



Enhancing the engagement of citizens in weather data collection: the AGORA and I-CHANGE Projects approach

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Citizen science is a powerful tool for promoting the understanding of urban climate and potential climate change hazards. By engaging citizens in scientific research and data collection, we can harness the collective power of communities to gather valuable information and contribute to our knowledge of urban climate dynamics.

The H2020 I-CHANGE project (Individual Change of HABits Needed for Green European transition, <https://ichange-project.eu/>) faces the challenge of engaging and promoting the active participation of citizens for addressing climate change, sustainable development and environmental protection in the framework of the European Green Deal, the European Climate Pact and the European Biodiversity Strategy for 2030.

Also the HE project AGORA (A Gathering place to co-design and co-create Adaptation, <https://adaptationagora.eu/>) has the ambition to contribute in building climate change adaptation roadmaps by fostering the participation and engagement of citizens and stakeholders in the co-design and co-creation of innovative problem-oriented climate adaptation solutions.

In this framework, citizens can be trained, in the I-CHANGE project, to collect weather data using simple, low-cost monitoring tools. This data can then be aggregated and analysed to identify trends, patterns, and potential climate change hazards specific to urban areas. On the other hand, in the AGORA project, citizens can contribute to populate inventories on climate data, climate risks and climate adaptation and to develop the Digital Academy focused on a proper usage of climate data. Engaging citizens in this process fosters a sense of ownership and responsibility for their environment while also increasing their awareness of the impacts of climate change. By actively participating in data collection, citizens gain firsthand experience of how climate variables affect their daily lives and communities. Moreover, citizen science initiatives can be integrated into educational programs at schools, allowing students to actively participate in scientific research and contribute to the understanding of urban climate.

Leveraging technology can enhance citizen engagement and data collection. Mobile applications and online platforms can be developed to facilitate data entry, provide real-time information, and encourage collaboration among participants. These digital tools make it easier for citizens to contribute to ongoing research efforts, access educational resources, and visualize the collected data, further promoting understanding of urban climate dynamics. All these “non-standard” measurements can be used (after a strict quality control) to enrich the official network in areas where it is more needed. In this work we will focus on urban areas to show how data collected by citizens can help in understanding the Urban Heat Island effect, also in relation to Heat Waves.