Urban ReLeaf

Citizen-powered data ecosystems for inclusive and green urban transitions

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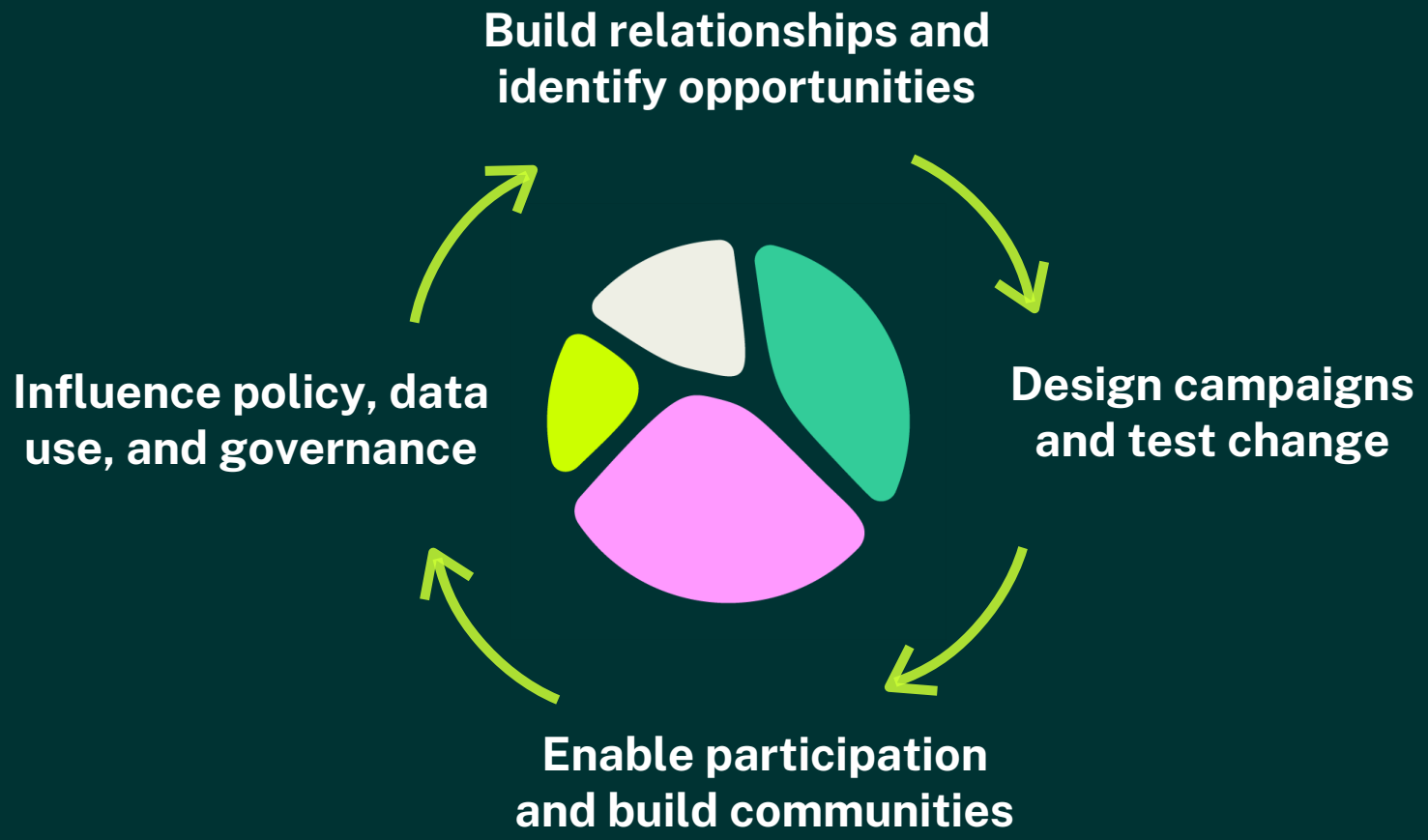
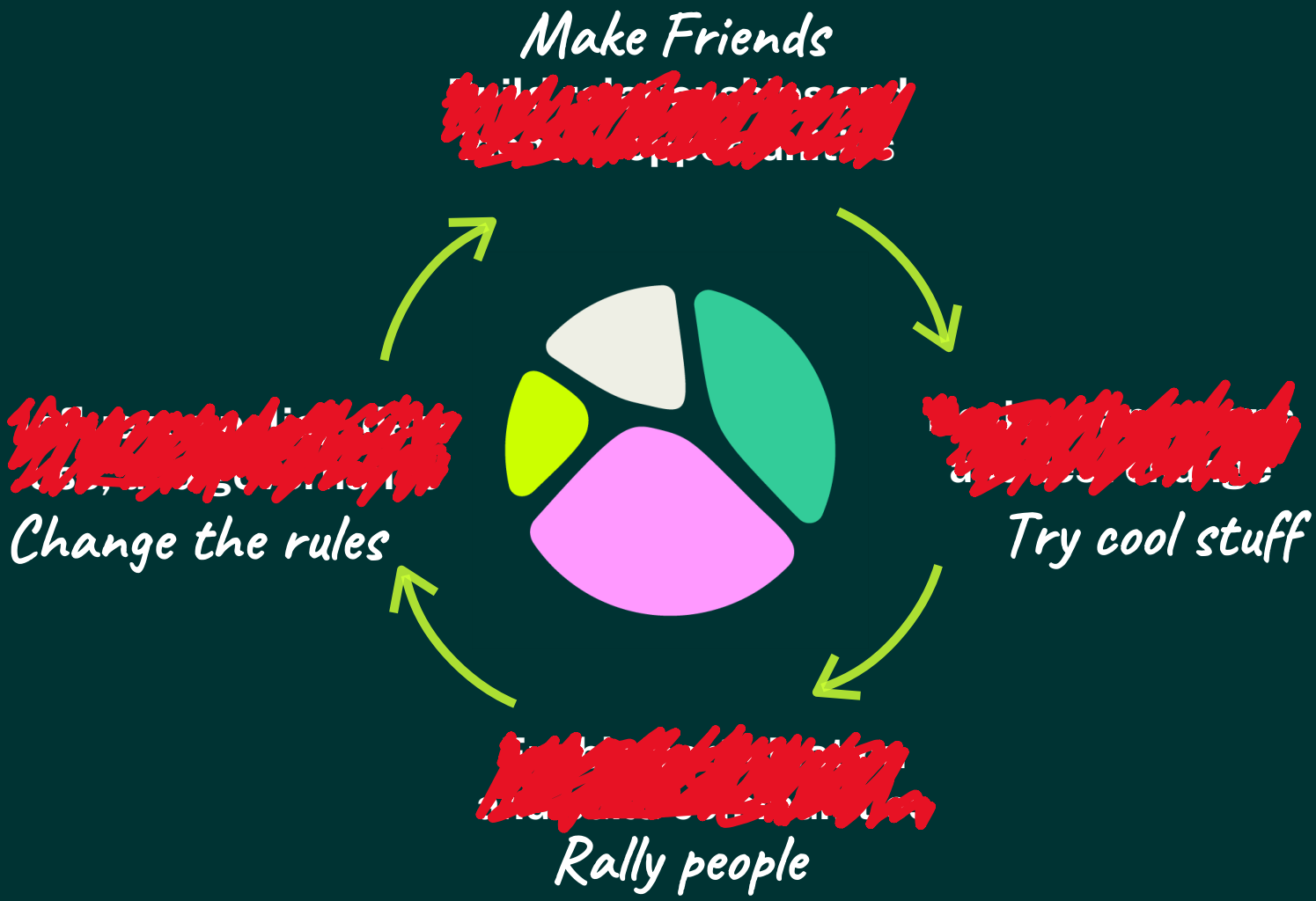
Urban ReLeaf

