# Smart spraying for sustainable farming

Greek Operational Group DacoTech successfully fights the olive fruit fly with innovative technologies

**Besides water scarcity and drought, the olive fruit fly (Dacus Bactrocera Oleae) is considered one of the greatest threats to olive oil producers. The Greek EIP-AGRI Operational Group DacoTech is pioneering advanced electronic, automated, and information technology solutions for Integrated Pest Management (IPM) within a large-scale pilot olive grove.**

**This project modernises and enhances the precision and efficiency of the Bait Spraying Method used to combat the olive fruit fly, a major pest affecting olive orchards.**

**The effectiveness of this technological approach is evident by its continued use by the Agricultural Cooperative of Stavies in Crete, Greece, a project partner of the Operational Group, which has adopted the IPM method as standard practice following the project's conclusion.**

"Dacus is the main pest of olive tree cultivation, causing economic losses that exceed 30% in Greece. **Instead of relying on widespread chemical spraying, we urgently need more environmentally friendly methods to combat this pest**", says Daskalakis Lefteris, member of the cooperative and owner of the tractor on which the proposed electronically assisted sprayers were installed.

DacoTech responds to this need with ICT-driven innovations supporting an IPM strategy based on the Bait Spraying Method, an 'attract and kill' technique enabled by electronically assisted spraying devices. These devices not only apply the bait solution but also collect operational data. **Farmers can access the digital system and retrieve essential pest control information, such as insect capture rates per area and detailed bait spraying data, including the exact routes taken by spraying tractors or portable sprayers, the spraying points, and the quantity per spraying point.** This information allows for real-time monitoring and enables farmers to make timely and informed decisions.

**The system guarantees precise application of bait sprays and full control over the quantity used, leading to a substantial reduction in pesticide application, from the conventional 300ml per spraying down to just 80ml.** Thanks to these innovations, the olive oil produced is nearly free of pesticide residues. The improved pest management in the olive groves of the Agricultural Cooperative of Stavies is expected to result in an annual increase in production of approximately 5%.

John Kogerakis, agronomist at the Agricultural Cooperative of Stavies, emphasises the importance of applying the bait sprays under the appropriate climate conditions. During summer, the wider region of Messara experiences extreme warm conditions, which causes 'hot spots', or high populations of the Dacus. "**To monitor climate conditions and correctly schedule the bait sprays, a meteorological station has been installed in Stavies. The station is also very useful for other cultivation procedures, such as harvesting, pruning and irrigation for olive oil in the area**", John explains.

While the DacoTech project was implemented in Stavies, its outcomes are shared widely through various networking and dissemination activities. **Currently, Greece is the leading country in using the bait spraying method, which is applied at both regional and national levels.**

## Background information

In February 2025, the EU CAP Network organised the seminar 'Robotics and AI in farming and forestry' focusing on innovation, knowledge exchange and EIP-AGRI. The 2025 Agrinnovation magazine focuses on robotics, AI and digital farming.

- Factsheet - EU CAP Network seminar 'Robotics and Artificial Intelligence in farming and forestry'
- Digitalisation section at the EU CAP network website

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## Project information

- Find out more about the project
- DacoTech video
- Bait Spray Information System

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## Project photos:

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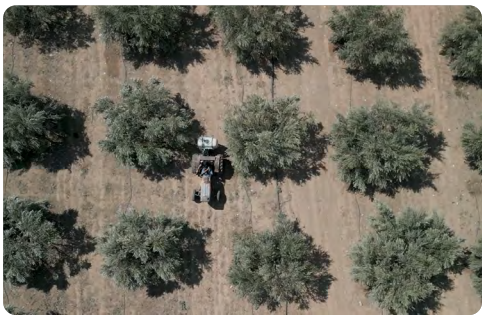
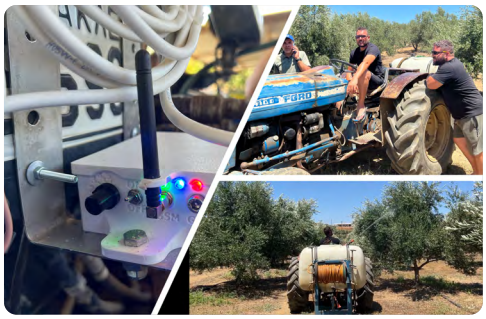
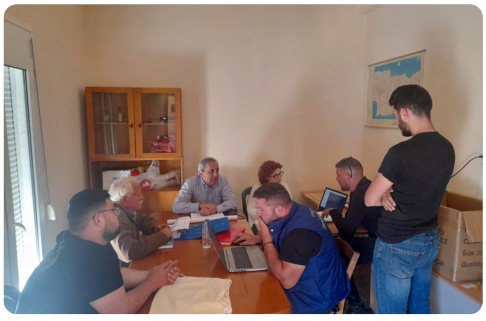


