

eip-agri
AGRICULTURE & INNOVATION



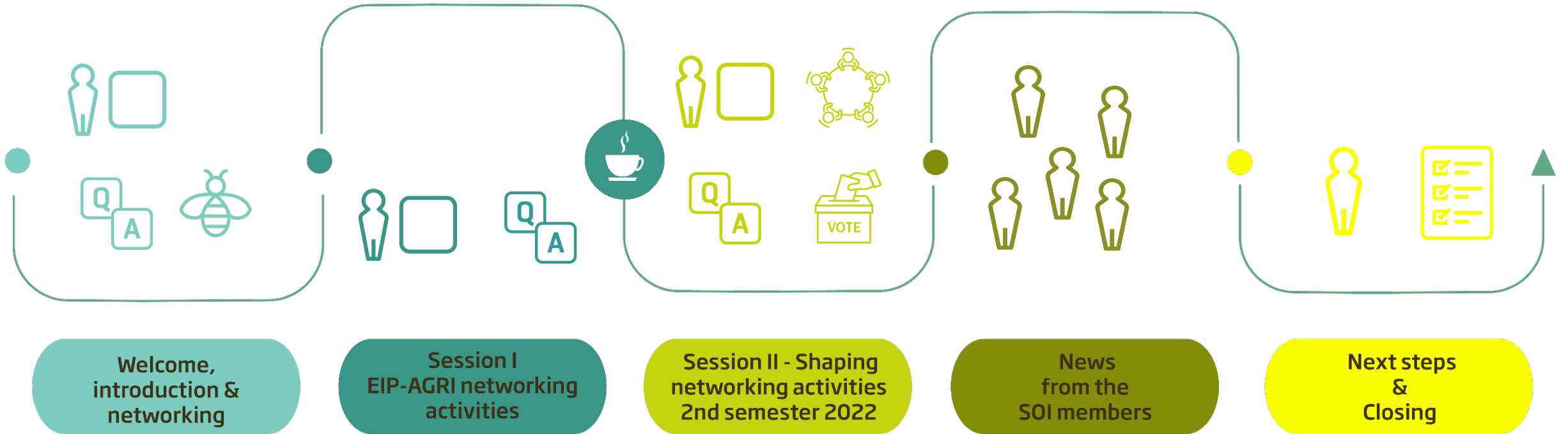
Subgroup on Innovation
for agricultural productivity and sustainability
20th meeting
14 December 2021

#RNSubInnovation - @EIPagri_SP

#RNSubInnovation

Subgroup on Innovation - 20th meeting

Create Morning Routine





eip-agri
AGRICULTURE & INNOVATION

funded by

European
Commission

Sergiu Didicescu EIP-AGRI Workshop 'Farm data for better farm performance'



