digital/agro/rural training

A4 Pilot course of the Competence Center

A5 Digital training for managers of sector entities

A6 Digital training for primary producers in the agri-food sector

A7 Digital training for primary producers in the agri-food sector and managers of sector entities

A8 Training and demonstration activities within the framework of the National Rural Development Program 2014-2020

A9 Create Future Program

A10 Industry 4.0 and Connected Business Executive

01.L2.M3. Attracting Young people and women as stable inhabitants in rural areas

A3 Competence center for digital/agro/rural training

A4 Pilot course of the Competence Center

A9 Create Future Program

A11 Youth experience exchange program

02. FOSTERING THE USE DATA

02.L1. INTEROPERABILIDAD

02.L1.M2. Interoperability projects tha respond to specific problema in which interregional stakeholders cooperate

A12 Call for interoperability for Innovative Projects

02.L2. OPEN DATA

02.L2.M1. Open data in Public Administrations

A13 Launch of the open MAPA data publication

A14 Aporta Initiative, agro sector

A15 Aporta Challenge 2019

02.L3. Data from the value chain and environmental data

02.L3.M1. Support for the Code of Conduct to Exchange and use agricultural data and data from the chain

A16 Dissemination of the Code of Conduct for the Exchange of agricultural data

02.L3.M2. Promoting incentives to digitise farm logbooks

A17 Boost to the digitization of the logbooks

02.L3.M3. Cooperatives as data gatherens

A18 Cooperatives as data gatherens

02.L3.M4. Spanish and European consumption data

A19 Call for the use of consumption data for Innovative Projects

02.L3.M5. Collaboration to improve the Common Agricultural Policy's Integrated Administration and Control System

A20 Digital improvement of the Integrated Management and Control System

03. BOOSTING BUSINESS DEVELOPMENT AND NEW BUSINESS MODELS

03.L1. STRENGTHENING THE DIGITAL INNOVATION ECOSYSTEM

03.L1.M1. Foresting Digital Innovation Hubs

A21 Positioning Digital Innovation Hubs

03.L1.M2. Innovative Public Procurement

A22 Promotion of innovation from the Demand of the agri-food and forestry sector

03.L1.M3. Fostering collaboration among knowledge hubs, technological companies, and companies from the sector

A23 Support for digitization in the framework of Agricultural Knowledge and Innovation Systems

A24 Food Start Tech 2019

A25 Implementation of Conneted Industry 4.0

03.L1.M4. Support for introducing the Living Labs method into Spain

A26 Call *Living Labs* for Innavative Projects

03.L2. ADVICE ON DIGITAL ADOPTION IN THE AGRI-FOOD AND FORESTRY SECTOR AND RURAL AREAS' KNOWLEDGE AND INNOVATION SYSTEMS

03.L2.M1. Fostering knowledge and information Exchange among digital advisers

A27 Inventory of digital decisions support tolos and sevice

03.L2.M2. Advice for SMEs and Startups in their process of digital adoption

A28 Advice to SMEs and farms under the NRDP 2014-2020

A29 ACTIVA Industry 4.0 Program

A30 Business Growth Program

03.L2.M3. Boostering advice via events and demonstration activities

A27 Inventory of digital decisions support tolos and sevice

03.L3. FOSTERING NEW BUSINESS MODELS

03.L3.M1. Platform for digital entrepreneurship in rural areas

A31 Support to platforms for digital entrepreneurship in rural áreas

03.L3.M3. Coordination between Public Aministration to bring in line aid for entrepreneurship in rural areas

A32 Diffusion of aid lines for entrepreneurship in rural areas

03.L3.M4. Dissemination of European initiatives linked to digitisation in the spheres of Smart Villages, rural entrepreneurship and Startup Europe

A33 Diffusion of Smart Villages Initiatives

A34 Participation in *Startup Olé* 2020

A35 Participation in DATAGRI 2019 and 2020

A36 Participation in *Smart Agrifood Summit* 2019 and 2020

03.L3.M5. Boosting development of a Smart Rural Territories exosysten, Startup Villages

