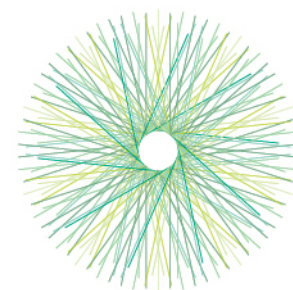


# Press article

## Carbon neutral agriculture

FEBRUARY 2021



eip-agri  
AGRICULTURE & INNOVATION

### Press article long

## Contributing to the EU's transition to carbon neutrality in agriculture

**Agriculture contributes to greenhouse gases emissions (10% of total emissions from human activities), but at the same time it holds a great potential to sequester and store carbon in plants, trees and soils. There are many EU farms and projects addressing the optimisation of carbon balance, contributing to the EU's Green Deal objectives, aiming at climate neutrality by 2050. Estonian farmer Ando Eelmaa from Korjuse-Vanapere farm in the north-west of the country has set up a long-term farming system which has a minimal carbon footprint and has brought about many other benefits for the farm.**

Ando: "Korjuse-Vanapere farm has been in my family more than 300 years. We have approximately 1600 ha in total; over half is forest land, we also have arable land, grassland, marshes and waterways. 60 ha is a Natura 2000 area. Our Galloway and Hereford beef cattle graze on permanent grasslands, we grow apples, pears and berry crops in our orchard, we have a small plant nursery and we collect other products from the forest and natural areas. On-site we produce cider and cider vinegar, jams and syrups. All our agricultural activities and products are organic, we have developed our brand name 'Kloostrimetsa'. We sell wood to industry and use wood waste for bioenergy."

Since the farm business is based on the continuity of generations, the basic knowledge of sustainability, resource depletion, etc., is in the genes. Of course, new knowledge and technologies are constantly created and they must integrate where possible. Ando explains: "We have diversified our activities and we try to keep them all as optimal as possible. We also try to minimise waste, for example our customers bring back the glass bottles and jars from our products and we use them again." Ando's farming is organic and they also practice organically certified harvesting from non-cultivated areas (wild berries, medicinal plants and tree sap). The holding includes semi-natural areas and wooded meadows which they maintain only for the purpose of nature conservation. The entire property has the Wildlife Estates label.

Ando's livestock graze all year round and they are not fattened. During the winter season, he feeds them the farm's own hay and silage.

Most of the electricity used on the farm is self-produced solar energy, surplus is sold to the grid. This was implemented as Ando and his family wanted to make the best out of the less fertile land.

Ando has come across many challenges: "The problem is common, as many rural entrepreneurs would agree, the price paid for our products does not reflect the value of our way of farming. However, challenges are interesting and they force you to look for solutions. Working with nature is different every day."

Ando concludes with some advice for other farmers: "Reducing your footprint is not just a way to feel better, activities aimed at energy efficiency and more careful use of resources are cost-effective. For example, our solar power provides us with a substantial income and was commercially viable investment. Sorting and recycling of waste also has a clear economic impact. The rich are not those who earn much, but those who spend little."

## Press article short

# Contributing to the EU's transition to carbon neutrality in agriculture

**Agriculture is a major source of greenhouse gases (10% of total emissions from human activities), but at the same time it holds a great potential to sequester and store carbon in plants, trees and soils. Estonian farmer Ando Eelmaa has set up a long-term farming system which has a minimal carbon footprint and has brought about many other benefits for the farm.**

Ando: "Korjuse-Vanapere farm has approximately 1600 ha in total; over half is forest land, we also have arable land, grassland, marshes and waterways. Our beef cattle graze on permanent grasslands, we grow apples, pears and berry crops in our orchard, we have a small plant nursery and we collect other products from the forest and natural areas. On-site we produce cider and cider vinegar, jams and syrups. All our agricultural activities and products are organic. We sell wood to industry and use wood waste for bioenergy."