Urban ReLeaf empowers communities with citizen-driven data to influence public policy and strengthen city resilience for all


Build relationships and identify opportunities
Design campaigns and test change
Enable participation and build communities
Influence policy, data use, and governance


Make Friends
Try cool stuff
Rally people
Change the rules

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6 Cities

Athens, Cascais, Dundee, Mannheim, Riga, Utrecht

4 Themes

- Greenspace perception
- Urban Trees
- Air quality
- Heat stress

Riga 2024

Adopt a Sensor campaign

Community-based air quality monitoring

20 AQ sensors installed (PM 2.5)
7 sensor adopters
87K+ observations

Aim to pilot city wide sensor data visualization platform

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Low-cost sensor air quality monitoring

20 PM 2,5 sensors

- Focuss- comparison of gray and green areas
- Goal – additional data, public education
- PurpleAir PA-II (PMS5003)

- T – traffic
- NT – near traffic
- NG – near greenery areas
- G – greenery areas

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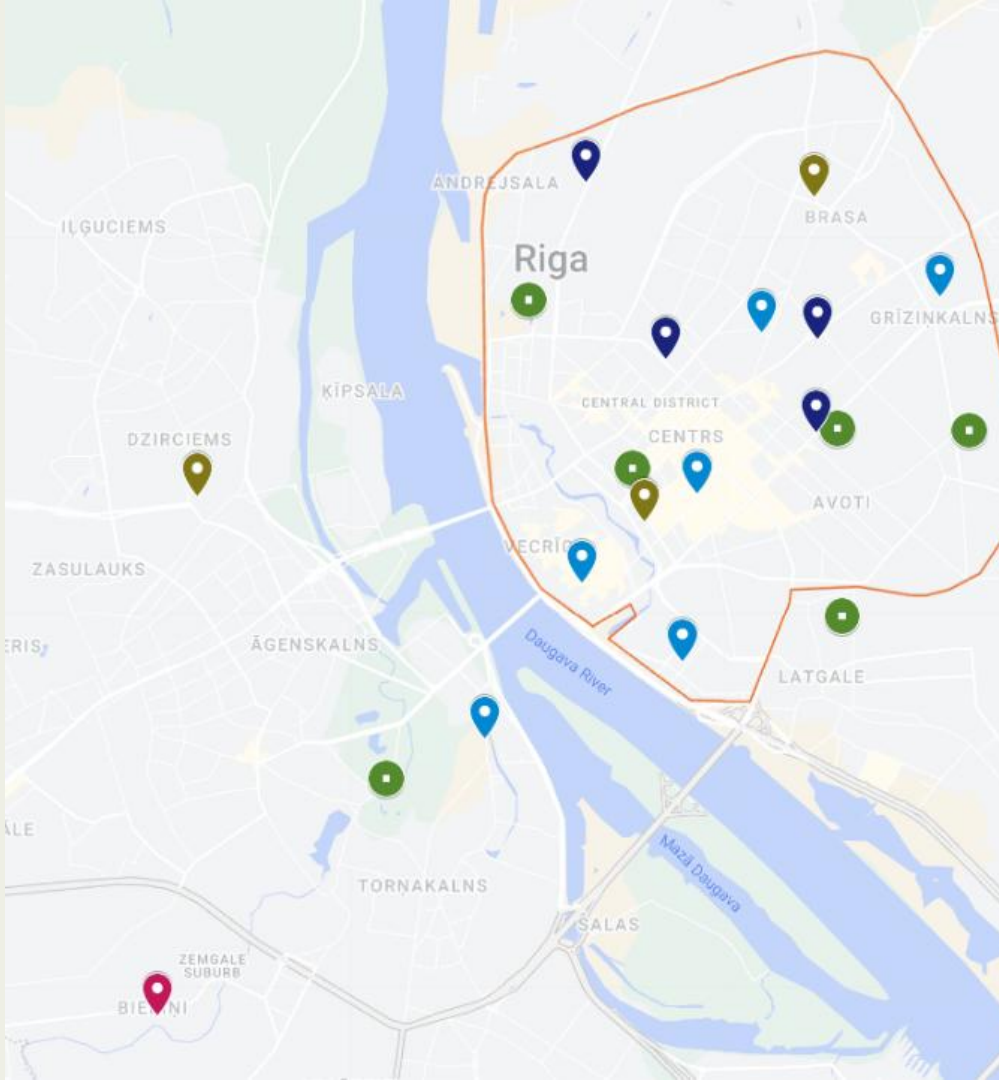
20 AQ sensors

- 6 greenery areas (UG)
- 3 near greenery areas (NG)
- 6 near traffic (NT)
- 4 traffic (T)
- controlsensor



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- Esplanāde (RM)
- Ziedoņa dārzs (RM)
- Grīziņkalns (RM)
- Viestura dārzs (RM)
- Miera dārzs (RDA)
- Uzvaras parks (IKDS)

- University of Latvia 1
- University of Latvia 2
- Technical youth centre
- School
- Kindergarten

- Hospitāļu iela 23
- Slokas iela 48a
- Dārzaugļu iela 1
- Dzirnavu iela 91
- Hanzas iela 6
- Ganību dambis 11
- Aleksandra Čaka iela 77

- "Free Riga" Creative quarter

- Controlsensor (MVD /EnviLAT)

