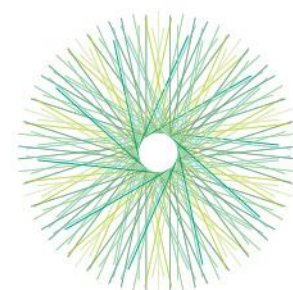


Press article

Farm Data – CAP2'ER

MAY 2022



eip-agri
AGRICULTURE & INNOVATION

Using data to manage environmental impact of livestock farming

Online application provides recommendations to farmers in France on overcoming sustainability challenges of livestock and mixed-crop production

Climate change, water quality, carbon sequestration, biodiversity, these are all important issues for livestock producers. A digital application has been developed in France which uses specific data collected on-farm to provide cattle, goat and sheep farmers recommendations to reduce environmental impact.

Livestock production systems, particularly ruminants, have been subject to criticism at European and global level due to their environmental footprint. This has led the sector to a search for more environmentally and animal friendly production methods which also allow the improvement of the economic and social aspects of livestock farming.

At the same time there is an increasing number of digital technologies and data-based solutions available for the farming sector in the EU to enable farmers to work more precisely, efficiently, and sustainably, improving decision-making and farming practices, helping increase farm performance overall.

In France, Idele (Institut d'Élevage) has developed a data-based online application called CAP'2ER®. Thirty sets of activity data are entered into the programme to determine agro-ecological indicators. These data are divided into five categories: livestock, manure management, fields, feed, and energy consumption. Examples of these include: total annual fuel consumption, animal productivity (fertility, growth, marketing age), feed purchased, manure quantities and management, number of trees and thickets, shrubs, hedges, grass strips, stone piles and stone walls, and water bodies on the farm.

From the analysis, the farmer receives an overview report and recommendations taking into account water and air quality, biodiversity, greenhouse gases, carbon sequestration capacity and the amount of nutrients produced for human consumption. The report visualises these aspects within easily understandable graphics and numbers. It compares each farm to reference values corresponding to the same production system. Benoît Gavaland, beef farmer in Western France was enthusiastic about using the application: "Environmentally friendly and economically viable animal husbandry techniques go hand in hand, by contributing to environmental protection, we also improve the economics of animal husbandry."

Idele maintains and updates the programme, based on current data and feedback from a committee of agricultural organisations. The programme is made available for advisory services in France (who pay a licence fee), and Idele provides training to farmers.

The application was tested in several European countries during the LIFE Beef Carbon and the LIFE Green Sheep projects. Today it has already carried out 23 000 farm evaluations in France. As an example, at the Pamplie dairy cooperative, 15 farmers have recently carried out the CAP'2ER evaluation for their dairy farms. One of the farmers and president of the cooperative, Jean-Pierre Germain said "Farmers and the dairy industry are motivated to use this tool, not only because it helps improving the economic and environmental performance of the farms, but also looking to the future and the potential support for ecosystem services."

A European version of the tool is now available, which uses a common methodology connected to national references. The tool is being translated into English.

The large number of farms involved has highlighted options for using farm data to reduce the impact of farming on the environment. Results have shown that the application helps farms to reduce from 6 to 15% of their greenhouse gas emissions. Recently, the tool has been certified by the French low carbon standard for certifying carbon reductions. Its application on farms rewards farmers for their efforts applying mitigation practices.

Background information

On 9-10 December 2021, the European Commission and the EIP-AGRI Support Facility organised the [online workshop "Farm data for better farm performance"](#). The workshop was an interactive EU-level event, dedicated to networking amongst participants from innovative projects and relevant initiatives related to farm data.

The [workshop report](#) includes the main outcomes of the discussions and possible knowledge gaps and further needs in terms of research or practical application.

Project information

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- cap2er.fr
- [LIFE Beef Carbon](#)
- [LIFE Green Sheep](#)
- [LIFE Beef Carbon final seminar](#)

More information on the [Carbon Farming initiative](#)

EIP-AGRI contact

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Project photos

Click on the pictures to download the high resolution versions. The pictures are free for use, please mention the copyright.