9-10 December 2021
EIP-AGRI Workshop
Farm data for better farm performance

EIP-AGRI workshop

Farm data for better farm performance

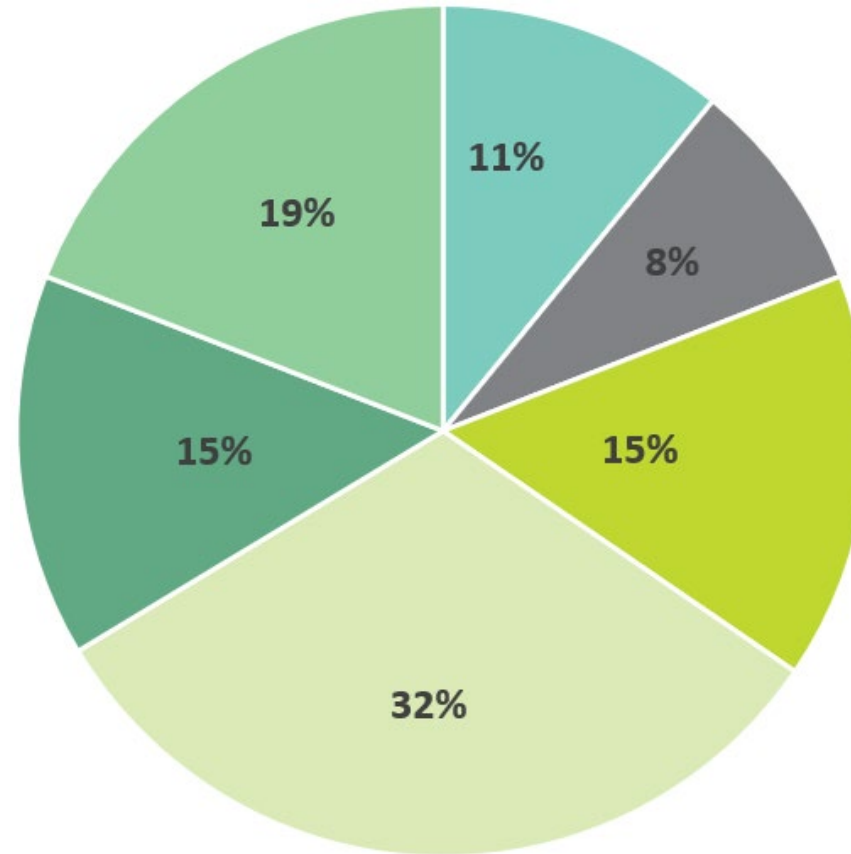
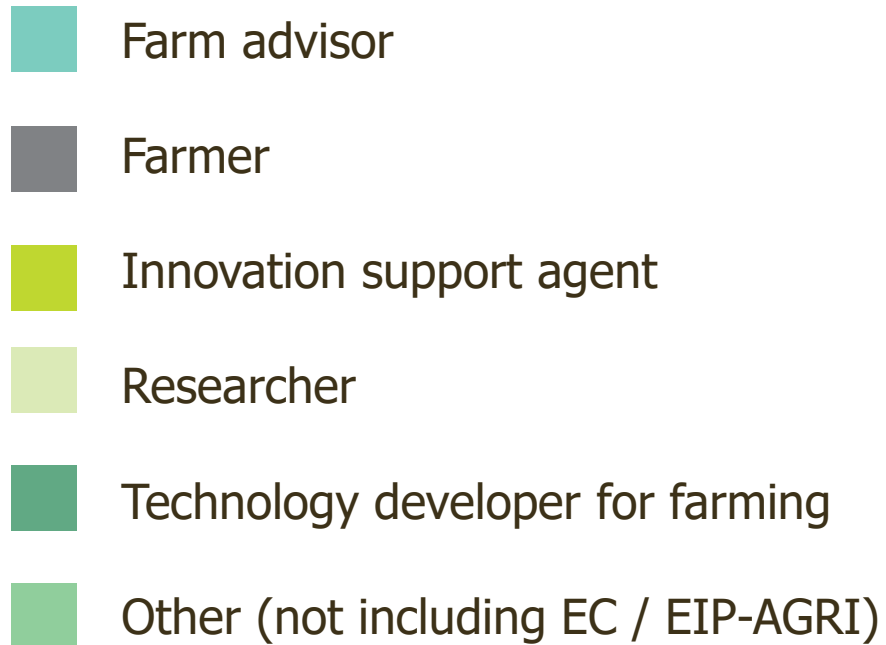