Ando's livestock graze all year round, they are not fattened. During the winter season, he feeds them the farm's own hay and silage. Most of the electricity used on the farm is self-produced solar energy, surplus is sold to the grid. This was implemented as Ando and his family wanted to make the best out of the less fertile land.

Ando concludes with some advice for other farmers: "Reducing your footprint is not just a way to feel better, activities aimed at energy efficiency and more careful use of resources are cost-effective. For example, our solar power provides us with a substantial income."

## Background information

### Project information

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### Pictures

Click on the pictures to download the high resolution versions. The pictures are free for use, please mention copy right: Korjuse-Vanapere farm



Ando: "All our agricultural activities and products are organic. On-site we produce cider and cider vinegar, jams and syrups."



Ando: "Our Galloway and Hereford beef cattle graze on permanent grasslands"

### More information on carbon-neutral agriculture

European farmers and foresters increasingly have to deal with the effects of climate change. On 24-25 March 2021, the [EIP-AGRI Workshop 'Towards carbon-neutral agriculture'](#) will take place online. This interactive event will gather farmers and farmers' organisations, foresters, researchers, EIP-AGRI Operational Groups, SMEs, advisers, universities, research and technology organisations, rural networks, and anyone who may be involved in relevant projects or has experience with designing and/or implementing innovative solutions, farming systems or practices contributing to the reduction of carbon footprint of the agricultural sector across Europe.

The [new EIP-AGRI brochure on climate-smart agriculture](#) highlights innovative projects that help to reduce on-farm emissions, keep carbon stored in the soil, create more resource-efficiency, stimulate knowledge exchange, and make farming systems more diverse and resilient.

EIP-AGRI Focus Groups dealing with carbon-neutral agriculture:

- [From source to sink in arable farming](#)
- [Grazing for carbon](#)
- [Soil organic matter in Mediterranean areas](#)
- [Climate-smart tropical crops](#)
- [Circular horticulture](#)
- [Permanent grassland](#)

The [EIP-AGRI Brochure Soil organic matter matters](#) highlights methods to improve soil organic matter content which can help ensure adequate soil functionality and soil fertility. It also offers a number of solutions for common soil challenges, which are especially critical in Mediterranean regions. To take ideas on soil quality and soil health further, this brochure also suggests topics for potential Operational Group projects. Available in English, Hungarian and Lithuanian.

The EIP-AGRI regularly highlights important themes from European farming and forestry. **Climate change has been brought to the spotlight through many EIP-AGRI activities, publications, videos and inspirational ideas.** The **dedicated thematic newsletters and social media campaigns #EIPagriClimate** offer more inspiration for the EIP-AGRI network. Find out more on [climate change at EIP-AGRI](#).

## Carbon-neutral agriculture and the EU

The [European Commission's strategy for climate-neutrality by 2050](#), with the [European Green Deal](#) and the [Biodiversity](#) and [Farm to Fork](#) strategies at the heart, aim to build a more resilient European agriculture and forestry.

## EIP-AGRI projects on carbon-neutral agriculture

[159 operational Groups working on carbon-neutral agriculture](#), are available in the EIP-AGRI Operational Groups database (update 15 March 2021)

- [Austria](#): 2
- [Belgium](#): 1
- [France](#): 6
- [Germany](#): 23
- [Italy](#): 52
- [Ireland](#): 7
- [Netherlands](#): 26
- [Portugal](#): 14
- [Slovenia](#): 1
- [Spain](#): 25
- [Sweden](#): 1
- [United Kingdom](#): 1

