cityclim.eu | Factsheet

Pilot Cities

Thessaloniki

Region of Central Macedonia

Pilot City Activities

CityCLIM Pilot RGM

What is CityClim?

CityCLIM is a European Union-funded project designed to develop an open platform for climate information and mitigation services. It integrates data from Earth observation sources, ground measurements, and urban weather prediction models to provide detailed weather forecasts for various European cities. The project acknowledges the significant impact of climate change on urban life, particularly the Urban Heat Island (UHI) effect, and addresses these challenges through mitigation and adaptation strategies.

Generic City Climate Platform (GCCP)

The Generic City Climate Platform (GCCP) is a Software-as-a-Service (SaaS) solution developed as part of the CityCLIM project to provide climate adaptation and mitigation services for cities. **It integrates diverse climate data sources, including ground measurements, airborne and satellite data, to offer an advanced urban weather model.** The platform serves as a one-stop shop for City Climate Services, helping both city administrations and citizens understand, predict, and respond to climate-related challenges.

Services

- **Citizen Climate Knowledge Services (CCKS):** A public service that informs, warns, and engages citizens on climate change and extreme weather events, encouraging awareness and adaptation.
- **City Administration Services:** A decision-support tool for city planners and policymakers to analyze, simulate, and implement sustainable urban climate strategies.

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CityCLIM Pilot Thessaloniki

Thessaloniki and the wider region of central Macedonia are already facing the negative effects of climate change, with the main feature being the increase in heat wave episodes during the summer period. The days of heat wave, as defined by the scientific community, are increasing and also the duration of the heat days is increasing. An early warning system is an important tool for both citizens and local authorities, as it has never been implemented before in Thessaloniki.

As part of the CityCLIM project, 5 Barani weather stations were installed in Thessaloniki, which feed into the MOS model to better identify hot spots and predict heatwaves. In addition to the 5 stations, 15 National Geographic stations were set up in primary schools across the city, with the involvement of students and teachers. A total of over 1,000 students participated, learning about the concept of urban heat islands, climate change, the CityCLIM project, and the weather station installed at their school.

Installation of Barani Stations in Thessaloniki for Heat Warning Service.

The presentations, aside from their educational purpose, aimed to raise awareness among students about climate change and suggested simple methods for adaptation and mitigation. The students now have access to the data from their station, which they can utilize in collaboration with their teachers.

Citizen Science activities in Thessaloniki.

Lastly, 10 citizens participated in a citizen science measurement campaign, using the portable Meteotracker sensors, measuring the temperature and relative humidity on their way. All these efforts have significantly enriched the city's previously limited sensor network, and local authorities now have a valuable tool in their hands.

Barani weather station installed in Thessaloniki

Citizen Science activities in Thessaloniki.

With all of the above, the city's previously sparse network has been significantly enhanced, and local authorities now have an important tool at their disposal. The forecast maps have been integrated into the official website of the Region of Central Macedonia. The City Administration Services were successfully tested by the relevant departments, who showed great interest and highlighted the parts that need further development.

Further Information: https://www.pkm.gov.gr/cityclim/

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