EIP-AGRI WS Farm Data: Map of participants

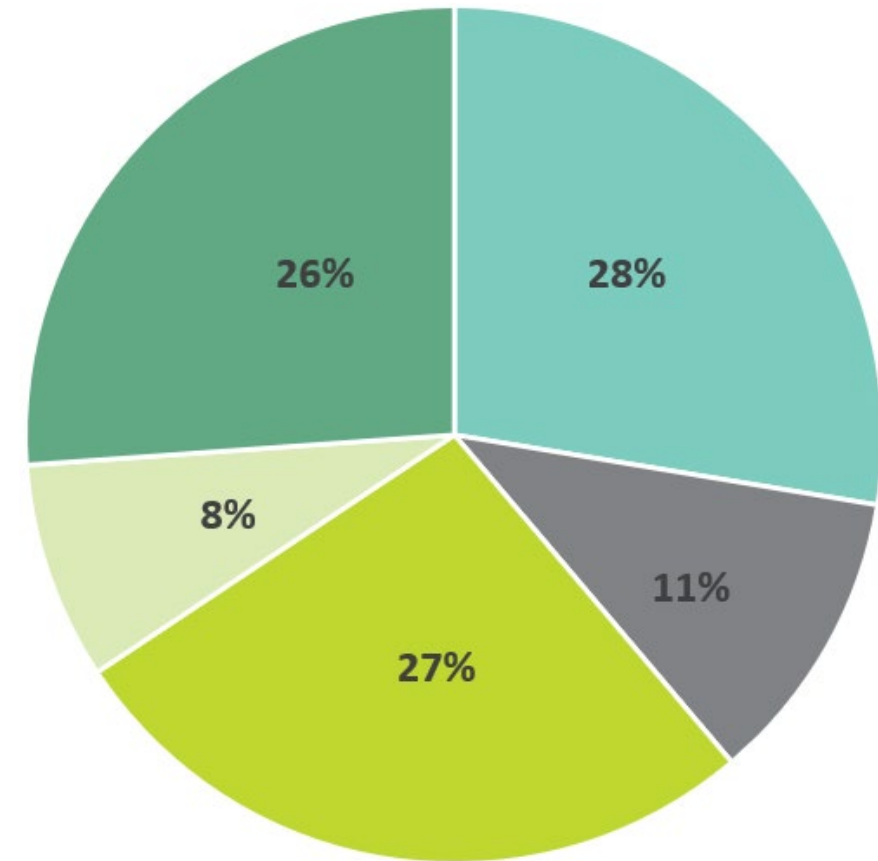
Pin your (general) location to the map so we can see from where you are all joining the workshop! Use the pink plus icon to add a pin.



Participant profiles



Types of projects represented



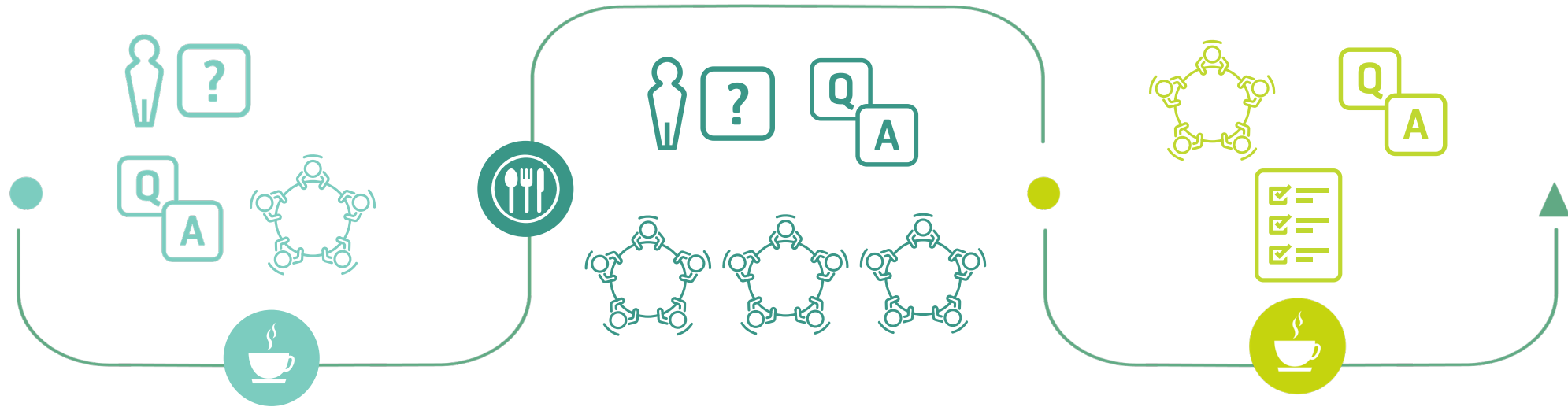
- Operational Groups
- Other type of innovative project
- Multi Actor Project Funded By Horizon 2020 / Horizon Europe
- Thematic Network Project Funded By Horizon 2020 / Horizon Europe
- Another Kind Of Project (E.G. Life – Interreg – Erasmus National/Regional Funding)