The application was tested in several different European countries during the LIFE Beef Carbon and the LIFE Green Sheep projects. Today it has already carried out 23 000 farm evaluations in France. © CAP2'ER – Idèle



Benoît Gavaland, beef farmer in Western France was enthusiastic after the assessment of his farm: "Environmentally friendly and economically viable animal husbandry techniques go hand in hand. By contributing to environmental protection, we also improve the economics of animal husbandry." © CAP2'ER – Idèle



Idèle (Institut d’Élevage) maintains and updates the programme, based on current data and feedback from a committee of agricultural organisations. The programme is made available for advisory services in France (who pay a licence fee), and Idèle provides training to farmers. © CAP2’ER – Idèle

More information on farm data

EIP-AGRI activities

On 9-10 December 2021, the European Commission and the EIP-AGRI Support Facility organised the [online workshop 'Farm data for better farm performance'](#).

Examples of existing farm data initiatives beneficial for farm performance were presented during the workshop:

- Anna-Carin Almqvist, Sweden, Better decisions for cultivation strategy - [video](#)
- Stéphane Volant, France, IoTCUMA - Operational Group - [video](#)
- Richard Lloyd, UK, Horizon 2020 - 4D4F - [video](#)
- Tuija Kallio, Finland, SMARTFEED Operational Group - [video](#)
- Tom Kelly, Ireland, Horizon 2020 - FAIRSHARE - [video](#)
- Jose Pedro Salema, Portugal, Portuguese Irrigation Portal for farmers - [video](#)

During the Project Market [more than 30 initiatives](#) from all over Europe were presented in thematic rooms on animal production, arable crops and permanent crops.

Previous EIP-AGRI networking activities on Farm data

- [EIP-AGRI Focus Group on Mainstreaming Precision Farming](#)
- [EIP-AGRI seminar “Data revolution: emerging new business models in the agri-food sector – 22-23 June 2016](#)
- [EIP-AGRI workshop “Data Sharing: ensuring a fair sharing of digitisation benefits in agriculture” – 4-5 April 2017](#)
- [EIP-AGRI seminar “Digital Innovation Hubs: mainstreaming digital agriculture” – 1-2 June 2017](#)
- [EIP-AGRI seminar “Multi-level strategies for digitising agriculture and rural areas” – 12-13 December 2018](#)
- [EIP-AGRI seminar “New skills for digital farming” – 5-6 February 2020](#)

EIP-AGRI publications

- [EIP-AGRI Brochure Digital evolution in agriculture](#) – available in English, French, German, Hungarian, Latvian, Romanian, Slovenian
- [EIP-AGRI factsheet Digital \(r\)evolution](#), with EIP-AGRI scope and links to previous EIP-AGRI events, inspirational ideas, funding opportunities,... related to digitalisation
- The [Agrinnovation magazine 2018](#) focused on digitalisation (available in English and Greek)
- In February 2020 the EIP-AGRI Service Point launched a digitalisation thematic campaign, including a [social media campaign #EIPagriDigi](#) to highlight related EIP-AGRI activities and the [February 2020 EIP-AGRI newsletter](#) focussing on digitalisation (also **available** in [French](#), [Estonian](#), [Romanian](#), [Slovakian](#))

Be inspired by digital technologies and innovative projects for the farming and forestry community at the 'digital agriculture' section at the [EIP-AGRI website](#) and find out how to improve your digital knowledge and skills.

Horizon 2020 multi-actor projects working on digitalisation

- **4D4F** - Data Driven Dairy Decisions 4 Farmers: [website](#) - [CORDIS](#) (Thematic network- 03/2016-02/2019)
- **SMART-AKIS** - European Agricultural Knowledge and Innovation Systems (AKIS) towards innovation-driven research in Smart Farming Technology: [website](#) - [CORDIS](#) (Thematic network – 03/2016-08/2018)
- **IoF2020** - Internet of Food and Farm 2020: [website](#) - [CORDIS](#) (Multi-actor project 01/2017-12/2020)
- **SmartAgriHubs** - Connecting the dots to unleash the innovation potential for digital transformation of the European agri-food sector: [CORDIS](#) (Multi-actor project 11/2018-10/2022)
- **DESIRA** - Digitisation: Economic and Social Impacts in Rural Areas: [website](#) - [CORDIS](#) (06/2019-05/2023)
- **MEF4CAP** - possibilities and limitations of satellite and sensor data and the increased digitalisation within the agricultural sector for monitoring technology: [website](#) – [CORDIS](#) (10/ 2020-09/2023)
- **PESTNU** – demonstration of digital and space based technologies with agro-ecological and organic practices: [website](#) – [CORDIS](#) (10/2021-09/2024)

[Multi-actor projects](#) are projects in which end users and multipliers of research results such as farmers and farmers' groups, advisers, enterprises and others, are closely cooperating throughout the whole research project period.

