

Data sets

Citizen Science

Data sets for CityCLIM

CityCLIM Citizen Science



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.

INFORM CITIZENS ON CLIMATE CHANGE

WARN CITIZENS ON ARISING HAZARDS

ONE-STOP SHOP FOR CITY CLIMATE SERVICES

SUPPORT MITIGATION & ADAPTATION STRATEGIES

ADVANCED URBAN WEATHER MODEL

ADVANCED URBAN WEATHER MODEL





CityCLIM Citizen Science

The CityCLIM project is not only unique in terms of its high-resolution model, near-real time simulations, and urban suitability, but also for its use of citizen science as an emerging data source. Three citizen engagement tools used in the project are:

- 1) **The Weather Sensation Map** is a way that citizens can engage on an individualised level with their local urban climate conditions using an interactive slider to indicate levels of personal temperature preference. Through this, citizens will be able to interact with weather/climate information (e.g. planning their commute to pass through cooler areas) for their wellbeing.
- 2) **The Historical Weather Data Collection** hub allows citizens to submit any personal weather records/observations in CSV format or through a survey form. Crowdsourcing historical weather data helps us gain insights into local weather and climate related processes, and shows citizens that climate change is already visible and detectable in their local community.
- 3) A major aspect of the project is collection of **in-situ climate data** (using weather stations and mobile sensors for bicycles), which can be used to validate other sensor systems in the project and ground-truth climate data. The data will provide opportunities for co-design methodologies for city climate adaptation where citizens and decisions makers work together.



metetracker
Citizen
Science
campaigns



Example of metetracker data collected from mobile weather sensors during CityClim Citizen Science campaigns

The citizen science data collection campaigns occurred in summer and fall of 2023 (Karlsruhe and Valencia) and in summer 2024 (Thessaloniki), involving over a thousand citizen scientists.

In Karlsruhe, 72 people showed interest in citizen science activities to measure meteorological parameters with a mobile sensor in the city. To ensure an even coverage of the collected data, we selected the people mainly based on their routes. In Valencia, 20 weather enthusiasts agreed to install and maintain 15 weather stations in their backyards or on their balconies. Participants also used 10 mobile sensors to collect meteorological data in the city to get a detailed picture of, for example, small-scale temperature variations.

In Thessaloniki, the approach was to involve schools, which was a big success, involving 15 schools and reaching over a thousand students, educators, school directors, and locals.





CityCLIM Citizen Science

This website enables citizen scientists to contribute local weather observations by uploading CSV files, helping researchers analyze climate patterns and changes. Open to everyone, it fosters global collaboration by integrating diverse data to improve climate research. By participating, users support scientific efforts, enhance climate understanding, and promote a shared responsibility for environmental awareness.

Become a Climate Hero!

Contribute to Global Weather Research with your Observational Data!

Have you ever marveled at the unpredictability of the weather or noticed patterns in atmospheric conditions in your surroundings? Have you considered how your local weather contributes to the larger, global picture? If so, your curiosity and observation could be a key asset in advancing global climate research.

Here's your chance to contribute to the world's understanding of our shared climate.



We invite you to join our ever-growing community of Citizen Scientists, where your observations matter.



As a Citizen Scientist, you will play a crucial role in gathering and supplying data that professional scientists may not have access to. Your backyard weather observations can provide valuable insights into local weather patterns and their interactions with the global climate.

By simply uploading a CSV file of your observational weather data onto our platform, you become a part of a global climate change solution. Each data point you provide helps build a more complete picture of our dynamic world and aids researchers in their quest to understand and address climate change.

No scientific background? No problem! Anyone can be a Citizen Scientist. All it requires is curiosity, dedication, and your unique local data. Your participation in this global endeavor not only enriches our collective knowledge but also fosters a sense of community and shared responsibility towards our planet.

So, are you ready to make a difference?

Don't just watch the weather, contribute to understanding it. Harness the power of collective science and make your mark on the world today. Join us, where every data point matters.

Be a Citizen Scientist. Be a Climate Hero. Upload your CSV weather observational data today!

[Upload your CSV weather observational data now](#)

[Citizen Science campaigns in Thessaloniki: reports, talks and presentations to inform about Climate Change](#)



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Further Information on Citizen Science used in CityCLIM

- **CityCLIM Citizen Science video**
<https://www.youtube.com/watch?v=Eu2mYTaNAKY>
- **Weather Sensation Map**
<https://www.rtl.lu/meteo/cityclim>
- **Historical Weather Data Collection**
<https://meteologix.com/ua/info/citizenscience>
- **Citizen science SOP**
<https://www.ufz.de/index.php?en=51534>
- **Citizen science deliverable**
<https://zenodo.org/records/13843104>
- **Citizen science handbook**