EIP-AGRI workshop Farm data for better farm performance

DAY 1

DAY 2



Setting the scene

- General introduction
- Examples of existing farm data initiatives beneficial for farm performance
- Breakout session I: Opportunities and challenges regarding farm data use

Farm Data Project Market

- Project presentations: Livestock Farming / Arable crops / Permanent crops
- Open Space discussions

Farm data solutions and needs

- Breakout session II: How can data solutions support farmers to enhance their farm performance?
- Wrap-up and closing

EIP-AGRI workshop

Farm data for better farm performance



Panel discussion



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Farm data for better farm performance



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Farm data for better farm performance

SMARTFEED – Smart measurements in cattle feeding and health

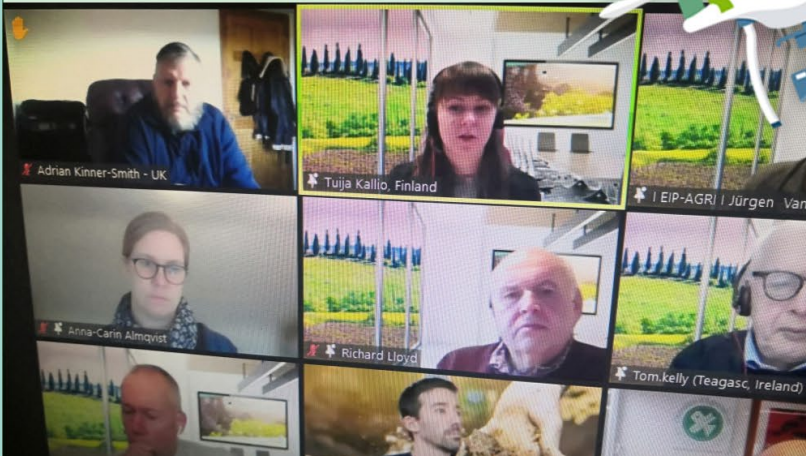
Tuija Kallio
University of Oulu, Unit of Measurement Technology



