



*Meeting in Valencia*

*New sensors installed*

*Upcoming airborne campaign*

*Upcoming Full Pilot Services*



## DELIVERABLES

We have prepared deliverables regarding the testing of integrated services (D7.7 and D7.8) and others that are concerned with the full Prototypes of GCCP, AirBorne Processors, CitizenScience and Full Prototype of Services a (D2.3, D3.3, D4.3, D5.3, D6.2, D6.5 and D7.5).



## WHAT HAVE WE WORKED ON?

The first half of this year was mainly concerned with the continuous technical developments of all envisioned technical solutions as well as their resulting services in order to timely deliver the Full Prototype versions of the Citizen Climate Knowledge Services as well as the City Administration Services as these are the main achievements within the project. Further installations of sensors have taken place as well as planning of the upcoming Airborne Campaign to support the Airborne Data Processor developments. The CityCLIM consortium has met for a General Assembly in the Pilot City of Valencia and came together to discuss the final phase of the project in order to ensure that the

envisioned solutions would be completed and successfully integrated within the project's runtime. Besides that the consortium has participated in various dissemination activities to make CityCLIM known among relevant stakeholders and to build a foundation for future business relations.



# AIRBORNE CAMPAIGN COMING UP

After sampling the local climate at the consortium meeting in April, the team is set to return to Valencia in June. This time, however, it is not for a meeting but to acquire aerial imagery and to measure land surface temperatures.

IMAGE: THE AERÓDROMO DE REQUENA WILL BE OUR BASE OF OPERATIONS WHILE DURING THE CAMPAIGN.



Part of the team: RAVEN, OHB DC's custom infrared sensor. Featuring three spectral bands and a resolution suitable for complex environments, RAVEN is well-equipped map out urban heat islands

RAVEN INFRARED SENSOR

## PUBLISHED PAPERS

An article in *Frontiers in Environmental Science*, section Environmental Citizen Science on "Enhancing Citizen Science Impact in Environmental Monitoring: Targeted Engagement Strategies with Stakeholder Groups" is published by Uta Koedel, Peter Dietrich, Thora Herrmann, Christine Liang et al.

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### Enhancing citizen science impact in environmental monitoring: Targeted engagement strategies with stakeholder groups

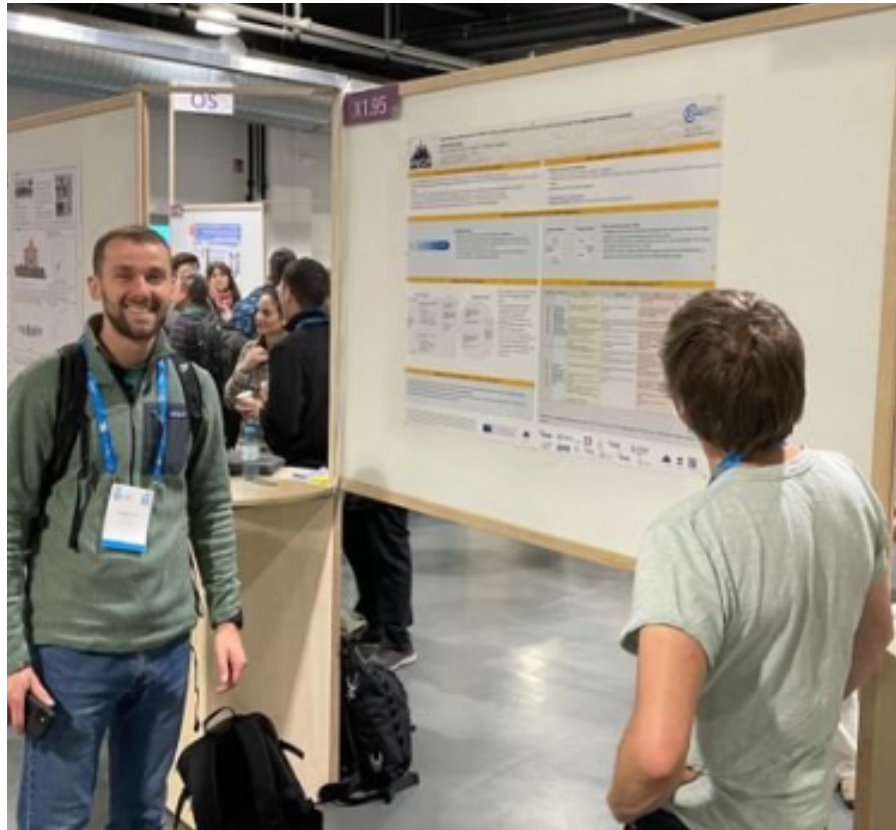
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Understanding the motivations and benefits of citizen science (CS) participants is critical to the success of environmental science projects that rely on data collection from engaged citizens. Tailored communication with citizen scientists is essential, leading to the need to target specific societal groups for extensive and high-quality data sets. The purpose of the

The idea for this paper arose from the work of the UFZ team in the CityCLIM project. This paper explores the integration of marketing tools—specifically stakeholder analysis, the Value Proposition Canvas (VPC), and Key Performance Indicators (KPIs)—into citizen science (CS) initiatives to optimize recruitment, retention, and management of the participants. Adapting marketing tools to recruitment and communication strategies benefits CS projects by targeting specific groups.

