

# Projects presented during the EU CAP Network brokerage event ‘Partnering for innovation with impact in agriculture and rural areas’

**29-30 April 2025 | Prague, Czech Republic**



Funded by  
the European Union

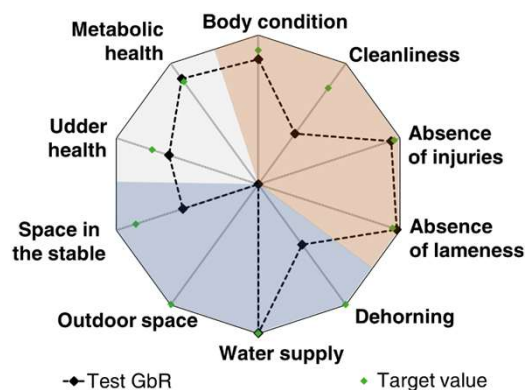
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## GEOGRAPHICAL LOCATION:

- Hesse, Germany

## PROJECT PARTNERS:

- IfÖL GmbH
- LLH
- HVL e.V.
- ALB e.V.
- 5 dairy farms

## PROJECT BUDGET:

- 234.623,77 €

## NEXT STEPS:

This project was completed in 2024.

## DESCRIPTION OF THE INNOVATION

Since 2014, livestock farms have been obliged to carry out their own operational inspections using suitable animal welfare indicators. However, the procedure and documentation are not further specified.

To find a practical solution for dairy cows, our OG has developed an animal welfare tool and tested it in practice. It is now available as a smartphone app.

## VALUE FOR PRACTITIONERS

The app is easy to use and includes ten different indicators such as body condition, udder health, and space provided.

The results offer a quick and comprehensive insight into the animal welfare situation and can be used to identify possibilities for further improvements but also documents the current animal welfare status on the farm.

## SCALABILITY AND TRANSFERABILITY

The app is freely available for all farmers in Hesse. It could also easily be implemented in other regions in Germany as the used criteria are the same.

For other European regions it would be possible to adapt the included target values depending on the different regional specifications.

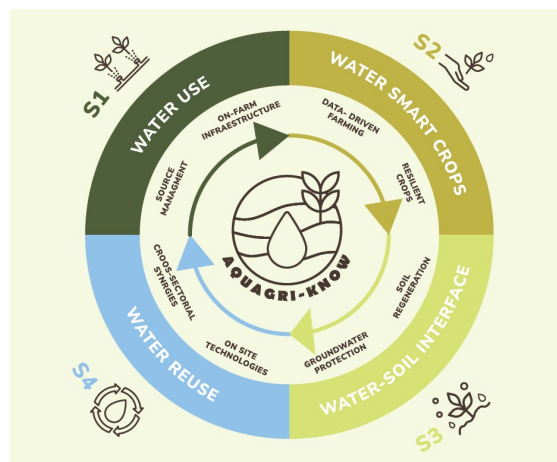
## CHALLENGES AND RESEARCH NEEDS

Further research would be necessary to adapt the app to different groups of animals, such as calves or beef cattle.



Download:





## GEOGRAPHICAL LOCATION:

Spain, Belgium, Italy, Poland and Cyprus

## PROJECT PARTNERS:

BETA (UVIC-UCC), DARPA, UP, REVOLVE, UGent, CEJA, INAGRO, HORTA, CREDA, CDR, IUNG-PIB, AGTIV

## PROJECT BUDGET:

€ 1 999 868,17

## DESCRIPTION OF THE INNOVATION

AQUAGRI-KNOW is an innovative project that improves on-farm water management by expanding the use of EIP-AGRI OGs outcomes. It introduces a circular water value chain across four areas translating technical knowledge into practical, farmer-friendly tools.

## VALUE FOR PRACTITIONERS

The project provides practical tools that help farmers use water more efficiently and sustainably, empowering them to make better decisions and adapt to climate challenges. By translating complex findings into easy-to-use resources and promoting peer learning,

## SCALABILITY AND TRANSFERABILITY

AQUAGRI-KNOW's flexible framework can be applied across regions and sectors. Its tools and methods are designed for straightforward adaptation, making it scalable in different agricultural settings and transferable to related areas such as forestry or land management.

## CHALLENGES AND RESEARCH NEEDS

Key challenges identified include fragmented knowledge, varied regional needs, and limited adoption of innovations. Further research is required to harmonize data, develop shared evaluation tools and promote nature-based, circular water solutions to support wider uptake.

## NEXT STEPS:

The project will collect and align knowledge, adapt it into practical tools, and share it through networks and the Ambassador Program. Following this, the focus will shift to expanding the impact across regions. In order to achieve this, support will be required for stakeholder engagement, scaling, and policy integration.





# EMPOWERING the ISS for a more sustainable agriculture

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## TOOLS AND CONNECTIONS THAT EMPOWER THE INNOVATION

- ✦ **Innovation TOOLKIT** to design and implement impactful solutions
- ✦ **Networking PLATFORM**, a collaborative space supporting advisors throughout the innovation journey with a Multi Actor Approach

## OPPORTUNITIES TO GROW, SHARE AND DISCOVER INNOVATIVE SOLUTIONS

- ✦ **Be INSPIRED** and turn ideas into results
- ✦ **IMPROVE your skills** with training journeys
- ✦ **SHARE knowledge** on AKISCONNECT.EU

## A GROWING OPEN SPACE FOR INNOVATION ACROSS SECTORS

- ✦ **PROMOTE** your innovation practices
- ✦ **FIND** upskilling contents, tools, and real-world innovation cases

## CHALLENGES AND RESEARCH NEEDS

- ✦ **Accelerating** grassroots ideas into solutions
- ✦ **Supporting** early-stage innovators
- ✦ **Leading** the switch to sustainable agriculture
- ✦ **Engage** silent actors

### GEOGRAPHICAL LOCATION:

AT, BE, DE, EL, FR, FI,  
HU, IT, NL, PT, UK

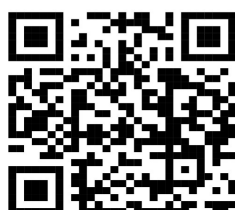


### BUDGET:

4.6 MEURO

## WoW EVENTS

Take part in our  
**Webinars on Wednesday** for  
addicted to Innovation!



## STORIES FROM THE FIELD

Share with us  
your **practices** of  
impactful innovation!



<https://bbionets.eu/>



## GEOGRAPHICAL LOCATION:

Ireland, Spain, Italy, Greece, Poland and Czech Republic.

## PROJECT PARTNERS:

MTU, TEAGASC, CREA, IUNG, CTA, AFS, TEPRO, FOCUS and HUB-CR.

## PROJECT BUDGET:

1,998,636.20€

## DESCRIPTION OF THE INNOVATION

BBioNets aims to assist farmers and foresters in adopting Bio-Based Technologies (BBTs) and bolster biomass reuse to support climate resilience through mitigation of greenhouse gases emissions, circular economy and zero waste principles.

## VALUE FOR PRACTITIONERS

BBioNets set up 6 regional Forest and Agriculture Networks (FANs) to identify local needs, prioritise specific BBTs and share BBT knowledge ready for practice to farmers and foresters.

## SCALABILITY AND TRANSFERABILITY

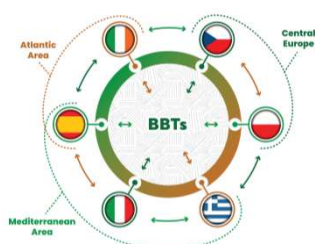
Broad collaboration networks and the BBioNets Knowledge Platform that features the Bio-Based Technology Inventory, the Assessment Tool, Regional Dynamics, and Road Maps to implement the best BBTs in the regional scenario.

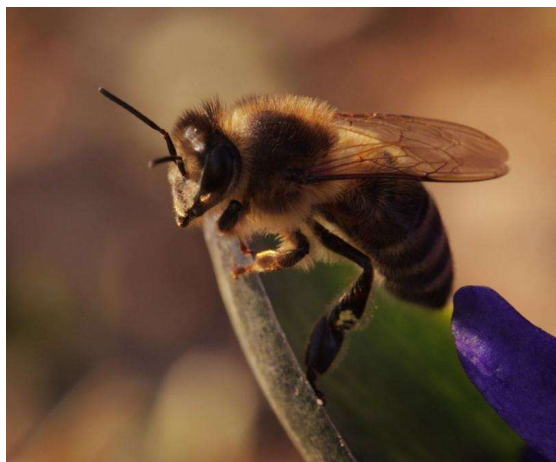
## CHALLENGES AND RESEARCH NEEDS

A key challenge across these countries is the need for training, innovation, collaboration, advanced processing technologies, infrastructure development, and stronger networks to ensure efficient and sustainable bio-economy systems.

## NEXT STEPS:

Implement a wide variety of activities to foster further acceptance and adoption of BBTs, like info-days, train-the-trainers, small-scale mentoring or seminars and expand the FANs.





## DESCRIPTION OF THE INNOVATION

Development of Smart Hives with sensors and image recognition to detect bee diseases early, and a Living Lab for testing natural treatments and tech tools with beekeepers.

## VALUE FOR PRACTITIONERS

Enables early detection of threats, reduces colony losses, improves hive health, and limits chemical use. Easy to integrate into current beekeeping practices.

