

UltraHD City Services

Pollution

Citizen Services

City Pollution Information



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

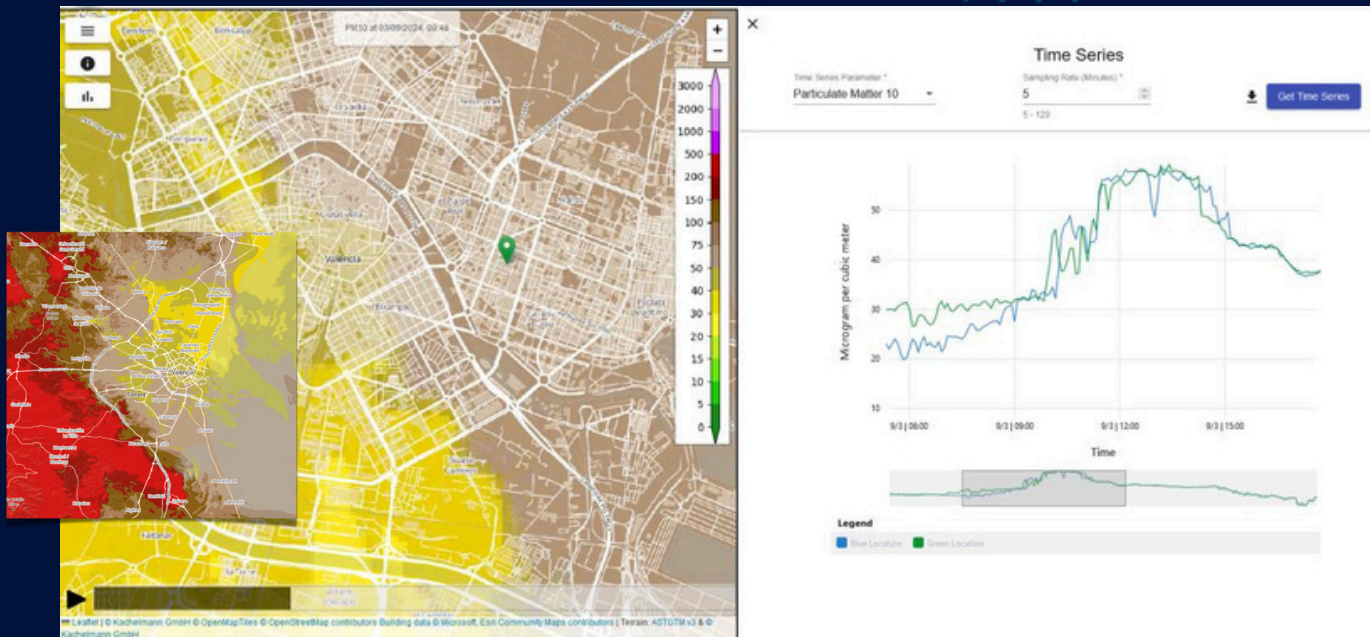
ADVANCED URBAN
WEATHER MODEL

ADVANCED URBAN
WEATHER MODEL



City Pollution Information Service

The Pollution Information Service alerts residents before and during pollution events, like dust outbreaks. It tracks air quality using advanced models and real-time data but is currently available only in Valencia due to high data and computing needs. The service monitors pollutants like PM10, PM2.5, NOx, and O3, providing real-time air quality maps and short-term forecasts based on emission trends.



View on Pollution Information Service with opened line charts showing pollution development of two locations regarding particulate matter during the next two days.

Key features:

A Graphical user interfaces that provides

- Pollution forecast as video overlay on a map
- The possibility to compare specific locations with respect to their exposure to pollution by line-charts.
- Export functionality for time series data
- An integrated user guides explaining the functionality and workflows
- Multi-language support

Parameters

The UltraHD outputs several relevant air quality parameters, other parameters can be added.

- HNO3 - Nitric Acid
- NO2 - Nitrogen dioxide
- O3 - Ozone
- PM10 - Particulate Matter
- Air flow (wind)

Benefits:

Informs citizen and administrations about potential air quality hazards.

- Aids users in planning activities
- Engages citizen in exploring local weather conditions
- Supports city planning activities