EIP-AGRI workshop Farm data for better farm performance

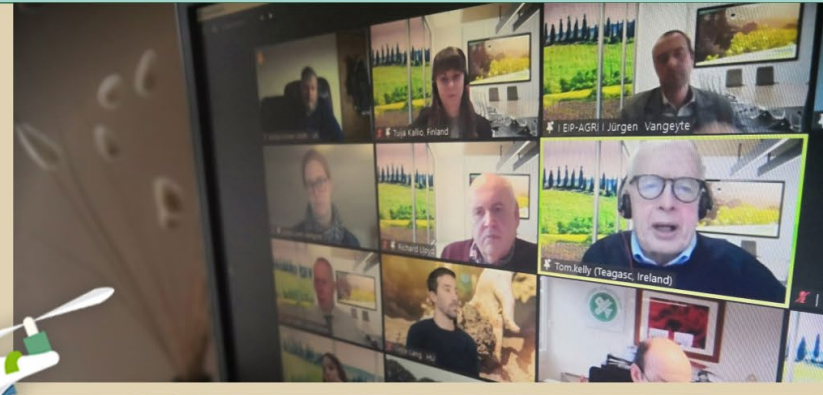
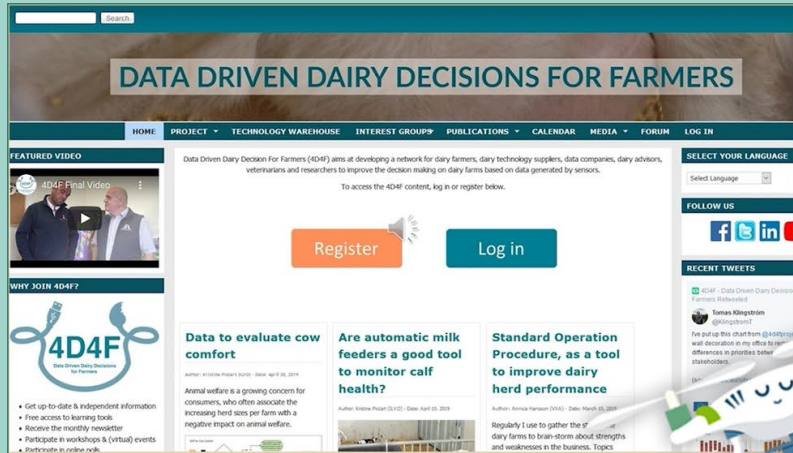
Cuma What is it exactly?

- CUMA in French stands for Farm Machinery Cooperative.
- It is a local agricultural cooperative where **farmers share**
 - machinery,
 - labour, employees
 - sheds, workshops
- cuma is a legal framework, its members are able to :
 - reduce mechanisation costs,
 - access the latest technology
 - and optimise work sites.



EIP-AGRI workshop

Farm data for better farm performance

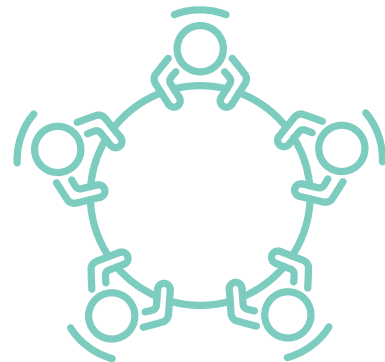


EIP-AGRI workshop

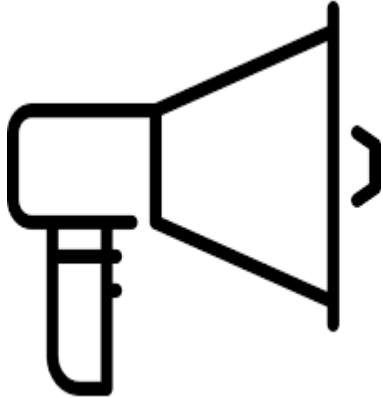
Farm data for better farm performance

Breakout session I

“Opportunities and challenges regarding farm data use”

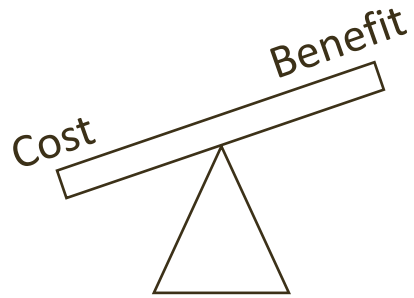


Awareness among farmers regarding the possibilities and benefits of using farm data for the benefit of their own farm



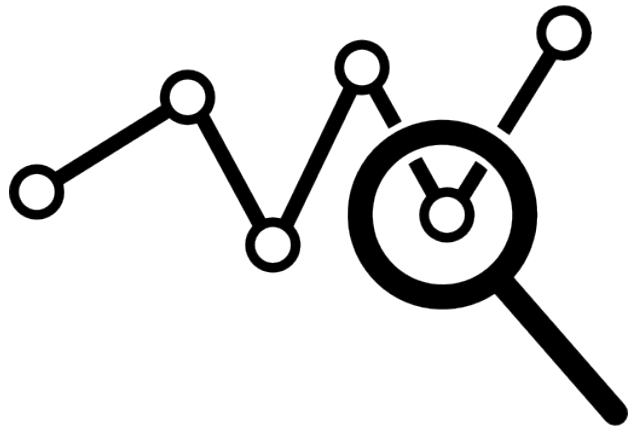
- Farmers use the technology, but less aware about the data potential
- Awareness is uneven
 - Regional
 - Age
 - Size
 - Sector
- Those who are aware of the data don't know how to use it
- Too complex, too difficult
- Visualization, simple, focused