## Horizon 2020 multi-actor projects

- **Diverfarming** - Crop diversification and low-input farming across Europe: from practitioners engagement and ecosystems services to increased revenues and chain organisation: [website](#) - [CORDIS](#) (05/2017-04/2022)
- **DiverIMPACTS** - Diversification through Rotation, Intercropping, Multiple cropping, Promoted with Actors and value-Chains Towards Sustainability: [website](#) - [CORDIS](#) (06/2017-05/2022)
- **AGRIFORVALOR** - Bringing added value to agriculture and forest sectors by closing the research and innovation divide to valorize and exploit sidestream biomass resources from agriculture and forestry: [website](#) - [CORDIS](#) (Thematic Network – 03/2016-08/2018)
- **Circular Agronomics** - Efficient Carbon, Nitrogen and Phosphorus cycling in the European Agri-food System and related up- and down-stream processes to mitigate emissions: [website](#) - [CORDIS](#) (09/2018-08/2022)
- **Nutri2Cycle** - Transition towards a more carbon and nutrient efficient agriculture in Europe: [website](#) - [CORDIS](#) (10/2018-09/2022)
- iSAGE project
- **FERTIMANURE** - Innovative nutrient recovery from secondary sources - Production of high-added value FERTIlisers from animal MANURE: [CORDIS](#) (01/2020 - 12/2023)
- **FEED-A-GENE** - Adapting the feed, the animal and the feeding techniques to improve the efficiency and sustainability of monogastric livestock production systems: [website](#) - [CORDIS](#) (03/2015-02/2020)

## Horizon 2020 Thematic networks

- BovINE - BovINE Beef Innovation Network Europe: [website](#) - [CORDIS](#) (01/2020-12/2022)
- NUTRIMAN - Nutrient Management and Nutrient Recovery Thematic Network: [website](#) - [CORDIS](#) (10/2018-03/2021)
- AFINET - Agroforestry Innovation Networks: [website](#) - [CORDIS](#) (01/2017-12/2019)

More [Horizon 2020 multi-actor projects](#) and [Thematic networks](#) working on carbon-neutral agriculture are available at the [EIP-AGRI website](#)

## Inspirational ideas on carbon-neutral agriculture

- EIP-AGRI video: [AGRI challenge: soil fertility through carbon storage](#) – Austria
- [Looking after the soil to bring life and carbon back](#) - Austria
- [Cutting atmospheric carbon: a central role for soils](#) - France
- [Mixed farming in the Aveyron river basin](#) - France
- [The grass is greener on the other side of the pasture](#) - France
- EIP-AGRI video: [AGRI challenge: Crop diversification in grassland](#) – the Netherlands
- [Protecting soil organic carbon](#) – Poland
- [Nature based approach for Mediterranean ecosystems](#) - Portugal
- [Grazing management with a heart for soil health](#) - UK
- [Increasing farm profitability while cutting carbon emissions, a toolkit developed by farmers for farmers](#) -UK

## EIP-AGRI

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) has been launched 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 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. Two specific funding sources are particularly important for the EIP-AGRI: the EU Research and Innovation framework, Horizon 2020, as well as the EU Rural Development Policy.

### [EIP-AGRI Brochure on the EIP-AGRI Network](#)

(EN – BG – DE – ES – FR – GR – HU – IT – PT – RO)

## EIP-AGRI Operational Groups

- 98 Rural development programmes provide support to EIP Operational Group innovative projects \*
- Over 3200 Operational Groups are planned to be established under the approved RDPs (2014 – 2020)
- Around 2000 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).

\* Information officially submitted to the European Commission by RDP managing authorities (November 2020)

EIPAGRI 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, advisers, 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 be cooperating 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 advisers 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.



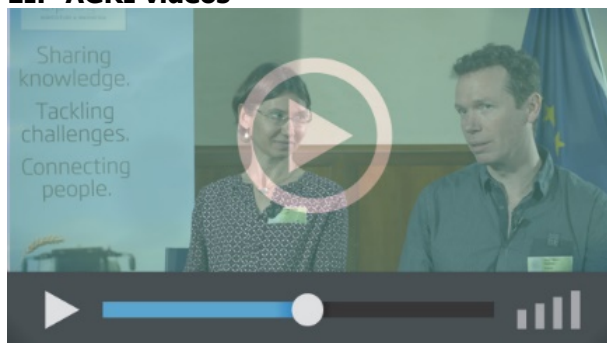
Find out more in the [EIP-AGRI brochure on Operational Groups](#). The brochure on Operational Groups is available in English, Bulgarian, Czech, French, German, Greek, Hungarian, Portuguese, Romanian, Slovak, Slovenian and Spanish.

