Citizen-powered data ecosystems for inclusive and green urban transitions

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International Institute for Applied Systems Analysis (IIASA)

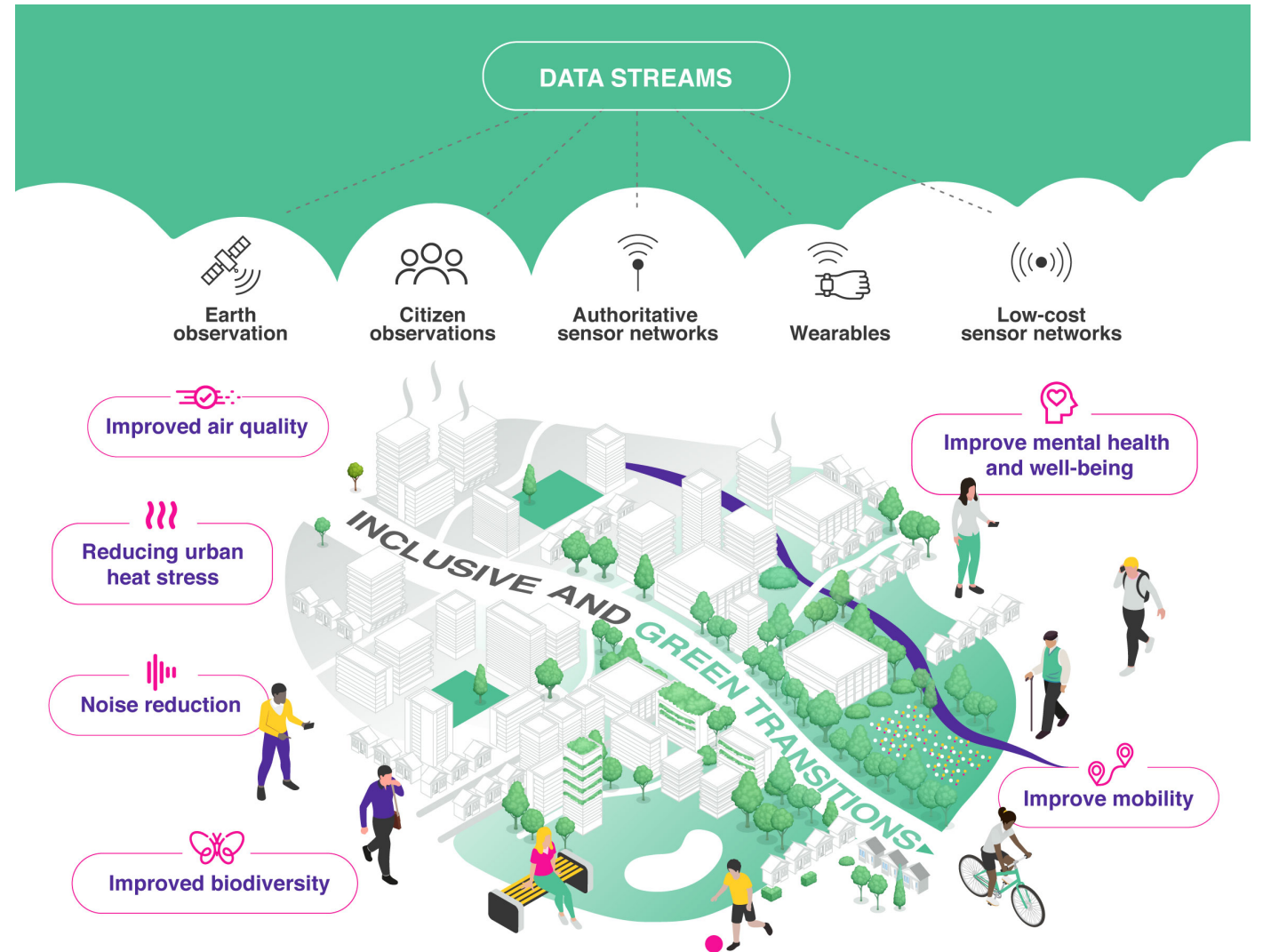EUROGEO WORKSHOP

ATHENS 7-9 DECEMBER 2022

MOTIVE

By 2050, an estimated **2.4 billion additional people** will live in cities globally.