Data-driven applications must show tangible results and a clear return on investment. Is there clear information available about the costs and benefits?



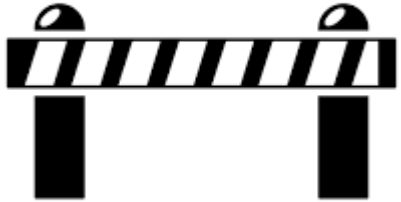
- Cost is clearer than the benefit (less tangible)
- Lower cost vs more benefit
 - Benefit is not necessary creating extra revenue
- Automate: less paperwork, reduce heavy labour
- Non-monetary values
- Communication, on farm level, specific
- Biggest Challenge!

Data interpretation systems and services are needed to turn data into information and subsequently into action. How accessible and useful are such systems and services for farmers and advisors today? Are advisors providing this type of service and what is still needed?



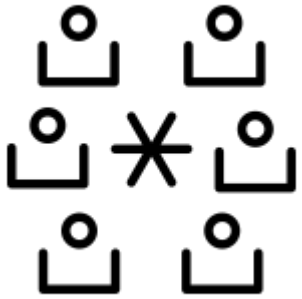
- Better to train the advisor, they can explain the benefits
- Great steps forward, constant updates
- Peer to Peer learning
- Explaining the black box
- Independent objective advice
- Incentives?
- Multiple monetization
- Integration of different solutions: simple and smart
- Finally, the decision is made by humans

What challenges are farmers facing for the uptake and deployment of data- based solutions and services?



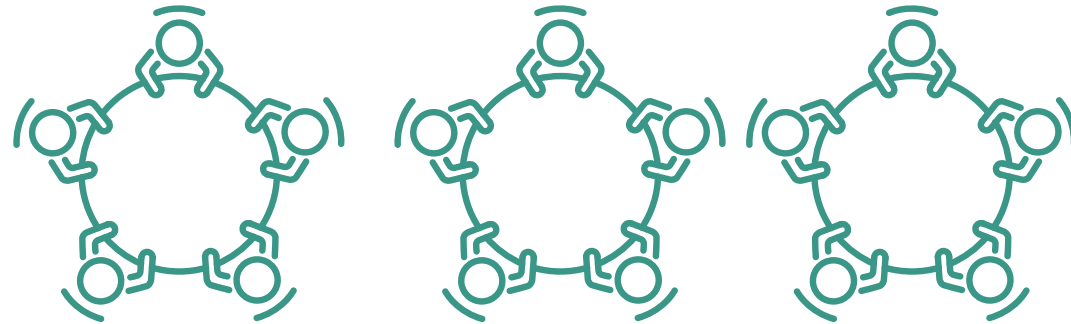
- Connectivity
- Regulations
- Educated labor
- Investments
- Data protection
- Data readiness
- Less IT, more agronomy

For what other actors can the farm data be valuable and how?



- Consumers
- Researchers
- Governments and policy makers
- Paying agencies
- Retail
- Agri Food Business
- Banks and insurance
- Certification bodies

27 Projects: video presentations



1. Animal production

2. Arable crops

3. Permanent crops

And facilitated interaction



EIP-AGRI WS Farm Data: Open Space Ideas board

Would you like to host your own discussion with other participants during the Open space session on Day 1? Write your idea here, and we'll make it happen! (Please add your name to your idea). OR, if you are interested in a similar topic to one which is already there, you can add a comment to the existing one. *Use the pink plus icon to add a card.

