



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

BUDGET

8 million Euro

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

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 or contact:

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