



#3 ISSUE SUMMER 2022

CITYCLIM NEWSLETTER

CITYCLIM CONCEPT

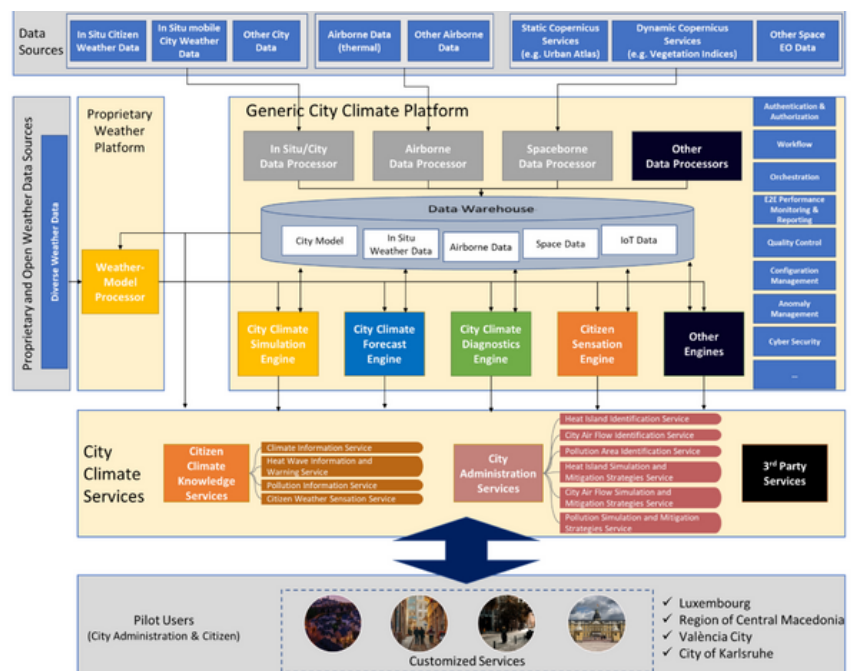
The CityCLIM consortium has been busy these last four months to work on the general concept of the CityCLIM framework: work out a general work flow, discuss the proposed ecosystem with its components: engines, services and conduct some initial proof of concepts.

The project's major goals have been specified:

- model the generic information flow through the whole GCCP for all envisaged pilot services
- verify if all components and data sources required to realise the services are covered by the architecture
- identify which Generic City Climate Platform (GCCP) components and data sources are needed by which City Climate Services (CCS) and
- accomplish a ground basis for the detailed specification of services and GCCP components (including boundaries of what will be developed in CityCLIM)

LABORATORY PROTOTYPES

An important step towards the development of a viable concept was to test some of the initial ideas in laboratory prototypes. These lab prototypes can be of different quality in dependence of their type: if a service is heavily dependent on measurements, it was important to test the to-be-used measurement components: e.g. UFZ has tested several devices that could be used for their Citizen Science use case. The current state of the UltraHD was set up in a test environment and was running to produce 1 hour of forecast to see if a run could be successfully completed. Furthermore, mockups for other services have been created as lab prototypes for the other envisioned climate services.



Updated CityCLIM concept diagram



Laboratory Prototypes

Pilot cities and Partners

The Laboratory prototypes can be seen as initial drafts of components that allow to analyse the service concepts and to address critical aspects (e.g., on data quality and acquisition rate) that then can be discussed with developers and end users.

Meteotracker tests in Pilot Karlsruhe

The City of Karlsruhe conducted tests to connect their live meteotracker measurements to the city map "Stadtkarte Karlsruhe".

For that proof-of-concept, they installed a device to a motorbike and drove through Karlsruhe to mimic the envisioned data collection chain of mobile data collection.