[Thematic networks](#) are multi-actor projects which collect existing knowledge and best practices on a given theme to make it available in easily understandable formats for end-users such as farmers, foresters, advisers etc.

Operational Groups working on farm data

[101 Operational Groups working on farm data](#) are available in the EIP-AGRI Operational Groups database (update 14 February 2022)

- [Austria](#): 2
- [Bulgaria](#): 4
- [Croatia](#): 1
- [Finland](#): 1
- [France](#): 6
- [Germany](#): 12
- [Hungary](#): 2
- [Italy](#): 25
- [Latvia](#): 2

- [Lithuania](#): 5
- [Netherlands](#): 4
- [Poland](#): 2
- [Slovenia](#): 4
- [Spain](#): 20
- [Sweden](#): 9
- [UK](#): 2

Inspirational ideas on farm data

EU	Data sharing through Farmbench
Bulgaria	Mobile professor
Belgium, Netherlands	In- or outside? A digital tool to monitor grazing cows
Denmark	Improving welfare for cows... and farmers
Estonia, Finland	Biosensors in dairy farming
France	Farm demonstrations, discovering drones
France	Dealing with pests from the air
Germany	Complying with environmental regulations when spraying crops
Germany	Digital innovation goes beyond "technology"
Hungary	Data-driven technologies increase Hungarian milk yields and milk quality
Italy	A mobile app to monitor pests and diseases in Umbria, Italy
Italy	Preventing water wastage with wireless technologies
Ireland	Staying in tune with farm performance
Netherlands	Smart sensors to better understand plant growth
Netherlands	Sports apps for dairy cows!
Netherlands, EU	Food Value: online marketplace for local food chains
Netherlands	Precision farming- the right technology and sharing knowledge are key
Portugal	Buzzing with innovation
Romania	Agriso
Slovakia	Decision support tool for dairy farm management
Slovenia	Efficient and sustainable water use on the farm
Slovenia	An app to find out where our food comes from
Spain	Forest monitoring for sustainable management
Spain	Olive groves and drones - science fiction turned reality
Sweden	A planning tool for reindeer husbandry
UK	A precision approach to predicting potato tuber growth
UK	Where have ewe moo-ved to?

The CAP of the Future

The reform of the Common Agricultural Policy (2023-2027) has been formally approved end November 2021. Find [all information on the new CAP on the European Commission website](#).

Innovation & knowledge exchange | EIP-AGRI

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) has been launched in 2013 by the European Commission in a bid to promote rapid modernisation of the sectors concerned, by stepping up innovation efforts. The EIP-AGRI aims to foster innovation in the agricultural and forestry sectors and in rural areas by bringing research and practice closer together – in research and innovation projects as well as via the EIP-AGRI network. Also grassroots ideas from farmers get developed into innovations through the so-called Operational Group innovation projects. The EIP-AGRI aims to streamline, simplify and better coordinate existing instruments and initiatives, and complement them with actions where necessary. More information at the ['About section'](#) of the EIP-AGRI website.

EIP-AGRI Operational Groups

- 98 Rural Development Programmes provide support to innovative EIP Operational Group projects *
- Over 3200 Operational Groups are planned to be established under the approved RDPs (2014 – 2020)
- More than 2200 Operational Groups projects have been selected for funding and are currently ongoing (or already finished)*. Member States will still start more Operational Group projects which may run until 2025 (under current transitional rules for EU rural development programmes). [Find information on all of them in the EIP-AGRI database.](#)

* Information officially submitted to the European Commission by RDP Managing Authorities (November 2020)

EIP-AGRI Operational Groups **are groups of people who work together in an innovation project funded by Rural Development Programmes (RDPs)**. They bring together partners with complementary knowledge. The composition of the group will vary according to the theme and specific objectives of each project. Farmers, advisors, scientists, businesses or other relevant partners work together to find practical solutions for specific problems or opportunities for European farmers and foresters. Farmers and foresters need to cooperate throughout the project to ensure that the innovative solutions are practical and likely to be quickly applied in the field. Read the [basic principles](#), [Innovation support services](#) (including advisors with a focus on innovation), and in particular innovation brokering, can therefore play a crucial role in getting worthwhile projects off the ground by facilitating contacts.

