



NEWSLETTER

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NATURE-Based Solutions for Demonstrating Climate-Resilient Critical Infrastructure

Introduction to the NATURE-DEMO Project

Climate change is an urgent and escalating crisis that poses significant threats to infrastructure and communities worldwide. Increasingly frequent and severe weather events such as floods, heatwaves, and storms are putting immense pressure on our built environment, leading to widespread damage, economic losses, and social disruption. Traditional engineering solutions often fall short in addressing these challenges sustainably, necessitating innovative approaches that can enhance resilience and adapt to changing conditions.

The NATURE-DEMO project is a groundbreaking initiative dedicated to integrating nature-based solutions (NbS) into the planning and development of climate-resilient infrastructure. NbS are innovative approaches that use natural processes and ecosystems to address societal challenges, such as climate change, water security, and disaster risk reduction.

They include practices like ecosys-

tem restoration, green infrastructure, sustainable land management, and coastal protection, offering multiple co-benefits such as improving biodiversity, enhancing recreational spaces, and supporting local economies. By leveraging NbS, NATURE-DEMO aims to create sustainable and resilient solutions that can be replicated across different regions and settings. The project focuses on developing and validating NbS across various contexts, including pilot demonstrations in the Alpine region, to showcase effective strategies for preventing landslides, reducing soil erosion, avoiding wildfires and managing flood risks. Through these efforts, we strive to pave the way for mainstreaming and widespread adoption of NbS, fostering a greener and more resilient future.





Actions to be Implemented

Over the course of the NATURE-DEMO project, several key actions will be implemented to demonstrate the efficacy of NbS in enhancing climate resilience. These actions include:

- Developing and implementing NbS to improve infrastructure resilience against climate impacts.
- Integrating NbS to support local biodiversity.
- Establishing and monitoring pilot NbS interventions across different biogeographic regions to address specific climate challenges such as flooding, landslides, and heatwaves.
- Developing an advanced platform that integrates climate projections, structural exposure data, and a catalogue of NbS to optimise decision-making for infrastructure resilience.
- Conducting workshops, training sessions, and public outreach activities to engage local communities, policymakers, and industry stakeholders in adopting NbS.
- Conducting cutting-edge research to advance the understanding of NbS, their benefits, and their implementation in real-world scenarios.
- Developing and disseminating policy guidelines and recommendations to facilitate the adoption of NbS at local, national, and European levels.

Project News and Progress



We are excited to share the latest developments and milestones from the NATURE-DEMO project:

Official Project Launch: On May 14th, 2024, partners from across Europe gathered in Liberec, Czech Republic, for the official launch of the NATURE-DEMO project. This dynamic 3-day event marked the beginning of our ambitious 4-year journey, bringing together experts from industry, academia, research institutions, NGOs, and government to collaborate on pioneering a greener, more resilient future. The meeting involved detailed discussions on the comprehensive NbS catalogue, the resilience modelling platform, and the large-scale demonstrators planned across five diverse infrastructure sites in the Alpine region. The event highlighted the importance of collaboration and co-creation in achieving our project goals.

Digital Decision Support Platform Development: A core objective of NATURE-DEMO is the creation of a digital

decision support platform. This platform, currently being developed with partners, will offer a multi-tiered and multi-resolution risk-evaluation framework tailored to specific infrastructures. It marks the first step toward a quantitative approach for implementing Nature-Based Solutions.

Interactive NbS Catalogue: An exciting feature in the works is a digital interactive NbS catalogue. This online geospatial map will allow users to filter by climate risks and infrastructure types to find suitable nature-based solutions. Transilvania University of Braşov (UTBV) and Digitalization Innovation Center (DIC) are teaming up to build the geospatial layers and interactive architecture. Stay tuned!

Funding Authority and Project Partners



The NATURE-DEMO project is funded by the European Union under the Horizon Europe program, through the call "HORIZON-MISS-2023-CLIMA-01". The project is a collaborative effort involving a diverse consortium of partners from across Europe, including leading research institutions, organisations, and industry experts.

NATURE-DEMO brings top expertise from three industrial partners, nine academic organisations, four research organisations, four non-profit organisations and two national authorities as Associated Partners.

Each partner brings unique expertise and resources to the project, ensuring a holistic and multidisciplinary approach to achieving our goals.

