

European Chestnut Days 2025

Sierra de Aracena and Picos de Aroche Natural Park

European opportunities for cooperation in research, development and knowledge transfer to boost the sustainability and resilience of the chestnut sector

12/09/2025 Gertruud van Leijen

Why should EU support the chestnut sector?

- Offers many important ecosystem services
 - Food production – chestnuts, but also mushrooms and berries
 - Air quality
 - Wood provision
 - Soil erosion control
 - Water and climate regulation
 - Cultural identity and tourism
 - Biodiversity
- Threatened by
 - Pests and pathogens – *Fibia splendana*, ink disease, brown rot
 - Climate change – drought, extreme weather events
 - Economic pressures – rural depopulation, generational change

Why should EU support the chestnut sector?

Hence, chestnut sector is fostered under 2 main groups of policies:

- Forestry, to protect natural heritage and foster the ecosystem functions they perform (habitat 9260 castanea sativa woods)
 - Green Deal
 - Soil directive
 - Climate strategy and Climate Law
 - Biodiversity Strategy for 2030
- Agriculture, to foster sustainable food production
 - Farm to Fork strategy
 - Green Deal
 - Common Agricultural Policy

Policies and funding sources

Main public sources of funding for **forestry**, to protect natural heritage and the ecosystem functions they perform:

- **LIFE Programme**, EU funding instrument for the environment and climate action, for habitat restoration, species conservation, awareness campaigns, innovation and knowledge transfer in forest management
- **Rural Development Funds** (EAFRD), compensation schemes for farmers managing land within Natura 2000 sites
- **European Regional Development Fund** (ERDF), to enhance tourism and green infrastructure
- National and regional funding for Natura2000 site management
- **Horizon Europe**, framework programme for research and innovation

Policies and funding sources

Main public sources of funding for agriculture, to foster sustainable food production:

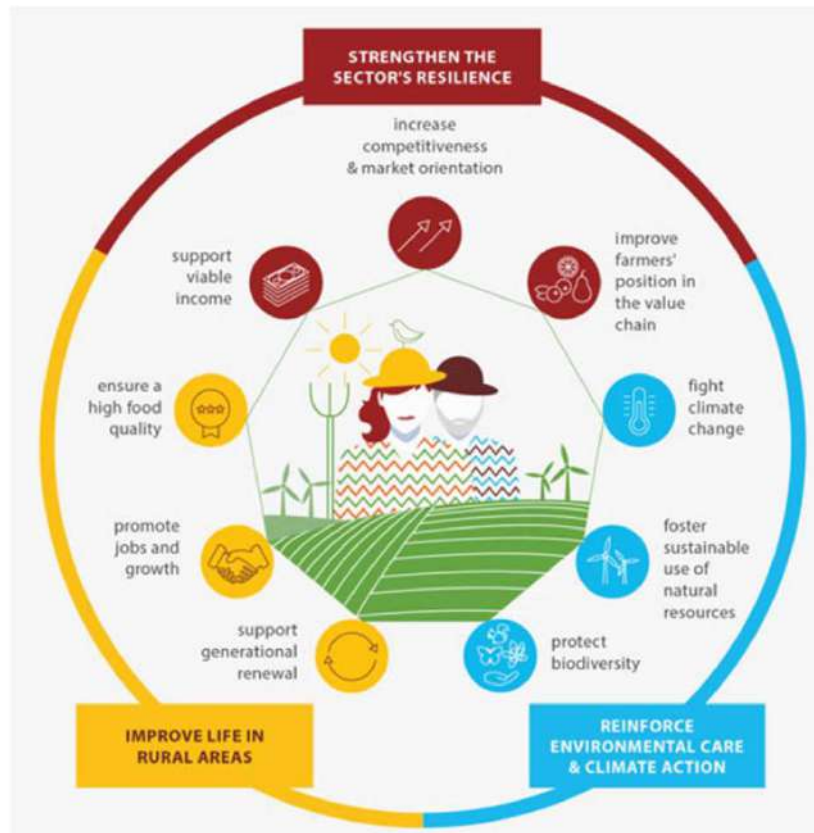
- **European Agricultural Guarantee Fund (EAGF)**, offers direct payments to farmers for income support and as compensation for applying eco-schemes
- **European Agricultural Fund for Rural Development (EAFRD)**, for investments, knowledge-building, innovation and co-operation

Together, they amount to 31% of the total European Union budget!!