Operational Groups can benefit from networking and collaborating with organisations from outside their partnership and from other regions and countries, such as other Operational Groups, research projects, farmers' organisations or local authorities and European knowledge networks. Read the [EIP-AGRI Brochure 'Operational Groups – Collaborate to innovate'](#). It shows some examples of successful collaboration. It provides Operational Groups with inspiration and tools for further knowledge exchange within the EIP-AGRI network. This brochure is available in English, Latvian, Romanian and Slovenian.

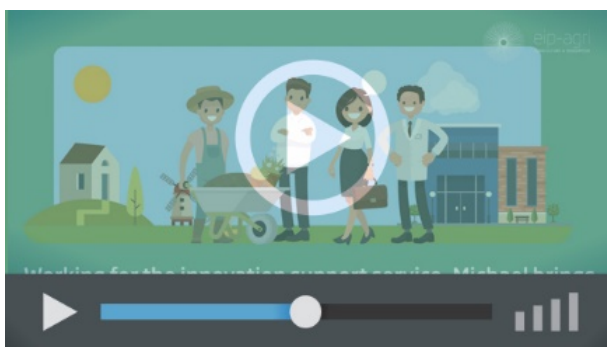
Check out the '[Operational Groups](#)' dedicated section on the EIP-AGRI website, including:

- Around 1700 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](#)

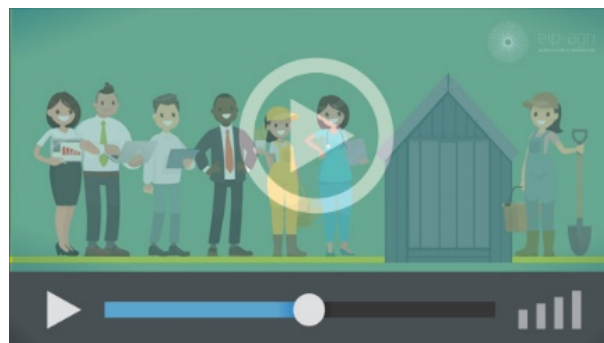
### EIP-AGRI videos



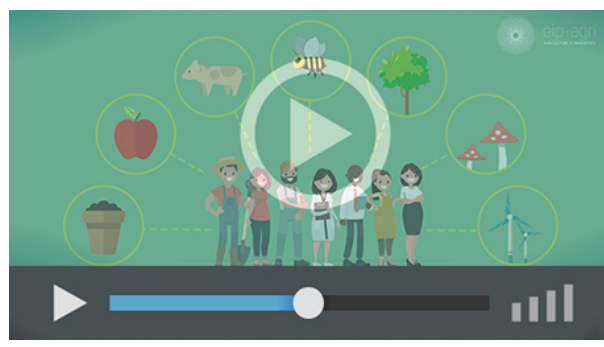
### [Operational Groups – first experiences](#)




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



### [Operational Groups – collaborate to innovate](#)



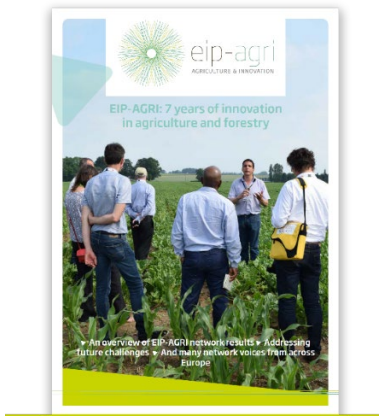
### [EIP-AGRI Focus Groups, sharing knowledge to inspire innovation](#)

	
<p><b><u>AKIS: Building effective knowledge flows across Europe</u></b></p>	

**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, advisers, managing authorities and national rural networks about 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](#)