At the European level, **urbanisation** is expected to increase from 72% in 2015 to **83.7% by 2050**.

Climate change will exacerbate the urban heat island effect, with forecasts of **150K deaths annually in Europe by 2100** due to more severe heat waves.

The expansion of urban greenspace and planting of trees are critical for climate change adaptation, health and well-being. They provide cooling effects, decrease air pollution, and improve mental health, among other ecosystem services and health-related benefits.
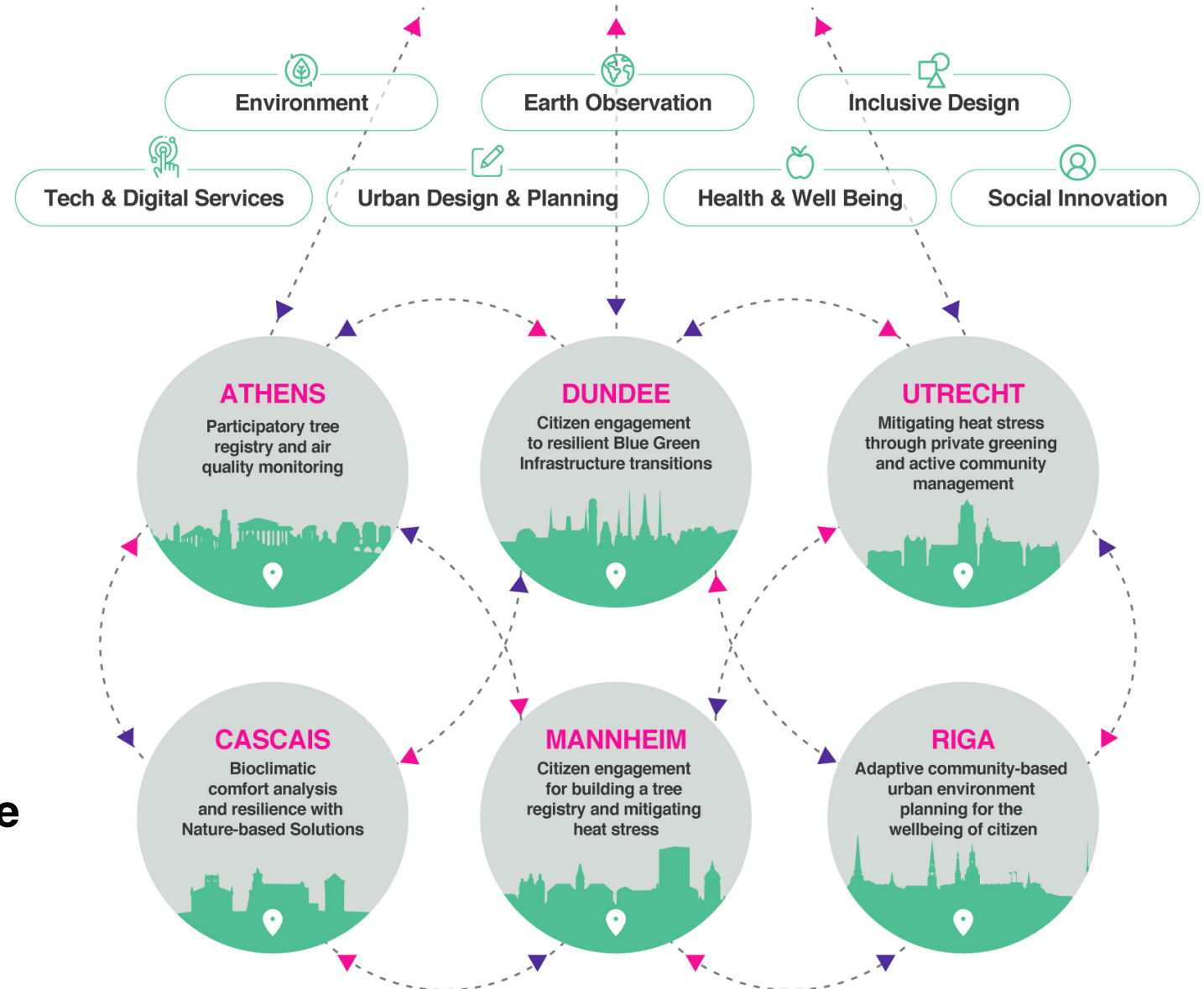
PROJECT