Spraying in olive orchards © AGRENAOS Αγρο-Περιβαλλοντικές Καινοτόμες Υπηρεσίες Ι.Κ.Ε.



Sprayer in the field © AGRENAOS Αγρο-Περιβαλλοντικές Καινοτόμες Υπηρεσίες Ι.Κ.Ε.



Meeting with the OG © AGRENAOS Αγρο-Περιβαλλοντικές Καινοτόμες Υπηρεσίες Ι.Κ.Ε.

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## More information

### The EU CAP Network promotes Innovation, knowledge exchange and EIP-AGRI in the EU CAP Network

The Support Facility for Innovation and Knowledge exchange including EIP-AGRI is part of the EU CAP Network. It connects diverse stakeholders, such as farmers, foresters, advisors, researchers, businesses, and NGOs, to foster robust knowledge flows and accelerate innovation.

The activities of the EU CAP Network align with the Common Agricultural Policy (CAP) objectives, including modernising agriculture and rural areas through knowledge exchange, innovation and digitalisation.

By bridging research and practice, the network shares research results, best practices, and innovative solutions with end-users. This approach supports the development of effective Agricultural Knowledge and Innovation Systems (AKIS) across the EU.

### EIP-AGRI Operational Groups

EIP-AGRI Operational Groups **are small collaborative projects designed to foster grassroots innovation** by bringing together partners with complementary expertise. The composition of each group varies based on the project's theme and specific objectives. Farmers, advisors, scientists, businesses and other relevant partners collaborate to develop practical solutions to specific challenges or opportunities faced by European farmers and foresters. The involvement of farmers and foresters throughout the project ensures that the innovative solutions are practical and readily applicable in the field.

**Operational Groups funded under Rural Development Programmes 2014 - 2022**

- A total of 98 Rural Development Programmes (RDPs) from 2014 to 2022 provide support for innovative EIP-AGRI Operational Group projects.
- 4 382 * Operational Group projects have been notified in the common EU data repository, with many currently ongoing or already completed as of May 2023. Member States continue to launch additional Operational Group projects under current transitional rules for EU Rural Development Programmes, with some running until 2025. Information on all of these projects can be found in the EIP-AGRI project database.

*Last update 16 June 2025

**Operational Groups funded under CAP Strategic Plans 2023 - 2027**

Under the common agricultural policy (CAP) for 2023-2027, the EU Member States have designed national CAP Strategic Plans (CSPs) which combine funding for income support, rural development, and market measures. All CAP Strategic Plans have been adopted, with implementation beginning on 1 January 2023.

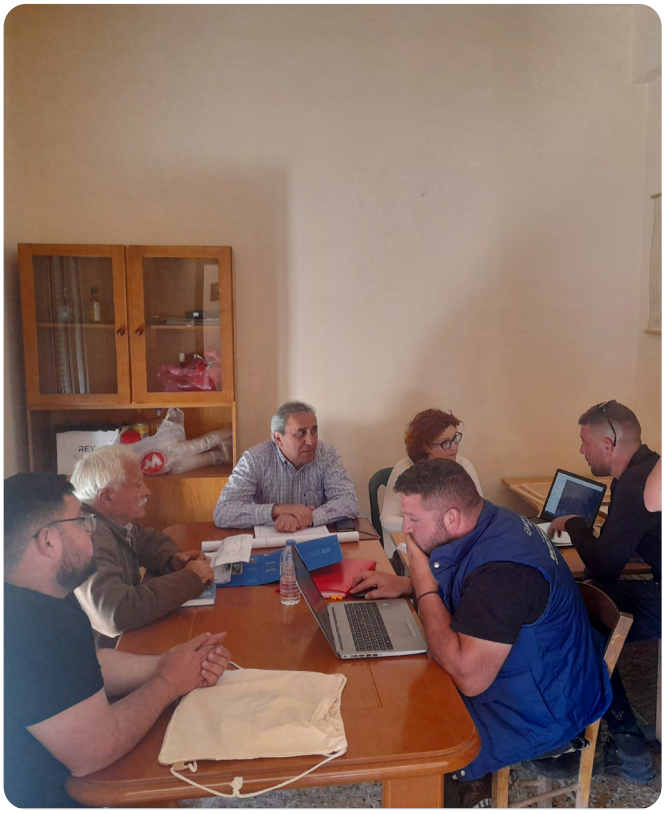
A total of 26 CAP Strategic Plans include support for innovative EIP-AGRI Operational Groups. Altogether, 6 600 EIP-AGRI Operational Group projects have been planned.