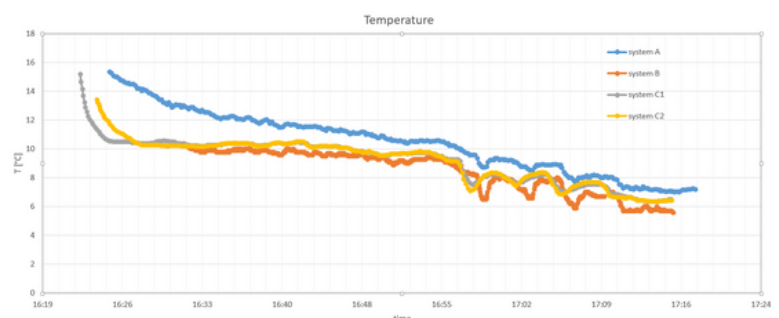
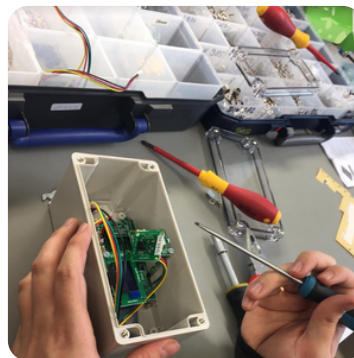


UFZ tests for Citizen Science measurements

February 2022: Comparative test of different mobile environmental measurement systems. Results: Systems show time offset in some cases. This shows the importance of data quality control and documentation.

May 2022: Assembly and start of operation of modular mobile citizen science measurement systems

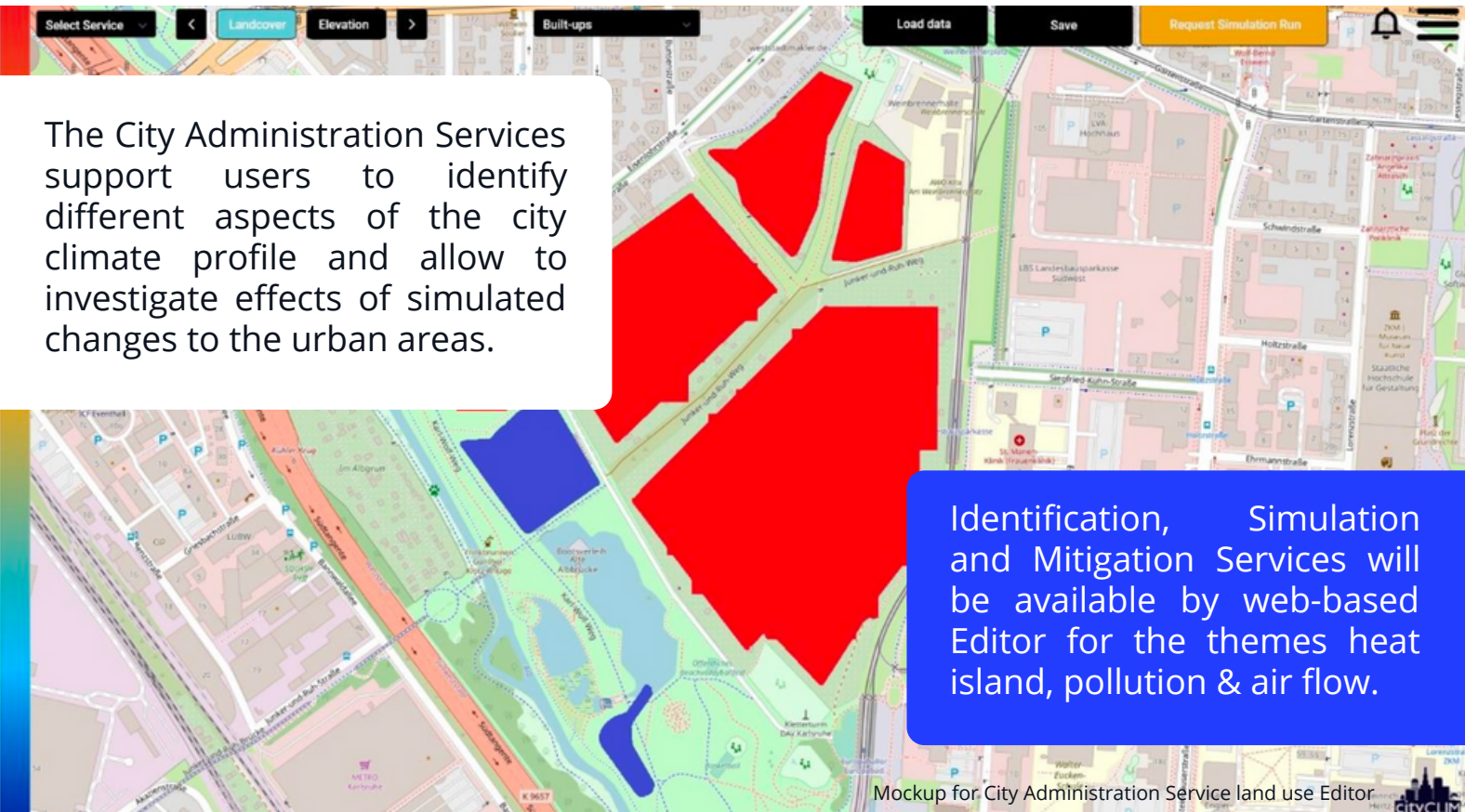
June 2022: Stationary long-term comparison test of the measuring systems with comparison to reference data



