ADUCAT

Vienna launches digital innovation project for satellite-supported urban development

Management Summary

Stadt Wien

EUROPEAN URBAN INITIATIVE

ADUCAT

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With the European innovation project ADUCAT – Actionable Data Space for Urban Climate Adaptation and related socio-ecological, local Transformation, the City of Vienna is taking a strategic step toward a resilient, livable, and digitally sovereign city. The project responds to the growing challenges facing urban areas and combines digital innovation, climate adaptation, and European cooperation.

ADUCAT runs from October 2025 to March 2029 and is funded under the European Urban Initiative – Innovative Actions with approximately €5 million (80% EU co-financing). Vienna was selected as one of only 20 European cities from 110 submissions, clearly positioning itself as a pioneer in satellite-supported urban development.

The goal of ADUCAT is to establish a robust, data-based foundation for resilient urban development. By using high-frequency satellite data, advanced data-driven analysis methods, and modern Earth observation technologies — including radar remote sensing and InSAR techniques — particularly monitoring-intensive areas of the city such as temperature development, green spaces, subsoil conditions, and critical infrastructure are continuously observed.

This enables environmental and climate risks such as heat, flooding, drought periods, or land subsidence to be detected early, assessed precisely, and addressed in a targeted manner. The data obtained can be directly integrated into the city administration's planning and decision-making processes, enabling proactive action.

Core Application Areas

Cool City Supports the development of high-resolution temperature maps and forecasts as a basis for cooling measures and climate-adapted urban planning.

Green City Enables satellite-based monitoring of vegetation and green spaces, evaluates the impact of greening measures, and identifies suitable locations for new green zones.

Safe City Strengthens urban safety through the early detection of ground movements and infrastructure risks, thereby contributing to the protection of a growing and densifying city.

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Overall, ADUCAT improves safety and quality of life for more than two million residents of Vienna.

A key feature of ADUCAT is the generation of actionable data that directly feeds into operational and strategic decision-making processes of the City of Vienna. The project results will be integrated long-term into administrative structures via the Green Transition Information Factory (GTIF) and will remain permanently available.

The digital tools developed are scalable, can be integrated into existing specialist systems, and will be made available to other cities through a European partner network. The project is supported by the transfer cities Udine, Zagreb, and Guimarães, ensuring transnational knowledge transfer.

ADUCAT places great emphasis on transparency and citizen participation. Through open data platforms (Open Government Data Vienna), citizens can track which measures are being implemented and what impact they achieve.

The project originated in the Vienna Geospace Hub, an innovation laboratory established in 2023 by UIV Urban Innovation Vienna GmbH, which promotes the intelligent use of satellite data for urban applications. A strong consortium of public administration, academia, and industry ensures technical excellence and sustainable impact.

ADUCAT strengthens Vienna's ability to address climate-related challenges proactively and in a data-driven manner. The project improves safety and quality of life in the city while also serving as a scalable European model for forward-looking digital urban development.

ADUCAT Consortium: AIT Austrian Institute of Technology, EOX IT Services GmbH, Eurovienna GmbH, GeoSphere Austria GmbH, OHB Digital Services GmbH, Paris-Lodron University of Salzburg , Sistema GmbH, Ubicube GmbH, UIV Urban Innovation Vienna GmbH, VRVis Centre for Virtual Reality and Visualization, WH Media GmbH, Wiener Linien GmbH, Wiener Lokalbahnen GmbH.