Urban Releaf

From Data to Action: Empowering local communities and public authorities to shape smart, sustainable cities together

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Innovating together for just and green urban transitions

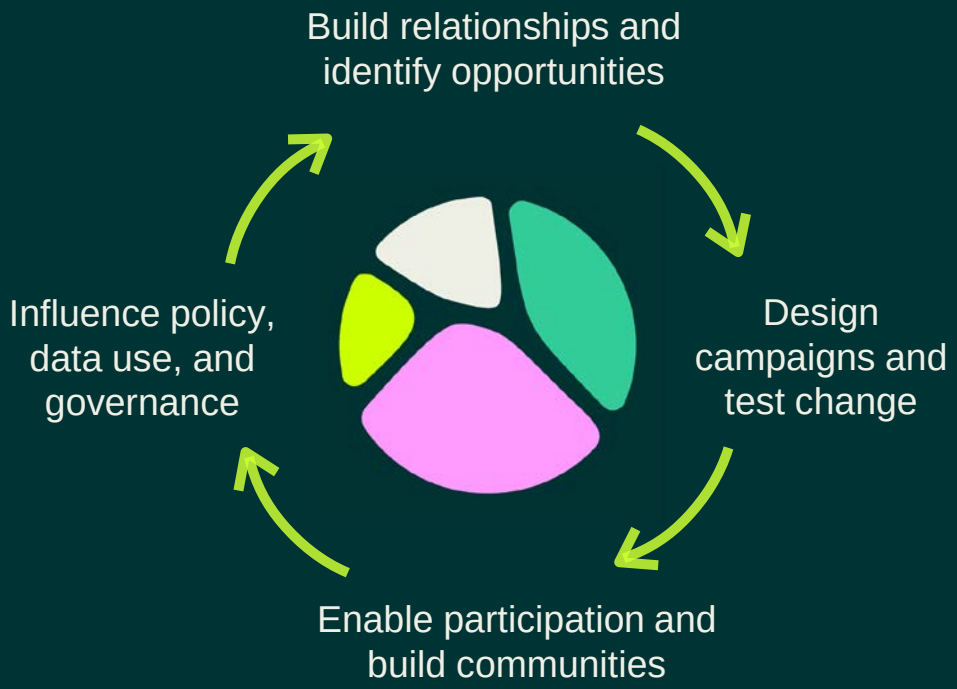
Increasing environmental stresses in urban areas.

Accentuated inequalities in access to greenspace, ecosystem services and health-related benefits.

Important data gaps limit policy development for just and sustainable cities.

Public participation developing slowly and variably.

Action-based process framework



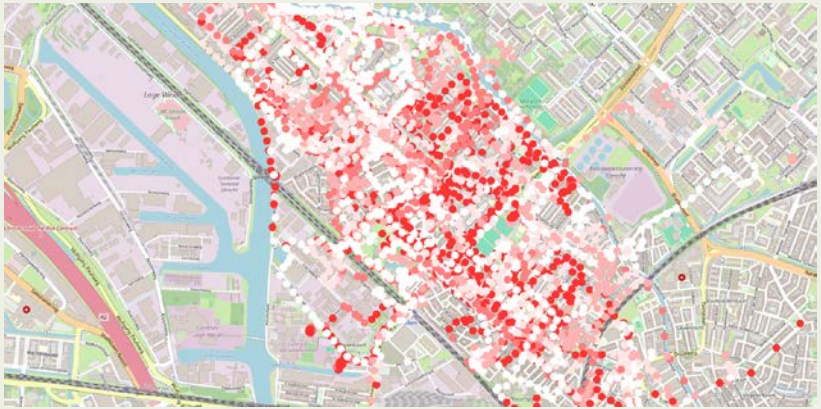
City authorities are project partners

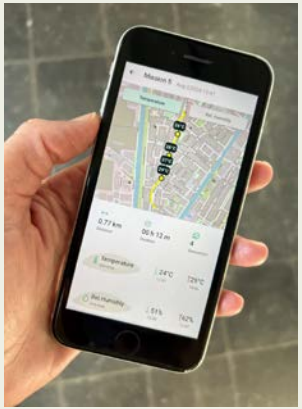
Joint development of **technology-aided citizen observation campaigns**

Collection and uptake of citizen observations in **authoritative data and smart information systems for urban greenspace policy and planning**.