- **European Regional Development Fund (ERDF)**, to enhance tourism and green infrastructure
- **Horizon Europe**, framework programme for research and innovation
- **LIFE programme**, to trial and implement innovative solutions to adapt to climate change, remediate soil depletion, enhance biodiversity, improve resources efficiency

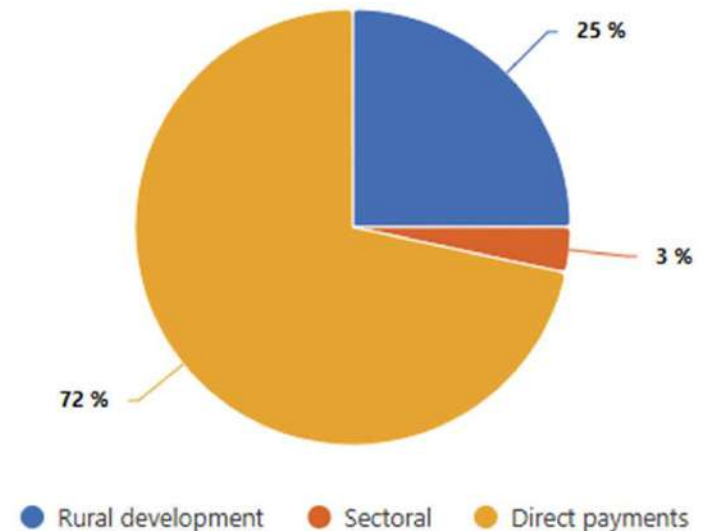
Common Agricultural Policy (CAP)

CAP 2023-2027: 10 objectives, based on Green Deal targets, implemented by National Strategic Plans, agreed upon with the EC



Planned financial allocations under the CAP Strategic Plans 2023-27

(in EUR billion)



Source: European Commission

Common Agricultural Policy (CAP)

 Pillar	 Fund	 Description
Pillar I	European Agricultural Guarantee Fund (EAGF)	- Provides direct payments to farmers (income support) - Funds market measures (e.g. crisis support, trade promotion) - Includes greening payments to promote sustainable farming
Pillar II	European Agricultural Fund for Rural Development (EAFRD)	- Supports rural development programs (RDPs) - Focuses on improving competitiveness, sustainability, and innovation - Co-financed by national/regional governments

Pillar I amounts to €291,1 billion; pillar II €95,5 billion

Pillar II rural development:

- focused on all 10 CAP objectives
- at least 35% of the budget must be dedicated to environment, climate and animal welfare
- implemented by 8 broad “types of intervention”, defined in National Strategic Plans based on needs and capabilities.

European Innovation Partnership for Agriculture

EIP-AGRI was launched in 2012 as a EU strategic initiative

Aim: to bridge the gap between research and practical farming innovation, to accelerate adoption of innovative solutions that improve productivity, competitiveness and sustainability of agriculture and forestry

How:

- **Operational Groups**, funded under the CAP by the EAFRD
- **Collaborative Projects and Support Actions** funded under Horizon Europe
- Thematic Networks
- Workshops and Seminars
- Central hub, currently incorporated in www.eu-cap-network.ec.europa.eu

European Innovation Partnership for Agriculture

Operational Groups:

- groups of people with complementary knowledge who co-create practical solutions for agriculture, forestry and rural communities in an innovation project. Operational Groups can include farmers, researchers, advisors, businesses, environmental groups, consumer interest groups or other NGOs.
- Implemented at a local or regional level
- Funding managed by national or regional authorities
- Databases to share best practices at EU level on www.eu-cap-network.ec.europa.eu and at national level (<https://www.innovarurale.it/it/pei-agri/gruppi-operativi/bancadati-go-pei/> / <https://redpac.es/grupos-operativos>)



European Innovation Partnership for Agriculture

Operational Groups - examples

- GO INNONUTS - “Nut supply chain. Better integration of primary producers in the agri-food supply chain through quality schemes, local markets and short supply chains”.



