SUSTAINABLE FOREST MANAGEMENT

Why do research and innovation on forestry matter?

Forests cover over 40% of the EU's land surface, and they are essential for the health and well-being of all Europeans. We depend on them for the air we breathe and the water we drink, and their rich biodiversity and unique natural system are a home and habitat for most species found on land around the world. Forests have long held a hugely important role in our economy and society, creating jobs and providing food, medicines, materials, clean water and more. For centuries, forests have been a thriving hub for cultural heritage and craftsmanship, tradition and innovation. But, as important as they were in the past, they are now essential for our future. Forests are a natural ally in adapting to and fighting climate change and will play a vital role in making Europe the first climate-neutral continent by 2050. However, Europe's forests are also being hit hard by climate change and natural disturbances like forest fires, storms, or new pests and diseases. Targeted investments in research and innovation are needed to preserve carbon stocks and carbon sinks while supporting biodiversity and providing renewable resources for a circular and sustainable bioeconomy in a holistic approach.

Forestry under Horizon 2020 and Horizon Europe

CORDIS search keywords
forestry, forest management, forest resilience, forest bioeconomy, forest geneticre sources and forest ecosystem services

Nb of projects
16 Horizon 2020
 9 Horizon Europe

EU contribution
€ 156 million
€   67 million

Horizon 2020 Societal Challenges 2 and Horizon Europe Cluster 6 projects, Work Programme 2023-2024 expected projects included / Selection of a few projects logos

Success stories dedicated to sustainable forestry management

Smart information, governance and business innovations for sustainable supply and payment mechanisms for forest ecosystem services (**InnoForESt**) aimed to spark a transformation of the European forest sector by steering policies and businesses towards an economically viable provision of the wide range of forest ecosystem services.

The main strategic goal of the project **Sincere** was to advance innovative mechanisms (IM), including novel policies and business models, that support the provision of forest ecosystem services across Europe and beyond and to align them with a coordinated supportive policy framework for working towards a Europe-wide incentive system for providing forest ecosystem services.

Forestry and ecosystem restoration under a changing climate

Informa, **Climb-Forest** and **OptFor-EU** are enhancing our science-based knowledge of EU forests, including old-growth forests, and their capacities to mitigate climate change.

Eco2Adapt develops the ecosystem-based adaptation (EbA) framework, derived from nature-based solutions (NBS), that harnesses biodiversity and ecosystem services to reduce vulnerability and build social–ecological resilience to climate change. The project consortium works in 'living labs' in Europe and China, located in climate hotspots, and investigates how forest managers integrate disturbance and vulnerability in their decision-making.

OptForests supports the protection and sustainable management of forest genetic resources of great interest for biodiversity, climate change adaptation and forest reproductive materials. A diversity of forest genetic resources provides

Forwards prototypes the ForestWard Observatory to provide (1) timely and detailed information on European forests' vulnerability to climate change impacts, (2) science-based knowledge to guide management using the principles of climate-smart forestry, ecosystem restoration and biodiversity preservation, and (3) stakeholder engagement and public participation in decision-making processes.

Thriving rural areas and boosting the forest-based bioeconomy within sustainability boundaries

Basajaun and Build-in-Wood develop and test new technologies and environmentally friendly solutions for the use of wood-based materials in the (re)construction and/or retrofitting of buildings.

Rosewood4.0 placed emphasis on digitalisation to train stakeholders along the forest value chain to dispense knowledge for effective wood mobilisation.

The purpose of the thematic network Incredible was to address the existing research and innovation knowledge divide in relation to non-wood forest product–service systems in the Mediterranean basin.

Horizon 2020 and Horizon Europe collaborative projects on forestry

Follow the CORDIS link for more information on the start-end date, EU contribution, coordinator and results.
List sorted by ascending project acronym.