Pilot cities, campaign topics and technologies

Mobile sensing of temperature and heat stress





Mobile sensor and app

Data transfer: LoRA and Bluetooth via EcoPulse app

Data: temperature, relative humidity, heat stress moments, comfort moments, high resolution (spatial, temporal), recording frequency: every ~10 seconds

Public API: hexagon aggregates

Heat stress

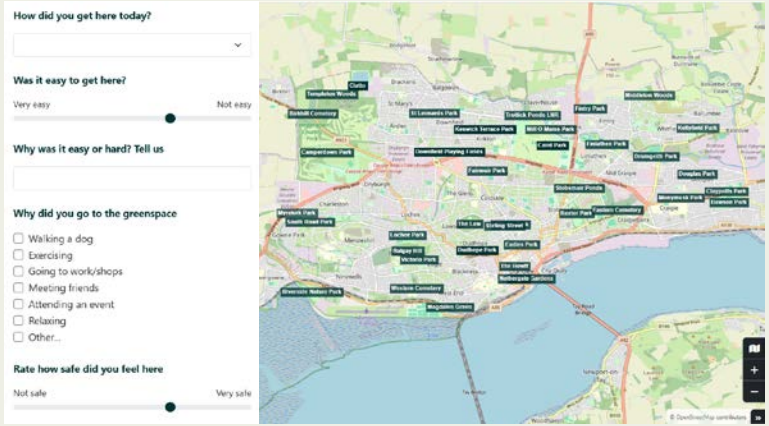
2025: **Utrecht, Athens, Cascais, Riga**

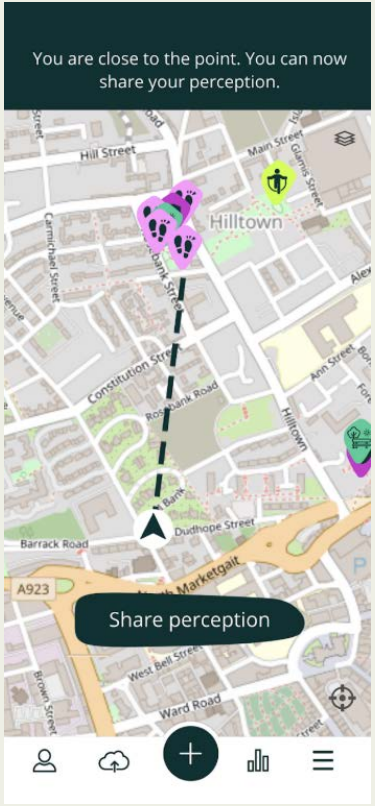
Active sensors 2024-2025: **~500**

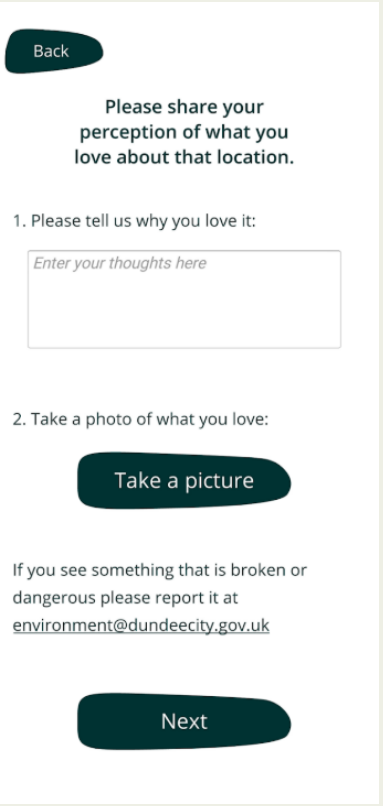
Engaged groups: **Residents of green deprived neighborhoods, cleaning staff of public spaces, greenspace users/ visitors, greenspace maintenance staff**

