TREESURE

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TREESURE: new EU project to strengthen the safety and resilience of Europe's urban forests

- *TREESURE involves a new Decision Support System (DSS) for tree-failure risk management, integrating ESA satellite data, IoT sensors and nature-based solutions to help cities anticipate and prevent tree-related disasters.*
- *Three pilot regions across Europe to test and co-create solutions, with local authorities and stakeholders shaping and validating tools tailored to different climatic and environmental conditions.*

Madrid, Spain. 13 February 2026 – European cities rely on urban trees for shade, cooling, biodiversity and quality of life. Yet as climate change intensifies windstorms and extreme weather events across the continent, the risk of tree instability and tree-fall damage is increasing. The **TREESURE** project – *Decision Support Tool for Risk Evaluation, management and awarenEsS of tree FailURE Disasters* – has officially launched to help cities address this growing challenge through smarter, risk-informed management of urban forests.

Funded under the Horizon Europe programme for a period of three years (2025–2028), TREESURE brings together 11 partners from **Italy, Spain and Romania**, including universities, research centres, SMEs, NGOs, public authorities and civil protection organisations. The project officially kicked off in October 2025 in Florence and Cecina (Italy), hosted by the coordinator, **Università degli Studi di Firenze**. The consortium combines expertise in forestry, meteorology, digital technologies, risk governance and communication, united by a shared goal: to make Europe's urban forests safer and more resilient in the face of climate change.

At the heart of TREESURE is the development of an innovative **Decision Support System (DSS)** designed to monitor tree health, anticipate risks and support timely interventions before disasters occur. The system will integrate **satellite data** from the European Space Agency (ESA) with local measurements collected through **IoT sensors** installed in urban environments. In addition, the project will explore **nature-based solutions**, including root-anchoring systems aimed at improving tree stability. Together, these elements will provide local authorities and risk managers with practical tools for early warning, coordinated response and transparent communication with citizens.

The system will be deployed and tested in three pilot regions (Cecina, Soria and Brașov) representing different pedoclimatic zones in Europe. Before implementation, each pilot area will undergo an in-depth assessment of

environmental, technical and social requirements to ensure the solution is tailored to local realities. Stakeholders, including municipalities, urban-forest managers, civil-protection authorities and community organisations, are involved from the outset through **co-creation workshops**, tabletop exercises and prototype testing. Their participation will contribute to the design of **user guidelines and a policy toolbox**, strengthening local ownership and long-term sustainability.

Field activities are already underway. In Tuscany, Italy, technical teams have begun establishing a comprehensive urban tree inventory within the Municipality of **Cecina**, a TREESURE pilot site. Over 2,000 trees will be surveyed using harmonised and replicable criteria, combining direct field measurements with remote sensing data. This inventory will form the scientific basis for risk assessment and future decision-making. In parallel, project partners from Università degli Studi di Firenze and Bluebiloba Startup Innovativa SRL have conducted technical meetings at the Lucardo experimental site to define optimal sensor configurations and monitoring protocols, ensuring that the system is robust and adaptable to real urban conditions.

Beyond technological innovation, TREESURE also addresses an often-overlooked dimension of urban tree management: **public perception and misinformation.** Decisions such as preventive pruning or tree removal can generate mixed reactions if not properly communicated. By promoting evidence-based decision-making and clear communication strategies, the project aims to build trust between authorities and citizens while reducing the risk of damage caused by extreme weather events.

The sustainability and economic viability of the TREESURE solution will be evaluated using environmental and economic indicators, including a **Life Cycle Assessment (LCA) approach.** This will ensure that the tools developed are not only scientifically sound, but also feasible for long-term adoption across European cities.

The **project website** (treesure.eu) serves as the central hub for news, publications, events, stakeholder participation and communication materials. Follow the project's profiles on LinkedIn, Instagram and YouTube, and subscribe to the project newsletter for regular updates.

For more information, get in touch with:

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