Locations

6 parks

5 educational institutions

7 citizens

1 NGO

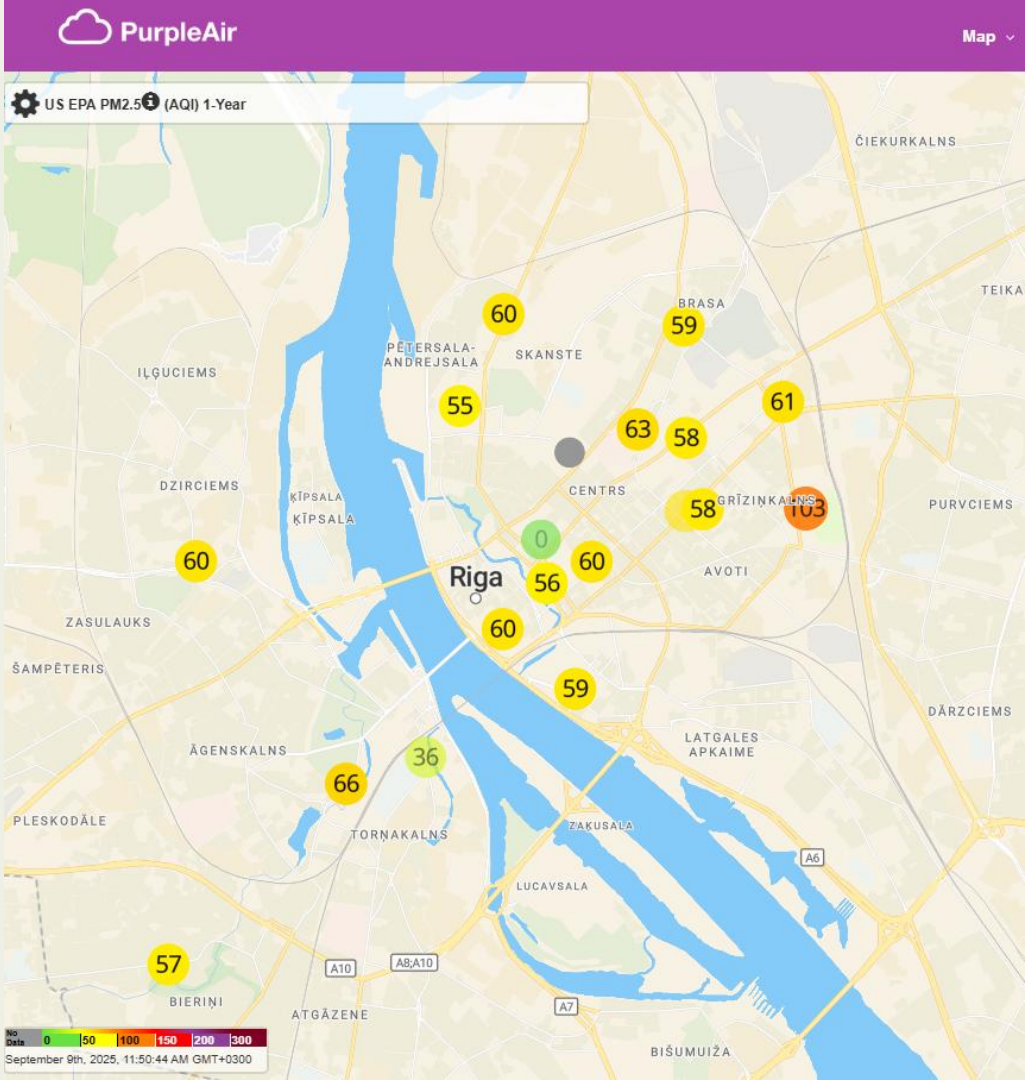
1 reference








PurpleAir webpage – real-time data



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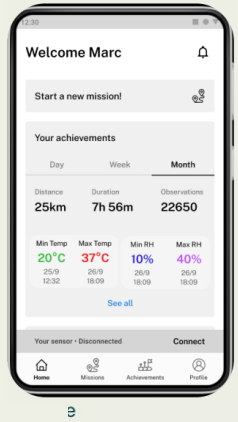
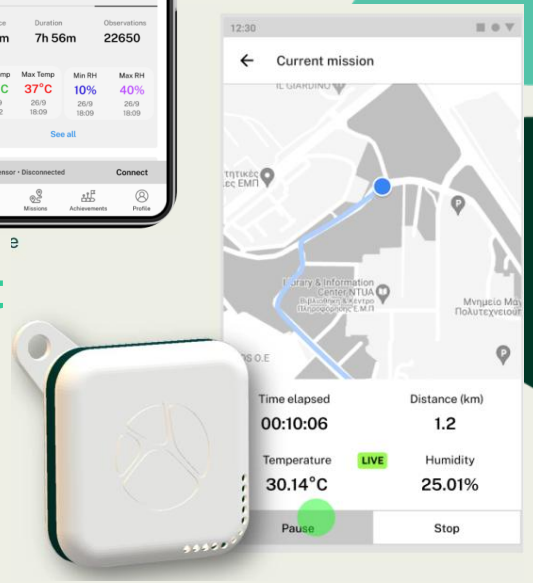
Riga 2025