Data uptake: **Utrecht Digital Twin**

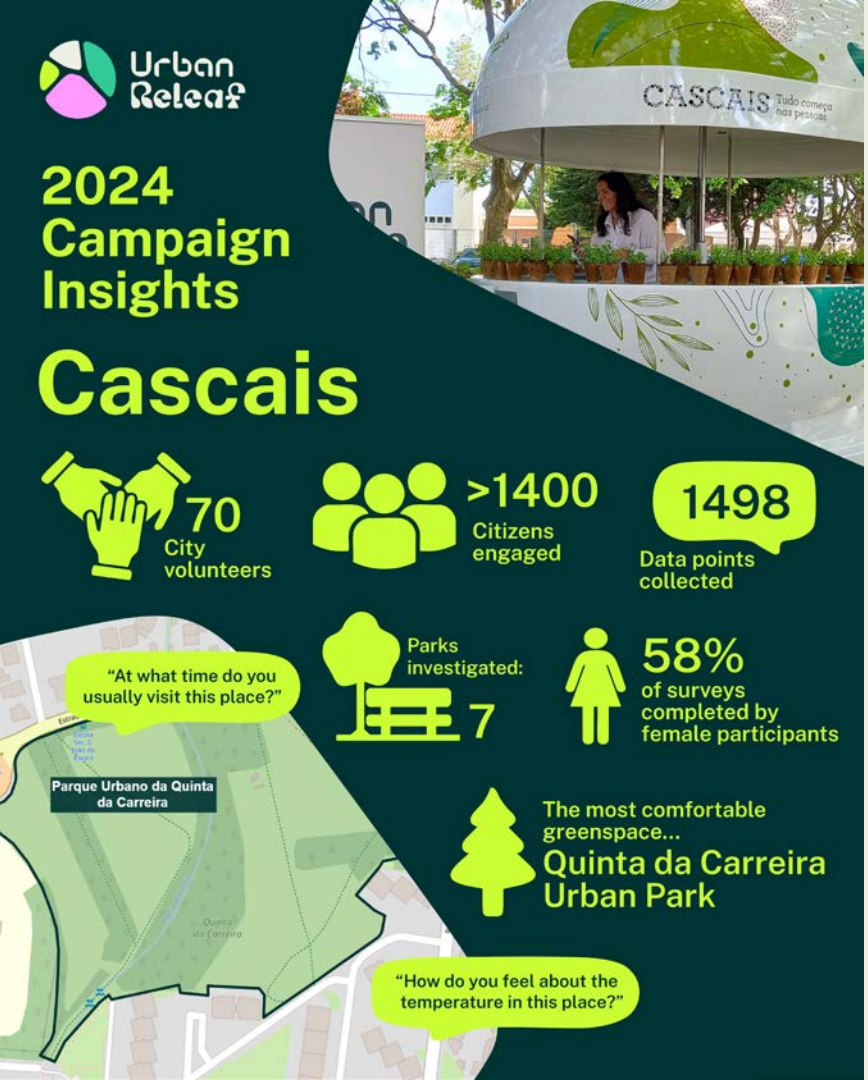
Greenspace perceptions mapping



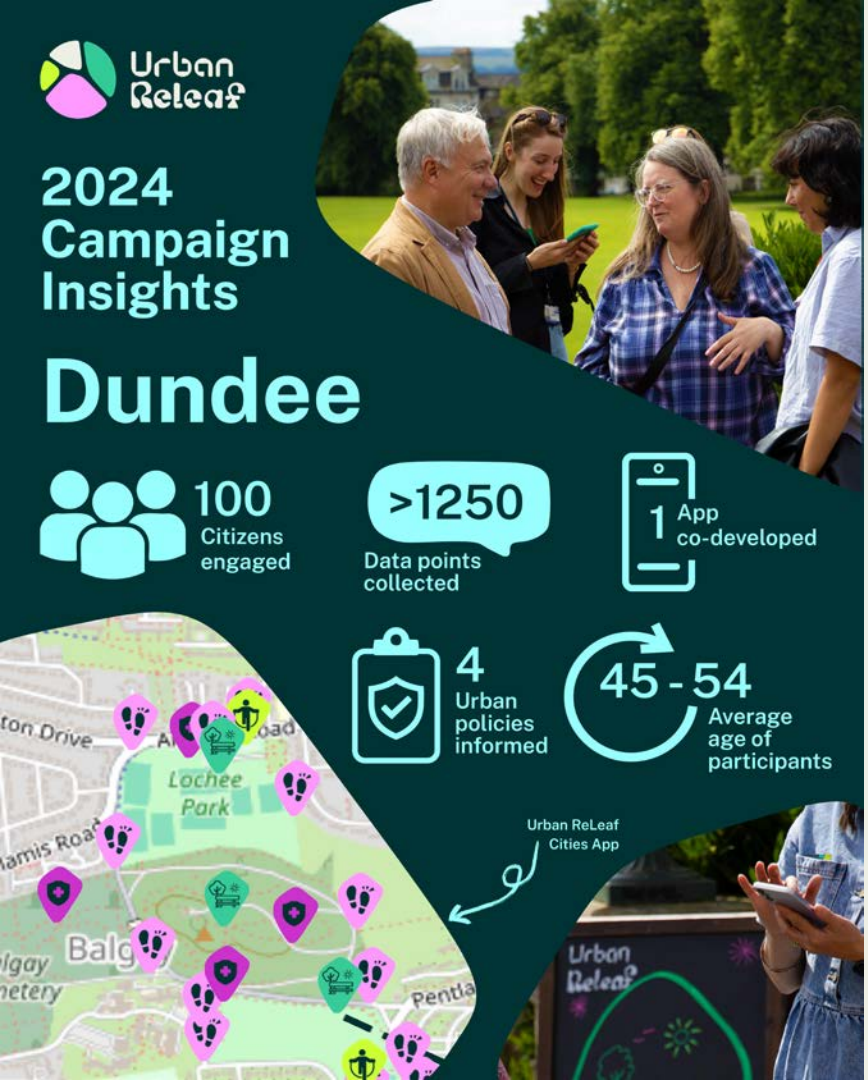




What people (don’t) like



Greenspace perceptions



Greenspace perceptions

2025: **Dundee, Mannheim, Utrecht**

Accelerator cities: **Florence**

Engaged groups: **Residents and community groups of deprived neighborhoods (SIMD), regular greenspace visitors/users**

Informed policies: **Open Space Strategy, Biodiversity Action Plan, Local Development Plan, Net-Zero Transition Plan (resilience section)**

Insights and reflections

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Data ecosystems and data needs/gaps for policy and planning are not necessarily clear or well understood. Aims for engagement and participation may **compete** with data requirements. Collaboratively defining **“intelligent demands on data”*** —making data relevant, meaningful, and fit for the **dual purpose** of public engagement and decision-making, planning, or policy development—**remains challenging**.

Usability of data ensures stakeholders (citizens, city planners, or researchers) can access, understand, and work with the data. Capacity gap to ensure usability and appetite for upskilling varies. Research-policy collaboration needs to be strengthened to **develop cross-sectorial capacity**.

*) Kristen Guida, Greater London Authority, @EURESFO 2023

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Ethical dimensions of data-intensive, participatory processes may pose a **capacity and implementation barrier**, especially regarding the collection and sharing of “personal data” (location-based data, SD data). “Workarounds” to balance compliance, cultural/institutional norms, and efficiency.

City administrations display a **strong sense of responsibility** towards the cities’ residents, while balancing/managing citizens’ expectations and **pressure of upward accountability** potentially resulting from newly generated data, information and evidence.

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CASCAIS · STADTMANNHEIM · Riga Planning Region · University of Dundee · Dundee City Council – Changing for the Future

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