Marcella

What is the role of public administration in involving little farmers in creating and using data farm?

Add comment

Livestock Hydrology model

Look at measuring the precipitation, how much water is needed in the business, how much water can be intercepted from roof space, how much water is needed for growing crops (Tonnes of DM per Ha), increasing plant available water and measuring surplus water to requirements that leaves the farm to the Water courses vulnerable to picking up contaminants from overland runoff. Adrian Kinner-smith adrian.kinner-smith@severnriverstrust.com

Add comment

Add an idea!

On the bottom right of your screen, you should see a pink dot with a "+" sign in it, click here to open a card. Fill in the card with your idea, your name and a picture if you like, and then click publish.

Data integration

More and more, the number of sensors available to collect data from farms is increasing. The power of data if properly integrated would be enormous. However, there is still big gaps on how this process should be performed. It would be nice to exchange some ideas about how data integration is being performed in other projects and endeavours. (Pol Llonch - pol.llonch@uab.cat)

Add comment

Data sharing

We should develop a different GDPR system for data for research. Stakeholders may not release data for research because they are afraid that it may end in the government or private hands. Sharing the same GDPR environment delays public research and favours big private companies in using data.

Anonymous 4d

The policy for open access to data produced by projects particularly funded by H2020 should be further supported and the EU should have a depository of those data categorized according to sectors and production systems. Data mining should be easy and user friendly in a way that even innovative farmers can use it.

Digitisation for better quality

environmental

Add comment

Data gathering and energy

How much is the impact of energy consumption in data gathering and analysis? In the next future, energy use will be more and more impacting for the environment and economy, how can we counter those problematics? The renewable energy sources are efficient in maintaining and enhancing data gathering in farms? Carolina Perna

Add comment

Start data collection and analysis!

I see the importance of collecting farm data to manage farms in a more sustainable way. I teach in an agrarian school in central Italy and we have been asking farmers if they monitor anything in their farms: we haven't found any data yet! The majority of people still don't even know how to do it and how technology can help their farms! I suggest to inform more farmers in any areas because

What are the differences between large and small/medium farm data gathering? How not to create digital inequalities and thus new power imbalances?

Differences in the needs of data collection may exist when small parcels are scattered in a region comparing to big and regionally concentrated farms. How to facilitate data exploitation for small farmers? What data is the most useful? How to translate data to tangible farm practices/ decisions? Theocharis (Harris) Moysiadis, tmoysiadis@f-in.eu

Add comment

Data sharing

How can we force make all the data hold privately for public research?

Add comment

Data in decision making

The value of data is in its ability to help decision making. Historic and live/real time data can bring a new dimension to routine decision making by farmers and other stakeholders in the value chain. There is an obligation to present

Involving farmers in the innovation process

Despite technologies and precision farming techniques are nowadays largely available and well known among researchers and facilitators, we do experience a struggle in involving farms in our innovation process design. How can we involve farmers in the process of making the most out of their own data? More precisely, in our opinion farmers are the only actors able to set innovations' goals in their own farm. This requires a scientific and data-based decision making mind set. How can we better involve them in the innovation process?

Valentino Salvatore

Anonymous 4d

Isabell Szallies, Germany (agrathar GmbH): Thanks Valentino for this really important aspect! I think it's quite difficult due to all the topics farmers have to take care of - mostly small and medium size farms.

Anonymous 4d

Philip Papadopoulos - AFS Greece: To be honest, RTOs and innovation facilitators profit from the innovation process; farmers stand to profit only from the innovation result. We need to show them convincingly what that result might be.

Add comment

Farmer education and empowerment in order to make use of farm data.

Adding to the difficulty of precision technology adoption by farmers, there is also the challenge of transforming data into meaningful, decision making tools for the farms. While our organization (The American Farm School) as well as farmer advisors do this, we are also interested in empowering farmers to take the lead in decision making based on farm data so that farms are not completely dependent on others to make decisions for them. The challenge to this is farmers education and to enable knowledge transfer between farmers and farmer groups.