## GEOGRAPHICAL LOCATION:

Cluj & Tulcea, Romania

## PROJECT PARTNERS:

Farmers, NGO's<sup>1</sup> research institution (university), LAGs

## PROJECT BUDGET:

497,760.00 EUR

## SCALABILITY AND TRANSFERABILITY

Modular design fits all apiary sizes. Adaptable to local conditions. Cloud-connected for broader analysis and replication. Usable in various regions and farm types.

## CHALLENGES AND RESEARCH NEEDS

Climate stress, disease spread, and limited monitoring tools. Research needed for better algorithms, new plant-based treatments, and broader applications.

## NEXT STEPS:

Scale-up production, expand training, seek new partners and funding.





Cinta Cazador

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[www.bferst.eu](http://www.bferst.eu)



Field trial in Italy, 2023

## GEOGRAPHICAL LOCATION:

Spain, Italy, Belgium, Germany, North Macedonia, Poland.

## PROJECT PARTNERS:

Fertiberia, University of Leon, FCC-Aqualia, Novamont, FKuR Kunststoff GmbH, AgriSat Iberia S.L., Vlaamse Instelling voor Technologisch Onderzoek N.V., AgFutura Technologies DOOEL, Arcadia International, Fondazione ICONS, Instytut Uprawy Nawożenia i Gleboznawstwa Państwowy Instytut Badawczy

## PROJECT BUDGET:

10,016,296 €

## DESCRIPTION OF THE INNOVATION

B-FERST integrates the valorisation of biowastes in agriculture management plans creating new circular value chains from biowaste to fertiliser industry. It is a breakthrough in the fertiliser value chain due to tailor-made specialised fertilisers that combine recovered nutrients from biowastes, biostimulants and biodegradable coatings. Two first-of-its-kind demo plants have been installed and validated to obtain those fertilisers.

## VALUE FOR PRACTITIONERS

B-FERST has validated a logistic model that improves the selection and implementation of biowastes, based on the close collaboration between the feedstock suppliers, the technology providers, the fertiliser industry and farmers.

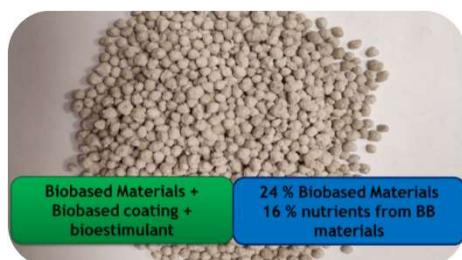
## SCALABILITY AND TRANSFERABILITY

B-FERST has set the basis of the biowaste valorisation in all actors of the value chain, developed the Engineering Packages of the demo plants that can be implemented into different sectors and a logistic model that can be used by stakeholders.

## CHALLENGES AND RESEARCH NEEDS

Establishment of key parameters (requirements) for biowastes valorisation (composition, amounts available, regulatory, logistics, price). Feedstock suppliers need more information related to waste valorisation.

**NEXT STEPS:** Continuous searching of biowastes to obtain biobased fertilisers, biostimulants and biodegradable coatings, and interaction with feedstock suppliers and farmers to widen the circularity in the fertiliser value chain.



Biobased Materials +  
Biobased coating +  
bioestimulant

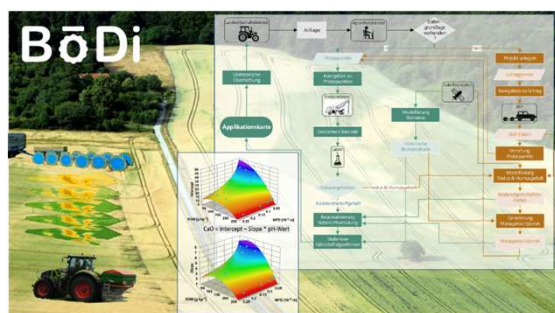
24 % Biobased Materials  
16 % nutrients from BB  
materials



Nutrient Recovery Demo Plant



Biobased Coatings Demo Plant



## DESCRIPTION OF THE INNOVATION

Development of a soil sensor-based fertilizer optimization framework to promote a climate-adapted and **sub-area-specific nitrogen, phosphor, potassium, magnesium and calcium fertilization** and to increase the efficiency and sustainability of crop production in Brandenburg.

### GEOGRAPHICAL LOCATION:

Brandenburg (Germany) - Sandy soils of the dry-warm north-eastern lowlands

### PROJECT PARTNERS:

Eberswalde University for Sustainable Development (HNEE), Leibniz Institute for Vegetable and Ornamental Crops (IGZ), Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Leibniz-Institut für Angewandte Geophysik (LIAG)

Gut Wilmersdorf GbR, Ökodorf Brodowin GmbH & Co. Landwirtschafts KG, Land- und Forstwirtschaft Komturei Lietzen GmbH & Co. KG, Landwirtschaft Petra Philipp, Agrargenossenschaft Trebbin eG, Fürstenwalder Agrarprodukte GmbH Beerfelde, Landwirtschaftliche Beratung der Agrarverbände Brandenburg GmbH

VisDat geodatentechnologie GmbH, iXmap Services GmbH & Co. KG, Bodenprobetechnik Peters GmbH, geokonzept Gesellschaft für Umweltplanungssysteme mbH

### PROJECT BUDGET:

pH-BB: 2.350.493 €, TONIA: 1.630.000 €, BoDi: 3.890.202 €

## VALUE FOR PRACTITIONERS

Due to the optimized fertilizer application:

- improved soil fertility and crop yields,
- fertilizer cost reduction,
- reduced environmental pollution.

## SCALABILITY AND TRANSFERABILITY

Easy access to the interoperable service beyond Brandenburg and Germany.

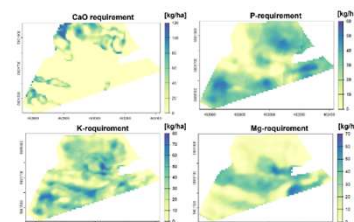
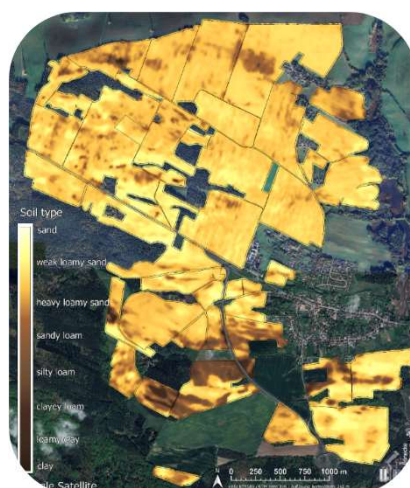
Provision of training material and knowledge transfer beyond the participating farmers.

## CHALLENGES AND RESEARCH NEEDS

Ensuring interoperability of sensor and other environmental/farm data with algorithms and processes up to the usability of fertilizer application maps for farm machinery. Assessing a long-term cost-benefit performance.

### NEXT STEPS:

Building a web-based system to couple the soil sensed information of a new developed soil sensor platform with a new workflow for soil sampling and with the innovative fertilizer requirement determination and with the creation of fertilizer application maps useful for agricultural machinery. Moreover, a long-term precision fertilization experiment to evaluate the economical benefits of precision fertilization will be established.



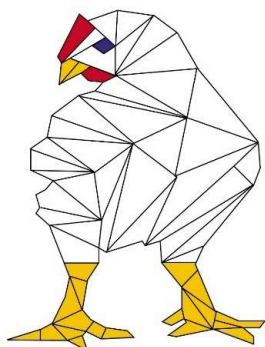
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More information: <https://www.eucapnetwork.eu>



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## BroilerNet.

### GEOGRAPHICAL LOCATION:

SE, FR, IT, DE, ES, EL, UK, PL, SI, NL, FI, PT, IE

### PROJECT PARTNERS:

IRTA, FAC (ES), ELGO, PINDOS (EL), RAU, BPC (UK), SGGW, PZZHiPD (PL), UL, PERUT (SI), WR, Lennders VOF (NL), UH, SIIPI (FI), FMV, ANCAVE (PT), Teagasc (IE)

### PROJECT BUDGET:

2 598 987.50 €

### DESCRIPTION OF THE INNOVATION

BroilerNet is a thematic network for innovation in the broiler sector, involving national Broiler Innovation Networks (BINs), composed by farmers, integrator companies, farmers' organisations, advisors, researchers and veterinarians to enable information exchange, and collect innovative ideas and Good Practices (GPs)

### VALUE FOR PRACTITIONERS

Practitioners can access detailed information on good and best practices in place in the EU to improve **environmental sustainability**, **animal welfare** and **health management** on broiler farms across Europe

### SCALABILITY AND TRANSFERABILITY

The best of the collected GPs are awarded as BroilerNet Champions and their costs and benefits analysed for the farmers in the country where the GP is implemented and also simulated across other EU countries and farms of different size

### CHALLENGES AND RESEARCH NEEDS

Challenges for broiler farmers to improve environmental sustainability, animal welfare and health management in their farms are selected with bottom-up approach

Research is needed for improving feeding of broilers of medium and slow growth strains in order to reduce the protein use in feed formulation and the nitrogen loss in broiler droppings

### NEXT STEPS:

A last consultation round is on-going to collect GPs matching with the six new challenges as pointed out by the BINs in the 13 countries involved in BroilerNet



## ECO-READY OBSERVATORY APP



## DESCRIPTION OF THE INNOVATION

- **Real-Time Surveillance Hub:** ECO-READY introduces a cutting-edge Observatory, functioning as a singular, real-time surveillance hub accessible through e-platform and a mobile application.
- **Integrated Knowledge Infrastructure:** The Observatory is seamlessly integrated with a network of 10 Living Labs, accessible to society, policymakers, the scientific community, and the agrifood industry.

