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# Consortium Develops Nature-Friendly Solutions To Protect Forests Against Climate Change Whilst Maintaining Their Economic Value Across Europe and China

A **#HorizonEurope** Research and Innovation action project funded by the **#EuropeanUnion**.

**Horizon, Europe's key funding programme for #research** and **#innovation, funds the development of #Ecosystem-based Adaptation for #forestry. Led by INRAE, the #eco2adapt project gathers 31 European and Chinese world-class expert organisations on forestry, ecology and climate change. Together, they will design portfolios of adapted management solutions and innovative bioeconomic and governance models to enhance the resilience of tomorrow's forests. The solutions developed in *eco2adapt* will also ensure the right #trees are planted in the right place for the right purpose so that forest, foresters and local communities will all benefit. Using a diversity of species and techniques that can 'cover all the options' in an uncertain future climate, resilient #forestecosystems will be protected for tomorrow's generations.**

## Changemaking to create a new future for forests

The European Union pledges to **#plant 3 billion trees** by 2030, but Chinese foresters have shown that a'one size fits all' afforestation approach simply does not work. Tree plantations can be destroyed through climatic events such as storms or drought, or be attacked by pests and pathogens, leaving a devastated landscape and despairing local communities. Resilient forest management requires locally tailored solutions. Using an **#Ecosystem-based Adaptation** (EbA) approach that considers biodiversity and Nature's benefits to humans, *eco2adapt* will consider not only the trees, but the gain for the entire social-ecological system, so that local communities can contribute to safeguarding tomorrow's multifunctional forests.

EbA offers cost-effective and **#sustainable** solutions for national and regional **#adaptation** strategies. But understanding societal perception and acceptability is necessary before EbA solutions can be implemented by both citizens and governments. Through innovative **#DecisionTheatres**, *eco2adapt* will work with all levels of stakeholders to understand what drives their decision-making and to create changemaking models and policies for resilient forest management, business and governance.

## Smart Tools to Create and Manage Resilient Forests

The *eco2adapt* consortium will develop digital tools using cutting-edge **#artificialintelligence** methods to harness information from **#BigData** in forestry archives around the world. Combined with sophisticated modelling to predict the effects of management on forest dynamics in a changing climate, and how this will affect services and contribution to people, information will be used to create portfolios of climate-resilient species and management methods that can be accessed via a free Smartphone application. The application will help forest managers choose the best species/mixture of species to plant depending on local conditions, climate projections and community needs.

## Tailored innovation through Living Labs in climate hotspots

*eco2adapt* will co-create solutions for resilient forests together with stakeholders in 15 **#climatehotspots** in Europe and China. **#LivingLabs** will be set up in each hotspot to allow collaborations between multiple partners operating at regional or landscape levels and to coordinate experiments. *eco2adapt's* Living Labs have been selected to cover a broad range of forest and climate type, ranging from boreal and temperate conifer forests to tropical rainforest. Animal and plant biodiversity will be monitored through citizen science, remote sensing and experiments. EbA-style management will be tested at experimental sites and the best solutions demonstrated at lighthouse sites, with EbA training given to stakeholders. Living Lab activities will allow stakeholders to learn about new solutions across Europe and China, including novel forest insurance and business mechanisms, certification schemes and policy updates.

## Shaping a legacy for resilient forests at all levels of society

As changemaking takes time, *eco2adapt* will create a legacy for future scientists, stakeholders, practitioners, students and communities. *eco2adapt* will develop activities and materials for all levels of society, from children to retirees, and foresters to policy-makers. Digital tools developed and data created will be accessible and will evolve after the project ends and made **#openaccess** and interactive via a **#KnowledgeBase**. A direct link will be made between the project's knowledge base and the **#UnitedNationsDataHub**, so that policy-makers can constantly access forestry and #**ecosystemservice** data. This will strengthen partnerships between academics, practitioners and policy-makers and create a long-term legacy for tomorrow's generations.

For further information, please see:

https://www.eco2adapt.eu/eco2adapt-eng

For any press inquiries, please send a message to:

eco2adapt-website-contact@groupes.renater.fr

## Social Media

https://twitter.com/eco2adapt

http://www.linkedin.com/company/eco2adapt/

https://www.youtube.com/channel/UC6UiOhsa0ZhIQcoHoF6hMew

https://www.tiktok.com/@eco2adapt

https://www.instagram.com/eco2adapt

https://www.facebook.com/people/Eco2adapt/100088042423477/

## Project Details

**Acronym:** *eco2adapt*

**ID no:** 101059498

**Budget:** EUR 9.8 million

**Start date:** 1 September 2022

**Duration:** 60 months

**Number of partners:** 31 (+2 affiliated entities)

**Number of countries:** 14 (including 3 associated countries)

***Please find the complete list of partners below:***

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|---|---|
| INRAE | INSTITUT NATIONAL DE RECHERCHE POUR L'AGRICULTURE, L'ALIMENTATION ET L'ENVIRONNEMENT |
| CIRAD | CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LEDEVELOPPEMENT - C.I.R.A.D. EPIC |
| UEF | ITA-SUOMEN YLIOPISTO |
| GCF | GCF - GLOBAL CLIMATE FORUM EV |
| EFI | EUROPEAN FOREST INSTITUTE |

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|---|---|
| IRD | INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT |
| UM | UNIVERSITE DE MONTPELLIER |
| ALUFR | ALBERT-LUDWIGS-UNIVERSITAET FREIBURG |
| AUA | GEOPONIKO PANEPISTIMION ATHINON |
| NBSI | NBS INSTITUTE AB (SVB) |
| BITCOMP | BITCOMP OY |
| UNIFI | UNIVERSITA DEGLI STUDI DI FIRENZE |
| INNOVASILVA | INNOVASILVA APS |
| IMSI | INSTITUT ZA MULTIDISCIPLINARNA ISTRAZIVANJA |
| FFC | SUOMEN METSAKESKUS-FINLANDS SKOGSCENTRAL |
| VMU | VYTAUTO DIDZIOJO UNIVERSITETAS |
| MPG | MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV |
| CTFC | CONSORCI CENTRE DE CIENCIA I TECNOLOGIA FORESTAL DE CATALUNYA |
| UNITBV | UNIVERSITATEA TRANSILVANIA DIN BRASOV |
| INRAE-T | INRAE TRANSFERT SAS |
| ONF | OFFICE NATIONAL DES FORETS |
| GREEN ESTATES | GREEN ESTATES OY |
| PBN | NEPCON FMBA |
| ETHZ | EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH |
| CAF | CHINESE ACADEMY OF FORESTRY |
| ICBR | INTERNATIONAL CENTRE FOR BAMBOO AND RATTAN |
| ZAFU | ZHEJIANG A&F UNIVERSITY |
| SCBG-CAS | SOUTH CHINA BOTANICAL GARDEN, CHINESE ACADEMY OF SCIENCES |
| PKU | PEKING UNIVERSITY |

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|---|---|
| CSUFT | CENTRAL SOUTH UNIVERSITY OF FORESTRY AND TECHNOLOGY |
| FORRE | FORESTRE LIMITED |

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