Thermal (dis)comfort mapping

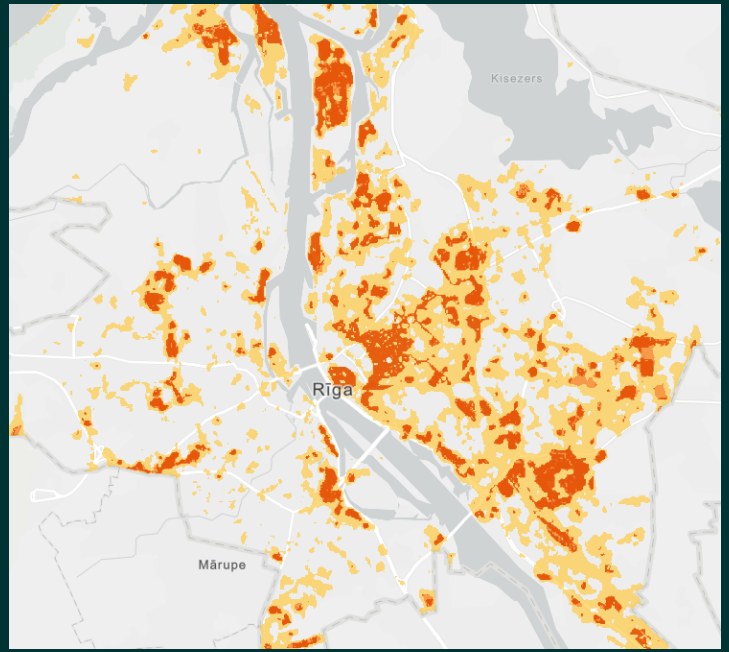
100 mobile sensors

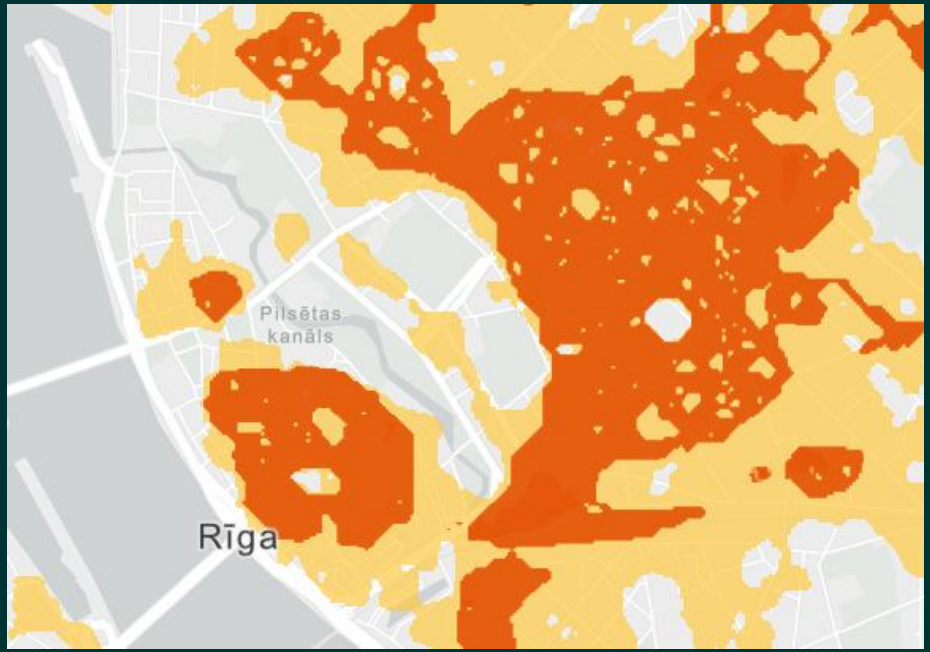
- Citizen engagement and education
- Mapping 2025 (and 2026?)
- Addition to heat island mapping (LatEst Adapt; SATSDIFACTION)
- Benefit of Green Areas





Heat island prioritisation





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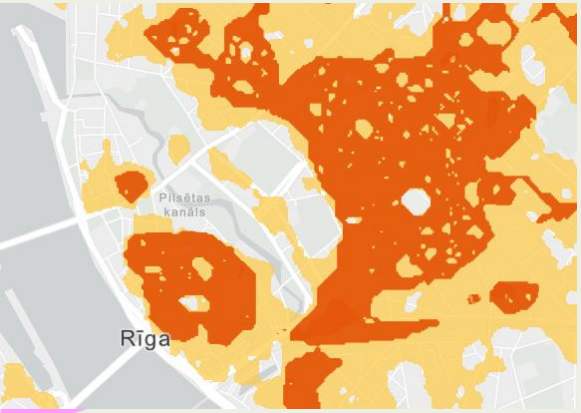
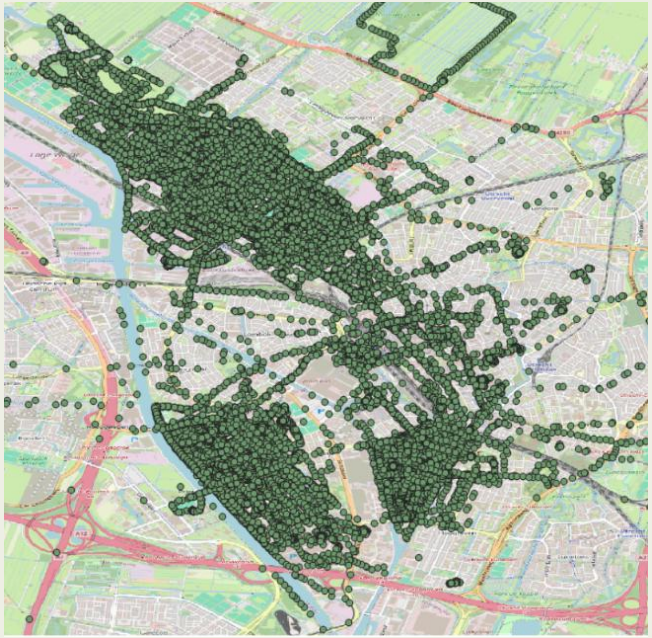
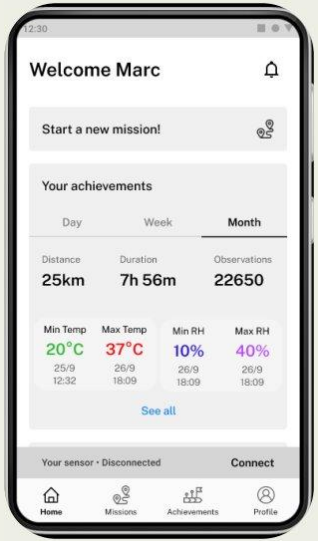
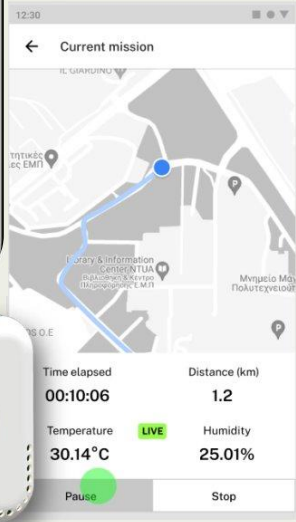
Here comes the citizen science!