## VALUE FOR PRACTITIONERS

- **Serving the food system:** Real-time surveillance system
- **Serving consumers:** Consumer empowerment
- **Serving farms and business:** Knowledge-based resilience strategies
- **Serving sustainability:** Biodiversity & climate
- **Serving All:** Early warning

## SCALABILITY AND TRANSFERABILITY

- The digital Observatory offers broad accessibility.
- 10 Living Labs across diverse European regions will test solutions in various contexts, generating adaptable knowledge.
- The co-created tools and policy recommendations, can be applied across different sectors and scales.

## GEOGRAPHICAL LOCATION:

EU & UK

## PROJECT PARTNERS:

CZU, Aristotle University of Thessaloniki, proQuantis, IUCN, IFOAM, Institute of Field and Vegetable Crops, ALTERNET, White Research, Migros, Reframe Food, ENEA, Confagricoltura, Cranfield University, Edinburgh University, Wageningen Research, Cyprus University of Technology, EC Joint Research Centre, Wageningen University

PROJECT BUDGET: €14,948,450

## CHALLENGES AND RESEARCH NEEDS

The vulnerability of food systems to shocks, the need for better early warning systems and data integration, and the demand for future scenario knowledge, which research and innovation within the project will address by developing a real-time Observatory with AI-driven tools, creating Living Labs for co-creation, and modelling future scenarios to inform resilient policies and strategies



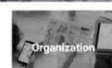
Podcasts about issues linked to the project objectives by partners and other experts.



Videos and presentations about issues linked to the project objectives including presentations from project events.



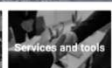
Eco-READY develops links and cooperation with other projects and networks for increasing impact.



A platform that sets priorities.



Developing the different components of the project.



Information, activities, services and tools.

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More information: <https://www.eucapnetwork.eu>



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[eu4advice.eu](http://eu4advice.eu)



## GEOGRAPHICAL LOCATION:

EU-wide; Living Labs in Spain, Hungary, Netherlands, and Ireland

## PROJECT PARTNERS:

21 partners from 13 European countries

## PROJECT BUDGET:

€5 million (Horizon Europe)

## DESCRIPTION OF THE INNOVATION

EU4Advice is creating the first EU-wide network of Short Food Supply Chain (SFSC) advisors. Using a multi-actor and Living Lab approach, it tackles the lack of recognition and integration of SFSC advisors in national AKIS, promoting inclusive knowledge sharing and capacity building.

## VALUE FOR PRACTITIONERS

EU4Advice identifies, connects, and strengthens over 700 SFSC advisors across Europe, offering:

- Tailored training and tools
- Pilot-tested solutions via Living Labs
- Access to best practices and peer exchange
- Stronger voice in policy processes

## SCALABILITY AND TRANSFERABILITY

Living Labs in Spain, Hungary, the Netherlands, and Ireland test models that are adaptable to various contexts. Outcomes are designed to be replicated across EU regions and advisory systems, ensuring long-term impact.

## CHALLENGES AND RESEARCH NEEDS

Challenges: Lack of advisor recognition, policy and AKIS barriers, Limited SFSC-specific training

Solutions: Digital tools and training, governance testing, stronger policy engagement.

We are currently looking for new advisors to join the network (see QR code)



## NEXT STEPS:

Finalize Living Lab testing   Grow advisor network   Engagement with policymakers  
Upcoming online workshops   Deepen AKIS integration   Collaborate with COREnet and others





A soil-health event in a Czech Cluster.



Image: Czech University of Life Sciences

## GEOGRAPHICAL LOCATION:

- 11 Farmer Clusters across 10 European countries.

## PROJECT PARTNERS:

- Consortium of 18 Universities, NGOs, Research Institutes and SMEs, from southern Spain to Estonia.
- Coordinated from The James Hutton Institute, UK, Oct 2020 – Oct 2025.

## PROJECT BUDGET:

- €7,997,600.00

## DESCRIPTION OF THE INNOVATION

**Agroecosystem degradation and biodiversity loss present socio-economic problems.**

We're addressing these challenges through:

- **Farmer Clusters:** grassroots groups of farm businesses working to improve biodiversity and ecosystem services at a landscape scale.
- **Digital Resources:** combining convening stakeholders and sharing knowledge offline with an online platform leveraging digital tools.

## VALUE FOR PRACTITIONERS

- Farmers connect with people and resources that help improve agroecosystem assessments and support ecologically beneficial practices.
- Researchers, NGOs and policymakers gain avenues to test and share data and methods.
- Communities learn more about citizen science, local environments and food production.

## SCALABILITY AND TRANSFERABILITY

- Cluster model and online platform resources are accessible and applicable across Europe.
- Spatial approaches are gaining momentum.

## CHALLENGES AND RESEARCH NEEDS

- Cluster facilitation funding; baseline biodiversity data accessibility across Europe.

## NEXT STEPS:

- Scaling the platform's reach to strengthen multi-stakeholder engagement.
- Expanding the platform's networked content offer as result of this engagement.



Image: Taskscape Associates Ltd



Online Platform: [www.recodo.io](http://www.recodo.io)



Velké Hostěrádky Farmer Cluster, Czechia

Image: Czech University of Life Sciences

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More information: <https://www.eucapnetwork.eu>



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### GEOGRAPHICAL LOCATION:

Portugal

### PROJECT PARTNERS:

- 4 Research institutes and Universities
- 3 Agri Associations
- 6 Agri enterprises.

### PROJECT BUDGET:

€ 509 980

## DESCRIPTION OF THE INNOVATION

### Process Innovation

- Bioremediation by Black Soldier Fly larvae
- Biochar addition to slurry storage pits to reduce gas emissions

### Product Innovation

- Two product lines: insect larvae for biorrefinery and one biofertilizer (Frass)

## VALUE FOR PRACTITIONERS

Valorization of livestock effluents as a new economic resource, focusing on the production and integrated management of the different flows generated.

Using a cross-cutting strategy and a multi-actor approach, partners participated in the proposed actions according to each area of activity. Therefore, it was possible to answer three key areas, namely: characterization of the sector, mitigation of GHG and valorization of livestock effluents.

## SCALABILITY AND TRANSFERABILITY

Implementation of a **Living Lab on Effluents and coproducts of the livestock activity** (June 2023) aiming a scale-up approach to a TRL 6-7.

## CHALLENGES AND RESEARCH NEEDS

Evaluation of the impact of emerging solutions on the different processes and products at different levels.

## NEXT STEPS:

Evaluation of **substrate quality scenarios** vs. **developed technologies** vs. **valorization of resulting co-products** and **impacts on the value chain**.

Reflection on the follow up of the running LL and find financial support after 2025.

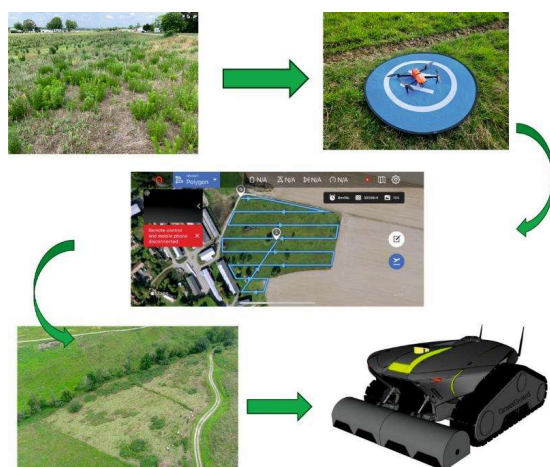




František Kumhála

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<https://guardians-project.eu/>



## DESCRIPTION OF THE INNOVATION

Our role in the project is Technology provider. Tech#3: GrassGuard - drones for grassland care. GrassGuard is designed for eco-friendly operation and a low or zero carbon footprint. It is a semi-autonomous flying drone mapping the weeds and consequent land drone that removes weeds from pasture.

## VALUE FOR PRACTITIONERS

The control of the drones will be designed to be user-friendly, even for conservative farmers. Semi-autonomous technology. Parts of technology can be used independently also for other purposes (crop mapping). The price of the technology will be affordable even for small farmers.

## SCALABILITY AND TRANSFERABILITY

The technology is relatively inexpensive and user-friendly, making it suitable for both small and large farmers. It can also be used for purposes other than mapping pastures.

## CHALLENGES AND RESEARCH NEEDS

Processing RGB images to detect ungazed areas is not easy. It requires the use of state-of-the-art technologies such as Machine learning or AI.