URBAN reLeaf

→ **January 1, 2023**

→ **4-year project, 15 partners, 9 countries**
   → 8 R&D entities
   → 7 city/province entities
   → 4 for-profit entities

→ **Uptake and validation of citizen observations to complement authoritative measurement in the urban environment and boost citizen participation.**

Advance citizen-powered science to be a central resource for inclusive urban green planning and policy in support of the European Green Deal and the SDG 11.7 target

Environment

Earth Observation

Inclusive Design

Tech & Digital Services

Urban Design & Planning

Health & Well Being

Social Innovation

ATHENS
Participatory tree registry and air quality monitoring

DUNDEE
Citizen engagement to resilient Blue Green Infrastructure transitions

UTRECHT
Mitigating heat stress through private greening and active community management

CASCAIS
Bioclimatic comfort analysis and resilience with Nature-based Solutions

MANNHEIM
Citizen engagement for building a tree registry and mitigating heat stress

RIGA
Adaptive community-based urban environment planning for the wellbeing of citizen

AMBITION

Assess current urban greening policy processes and co-create solutions that use citizen observations to complement existing data ecosystems.

Support the validation and long-term inclusion of active and passive data from citizens within authoritative data streams for urban monitoring, planning and innovation in public policy.

Mobilize and empower communities' participation in issues of public interest surrounding urban green infrastructure and **facilitate a community of practice** related to the use of urban citizen.

Produce flexible and innovative governance solutions to scale inclusive urban green policy in support of the European Green Deal and UN SDGs.

SUPPORTING POLICIES...

GLOBAL
- SDG 11.7: Universal access to safe, inclusive & accessible, green and public spaces
- SDG 10: Reduce inequalities

EUROPEAN
- European Green Deal
- EU Adaptation Strategy
- Europe 2020 Strategy for smart, sustainable and inclusive growth
- EU Biodiversity Strategy for 2030
- 3 Billion Tree Pledge for 2030
- Green City Accord

LOCAL
- City-level greening policies
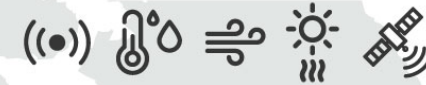- City-level climate adaptation strategies

CITIES

Legend:
- 🌳 Participatory tree registry
- ((•)) Low-cost sensors
- 🌡 Temperature & humidity
- 💨 Air quality
- ☀ Bioclimatic comfort
- 🛰 Earth observation

Dundee, Scotland
Citizen engagement for resilient Blue Green Infrastructures transitions

Riga, Latvia
Adaptive community-based urban environment planning for the wellbeing of citizens

Utrecht, Netherlands
Mitigating heat stress through private greening and active community management