Aim: to develop protocols for pest management in hazel- and chestnut, the latter specifically concerning brown rot caused by *Gnomoniopsis castaneae*

Implemented by UNITUS and 12 farming companies, total budget 200K€.

- INKAS - Protection and Safeguarding of Chestnut Trees from Ink Disease



- Aim: co-develop and test novelties, like a detection dog, previously tested for *Xylella*
- Implemented by Ranelli Marco Farm, with other farmers, a cooperative, a farmer association, an agronomist and UNIVPM , total budget 281K€.

European Innovation Partnership for Agriculture

EIP-AGRI Operational Groups & best practice collection and sharing are excellent tools to:

- Field-trial academic lab-proven solutions with groups of farmers
- Acquire knowledge from farmers, to finetune protocols based on scientific knowledge and to make them applicable
- Transfer knowledge to local stakeholders, also results from EU projects
- Collect knowledge from various territories to assess them in EU projects and boost innovation

This is called an “interactive innovation model”.

The European Union's LIFE programme

LIFE is the only EU programme dedicated exclusively to the environment, nature conservation and climate action.

- Projects must focus one or more of the following targets:
 - develop and demonstrate innovative techniques and approaches to solve environmental challenges
 - help to implement plans and strategies, required by EU legislation.
 - promote best practices and behavioral changes
 - catalyse the large-scale deployment of successful solutions
- Project may be implemented
 - in one or more countries
 - by one or more organisations
 - With a EU contribution between 1,5M€-5M€ indicatively
 - In between 2-5 years, indicatively
- Funding rate: 60% of eligible costs
- For the years 2021-2027 a budget of 5.43 billion € is available.

The European Union's LIFE programme

Opportunities for chestnut sector in several subprogrammes

- **Nature & Biodiversity**

- Habitat conservation and restoration and halting the loss of biodiversity
- To be implemented in Natura2000 areas or so-called corridors

- **Circular Economy and Quality of Life / Zero Pollution**

- Recovery of resources from bio-waste
- Circular value chains
- Water: improving water use efficiency, drought risk management
- Soil: innovative management to secure soil fertility, natural pest resistance and nutritional food quality to ensure long-term food security and safety
- Chemicals: reduce the use of harmful biocidal and plant protection products

- **Climate Change**

- Mitigation: reduction of GHG emissions from land use, agriculture and forestry; enhancement of natural carbon sinks in forests
- Adaptation: adaptation solutions for agriculture and forestry; tools for climate risk assessment and selection of best adaptation measures; afforestation, genetic diversity and highquality seed production; DSS.

The European Union's LIFE programme

How to write a successful project?

LIFE evaluation criteria:

- Direct measurable impacts at the project's scale
- Long-term impact, in real environments
- Both direct and long-term measured in terms of Key Performance Indicators
- Start from at least TRL5, reach TRL 8-9
- Promote transferability in the sector and possibly to other sectors
- Cost effectiveness (costs vs environmental impacts)
- Built on previous research & development, network with other LIFE projects
- Coherent and effective implementation plan
- Project team that includes all needed competences

The European Union's LIFE programme

Example:



Climate change is exacerbating the threat of **invasive pathogens** on natural and semi-natural forest ecosystems. As a result, the impact and spread of **Phytophthora** species are increasing in **chestnut, cork oak, and holm oak** forests. These predominant tree species in Mediterranean forests are currently facing a severe decline.