## GEOGRAPHICAL LOCATION:

Spain, Portugal, Italy, Ireland, Sweden, Finland, Lithuania, Czech Republic

## PROJECT PARTNERS:

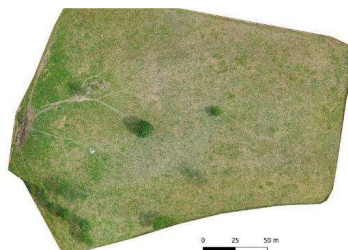
CTIC, SHINE, ICONS, RINA-C, flox, art21, ODOS, NATURBETE, ZD Kvetna, CAMPOASTUR, links, ITAcyl, SERIDA, IVL, ČZU, NOFIMA, M.I.A.C., CAPSA, SMACT spa

## PROJECT BUDGET:

4 997 500 €

## NEXT STEPS:

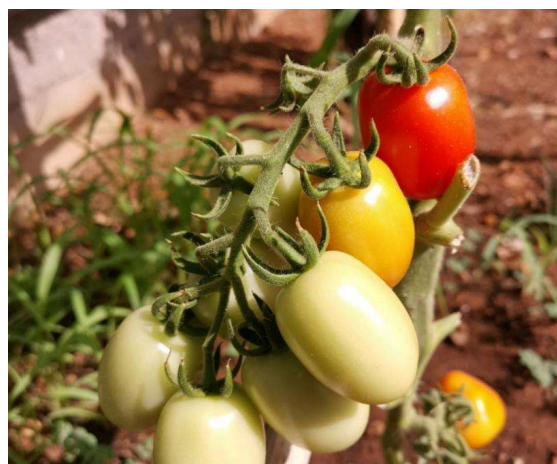
Currently, work is underway to develop a ground drone with a mowing/mulching adapter. This summer, the technology should be tested on a pilot farm in ZD Kvetna.



Maria Sabrina Leone

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## GEOGRAPHICAL LOCATION:

Sicily, Italy

## PROJECT PARTNERS:

Il Frutteto di Bologna Fabio & C. s.n.c., Azienda Agricola Gisone Matteo, Azienda Agricola Gioia Fabrizio, Azienda Agricola Cascio Francesco Croce, Casale di campo Soc. Coop. Agricola, Cooperativa Casale di Campo, Cooperativa Valdibella ALICOS S.r.l., Società Cooperativa Rinascita, APAS, ASTES, Università degli Studi di Palermo

## PROJECT BUDGET:

euro 493.964,99

## DESCRIPTION OF THE INNOVATION

INPOSA introduced innovative cultivation and processing of open-field tomatoes harvested at veraison (golden stage). The resulting juice and puree differ in texture, colour, and flavour, and show nutraceutical potential. Based on a patented culinary method, the process reduces inputs and food waste, benefiting both health and the environment.

## VALUE FOR PRACTITIONERS

Farmers benefit from lower production costs and improved soil use. The innovation is supported by protocols for organic and integrated systems and opens new markets for healthy and authentic products.

## SCALABILITY AND TRANSFERABILITY

Two production protocols were developed to ease adoption. The model is scalable and economically attractive thanks to reduced inputs and growing market demand.

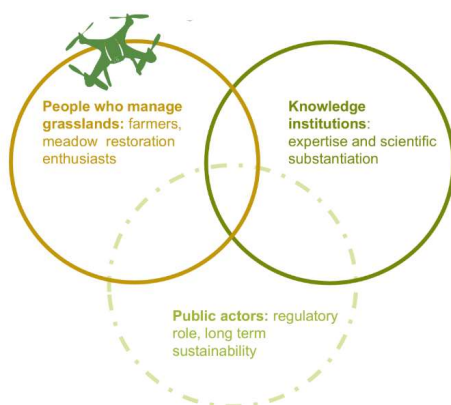
## CHALLENGES AND RESEARCH NEEDS

Challenges included adapting methods and validating health effects. Pre-clinical tests showed antioxidant activity, cognitive benefits, weight loss, and metabolic improvement. Further studies on humans and different cultivars are needed.

**NEXT STEPS:** After strong interest from culinary professionals and its candidacy as a global “mother sauce,” a new phase may replicate the project to assess health effects in humans and compare cultivars. Funding and private investment are needed.







## DESCRIPTION OF THE INNOVATION

Drone technology in semi-natural grassland management and restoration planning.

The remote sensing team offers livestock farmers a service: drone flights/data collection + multi-layered GIS data sets/maps + vegetation indexes. LivingLab is a farmer-led assessment of drone tech application possibilities and analysis for future development.

## VALUE FOR PRACTITIONERS

Interactive, high-resolution, georeferenced, and quantified data sets/digital maps are tools for farmers and consultants to enhance planning, monitoring, and communication. For researchers, LivingLab's setting offers real-life scenarios, prompt feedback, and practical applications in grassland infrastructure management.

## SCALABILITY AND TRANSFERABILITY

The university has the potential to provide drone services to farmers engaged in rewilding, enhancing biodiversity, improving rural landscape value, practising regenerative agriculture, and others striving to achieve EU Nature Restoration objectives. Provide civic training to enhance monitoring capabilities.

## CHALLENGES AND RESEARCH NEEDS

Need to enhance farmers' understanding of GIS softwares and drone data analysis.

## GEOGRAPHICAL LOCATION:

3 livestock farms in Latvia and a remote sensing team from the Estonia University of Life Sciences

## PROJECT PARTNERS:

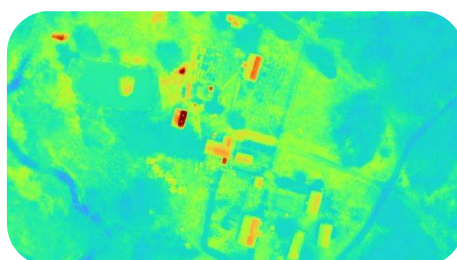
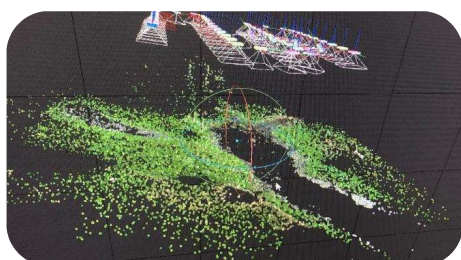
CODECS consortium

## PROJECT BUDGET:

91 538 EUR

**NEXT STEPS:** Develop drone+GIS training for farmers. Incorporate LiDAR drone for terrain modelling. Welcome more farmers into LivingLab.

Support for future international research projects is essential to advance approaches in drone technology for environmental restoration and agricultural biodiversity monitoring.







## GEOGRAPHICAL LOCATION:

Mediterranean area

(Spain, Greece, Turkey, Egypt)

## PROJECT PARTNERS:



## PROJECT BUDGET:

€2,299,388.45

## DESCRIPTION OF THE INNOVATION

NEWFEED project, pioneers a circular economy approach by transforming agro-industrial by-products into sustainable animal feed. Targeting residues like grape stems, orange peels, and olive cake, the project employs advanced bioprocessing techniques—including solid-state fermentation and enzymatic hydrolysis—to enhance the nutritional profile and safety of these materials. This innovation not only mitigates environmental concerns associated with agro-waste disposal but also offers a cost-effective alternative to conventional feed ingredients.

## VALUE FOR PRACTITIONERS

By converting locally available by-products into high-quality feed, practitioners can significantly reduce feed costs and reliance on imported ingredients. This not only enhances economic resilience but also contributes to environmental sustainability by minimizing waste and promoting resource efficiency. Moreover, the improved nutritional quality of the feed can lead to better animal health and productivity, offering a competitive advantage in the market.

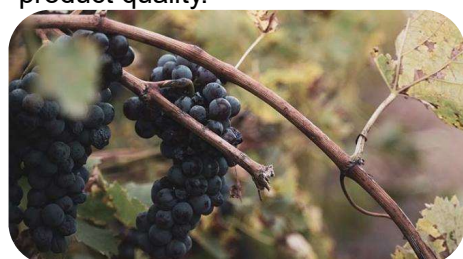
## SCALABILITY AND TRANSFERABILITY

By focusing on commonly available agro-industrial by-products and employing flexible bioprocessing techniques, the project ensures that its strategies can be customized to local conditions and resources. The successful implementation of value chains in Mediterranean countries demonstrates the model's versatility and potential for broader application.

## CHALLENGES AND RESEARCH NEEDS

Ensuring the consistent quality and safety of feed derived from variable by-products requires ongoing monitoring and standardization. Seasonal fluctuations in the availability of agro-industrial residues pose logistical challenges for continuous feed production. Further research is needed to optimize bioprocessing techniques for different by-products and to assess the long-term impacts of these feeds on animal health and product quality. Addressing regulatory frameworks and establishing clear guidelines for the use of alternative feed ingredients will also be critical.

**NEXT STEPS:** The focus would be on scaling up successful pilot initiatives and integrating the feed production processes into commercial operations. Expanding partnerships with agro-industrial producers will be crucial to ensure a consistent supply of by-products and foster regional circular economy networks. Establishing decentralized processing units near production sites can reduce transport costs and environmental impact. Further research should optimize the nutritional consistency and safety of feeds across seasons and regions. Rigorous feeding trials and long-term monitoring will help assess impacts on animal performance, health, and product quality.