A37 Smart Rural Territories

A38 Leadership and momentum of *Startup Villages* Initiative

O2. TO FOSTER THE USE OF DATA

9 ACTIONS



O2. FOSTERING THE USE DATA

O2.L1. INTEROPERABILIDAD

O2.L1.M2. Interoperability projects that respond to specific problems in which interregional stakeholders cooperate

A12 Call for interoperability for Innovative Projects

O2.L2. OPEN DATA

O2.L2.M1. Open data in Public Administrations

A13 Launch of the open MAPA data publication

A14 Aporta Initiative, agro sector

A15 Aporta Challenge 2019

O2.L3. Data from the value chain and environmental data

O2.L3.M1. Support for the Code of Conduct to Exchange and use agricultural data and data from the chain

A16 Dissemination of the Code of Conduct for the Exchange of agricultural data

O2.L3.M2. Promoting incentives to digitise farm logbooks

A17 Boost to the digitization of the logbooks

O2.L3.M3. Cooperatives as data gatherers

A18 Cooperatives as data gatherers

O2.L3.M4. Spanish and European consumption data

A19 Call for the use of consumption data for Innovative Projects

O2.L3.M5. Collaboration to improve the Common Agricultural Policy's Integrated Administration and Control System

A20 Digital improvement of the Integrated Management and Control System

A specific credit for interoperability will be allocated within the framework of the NRDP.



PROMOTING AND COORDINATING THE ADOPTION OF DIGITAL FARM LOGBOOKS, IN ADDITION TO STREAMLINING MANAGEMENT OF THEM, GENERATES VALUABLE DATA ON A NATIONAL SCALE AND USE MADE OF IT FOR FARMERS TO TAKE DECISIONS.

Launch of the open MAPA data publication.

Specify what information needs to be opened.

Create an open MAPA data catalog.

Advance harmonization of published data in order to publish increasingly valuable data.



USING THESE NEW TECHNOLOGIES TO CONTROL THE CAP'S AID WILL MAKE IT EASIER TO MANAGE, **PROGRESSING IN MONITORING THE PERFORMANCE OF AGRICULTURAL PRODUCTION WITH MORE RELIABLE, INTEROPERABLE DATA THAT CAN BE EXTENDED TO THE REST OF THE AGRICULTURAL SECTOR**



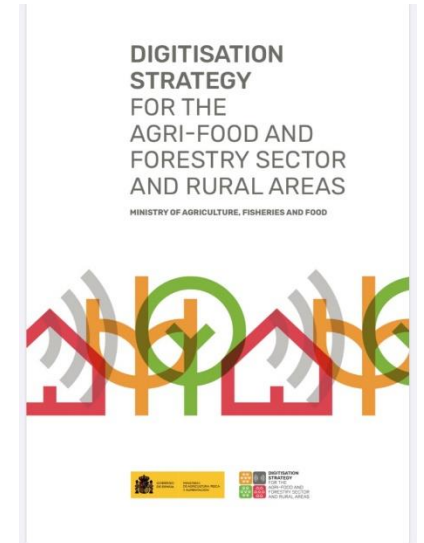
CONCLUSIONS

Efforts must be made at all levels, both European, national and regional level.

So that the transformation is transversal and occurs in all productive sectors.

It has been introduced in the post 2020 CAP through a common transversal objective that seeks to modernize the agricultural sector through knowledge, innovation and digitization in rural areas.

Digitalization Strategy for the Agri-Food and Forestry Sector and Rural Areas is aligned with the European Strategy for data



THANKS FOR YOUR ATTENTION!!