Per maggiori info
www.lifefagesos.it



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Objectives

LIFE FAGESOS – a EU project – aims to **propose remedies** specific to each ecosystem with the goals of:

- Preventing the spread of diseases through monitoring based on remote sensing, risk modeling, and hygiene measures to protect areas surrounding disease outbreaks;
- Mitigating forest decline caused by *Phytophthora* species and climate change through the implementation of Integrated Pest Management protocols using natural products with very low environmental impact.

Outcomes

- Maps of high-risk areas and distribution of **Phytophthora** outbreaks created through the integration of multispectral remote sensing, stochastic, and machine learning models.
- Integrated Pest Management protocols developed for each tree species.
- Validation of the efficacy of **natural products** with **very low environmental impact** in forest areas.
- Updated protocols for sweet chestnut in compliance with current legislation regarding the use of potassium phosphonate.
- Enhanced awareness among stakeholders, farmers and citizens adopting hygiene measures during forest activities.



LIFE FAGESOS is co-funded by the European LIFE Programme, under grant agreement 101074466 LIFE21-CCA-IT-LIFE FAGESOS.



R&I Framework programme Horizon Europe

- Focused on the main EU challenges:
 - tackle climate change
 - boost competitiveness and growth
 - strengthen research capacities
 - support UN sustainable development goals
- Total budget: €95.5 billion
- 3 Pillars and various subprogrammes, i.e.
 - Pillar I: Excellent Science, for researchers and research infrastructure
 - Pillar II: Global challenges & European Industrial Competitiveness, for collaborative research and innovation projects
 - Pillar III: Innovative Europe, for disruptive close-to-market products or processes

R&I Framework programme Horizon Europe

For chestnut cooperation in research & development most relevant: Pillar II

Global challenges are laid down in Workprogrammes:

- WP8 Cluster 5: Climate, energy and mobility
- WP9 Cluster 6: Food, bioeconomy, natural resources, agriculture and environment
- WP12 Missions:
 - Adaptation to Climate Change
 - A Soil Deal for Europe

Instruments:

- Collaborative Research and Innovation Projects (RIA) for TRL <5
- Collaborative Innovation Projects (IA) for TRL >4
- Coordination and support Actions (CSA)

R&I Framework programme Horizon Europe

How does it work?

- Precise funding topics defined per year, f.e. concerning
 - Smart farming
 - Biodiversity and climate resilience
 - Sustainable food systems
- Only 1-4 projects will be funded per topic
- Topics may require many aspects or sectors to be covered
- Partnerships of at least 3 legal entities from 3 different countries, often 5-20 partners
- Funding may range from 3M€ till 10M€
- Project duration is usually 3-5 years
- Excellence, impact and quality are the evaluation criteria
- Dissemination as abstracts through the EIP-AGRI database is required and collaboration with Operational Groups promoted

Miscellaneous

Cost Actions – great for knowledge exchange!

European Cooperation in Science and Technology

- For networking of researchers and innovators across Europe and beyond
- Any theme can be proposed (bottom-up)
- Funded by Horizon Europe, only costs for meetings, training schools, missions, etc. are eligible, not to perform research.
- New members can join after project start

PRIMA – great if you need non-EU partners!

Partnership for Research and Innovation in the Mediterranean Area

- Project may have partners from 12 EU-countries and Algeria, Egypt, Jordan, Lebanon, Morocco, Israel, Tunisia, Turkey
- Core themes: water management; farming systems; agro-food value chain; water, energy, food and ecosystems Nexus
- TRL from 3-7 – very broad spectrum of fundable projects
- Managed by a private non-profit body, funded by EU and national funding

Take aways

Each programme has its own objectives, features and requirements.
Before starting your search, ask yourself:

- For what do we need funding:
 - what goal do we want to achieve?
 - What do we want to do precisely?
- If we want to develop a new solution: how far are we, from lab to market? (TRL, technology readiness level)
- Which geographical range do we need to achieve our goals? Europe? Our own region?
- What are the kind of activities we need funding for, which kind of costs are concerned?
- Who do we need to collaborate with, to achieve our goals?

And: consult networks to check for yet available best practices, previous experiences, potential collaborators and ways to share your knowledge.

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