## GEOGRAPHICAL LOCATION:

Galicia, Spain

## PROJECT PARTNERS:

Grupo Aresa (coord.),  
Cusoviam S.C.G., Gradiant,  
CIAM and Cecoagro

## PROJECT BUDGET:

€179,657.00 (FEADER  
2022/066B)

## DESCRIPTION OF THE INNOVATION

Research for the innovative development of a prototype equipped with the NIRS technique to analyse the chemical composition of the soil in real time, associated with a digital field notebook equipped with a layer of Artificial Intelligence with prediction for the personalised fertilisation of crops.

## VALUE FOR PRACTITIONERS

Fast in-field diagnosis, cost savings through precision fertilisation, compliance with EU regulations, and reduced environmental impact.

## SCALABILITY AND TRANSFERABILITY

Suitable for many crops and regions, adaptable to existing farm systems, and applicable to other sectors.

## CHALLENGES AND RESEARCH NEEDS

NIRS model calibration, AI integration, and farmer training for wide adoption.

## NEXT STEPS:

Prototype validation, AI implementation, training sessions, and technology scaling.







<https://eratosthenes.org.cy/funded-projects/nostradamus/>

## DESCRIPTION OF THE INNOVATION

Nostradamus is an innovative EU-funded project dedicated to advancing the sustainability and resilience of the agricultural sector in alignment with the Farm to Fork strategy, the Common Agricultural Policy, and the European strategy for data. By developing a robust, near-real-time digital platform, Nostradamus harnesses the power of Earth Observation, IoT and advanced algorithms to optimise resource use, enhance yields, and promote sustainable farming practices.

## VALUE FOR PRACTITIONERS

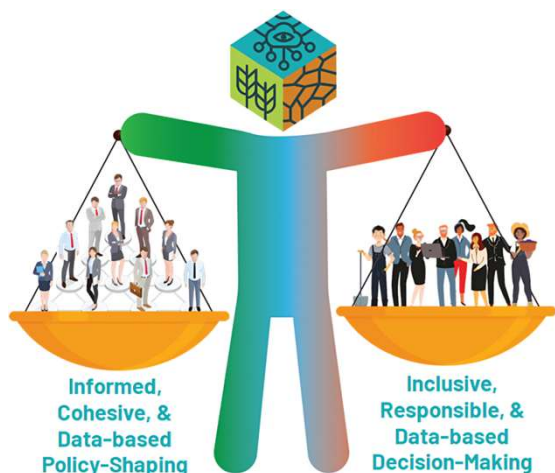
Nostradamus will provide practitioners like farmers with open-source digital tools and data-driven insights, accessible through a user-friendly platform, to optimise their operations, improve yields, reduce input utilisation, and enhance sustainability and competitiveness.

## SCALABILITY AND TRANSFERABILITY

- Nostradamus promotes broad adoption by building on open-source principles to develop digital applications and an application generation engine, allowing for adaptation across various sectors and farm types.
- The project's Data Cubes are designed for scalability to process extensive multi-dimensional data, with the development of five open-source Data Cubes for different regions and a Data Cube on Demand (DCoD) approach facilitating transferability to new contexts.
- A central multi-actor approach (MAA) ensures the relevance and adaptability of solutions through continuous stakeholder engagement and the creation of validated core modules, supported by a post-project sustainability plan for long-term impact.

## CHALLENGES AND RESEARCH NEEDS

Nostradamus addresses challenges like fragmented agricultural data and digitalisation barriers by developing a scalable open-source platform with Data Cubes and co-created digital tools to enhance efficiency and sustainability.



## GEOGRAPHICAL LOCATION:

EU & Switzerland

## PROJECT PARTNERS:

Eratosthenes Centre of Excellence, Deutsches Zentrum FurLuft – Und, Ag Futura  
 Technologii Dooel Skopje, Cropt D.o.o., Itc – Inovacijsko Tehnoloski, Dlg Ev, CZU, Biosense, Terradue Srl, Kmetijsko Gozdarska Zbornica, F6s Network Ireland, Ministry of Agriculture Cyprus, Aristotle University of Thessaloniki, Universite de Geneve, Universitaet St. Gallen, Agroscope

PROJECT BUDGET: €7,888,667





# Integrated Novel Strategies for Reducing the Use & Impact of Pesticides in Fruit Orchards

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<https://www.novaterraproject.eu/>



## DESCRIPTION OF THE INNOVATION (13)

1. Precision farming DSS that uses real-time satellite imagery for canopy characterization.
2. Robot with end-effector mowit tool to minimize the use of herbicides.
3. Bio-solutions that combine bio-stimulants and bio-control products with low doses of copper and sulphur.
4. Cover crops & floral margins as beneficial plants that attract natural enemies of pests.

## GEOGRAPHICAL LOCATION:

France, Greece, Italy, Portugal & Spain

## PROJECT PARTNERS: 23



PROJECT BUDGET:  
5.507.110,20 €.



## VALUE FOR PRACTITIONERS

- ✓ Enhanced sustainability and environmental stewardship.
- ✓ Operational and cost efficiency.
- ✓ Improved crop health and efficacy.

## SCALABILITY AND TRANSFERABILITY

- ✓ Successful trials in different countries.
- ✓ High scalability potential to other countries and fruit orchards such as apple, pears.
- ✓ AIPT to predict farmers' adoption intentions.

## CHALLENGES AND RESEARCH NEEDS

Technical complexity, environmental variability, and initial investment cost could hinder adoption, highlighting the need for user-friendly, adaptable, local validation, farm demonstrations

**NEXT STEPS:** Promote **adoption** and **diffusion**! Understanding farmers' needs!



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Contact info: [leticia@medrarsolutions.es](mailto:leticia@medrarsolutions.es)

[www.nutritive.es](http://www.nutritive.es)



## GEOGRAPHICAL LOCATION:

SPAIN, FRANCE, BELGIUM, GERMANY, THE NETHERLANDS, PORTUGAL, ITALY, IRELAND, CHINA.

## PROJECT PARTNERS:

MEDRAR, USC, AINIA, ARMINES, ESNMP, EV ILVO, ATB, VITO, TU DELFT, ALGAFUEL, ARESA, CECOAGRO, AGACA, TEAGASC, ASAJA, XIHUA, SICHUAN, IUA, CHENGDU.

## PROJECT BUDGET:

6,996,507.50

## NEXT STEPS

Further research on manure impacts and tailored mitigation.

## DESCRIPTION OF THE INNOVATION

NUTRITIVE proposes a more holistic DSS, integrating diverse livestock farming typologies, multiple pollutants and their impacts on air, soil, and water, and key economic and social factors. This approach will better support policymakers in setting pollutant limits and identifying Best Available Techniques Not Entailing Excessive Costs (BATNEECs) for farmers.

## VALUE FOR PRACTITIONERS

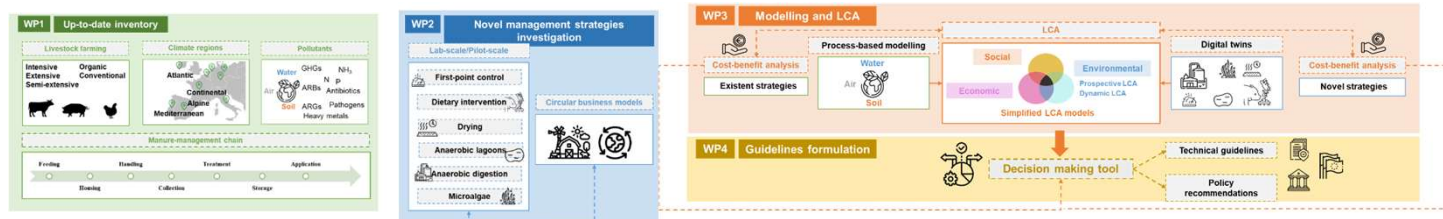
Farmers will benefit directly from ad hoc solutions tailored to the specific characteristics of each livestock farm, considering not only environmental performance but also technical and economic feasibility. The co-creation process will ensure their needs are integrated from the start, fostering adoption. Additionally, the DSS outputs will guide policymakers in developing better regulations, ultimately impacting and supporting rural activity.

## SCALABILITY AND TRANSFERABILITY

The project addresses the full manure management chain from farm level to soil application, across a wide range of farming systems (intensive, extensive, conventional, organic, etc.); and it includes diverse EU climate regions and international cooperation with China. This local-level approach ensures adaptability and transferability to any farm type and region.

## CHALLENGES AND RESEARCH NEEDS

The main challenge is adoption by farmers. A co-creation process will help ensure the solutions are practical and widely accepted.



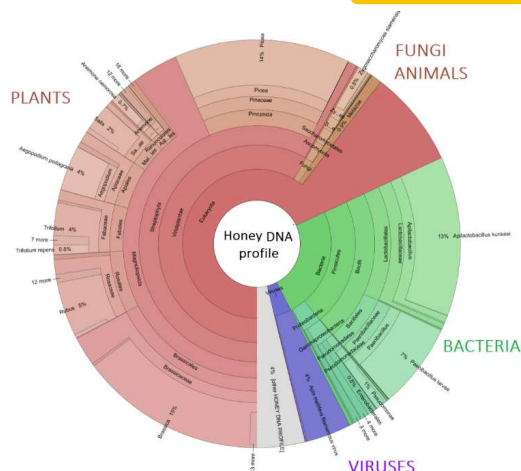


# Honey DNA: A Window into Honeybees' Health and Environment

Kairi Raime PhD

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[www.maainfo.ee](http://www.maainfo.ee) [EIP-AGRI OG project](#)



## DESCRIPTION OF THE INNOVATION

Innovative DNA-based methods for honey analysis using untargeted metagenomic sequencing to reveal the full biological profile of honey — including plants, microbes, animals, and viruses.