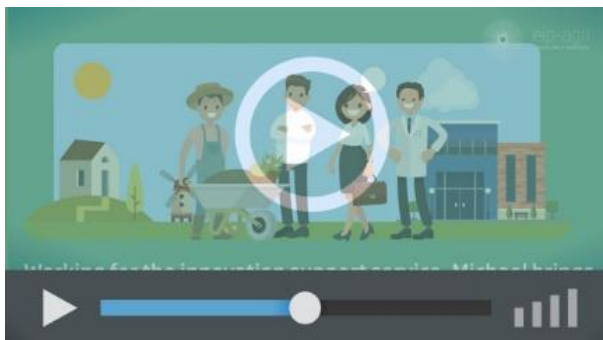
Check out the section on the EIP-AGRI website dedicated to '[Operational Groups](#)', including:

- more than 2200 Operational Groups available in the database
- detailed information on how to set up Operational Groups, on supporting networks and relevant EIP-AGRI seminars and workshops
- links to results and contact details of ongoing Operational Groups in the [EIP-AGRI database](#)
- a [list of all RDP Managing Authorities](#)

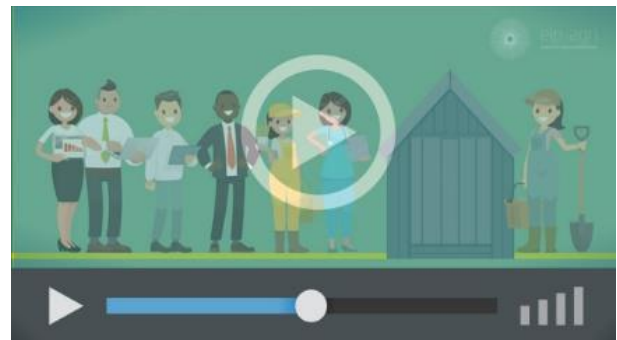
EIP-AGRI videos



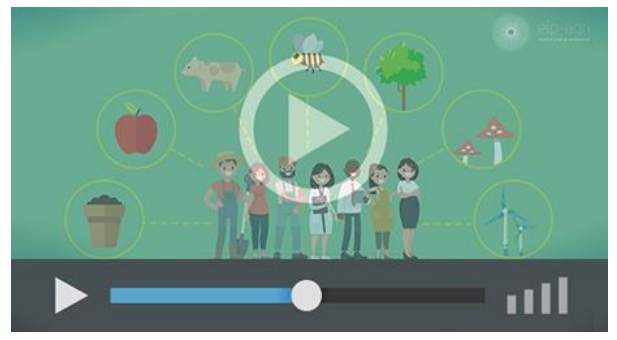
[Operational Groups – first experiences](#)



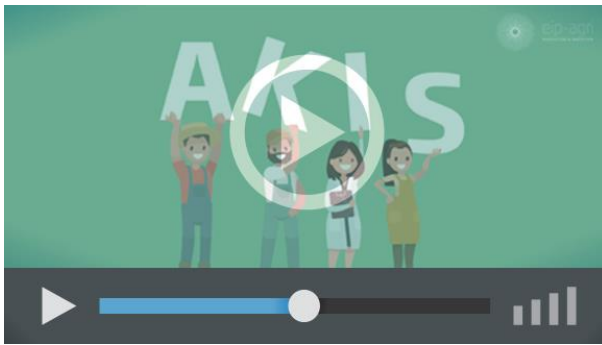
[Innovation Support Services, supporting innovation in EU farming and forestry](#)



[Operational Groups – collaborate to innovate](#)



[EIP-AGRI Focus Groups, sharing knowledge to inspire innovation](#)

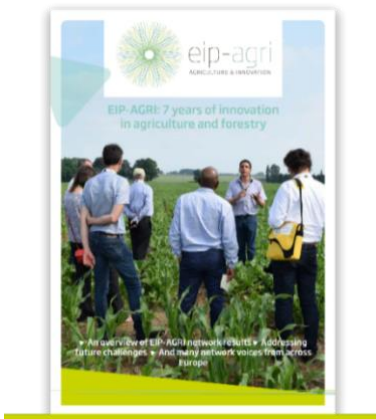


AKIS: building effective knowledge flows across Europe

EIP-AGRI, 7 years of innovation



The enthusiasm of the EIP-AGRI network members is essential to the success of the EIP-AGRI, and in ensuring that everyone can benefit. [Watch this EIP-AGRI video](#) to hear researchers, farmers, advisors, Managing Authorities and National Rural Networks explain how the EIP-AGRI has helped them over the past 7 years.



Since 2013, the EIP-AGRI has been promoting interactive innovation to make EU agriculture and forestry more sustainable, productive, and fit for the future. This report shows how the EIP-AGRI network has grown into a thriving network. [Read the report](#)