

Contact info

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PARTNERS

OptFORESTS is composed of 19 European partners. The institutions in partnership include a comprehensive range of:

- Universities, research centres, international organisations, national forest agencies and environmental consulting firms.
- European countries [Austria](#), [Bulgaria](#), [Denmark](#), [Czech Republic](#), [France](#), [Finland](#), [Germany](#), [Italy](#), [Norway](#), [Romania](#), [Slovenia](#), [Spain](#) and [Switzerland](#).

PROJECT INFO

- **Budget:** 8 million €
- **Project duration:** 5 years - 1 November 2022 to 31 October 2027

INRAE



**Funded by
the European Union**



Harnessing forest genetic resources for increasing options in the face of environmental and societal challenges

ABOUT THE PROJECT

The OptFORESTS project aims to enhance knowledge and innovation for protecting and sustainably managing forest genetic resources of key tree species. These resources, and derived forest reproductive material (seeds, plants and parts of plants of tree species), are essential for preserving forest biodiversity.

The intended legacy of OptFORESTS is to protect and use these resources through a well-developed nursery sector which supports planting and restoration efforts in Europe.

OptFORESTS is an instrumental project to achieve long-term impacts related to the fight against climate change and natural disasters, while maintaining or enhancing forest biodiversity and ecosystem services. It supports international agreements and EU policy in the framework of the European Green Deal, establishing links with similar initiatives in other continents.

OBJECTIVES

European efforts towards resilience and restoration of forest ecosystems through massive plantations need better knowledge, protection and sustainable management of forest genetic resources (FGR).

In the next five years, OptFORESTS will support the conservation and sustainable use of FGR through five objectives:

1. Supporting diverse and adapted forest reproductive material (FRM) for future climate	2. Fostering sustainable use and resilience of natural forests	3. Expanding nursery capacity, diversity and cooperation
4. Developing nature-based solutions (NBS), tools and cultural pathways to promote forest biodiversity and ecosystem services	5. Demonstrating forest biodiversity restoration solutions	

OUR MISSION

OptFORESTS' mission is to develop both forestry and socio-cultural knowledge in order to be able to use more tree species in forestry, contribute to forest restoration and increase the production capacity of forest nurseries in Europe. To achieve this, OptFORESTS works on the following thematic lines:

28 next-generation common gardens

- Provenance and species mixtures.
- Unique tree lineages for future climate change adaptation and forest biodiversity research.

FRM adaptable to future climates

- Recommendations for deployment of adaptable forest reproductive material (FRM).
- Unique tree lineages for forest ecosystem restoration and management.

Ecosystem restoration projects

- Enrichment plantations in declining forests.
- Demonstration plots in ecosystem restoration projects.
- In six countries, in cooperation with local stakeholders.

FGR-oriented forest management

- New genetic module for training software (marteloscopes) simulating the impact of silviculture on genetic diversity.
- Integrate evolution thinking in forest management.

Strengthening the nursery sector

- Proposals, based on sector analysis and demand forecasting, to expand capacity and increase cooperation among nurseries.
- Technical developments.

Optimising genetic diversity use

- Low-input breeding strategies.
- Optimised use of genetic diversity for adaptation.
- Aim to establish and manage new mixed forests.

Enhancing FGR-based biodiversity

- Socially acceptable adaptive solutions.
- Improve biodiversity and ecosystem services based on forest genetic resources (FGR).

Supporting decision-making

- FOREMATIS and EUFGIS Information Systems linked.
- Support end users to make decisions about where to source or plant FRM.

LONG-TERM IMPACTS

Beyond the mission and immediate outcomes of OptFORESTS, the project envisages the following key long-term impacts and lasting benefits for forestry and biodiversity:



Conservation of unique tree lineages for forest ecosystem restoration



Sustainable use of forest genetic resources in a climate change context



Biodiversity and ecosystem services provision in forestry



Access to a wider range of breeds with a broadened genetic base



Enabling transformative changes in society



Nature-based solutions for competitive sustainability and for tackling climate change and natural disasters



Biodiversity research interconnected across Europe