This hypothesis-free approach analyzes **millions of DNA sequences** from **thousands of species** in the honeybees' foraging, hive, or honey production environments.

## VALUE FOR PRACTITIONERS

- Improved understanding of the **biological (including botanical) composition** of honey
- Monitoring **honeybees' health** via **pathogen and parasite detection** in honey
- Insights into **honeybees' foraging, hive, and honey production environments**

## SCALABILITY AND TRANSFERABILITY

- Scalable across countries
- Adaptable to other food products
- Transferrable to labs and service providers

## CHALLENGES AND RESEARCH NEEDS

- Broaden the global reference database for honey composition and bee health indicators
- Improve sensitivity, specificity, and quantity aspects of pathogen detection, especially for low-level or emerging threats

## GEOGRAPHICAL LOCATION:

Estonia

## PROJECT PARTNERS:

Muhe Mesi OÜ  
Celia CC

## PROJECT BUDGET:

401 597 €

## NEXT STEPS:

- Strengthen the reference database with broader sample coverage
- Explore similar projects in the food chain
- Build international partnerships to scale and develop further



This poster was presented at the EU CAP Network brokerage event 'Partnering for innovation with impact in agriculture and rural areas' | 29 - 30 April 2025.  
More information: <https://www.eucapnetwork.eu>



Funded by  
the European Union





**GEOGRAPHICAL LOCATION:**  
CENTRAL MACEDONIA,  
GREECE

#### PROJECT PARTNERS:

Venus Growers

Agricultural Cooperative of  
Naoussa

Pomology lab – AUTH

Elgo – Dimitra / Institute of Plant  
Breeding and Genetic Resources /  
Soil & Water Resources Institute

Agro Q

#### PROJECT BUDGET:

144.584€

#### NEXT STEPS

- Scale-up implementation in commercial orchards.
- Finalize grower-ready manuals & training programs.

#### DESCRIPTION OF THE INNOVATION

Traditional peach orchards rely on open-vase training systems. An alternative approach has been proposed: multi-leader "Fruit Wall" training systems, where trees are trained with 2-4 primary scaffolds oriented along the row. This system utilizes mechanized summer pruning to regulate vegetative vigor and optimize light distribution within the canopy.

#### VALUE FOR PRACTITIONERS

##### ✓ Improved Canopy Microclimate

Enhanced light penetration and airflow, reduce humidity, limiting fungal and bacterial infections.

##### ✓ Superior Fruit Quality

Uniform ripening, improved flavor, and extended post-harvest shelf life.

##### ✓ Higher Orchard Efficiency

Facilitates mechanization reducing labor costs and optimize resource use.

#### SCALABILITY AND TRANSFERABILITY

- Tested in Central Macedonia – Performs well in diverse soils/climates.
- Adaptable globally.

#### CHALLENGES AND RESEARCH NEEDS

⚠ Variety-specific pruning protocols needed.

⚠ Mechanization adjustments for optimal efficiency.

⚠ Long-term economic analysis underway.





## GEOGRAPHICAL LOCATION:

Emilia-Romagna, Italy

## PROJECT PARTNERS:

- CRPA-Research Centre for Animal Production
- Parma Ham Consortium
- CRPA Foundation-ETS
- Department of Veterinary Medicine and Animal Sciences of the University of Milan
- Dinamica
- Operators in the supply chain (3 farms, 2 slaughterhouses and 2 Parma Ham production plants)

## PROJECT BUDGET:

296.564,90 €

## DESCRIPTION OF THE INNOVATION

The innovation consists in creating a Parma Ham supply chain model that integrates additional quality standards beyond the legal requirements, addressing ethically driven consumer demands. The key focus is on animal welfare, biosecurity, and responsible antibiotic use.

## VALUE FOR PRACTITIONERS

The protocol provides operators with the tools to build a “virtuous supply chain” that can respond even more effectively to the needs of today’s consumers, who are increasingly attentive to the production processes. The protocol identifies and anticipates the demands that modern distribution systems are placing with growing intensity on agri-food enterprises – particularly in terms of sustainability and production innovation.

## SCALABILITY AND TRANSFERABILITY

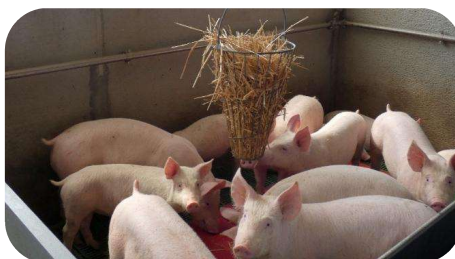
This model is transferable to other livestock sectors as it meets growing demands for transparency and sustainability, improving the credibility of livestock supply chain in domestic and international markets.

## CHALLENGES AND RESEARCH NEEDS

The key areas the project has focused on are constantly evolving. Research and innovation are essential to staying updated with these standards, ensuring continuous improvement and competitiveness.

## NEXT STEPS:

The next steps involves pursuing relevant certifications and recognitions to validate the project’s efforts in sustainability, animal welfare, and quality, enhancing its credibility and market position.







## GEOGRAPHICAL LOCATION:

Bulgaria, Europe

## PROJECT PARTNERS:

Smart Farm Robotix Ltd.

## PROJECT BUDGET:

€3.5 M

## DESCRIPTION OF THE INNOVATION

Fully autonomous, 100% solar-powered lightweight weeding robot, using AI computer vision for plants recognition and radically innovative weeding method, well-suited also for hilly terrains, perennial crops, dry and hard soils and hot climates without creating any fire hazards.

## VALUE FOR PRACTITIONERS

Our robot would bring farmers multiple benefits for the weeding process – lower costs, higher predictability, better precision and reliability, less herbicide use and soil compaction. In addition, it will also help with labour shortages and land abandonment.

## SCALABILITY AND TRANSFERABILITY

Our solution can be upgraded to perform also other agri-functions (sowing, pest and disease control, crops and soil monitoring, etc.)

## CHALLENGES AND RESEARCH NEEDS

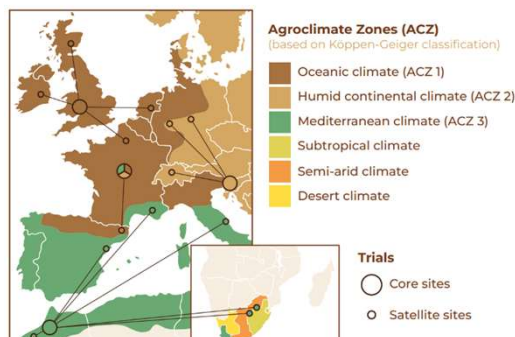
Main challenges include R& know-how in robotics, optics, chemical & bio-sensors, plants' biology, soil health, insects' ecology

## NEXT STEPS:

We plan to upgrade the robot to include additional sensors for collecting valuable field data (for plants, soil, fauna, emissions, etc.) allowing to add multiple other services beneficial to farmers and other agri-stakeholders.

We are looking for R&D partners to develop these functionalities via collaborative projects.





Network of experimental sites, spanning three agroclimatic zones (ACZ).

## GEOGRAPHICAL LOCATION:

Austria, Denmark, France, Germany, Ireland, Italy, Morocco, Netherlands, Slovenia, South Africa, Spain, Switzerland, United Kingdom (England, Scotland).

## PROJECT PARTNERS:



## PROJECT BUDGET:

8 764 747,50 €

## DESCRIPTION OF THE INNOVATION

Root2Res (2022-2027) aims to help crops adapt to climate change by taking better account of root traits in varietal selection schemes. The project develops references and innovative toolboxes (phenotyping, genetic & modeling) to characterize root traits associated with increased tolerance against abiotic stress (water deficit or excess, nutrition deficiency) and carbon storage in soils.

## VALUE FOR PRACTITIONERS

The tools developed will directly benefit applied research organizations engaged in evaluating and selecting plant material, as well as plant breeders. In the end, farmers will benefit by gaining access to crop varieties that are more resilient to climate change, and to farming systems that boost carbon storage and reduce the need for inputs, making agriculture more sustainable and cost-effective.

## SCALABILITY AND TRANSFERABILITY

The tools are tested and developed in three different agroclimatic zones to be accessible and operational across Europe. The project follows Open Science principles to ensure outputs are openly accessible to practitioners.

## CHALLENGES AND RESEARCH NEEDS

Transdisciplinary collaboration and a regulatory framework that incentivizes the development and adoption of resilient crop cultivars.

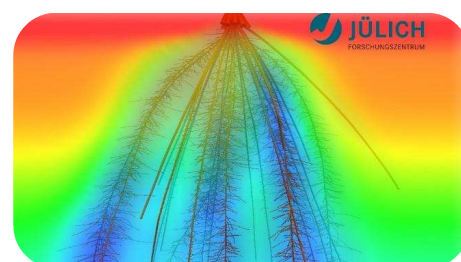
**NEXT STEPS:** Monitor data collection and analysis from various field and controlled environment trials. Finetune the development of all 3 toolboxes. Disseminate.