Website	Project	CORDIS
ALTERFOR	Alternative models and robust decision-making for future forest management	676754
BASAJAUN	Building: A SustainAble Joint between rurAl and UrbaN Areas Through Circular And Innovative Wood Construction Value Chains	862942
Build-in-Wood	Sustainable wood value chains for construction of low-carbon multi-storey buildings from renewable resources	862820
DIABOLO	Distributed, integrated and harmonised forest information for bioeconomy outlooks	633464
eco2adapt	Ecosystem-based Adaptation and Changemaking to Shape, Protect and Maintain the Resilience of Tomorrow's Forests	101059498
FirEUrisk	Developing a holistic, risk-wise strategy for European wildfire management	101003890
FIRE-RES	Innovative technologies and socio-ecological-economic solutions for fire resilient territories in Europe	101037419
FIRELOGUE	Cross-sector dialogue for Wildfire Risk Management	101036534
EUFORE	European FOREST Research and Innovation Ecosystem	101081788
ForestValue	Innovating forest-based bioeconomy	773324
FORWARDS	The ForestWard Observatory to Secure Resilience of European Forests	101084481
HoliSoils	Holistic management practices, modelling and monitoring for European forest soils	101000289
HOMED	HOlistic Management of Emerging forest pests and Diseases	771271
INCREdible	Innovation Networks of Cork, Resins and Edibles in the Mediterranean basin	774632
INFORMA	Science-based INtegrated FORest Mitigation mAnagement made operational for Europe	101060309
ONEforest	A Multi-Criteria Decision Support System For A Common Forest Management to Strengthen Forest Resilience, Harmonise Stakeholder Interests and Ensure Sustainable Wood Flows	101000406
InnoForESt	Smart information, governance and business innovations for sustainable supply and payment mechanisms for forest ecosystem services	763899
OptFORESTS	Harnessing forest genetic resources for increasing options in the face of environmental and societal challenges	101081774
OptFor-EU	OPTimising FORest management decisions for a low-carbon, climate resilient future in Europe	101060554
RESONATE	Resilient forest value chains – enhancing resilience through natural and socioeconomic responses	101000574
ROSEWOOD4.0	EU network of regions on sustainable wood mobilisation ready for digitalisation	862681
SINCERE	Spurring INnovations for Forest ECosystem SERvices in Europe	773702
SUPERB	Systemic solutions for upscaling of urgent ecosystem restoration for forest related biodiversity and ecosystem services	101036849

Relevant sources of information supporting forestry

Other instruments like the 'European Innovation Partnership for Agricultural productivity and sustainability' (EIP-AGRI), the Circular Bio-based Europe partnership and EU missions (A Soil Deal for Europe, Adaptation to Climate Change) also help enabling sustainable management of multifunctional forests.

Forestry under EIP-AGRI activities – Focus Groups and Operational Groups

Focus groups
- Sustainable mobilisation of forest biomass
- New forest practices and tools for adaptation and mitigation of climate change
- Agroforestry: introducing woody vegetation into specialised crop and livestock systems

Examples of Operational Groups (OGs)
- Wood2Biogas
- Carbon sequestration increase in the Emilian Apennine forests

Forestry under the EU Missions

Relevant topics from Circular-Biobased Europe Joint Undertaking work programme 2023
- HORIZON-JU-CBE-2023-IAFlag-01: Optimised and integrated forest-based value chains

In the pipeline and future funding opportunities

Updated list of relevant topics from work programme 2023–2024

- HORIZON-CL6-2023-BIODIV-01-15: Integrative forest management for multiple ecosystem services and enhanced biodiversity
- HORIZON-CL6-2023-CircBio-01-12: Optimising the sustainable production of wood and non-wood products in small forest properties and development of new forest-based value chains
- HORIZON-CL6-2023-CircBio-01-13: Capturing market trends and societal perceptions for tailor-made forest services
- HORIZON-CL6-2023-CircBio-01-14: Monitoring the multi-functionality of European forests
- HORIZON-CL6-2024-CLIMATE-01-5: Climate-smart use of wood in the construction sector to support the New European Bauhaus
- HORIZON-CL6-2024-BIODIV-01-8: Conservation and protection of carbon-rich and biodiversity-rich forest ecosystems
- HORIZON-CL6-2024-GOVERNANCE-01-12: Developing EU advisory networks on forestry

#AgriResearch