# MORE DISSEMINATION ACTIVITIES



The UFZ project team successfully presented its work on this topic: "Improving the effectiveness of citizen science projects for environmental monitoring through the targeted activation of selected stakeholder groups" at the EGU General Assembly Meeting 2024. The EGU24 General Assembly welcomed 20,979 registered attendees, of which 18,388 made their way to Vienna from 116 countries and 2,591 joined online from 109 countries

The many discussions and interesting conversations showed that this topic is highly relevant. In the special session proposed by the UFZ: "How can we activate and exploit the potential of citizen scientists for environmental monitoring? - Strategies, tools and suitable sensors for citizen science", many new approaches and tools were presented that can add value to citizen science in environmental monitoring.

**Context**

- Services target different stakeholder (public and administration)
- Learn about local climate for better understanding and design of urban policies and their implementation in the development of sustainable cities.

**Success story highlights**

- Full prototypes are available
- Testing the different services
- Involvement of citizens e.g. collection of in-situ meteorological data

**Impacts**

- Create high resolution forecast maps
- Better understand the challenges of specific urban climate change issues
- Bringing together citizens, scientists, and city administration
- Simulate changes in landscape architecture

**Outputs**

- Citizen Climate Knowledge Services (Climate/Heavy Pollution Information Services, Warning Services, Citizen Weather Sensation Map)
- City Administration Services (Identification and Simulation Services)

**Lessons**

- Data and model accuracy, reliability and error
- Strategies for effective citizen involvement

ANTONIO DE CARLUCCIO  
CROW and SISTERS Project

## GREEN DEAL SUCCESS STORY

CityCLIM is honoured to have been chosen to present as a Success Story at the Green Deal Projects Board of Coordinators meeting happening on April 25, 2024

A great presentation by Prof. Peter Dietrich from Helmholtz Center for Environmental Research highlighting the rollout of full prototypes of CityCLIM climate knowledge services.

# WEATHER STATION INSTALLATION



Karlsruhe are currently several weather sensors installed, spread over the City. The 4 temperature sensors, 2 wind sensors and 1 rain gauge collect data that is assimilated into the UltraHD model. These local measurements inside the city should improve the weather forecasts of the high-resolution nest of Karlsruhe. Additionally, the measured data will be made available for the public.

## RCM/THESSALONIKI



As part of the citizen science project, the installation of weather stations is in progress. Students are informed about weather, climate, climate change and the CityCLIM project. There are still 2 weather stations to be installed to complete the project.

# CITIZEN SCIENCE CAMPAIGNS AND INSTALLATION

The collection of weather data with the participation of citizens has started in Thessaloniki!

The Meteotracker sensors are attached to a bicycle, scooter, motorbike or car and record the temperature

and humidity in real time in order to identify and map the areas of the city affected by the urban heat island effect.



Campaigns have been started using the Meteotracker system and sensors were provided to interested citizens throughout Thessaloniki.



# VALENCIA: CITIZEN SCIENCE IN-SITU SENSORS



15 citizens have installed Meteorological Stations (from National Geographic) on balconies, terraces of private homes and two of them in municipal facilities.



10 citizens have used Meteotracker devices on bicycles, motorbikes and cars to monitor environmental conditions during their journeys. 12 of the volunteers filled in the project questionnaires, giving information about their interests in citizen science projects, motivations their interests in citizen science projects, motivations, challenges, reward preferences, etc., as well as the degree of satisfaction with the CITICLYM project.



# VALENCIA: BARANI SENSORS

4 BARANI weather stations have been installed in the city.



Meteorological station operational and in service at Valencia's Morgue (above). Meteorological station operational and in service at Aragin roundabout with Blasco Ibañez. A total of 4 professional in-situ measurements have been installed in the City of Valencia and 15 amateur stations by engaging citizen science.



## GM IN VALENCIA

The consortium has met in the Pilot city of Valencia to discuss the current developments and further tasks. The City of Valencia has hosted the meeting and the consortium was greeted with relevant administrative stakeholders from the city concerned with Green activities, emphasising the importance of developing an awareness for climate change adaptation strategies.