Phenotyping tools: root architecture, rhizosphere, envirotyping



Genetic tools: molecular markers, innovative germplasm



Modelling tools: root growth, rhizosphere interactions





## DESCRIPTION OF THE INNOVATION

Traceability by fingerprinting certification and QR code from centuries-old apple trees through nurseries and farms to packaging.

Reintroduction to the market of historical apple varieties through innovative organic cultivation and holistic orchard design. This allows the Rosa Romana fruit to be eaten together with the peel that has a particularly high polyphenol content, especially the anticarcinogens quercetin and arginine, which are also powerful antivirals.

Collective territorial mark trading (photo 4).

## VALUE FOR PRACTITIONERS

Technical support in orchard (photo 3): pruning, disease and soil management. Training courses, social activities. Shared strategy for marketing. Bolognese Apennines is a rural area with a high rate of abandonment. Project revitalized many villages and farms.

## SCALABILITY AND TRANSFERABILITY

Market demand is greater than supply. Many new orchards are coming into bearing. Project also provides support for safeguarding in situ old-traditional vegetal varieties and animal species. Application of organic, low intensive practises with biodiversity, promotion of new nested markets.

## CHALLENGES AND RESEARCH NEEDS

Solutions to protect local genetic resources at a high risk of extinction, maintenance of natural farm ecosystems with new local market models. Nutraceutical research.

### GEOGRAPHICAL LOCATION:

Bolognese Apennines, Bologna Italy,

### PROJECT PARTNERS:

**Coordinator:** Ri.nova soc. coop, Cesena

**Organic farms:** La Casetta, Pian di Venola (Bo); Il Mulino, Oreglia;

Domalfolle, Malfolle; La Pulcina, Castel di Casio.

**Research:** DISTAL – University of Bologna.

ASTRA Innovazione e Sviluppo, Faenza

**Consultants/training:** I.Ter, Tipi non comuni, Dinamica.

**Local retails :** Contini & Carboni, Lo Scoiattolo coop. sociale,

**Organic supermarket:** Tuttonaturale S.r.l

**Local Action group:** LAG Appennino bolognese

### PROJECT BUDGET:

€ 288775

## NEXT STEPS:

Technical support service on farms has been initiated by EU/Regional funds that subsequently provide continuity. Funds will be essential in the future to compete in the global market.





## DESCRIPTION OF THE INNOVATION

The overall objective of the S4G project is to implement sustainable agroecological approaches contributing to the improvement of resilience of the grapevine agri-food system against diseases by using new advanced breeding techniques and novel plant protection products.

## VALUE FOR PRACTITIONERS

S4G will introduce safer and more sustainable IPM strategies against fungal/oomycete pathogens in combination with new grapevine resilient genotypes. Expert knowledge from research and practice will contribute to the development of training material for agricultural advisors, guidelines for new IPM strategies for farmers and identification of resilient varieties for breeders.

## SCALABILITY AND TRANSFERABILITY

New indicators to identify the optimum combination of IPM strategies in selected disease-adapted genotypes will be developed and made accessible via building sector-specific AKIS networks across EU's farming communities.

## CHALLENGES AND RESEARCH NEEDS

Viticulture challenged by several fungal diseases that cause a high expenditure of plant protection measures. The mitigation of the environmental impact requires integrated actions by exploiting new genetic resources adapted to local environmental conditions in association to IPM strategies.

### GEOGRAPHICAL LOCATION:

Italy, Portugal, Spain, France, Hungary, Greece

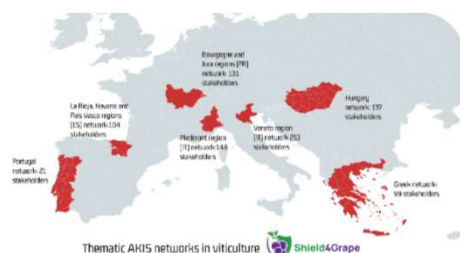
### PROJECT PARTNERS:

- National Research Council of Italy (CNR)
- AGRENAOS
- Aristotle University of Thessaloniki (AUTH)
- Vignaioli
- Universidad de la Rioja (UR)
- Instituto Murciano de Investigación y Desarrollo Agrario y Medioambiental (IMIDA)
- Faculdade de Ciencias da Universidade de Lisboa (FC.ID)
- Council for Agricultural Research and Agricultural Economics Analysis (CREA)
- Burgundy School Of Business (BSB)
- Hellenifera
- Associacao de Viticultores do Concelho de Palmela (AVIPE)
- Center for Technology Research and Innovation (CETRI)
- Pôle Bourgogne Vigne et Vin (GIP)
- Instituto Nacional de Investigação Agrária e Veterinária (INIAV)
- METEC
- University of Pecs

### PROJECT BUDGET:

4.697.312,50

**NEXT STEPS:** Increase the resilience of the viticultural system in a context of climate change by improving tolerance to multiple environmental stresses.





# Rural Roots, Smart Futures

Emilija Stojmenova Duh, Nataša Božić, Nina Cvar  
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<https://smartera-project.eu/>



## GEOGRAPHICAL LOCATION:

Trentino IT  
 Šmarje - Padna SI  
 Sóller/Tramuntana ES  
 North Ostrobothnia FI  
 East Herzegovina BA  
 Devetaki Plateau BG

## PROJECT PARTNERS:

25 entities  
 from 10 countries



## PROJECT BUDGET:

€ 6.861 437, 50

## DESCRIPTION OF THE INNOVATION

SMART ERA empowers rural communities with **smart, practical** solutions that adapt to **local needs** - boosting well-being, strengthening resilience, and sparking innovation for a sustainable, community-led future.

## VALUE FOR PRACTITIONERS

SMART ERA helps local practitioners collect **better data**, **measure digital progress**, and **design smart solutions with communities** - making rural development more effective, connected, and future-ready.

## SCALABILITY AND TRANSFERABILITY

Our **co-design** approach and **community-based** methods make smart solutions easy to adapt and scale. The Smart Innovation Packages and tools can be transferred across regions—ensuring that technology is **usable, inclusive**, and **rooted in local needs**.

## CHALLENGES AND RESEARCH NEEDS

Key challenges include unclear rules around **data governance, confidentiality**, and **security**. Future digital policies must better support and scale smart local solutions—ensuring they are safe, effective, and widely replicable.

## NEXT STEPS:

Launch an **Open Call** to co-develop innovative pilot solutions and boost the uptake of social innovation. Enable pilot regions to design **action plans** that bring social innovation to life in their communities.





## DESCRIPTION OF THE INNOVATION

A complete system for regular monitoring of silage and TMR dry matter. A sampler attached to a bale gripper, a fast method for measuring dry matter using halogen dryer, and a FeedApp for fine-tuning of TMR recipes were developed, piloted and widely disseminated.

## VALUE FOR PRACTITIONERS

Too concentrated or diluted TMR feed leads to decreased milk yield, extra feeding costs or may affect cows' health.

## SCALABILITY AND TRANSFERABILITY

Silage sampler is straightforward to manufacture. Halogen dryers are commercial devices that can be purchased everywhere. The developed dry matter measurement method can be easily implemented elsewhere. FeedApp needs maintainer for required cloud service, the application itself can be easily distributed via applications shops. There is already English version of the FeedApp.

## CHALLENGES AND RESEARCH NEEDS

1. Sampler for attachment to silage cutter.
2. Cows are individuals and their response on a certain TMR may differ.
3. Even if your cow is optimally fed, infectious diseases, in particular mastitis, can ruin production.

## GEOGRAPHICAL LOCATION:

Kainuu, Northern Finland

## PROJECT PARTNERS:

1. University of Oulu, Kajaani University Consortium, Unit of Measurement Technology
2. Rural Advisory Services ProAgria
3. In Operational Group also 8 farms, 2 companies and 2 experts (advisor and veterinarian)

## PROJECT BUDGET:

319 818 €

**NEXT STEPS:** Having the monitoring of TMR feed developed, we want to focus on developing monitoring of nutritional status and general welfare of dairy cow. Biosensor approach could be used both for the herd average and individual cows. We are working also with new antimicrobials in another EIP AGRI OG of ours.







## Soil-X-Change

### GEOGRAPHICAL LOCATION:

Austria, Bulgaria, Germany, Hungary, Italy, Poland, Slovakia, Slovenia, Spain

### PROJECT PARTNERS:

Coordinator: Innomine

Partners: AKI, Ambienta, ATB, BEC, BOKU, CDR, DC, KGZS, NAAS, UNISS

OGs: BLUEPLAN, GEBO KONSULTING

### PROJECT BUDGET:

€ 1 999 097,50

### NEXT STEPS:

We seek additional farmer groups, OGs, and advisors for co-creation and validation. Interested in expanding the platform or linking national initiatives? Let's connect.

### DESCRIPTION OF THE INNOVATION

Soil-X-Change is developing an integrated knowledge-sharing platform that collects and harmonizes soil management practices from 9 EU countries. It responds to farmers' need for accessible, proven, and practical solutions. Using a bottom-up approach, it leverages farmers' own experiences and results from EIP-AGRI Operational Groups. This makes the knowledge context-specific, and rooted in real-world success.