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TERMĀLĀ KOMFORTA KARTĒŠANAS LAIKA LĪNIJA

.....May | June | July | August | September.....

I preperation

What is this about?

Citizen science
Heat islands, thermal discomfort

Trying out technologies
Onboarding e- community

II active period

Community building activities

Educational walks

Lectures and workshops

III closing

Data analysis

Reflection

Further action

Culture – lab

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Frequent walks in the center of Riga

Interest in urban greening activites

Attendance during the summer months

Pieteikums piedalīties pilsētas termālā komforta kartēšanā

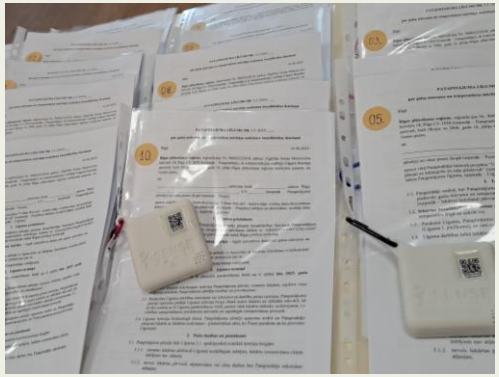
Rīgas plānošanas reģions projekta "Urban ReLeaf – Iedzīvotāju virzītas datu ekosistēmas pārejai uz iekļaujošu un zaļu pilsētvidi" ietvaros aicina iedzīvotājus piedalīties jau otrajā pilsētvides kvalitātes vērtēšanas aktivitātē. Pirmā – gaisa kvalitātes mērījumu veikšana jau veiksmīgi norit pateicoties iedzīvotāju, kā arī valsts un pašvaldību institūciju ieinteresētībai un atsaucībai. Šajā vasarā veicam otro kolektīvo aktivitāti pilsētvides kvalitātes vērtēšanai, kurā kartēsim Rīgas pilsētas termālo komfortu, vācot un novērojot temperatūras un mitruma rādītājus Rīgas pilsētas centrā un tam tuvējās apkaimēs. Lai kļūtu par šīs aktivitātes dalībnieku, aicinām aizpildīt zemāk pievienoto aptauju, kas palīdzēs mums novērtēt, vai esi piemērots plānotās aktivitātes īstenošanai.
Pamatojoties uz Jūsu sniegtajām atbildēm, novērtēsim, vai no mums pieejamiem 80 sensoriem varēsim piešķirt Jums vienu uz 2025. gada vasaras periodu.

Pieteikšanās no 23. maija - 11.jūnijam! Kampaņas atklāšanas pasākums un sensoru saņemšana sekos 16.jūnijā, 18:00 - informācija sekos!
Informācija par personas datu apstrādi saistībā ar anketu:
Apstrādes nolūki, kam paredzēti personas dati, apstrādes tiesiskais pamats un ilgums:

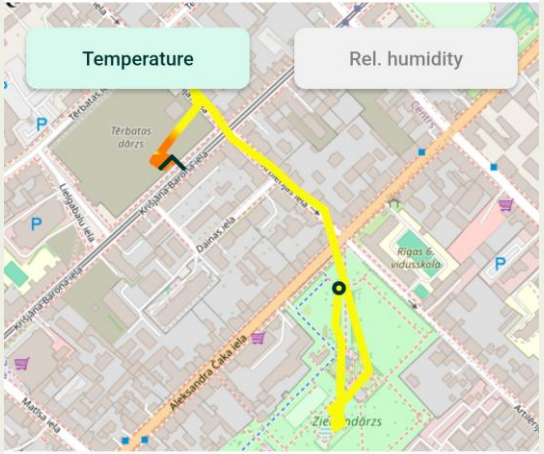
Jūsu personas datu apstrādes nolūks ir saziņa par Jūsu turpmāk anketā norādīto iesaistes veidu projektā. Tiesiskais pamats – Jūsu sniegta piekrišana, atbilstoši Vispārīgās datu aizsardzības regulas 6.panta 1.punkta a) apakšpunktam, kas sniegta brīvi, konkrēti un apzināti. Apstrādes ilgums - līdz piekrišanas atsaukšanai vai līdz pētījuma izstrādes beigām.