Measurements for the same track by 4 different measurement devices.

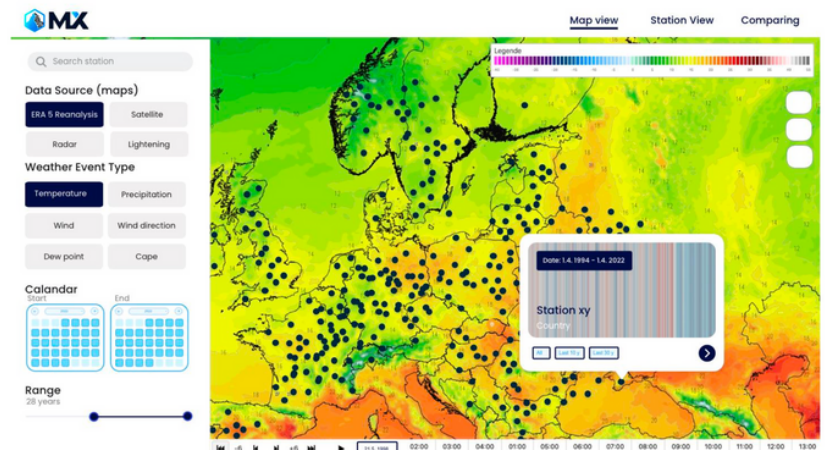
Laboratory Prototypes: Editor & Climate Portal

The City Administration Services support users to identify different aspects of the city climate profile and allow to investigate effects of simulated changes to the urban areas.



Mockup for City Administration Service land use Editor

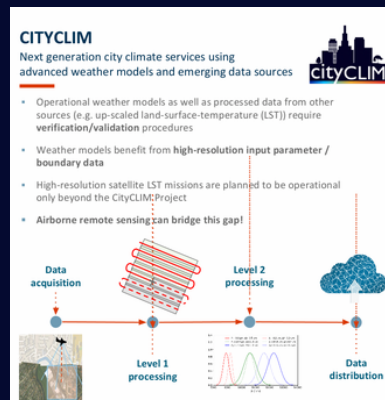
The Climate Web Portal is supposed to present a graphical user interface to browse historical weather data with ease and without the need of prior knowledge. It is planned to be accessible for anyone via the free website meteologix.com. Initial drafts for functionalities and UI have been created and discussed.



Mockup of starting page for envisioned Climate Web-Portal

ESA Living Planet Symposium

Parts of the CityClim project team grabbed their backpacks in May and visited the ESA Living Planet Symposium in Bonn. Besides a talk about "Airborne Campaigns - The Earth Observation In Situ Solution" including the project's objectives, there were many exciting, interesting and partly visionary discussions about the future "smart" way of dealing with the consequences of climate change.



One slide of OHB-SYS presentation at ESA Living Planet Symposium