### Horizon Europe Multi-actor projects

Multi-actor projects are research and innovation initiatives where diverse stakeholders with complementary expertise - such as researchers, farmers, and local communities - work together to co-create solutions to real-world challenges.

Horizon Europe supports Thematic networks - collaborative platforms where individuals, organisations and Operational Groups share existing knowledge and best practices on a specific theme, presenting them in easily accessible formats for end-users such as farmers, foresters and advisors.

EIP-AGRI Operational Groups projects (EIP-AGRI OGs) are encouraged to take part in Horizon Europe multi-actor projects.



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## EU CAP Network 'Innovation & knowledge exchange | EIP-AGRI' activities focusing on digitalisation

### Events

- EU CAP Network seminar 'Robotics and Artificial Intelligence in farming and forestry'
- EIP-AGRI Workshop on farm data
- EIP-AGRI Focus Group on Digital tools for nutrient management

### Publications

- Factsheet - EU CAP Network seminar 'Robotics and Artificial Intelligence in farming and forestry'
- Funding opportunities under Horizon Europe Calls 2025
- Agrinnovation Magazine - Issue 11
- EIP-AGRI Innovation Awards 2024

### Inspirational ideas from the network

- Inspirational idea: Digital tools in organic agriculture

**The new Agrinnovation magazine focuses on robotics, AI and digital farming. Explore how robotics, AI and digital technologies are transforming agriculture, forestry and rural areas. Discover innovative tools and practices improving sustainability, resource use and productivity.**
**Download the magazine.**

## Operational Groups working on digitalisation

346 Operational Groups working on digitalisation are available in the EIP-AGRI project database (update June 2025)

- Austria (9)
- Belgium (5)
- Bulgaria (6)
- Croatia (1)
- Finland (12)
- France (19)
- Germany (40)
- Ireland (3)
- Italy (44)
- Latvia (6)
- Lithuania (8)
- Malta (1)
- Netherlands (20)
- Poland (13)
- Portugal (1)
- Romania (1)
- Slovenia (11)
- Spain (121)
- Sweden (21)

## Horizon multi-actor projects

- Projects | EU CAP Network
- Funding opportunities under Horizon Europe Calls 2025

**Multi-actor projects** are research and innovation initiatives where diverse stakeholders with complementary expertise, such as researchers, farmers, and local communities, work together to co-create solutions to real-world challenges.

EIP-AGRI Operational Groups projects (EIP-AGRI OGs) are encouraged to take part in these types of collaborative research projects. As of January 2025, about 4 000 EIP-AGRI OG projects – local, bottom-up innovation projects- have been experimenting, testing and implementing innovative practices, processes, products, services, and technologies. Building on these achievements, EIP OGs have several opportunities to engage in multi-actor projects (MAPs), including through Horizon Europe Cluster 6, which emphasises EIP-AGRI OGs involvement in MAPs and enhancing cooperation possibilities.

**Thematic networks** are collaborative platforms supported by Horizon Europe, where individuals, organisations and Operational Groups share existing knowledge and best practices on a specific theme, presenting them in easily accessible formats for end-users such as farmers, foresters and advisors.

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## The common agricultural policy 2023-2027

The Common Agricultural Policy CAP 2023-27 is a modernised policy, with a strong emphasis on results and performance.

On 2 December 2021, the agreement on reform of the Common Agricultural Policy (CAP) was formally adopted. The new legislation, which entered into force on 1 January 2023, paves the way for a fairer, greener and more performance-based CAP. It seeks to ensure a sustainable future for European farmers, provide more targeted support to smaller farms, and allow greater flexibility for EU countries to adapt measures to local conditions. Agriculture and rural areas are central to the European Green Deal.