### VALUE FOR PRACTITIONERS

The platform will offer farmers easy access to peer-tested soil practices that improve soil health, reduce input costs, and build climate resilience. Farmers benefit from visibility of what works in similar or differing conditions and gain confidence through farmer-to-farmer learning.

### SCALABILITY AND TRANSFERABILITY

Soil-X-Change is built for scale. Its standardized method for collecting and documenting practices ensures they are understandable and adaptable across various soils, climates, and farming systems. What starts as local knowledge is transformed into an EU-wide learning resource, with potential to include other countries and sectors (e.g. forestry, agroecology).

### CHALLENGES AND RESEARCH NEEDS

Key challenges include the diversity of local contexts, language barriers, and the need for validation of practices across regions.



KUHproKLIMA project - grazing exclusion plot, to measure the effects of holistic planned grazing in Germany.



Roztoczańskie Konopie project - strip-till practice, combined with the cultivation of hemp as a catch crop, in Poland.



TONIA project - partially differentiated-optimized nutrient management in arable farming in Germany.



## GEOGRAPHICAL LOCATION:

Murcia and Andalucía (Spain)

## PROJECT PARTNERS:

Sistema Azud SA; CEBAS CSIC  
Evergrant; Province of Jaen;  
Coop S. Isidro Canena; ASAJA  
Jaén

## PROJECT BUDGET:

568.758,09

## DESCRIPTION OF THE INNOVATION

The modernization of irrigation using sub-surface irrigation and injection of nanobubbles in oil mill effluents, reducing the use of synthetic fertilizers in irrigation water.

## VALUE FOR PRACTITIONERS

Increasing the productivity of olive groves and their competitiveness by validating the irrigation techniques. The Subalma technology allows to save water and to maintain efficiency of water use, because of the use of sub-surface drip irrigation. All the system is controlled by sensors and monitoring tools.

## SCALABILITY AND TRANSFERABILITY

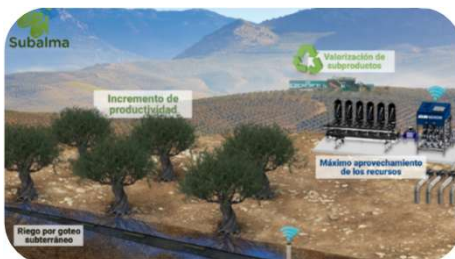
The tools and knowledge transferred to farmers is scalable to other regions in Europe facing environmental constraints. Namely, fruit trees and similar crops. Other beneficiaries of transferability are technology companies, national and regional governments, dealing with policy implementation.

## CHALLENGES AND RESEARCH NEEDS

Climate change, water scarcity and environmental constraints for sustainable food production are main challenges that European agriculture is facing. Research is focused on promoting access to efficient water management in a low – carbon economy.

## NEXT STEPS:

Public-Private Cooperation, knowledge transfer to farmers, promotion of sustainable irrigation technologies and water management efficiency





# Tailored Cover Crop Seed Mixtures for Arable Lands

Dora Szlatenyi

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<https://discoverycenter.eu/>



## GEOGRAPHICAL LOCATION:

Hungary

## PROJECT PARTNERS:

Discovery Center, Ökosol Kft., Csoroszllya-Farm, Hoch-Szilasi Zsanett and Szilágyi Szilárd farmers, and, Csécsi Tamás István, Dr. Sándor Zsolt and Dr. Komlósi István researchers

## PROJECT BUDGET:

149,075,955 HUF

## DESCRIPTION OF THE INNOVATION

We developed tailored seed mixtures for cover cropping in Hungary, tested on various soils and cropping systems. The innovation combines practical field results with an easy-to-use online calculator to support farmers in choosing the most suitable mixtures.

## VALUE FOR PRACTITIONERS

- Nitrogen savings
- Cost savings: reduction of synthetic fertilizer
- Improved soil health – erosion and SOC
- Practical usability - site-specific mixture selection
- Dual use - some cover crops can also be fodder

## SCALABILITY AND TRANSFERABILITY

The approach can be adapted to other countries, soil types, and farming systems. It supports sustainable practices and can be integrated into advisory services or CAP green measures.

## CHALLENGES AND RESEARCH NEEDS

Adoption needs more farmer awareness. Timing and species choice must match local climate. More testing needed under drought-prone conditions.

## NEXT STEPS:

Promoting adoption through demo farms and advisory services.  
Seeking EU-level partnerships for broader application.





## GEOGRAPHICAL LOCATION:

Europe (NL, IT, EL, FI, HU)

## PROJECT PARTNERS:

AERES NL  
AUA EL  
Coldinnova IT  
Jamk FI  
Pro Agria FI  
TINADA IT  
ZLTO NL  
SZE HU

## PROJECT BUDGET:

2 mio € (Horizon Europe)

## DESCRIPTION OF THE INNOVATION

Bringing Smart Crop Farming Technology (SFT) closer to farmers by enhancing farmers' ability to assess, adopt and integrate SFT through **multi-actor advisory systems**, **collaborative innovation**, and **tailored training programs**. Fostering creativity and problem-solving with **farmers**, **advisors**, **OGs** and **AKIS** actors through **innovation camps** to boost **peer-to-peer** learning.

## VALUE FOR PRACTITIONERS

Enhanced **knowledge exchange**, **practical tools**, **peer-to-peer** learning and **collaborative innovation**, enabling practitioners to improve decision-making as well as increase productivity and sustainability of farming practices.

## SCALABILITY AND TRANSFERABILITY

TechCoach's scalable and transferable model leverages **multi-actor advisory systems**, **innovation camps**, **cross-visits** and the **TechCoach Library**, enabling widespread adoption of SFT across diverse regions and contexts.

## CHALLENGES AND RESEARCH NEEDS

TechCoach faces challenges in SFT adoption due to **perceived complexity**, **lack of information**, and **social factors**. Needs include tailored advisory systems, multi-actor collaboration, and effective knowledge dissemination.

**NEXT STEPS:** Identifying and collecting good practices, developing guidelines, and analyzing networks. Connecting OGs and AKIS actors into national networks, organizing innovation bootcamps, and evaluating lessons learned to facilitate farmer-centered, multi-actor advisory systems for Smart Crop Farming.







## GEOGRAPHICAL LOCATION:

All EU countries with particular focus on underdeveloped bioeconomy regions

## PROJECT PARTNERS:

14 partners from 10 EU countries

## PROJECT BUDGET:

3 million EU funding for 5-year duration of the project

## DESCRIPTION OF THE INNOVATION

ToBeReal is focused on promoting the development of bioeconomy projects across Europe. Its goal is to overcome obstacles and support the creation of flagships that represent innovative and sustainable biological solutions.

## VALUE FOR PRACTITIONERS

ToBeReal provides strategic service assistance in 4 verticals: technical, business & financial, regulatory & legal, and social innovation. The main goal is to catalyse public, private and public-private bioeconomy projects at different stages of maturity leading to a higher number of flagship projects.

## SCALABILITY AND TRANSFERABILITY

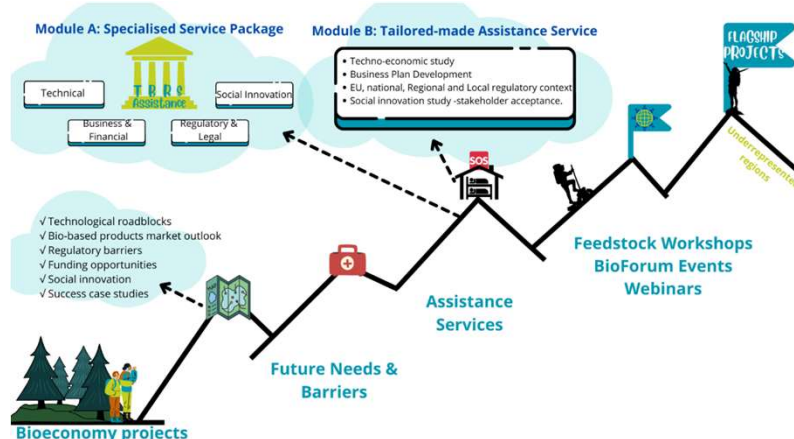
Services of ToBeReal aim to maximize the feasibility of the projects while providing support for scalability and market uptake, being the cornerstone of the project.

## CHALLENGES AND RESEARCH NEEDS

There are numerous solutions available all-around Europe, but not all of them are ready to be implemented. Some need improved business model, the others need more advanced market research, partners, investors or public financing. These are all the areas where ToBeReal can help.

## NEXT STEPS:

- Design service portfolio tailored to different bioeconomy projects' needs
- Launch application mechanism
- Stakeholder engagement
- Assistance deployment to 30 bioeconomy projects
- Long-term assistance



# **EU CAP Network brokerage event ‘Partnering for innovation with impact in agriculture and rural areas’**

**29-30 April 2025 | Prague, Czech Republic**

All information on the brokerage event is available  
on the event webpage:

<https://eu-cap-network.ec.europa.eu/events/eu-cap-network-brokerage-event-partnering-innovation-impact-agriculture-and-rural-areas>