bzn-AgendaDigital@mapa.es



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JUN
10

**Data sharing in agriculture.
Towards a European agriculture
data space.**

11.10 h. Round Table Discussion



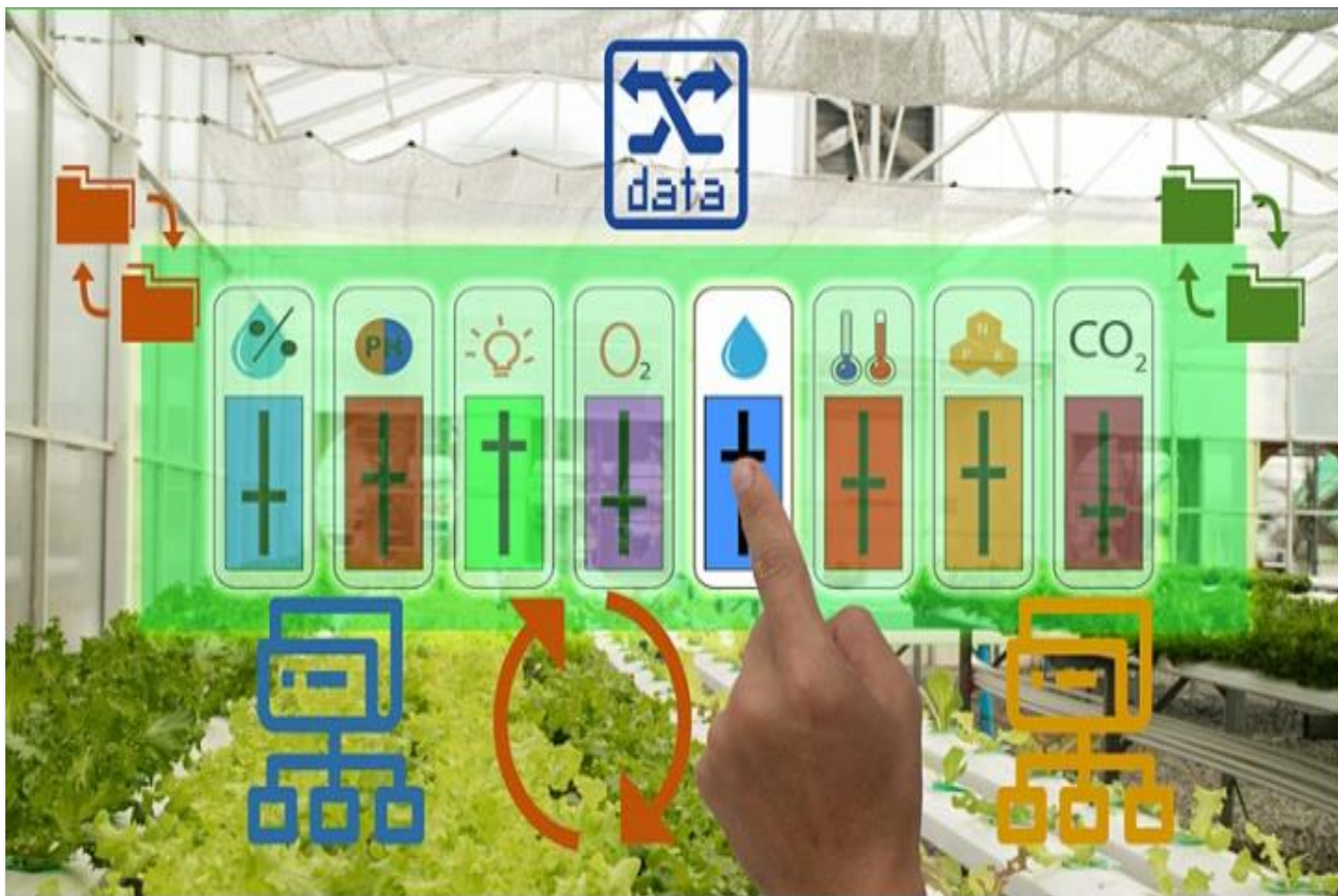
Moderated by:
Thomas Engel
John Deere

Manager Technology Innovation Strategy.



**Co-organised and
supported by:**





JUN
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Data sharing in agriculture.
Towards a European agriculture
data space.

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Alliance for Internet of Things Innovation