Cascais, Portugal
Bioclimatic comfort analysis and resilience with nature-based solutions
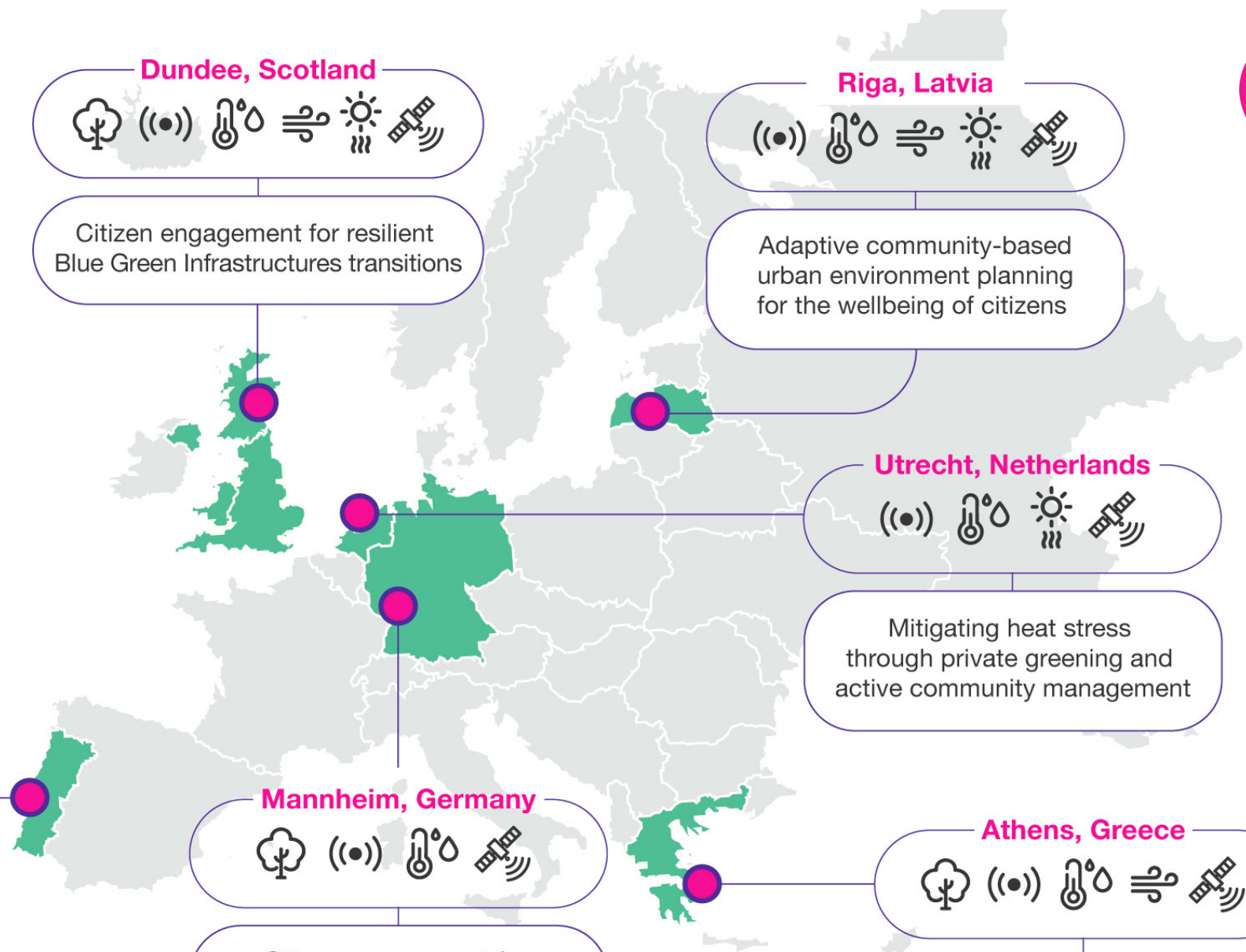
Mannheim, Germany
Citizen engagement for building a tree registry and mitigating heat stress

Athens, Greece
Participatory tree registry and air quality monitoring

CHALLENGES

Trust
Multidimensional and multidirectional issue across actors and parties involved, power and goal dynamics

Governance

- Assess landscape of current governance models for citizen participation and data in the context of urban greening
- Co-design adapted models to support policy uptake of citizen observations and data and inclusion of citizens in fair urban greening and decision-making processes.

Process
New common frameworks to align information and decision (infra)structures across stakeholders

CHALLENGES

Governance

- Assess landscape of current governance models for citizen participation and data in the context of urban greening
- Co-design adapted models to support policy uptake of citizen observations and data and inclusion of citizens in fair urban greening and decision-making processes.

- **Toolkit & Adoption Roadmap** – Pathways for public authorities (City-level planning & National/Regional policy frameworks)

- **Accelerator program** – Capacity development across ICLEI network for the uptake of CS in decision-making

Thank you!

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