



SUTEE: Showcasing Urban Trees for Environmental Education with IoT

**Technology** 

Project Number: 2023-1-ES01-KA220-SCH-000153498

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## **About the project**

SUTEE (Showcasing Urban Trees for Environmental Education with IoT Technology) is a European project, co-funded by the European Commision under the Erasmus+ KA220-SCH program, with an implementation period of 3 years. The project is coordinated by the Universidad Politecnica de Madrid (Spain) in collaboration with 4 participating organisation: Pädagogische Hochschule Wien (Austria), Doukas School (Greece), Universidad Nacional de Educacion a Distancia (Spain) and Johann Wolfgang Universitat Frankfurt am Main (Germany).

The SUTEE project focuses on enhancing environmental education for teachers and young people in dense metropolitan areas. Recognizing the significant impact urban environments have on human well-being and climate change, SUTEE aims to foster innovative educational approaches to tackle these pressing societal and ecological challenges.

## **Objectives**

The project aims to address the following issues:

- appreciation of the natural landscapes and features in cities
- create competences to support urban environmental behaviours
- awareness of citizen participation in avoiding degradation of ecosystems and destructive city planning that exacerbates Urban Heat Islands (UHIs) and destroys urban tree canopy (UTC)
- aggregate a variety of climate protecting approaches (fountains, vertical gardens, etc.)
- build knowledge, skills and attitudes around sustainable living (GreenComp)
- generate digital competences to collect and interpret urban environmental data (e.g. CO2 air quality, soil moisture deficits)





# **Work Packages**

### WP1: Monitoring Green Urban Areas with IoT Technology

This work package will develop IoT-based learning technologies for collecting and displaying environmental data. We will source affordable sensors, test augmented reality tools, and create applications for accessing local climate information. A citizen science interface will enable data uploads to a shared platform, enhancing public datasets and facilitating classroom and public discussions.

### WP2: Open content, Method and Pedagogic Design

This work package makes urban environmental information accessible and integrates diverse climate actions into education. It will enhance awareness of urban climate and ecosystem protection, aligns with competence frameworks to foster 21st-century citizenship skills, and addresses the research gap in plant-based learning and technology, creating a foundation for an international research community.

### WP3: Learning Activities, Training and Pilots

This work package focuses on creating engaging, scientifically sound training activities for teachers and students, integrating outputs from WP2 and WP3. It will involve schools in piloting tech-enhanced learning about urban environments and provides teacher training with micro-credentials. The aim is to merge technology and content into transferable learning designs for widespread educational use.

### WP4: Urban Synergies: Cross-cutting Activities and Exchange

WP4 will focus on creating effective training activities using outputs from WP2 (technology) and WP3 (content/method). It will engage teachers, schools, and academics in developing innovative learning activities for urban environments. It will include teacher training and credentials like micro-credentials or badges to enhance professional development across primary, secondary, and tertiary education sectors.



**Partners** 















# **Kick-off Meeting**

On January 18-19, 2024, the kick-off meeting for the project titled "Showcasing Urban Trees for Environmental Education with IoT Technology" was held at the Universidad Politecnica de Madrid Campus Sur in Madrid. This meeting marked the official start of the project and provided a crucial opportunity for all project partners to meet in person and discuss the core objectives.

During the two-day event, partners had the chance to introduce themselves and lay out the roadmap for the project. It was a platform for each work package leader to present their vision and plans for their respective areas of responsibility. They explained how they aim to develop their segments of the project and discussed their expectations for collaboration with other partners.

A significant part of the meeting was dedicated to establishing management protocols and communication strategies. The partners agreed on reporting methods and dissemination techniques to ensure that the project yields results from start to finish. This planning is critical to keep the project on track and make sure all participants are aligned with the project's goals.



#### **Partners**









