



**OPTIMIZING THE MANAGEMENT  
AND SUSTAINABLE USE OF  
FOREST GENETIC RESOURCES  
IN EUROPE**



**GENTREE**

# THE PROJECT

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## DURATION

1 March 2016 – 28 February 2020

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## BUDGET

8 million Euro

(6.7 million Euro co-funded by the European Union's Horizon 2020 research and innovation programme)

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## PARTNERS

**GenTree** brings together 22 public and private research organizations and enterprises, contributing a wide variety of skills, expertise and long-standing experience in the area of forest genetic resources.

## BACKGROUND

# INFORMATION

In the context of climate change and continuously evolving demands for forest products and services, the goal of GenTree is to provide the European forestry sector with better knowledge, methods and tools for management and sustainable use of forest genetic resources (FGR) in Europe.

**GenTree** will improve the status of European *in situ* and *ex situ* FGR conservation efforts, support acquisition, conservation, characterization, evaluation and use of relevant FGR in breeding and forestry practice and policy. It will also harmonize, rationalize and improve the management of existing collections and databases, and will strengthen the EU strategy for cooperation on FGR research and innovation.



## INNOVATIVE STRATEGY

The project will design innovative strategies for dynamic conservation of FGR in European forests based on two aspects: improved phenotypic and genotypic characterization of important European forest tree species across their entire range, and predicted adaptive responses to environmental changes.

Furthermore, it will broaden the range of FGR used by European breeding programmes, currently restricted to a few commercial tree species. Finally, it will elaborate new forest management scenarios and policy frameworks that fully integrate genetic conservation and breeding aspects, to adapt forests and forestry to changing environmental conditions and societal demands.

## INVESTIGATED SPECIES

**GenTree** focuses on 12 economically and ecologically important tree species in Europe, growing in a wide range of habitats and covering different societal uses and values. The species investigated will be studied at different intensity levels to address relevant scientific and technological questions on existing and predicted threats to their genetic resources.

### CONIFERS

*Abies alba*, *Picea abies*, *Pinus cembra*, *Pinus halepensis*, *Pinus nigra*, *Pinus pinaster*, *Pinus sylvestris*, *Taxus baccata*.

### BROADLEAVES

*Betula pendula*, *Fagus sylvatica*, *Populus nigra*, *Quercus petraea*.



## MAJOR OUTPUTS

- **New scientific knowledge on phenotypic** and genotypic diversity in twelve major tree species across environmental gradients in Europe.
- **Improved monitoring tools for practitioners** based on genotyping and phenotyping.
- **Updated and refined data for information systems** of *in situ* and *ex situ* FGR collections.
- **Innovative strategies for conservation and breeding** exchanging and using diversified forest reproductive material.
- **Novel outreach and science-policy support tools** to better integrate FGR concerns into forest management and better implement relevant international commitments in Europe.

## ENGAGEMENT OF STAKEHOLDERS

**GenTree** will actively promote dialogue with various stakeholders. This will ensure that research directly responds to demand and that research findings influence policies and contribute to sustainable use of forests and their genetic resources.

The range of stakeholders involved includes policymakers, forest managers and forest owners, and the European Forest Genetic Resources Programme (EUFORGEN).



# LIST OF PARTNERS

**INRA** - Institut national de la recherche agronomique, France

**CSIC** - Agencia Estatal Consejo Superior de Investigaciones Científicas, Spain

**UU** - Uppsala Universitet, Sweden

**AUTH** - Aristotle University of Thessaloniki, Greece

**EFI** - European Forest Institute, Finland

**BIOVERSITY** - Bioversity International, Italy

**PUM** - Philipps-Universität Marburg, Germany

**CNR** - Consiglio Nazionale delle Ricerche, Italy

**INIA** - Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Spain

**UOULU** - University of Oulu, Finland

**IGATS** - IGA Technology Services, Italy

**NIBIO** - Norwegian Institute for Bioeconomy Research, Norway

**SKOGFORSK** - Forestry Research Institute of Sweden, Sweden

**THÜNEN** - Johann Heinrich von Thünen Institute, Germany

**ASP** - Bavarian Office for Forest Seeding and Planting, Germany

**NERC** - The Natural Environment Research Council, Great Britain

**ASU** - Aleksandras Stulginskis University, Lithuania

**IT** - INRA Transfert, France

**WSL** - Swiss Federal Institute for Forest, Snow and Landscape Research, Switzerland

**RAS** - Russian Academy of Sciences, Russia

**RPBC** - Radiata Pine Breeding Co Ltd, New Zealand

**LIECO** - LIECO GmbH & Co KG, Austria

For more information on GenTree please visit the project website

[www.gentree-h2020.eu](http://www.gentree-h2020.eu) or contact:

## COORDINATOR

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## PROJECT MANAGEMENT

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