Opening event and educational events



Mission 40 Jul 2,2025 18:34

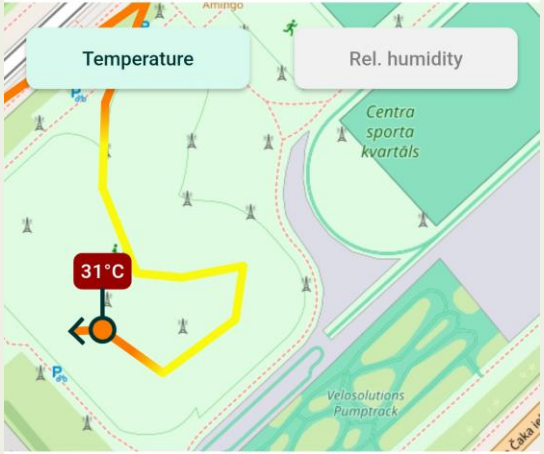


0.92 km	00 h 57 m	0	0
Distance	Duration	Discomfort	Cool

Temperature min-max	↓28°C 18:45	↑35°C 19:24
Rel. humidity min-max	↓41% 19:21	↑55% 18:45

Disconnected Connect

Mission 54 Jul 14,2025 15:07

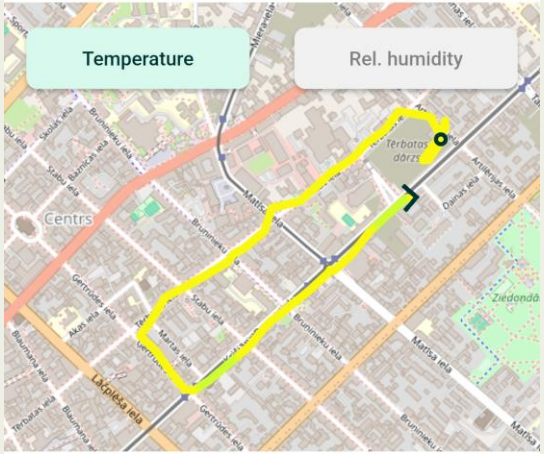


0.29 km	00 h 07 m	1	0
Distance	Duration	Discomfort	Cool

Temperature min-max	↓28°C 15:13	↑32°C 15:09
Rel. humidity min-max	↓39% 15:15	↑45% 15:13

Disconnected Connect

Mission 64 Jul 21,2025 19:09



2.03 km	00 h 51 m	0	0
Distance	Duration	Discomfort	Cool

Temperature min-max	↓25°C 19:52	↑27°C 19:13
Rel. humidity min-max	↓58% 19:12	↑67% 19:51