CREATE-IoT



European
Large-Scale Pilots
Programme

<https://european-iot-pilots.eu/data-sharing-in-agriculture-webinar-2020/>



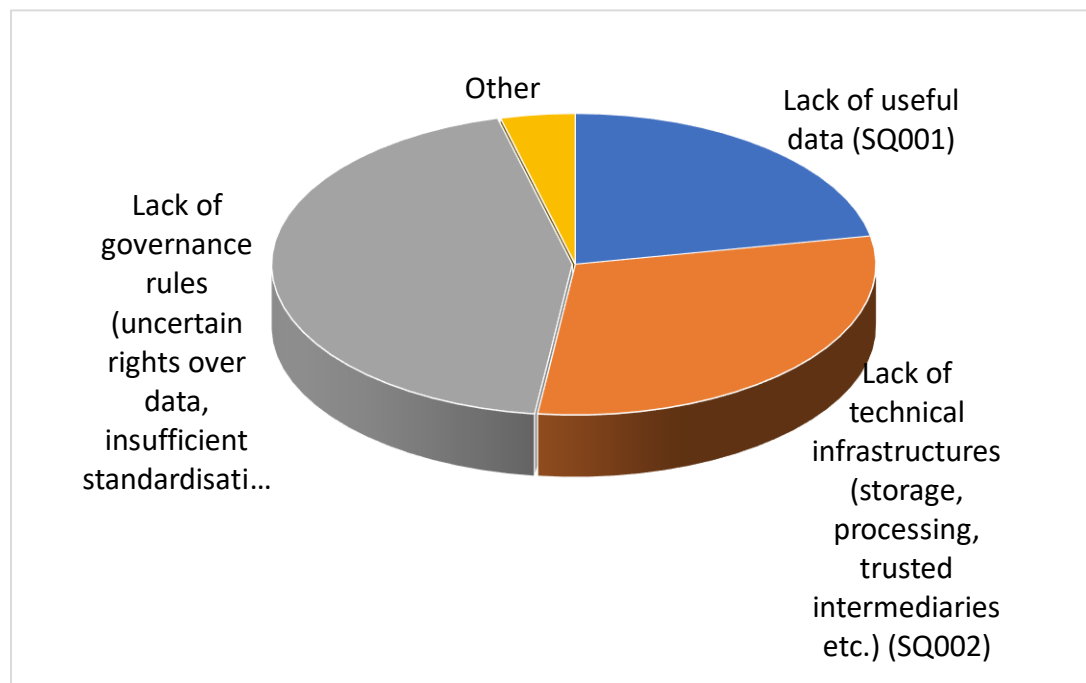
<http://www.agridataspace.eu/>

Open until June 17th



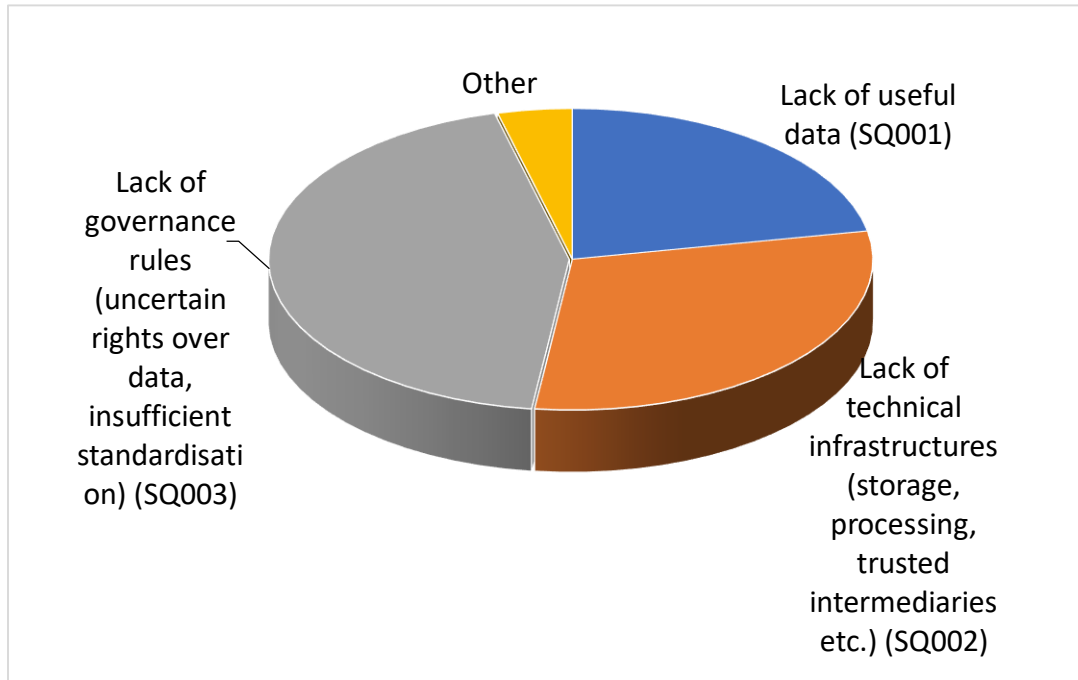
Some preliminary results

Barriers in the Agriculture sector. Which problems identified in the European data strategy are of a particular concern for the agriculture sector?

