



## Contact us

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Discover more

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# B<sub>4</sub>est

## The project at a glance

Full project title : Adaptive BREEDING for productive, sustainable and resilient FORESTs under climate change (B4EST)

Duration : 48 months

Budget : 6 478 662 € (EC grant: EUR 6 million)

Partners : 19





## Did you know?

The **changing climate** is an important **driver of change in forests?** It can increase forest vulnerability to damage and disease occurrence and intensity, reduce **forest health and productivity**, and cause **economic losses**. However, it can also have positive effects, offering opportunities for **growing trees** in previously suboptimal regions.

## Why us?

**B4EST** is an EU-funded H2020 project which combines **expert knowledge** from forest actors with the generation of **new scientific information** on tree species sensitivity and capacity to adapt to climate change. It aims to provide new, flexible and resilient **tree breeding strategies and tools**, which take into account old and new pests and diseases currently threatening European forests.

B4EST matches the already available and newly identified **forest genetic resources** to the environments where they will perform best, and will provide recommendations for policy makers and forest managers.

The project focuses on **8** of the most economically, ecologically and socially **important tree species in Europe**, covering a wide range of current and potential habitats, industrial uses and societal values. The goal is to increase **forest survival, health, resilience and productivity**, while maintaining genetic diversity, key ecological functions and also fostering a competitive EU bioeconomy.

## How do we help?

B4EST aims to help forest tree breeders, forest owners, managers and policy makers better adapt forests to climate change. We will provide them with:

- Better scientific knowledge of adaptation profiles and sustainable productivity, and added value of raw materials in important European tree species for forestry
- New and flexible adaptive tree breeding strategies
- Tree genotypes of highly adaptive and economic value
- Decision-support tools for the choice and use of Forest Reproductive Material (FRM) while balancing production, resilience and genetic diversity, including case studies developed with industrial partners
- Integrative performance models to guide FRM deployment at stand and landscape level
- Economic analyses of risks/benefits/costs
- Policy recommendations



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## An inclusive and novel approach

To cover the geographical, economic and societal needs of forestry in the EU, B4EST works with **8 tree species** (six native, two non-native). These include **conifers** and **broadleaves** with advanced breeding programmes (Norway spruce, Scots pine, maritime pine, poplars, Douglas-fir, eucalypts) or that are case studies of pest-threatened forests (ash) or **valuable non-wood products** (stone pine).

Our approach will result in a high degree of **data and knowledge integration**, involving multiple existing and new target traits and their trade-offs; genomic information; temporal and spatial assessments in a wide range of environments; stakeholder demands; and forest owner and manager risk perception and acceptability of new breeding strategies.