Anonymous 4d

Isabell Szallies, Germany (agrathar GmbH): I would like to add that it's not just about social acceptance and knowledge of how to use digital tools, in my opinion it's also important to talk about digital infrastructure and its access. e.g. in Germany we don't have (good) wifi in all rural areas, so this is a hurdle. Additionally, to use these tools is sometimes related to investments -> how to get the money?

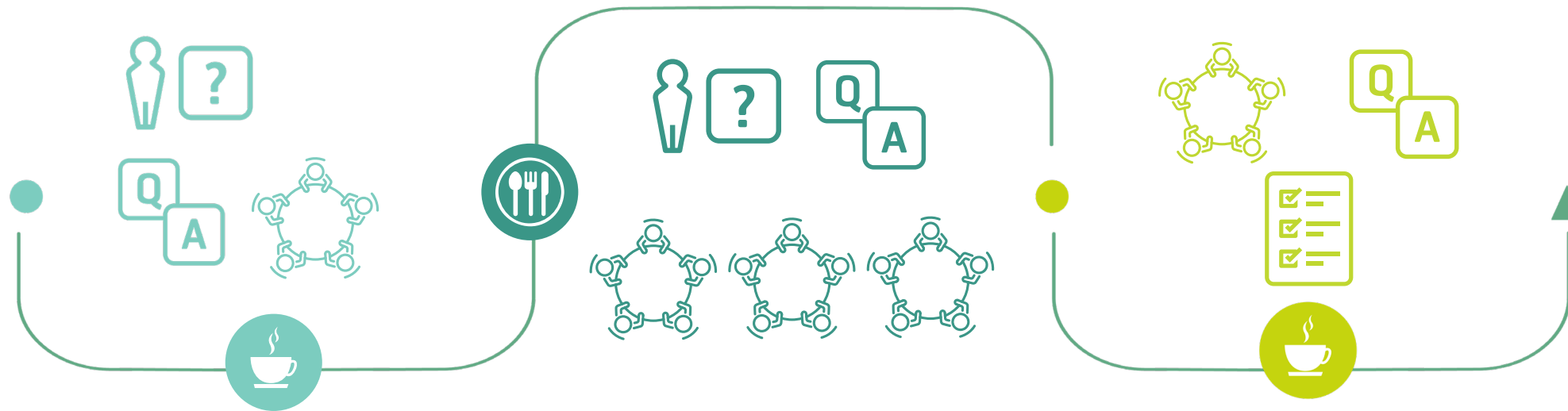
Anonymous 4d

Philip Papadopoulos - AFS Greece: regarding infrastructure, we find that short radio wave LoRa telecommunications work effectively

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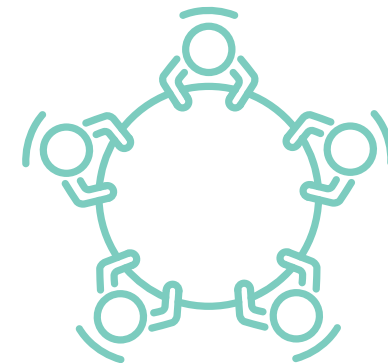
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Breakout session II

“How can data solutions support farmers to enhance their farm performance?”

Can **data cooperatives** bring more effective solutions? How?

Can we build **sustainable business models** based on data?

Can farm data be used to **enhance and demonstrate farm sustainability**? What **other actors** (advisors, machine manufacturer) should play a role to make these solutions a success?

Knowledge gaps and further needs in terms of research or practical application



EIP-AGRI workshop

Farm data for better farm performance

online – 9-10 December 2021

All information of the workshop is available on

www.eip-agri.eu

On the event webpage

<https://ec.europa.eu/eip/agriculture/en/event/eip-agri-workshop-farm-data-better-farm>