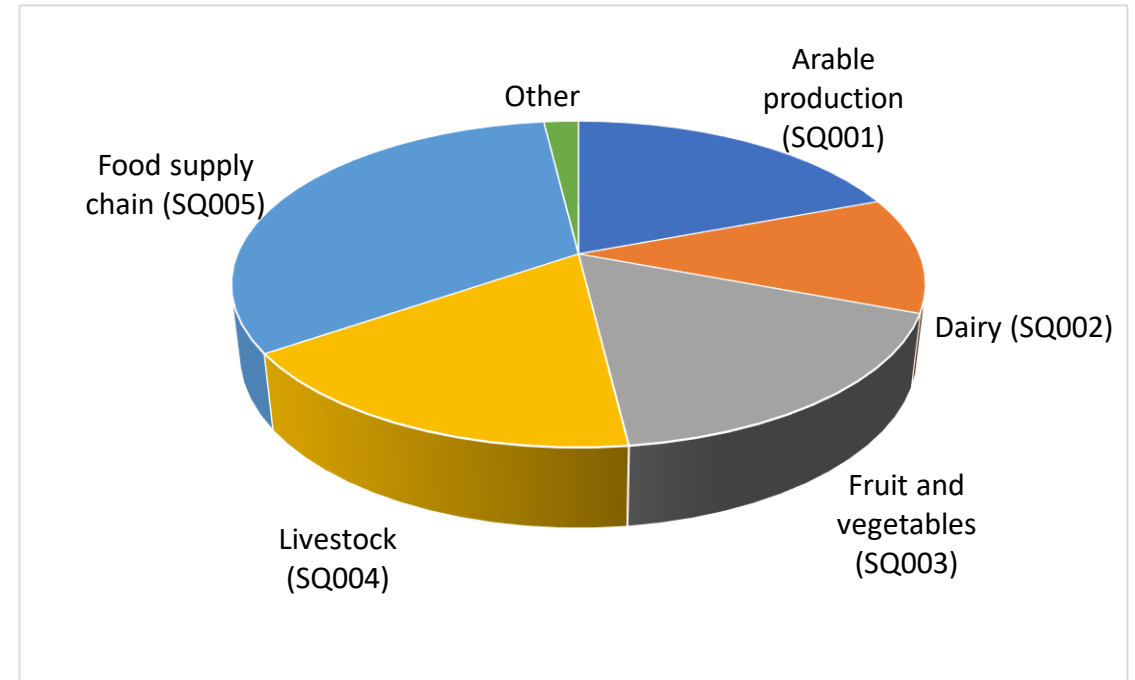


Some preliminary results

Barriers in the Agriculture sector. Which problems identified in the European data strategy are of a particular concern for the agriculture sector?



Which sector should be **the first** to start sharing data at EU level?



Afternoon session – from 15:00 to 17:00

Welcome and Introduction	
15:00-15:20	Luis Pérez-Freire. Gradiant , executive director. AIOTI , chair of WG06 “smart farming and food security” Joel Bacquet. European Commission. DG CONNECT Doris Marquardt. European Commission, DG AGRI
Presentations	
15:20-15:30	High-level distributed architectures for agriculture data sharing Tom de Block. Nearcom. AIOTI , chair of “distributed ledger technologies”
15:30-15:50	Practical implementation of data sharing in agriculture and lessons learned The case of Gaiasense. Nikos Kalatzis, Neuropublic , technical project manager. The case of DJustConnect. Jurgen Vangeyte, ILVO , scientific director.
15:50-16:10	Approaches for data sharing in current agriculture Large Scale Pilots Stefan Rilling. Fraunhofer IAIS . ATLAS project coordinator Kevin Doolin. TSSG . DEMETER project coordinator
Roundtable discussion	
16:10-16:50	Moderated by: Grigoris Chatzikostas. Biosense Institute . Senior Advisor for EU Initiatives, Deputy Coordinator of SmartAgriHubs project.
Closing of the afternoon session	
16:50-17:00	Summary/wrap-up and closing

Thank you!

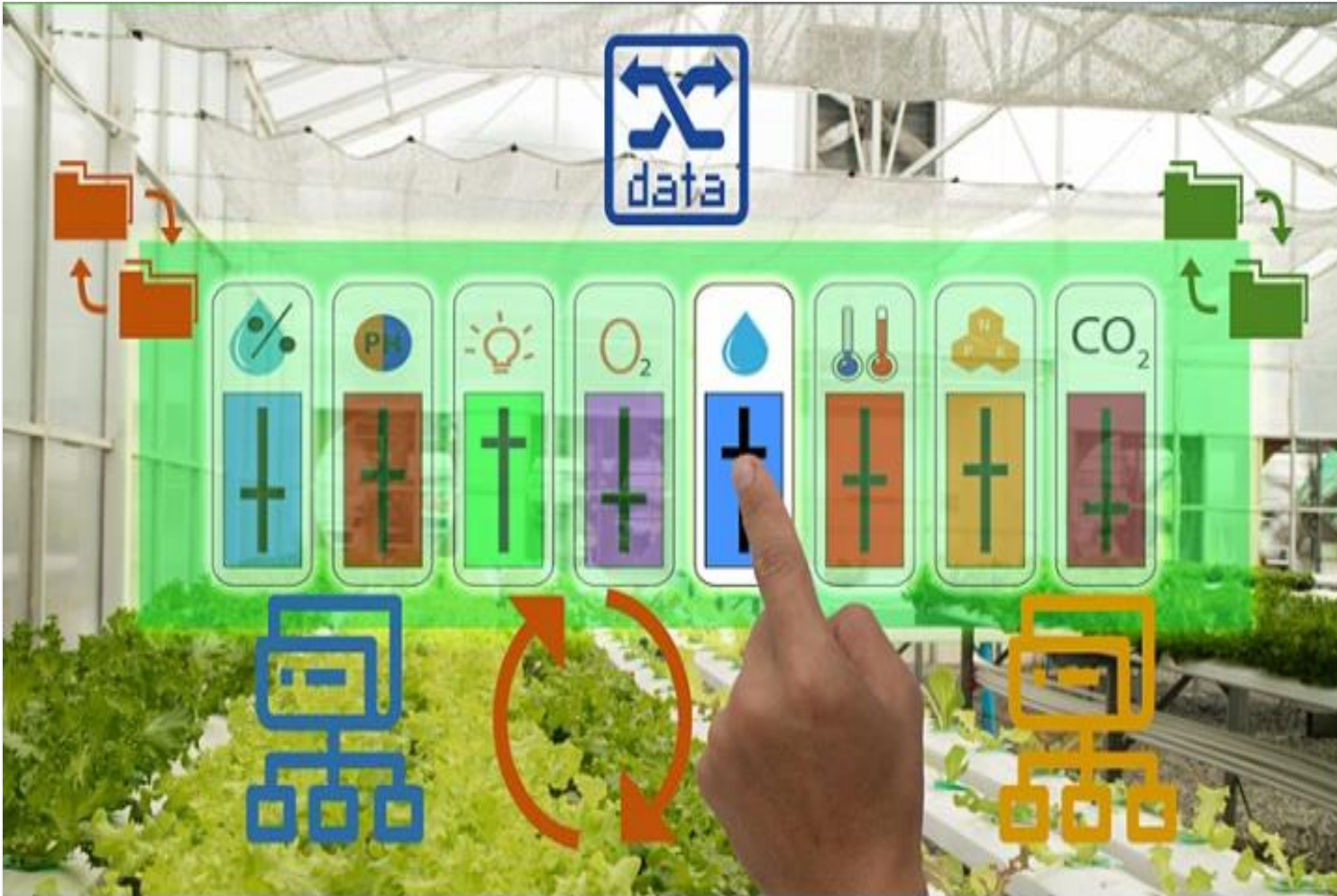
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Data sharing in agriculture.
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<https://european-iot-pilots.eu/data-sharing-in-agriculture-webinar-2020/>