Disconnected Connect

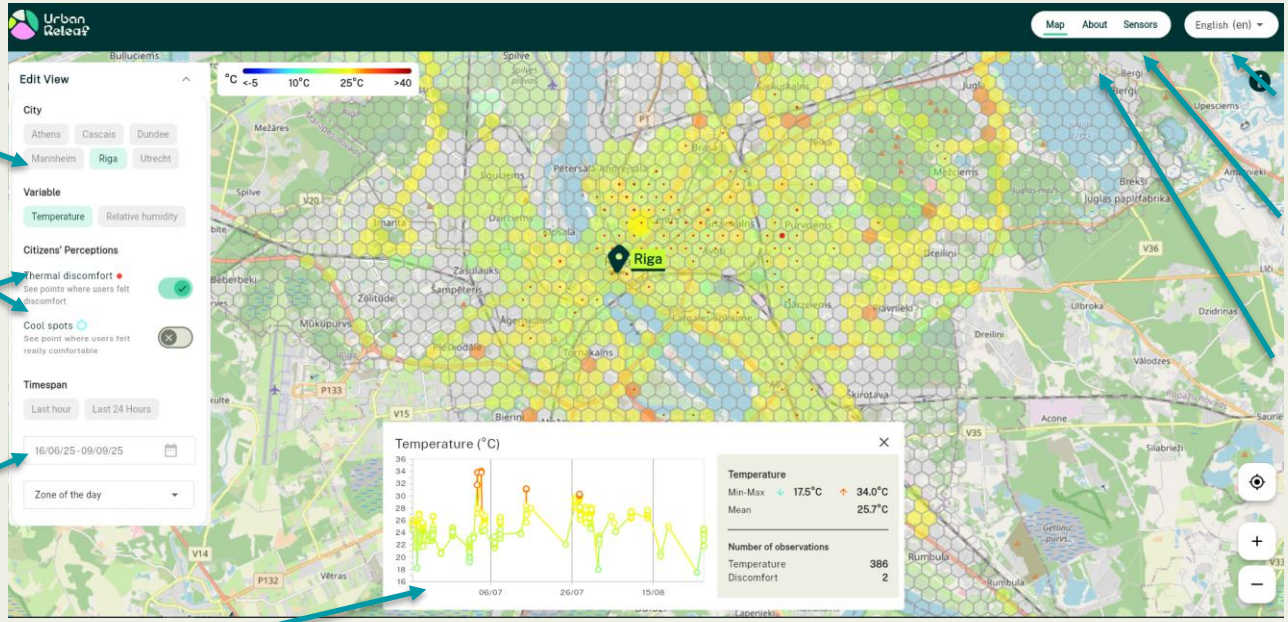
Web platform

City selection

Visualize TRH and thermal discomfort data

Select different time ranges

Graphical representations of the TRH values inside the hexagons



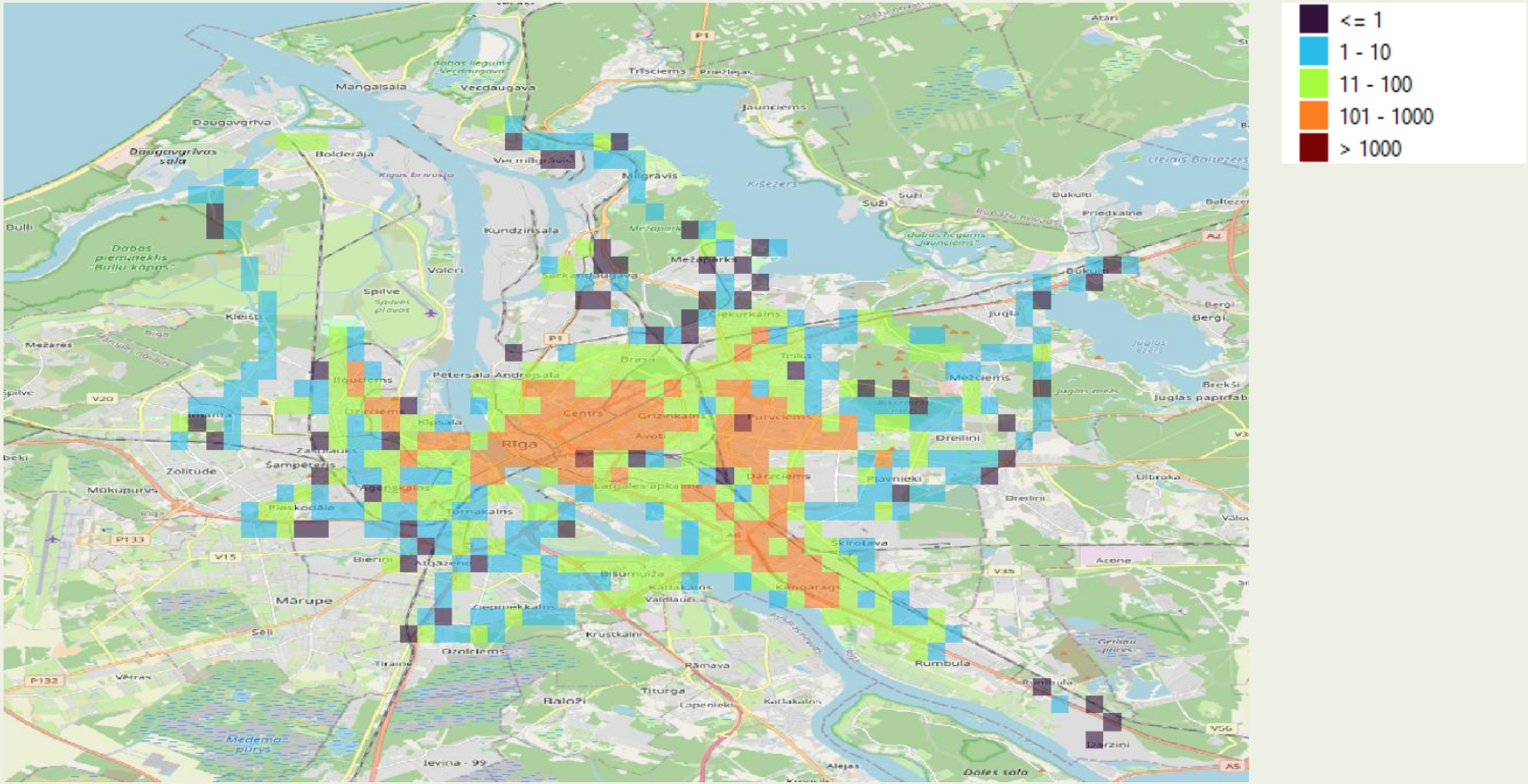
Multilanguage support

Sensor manual

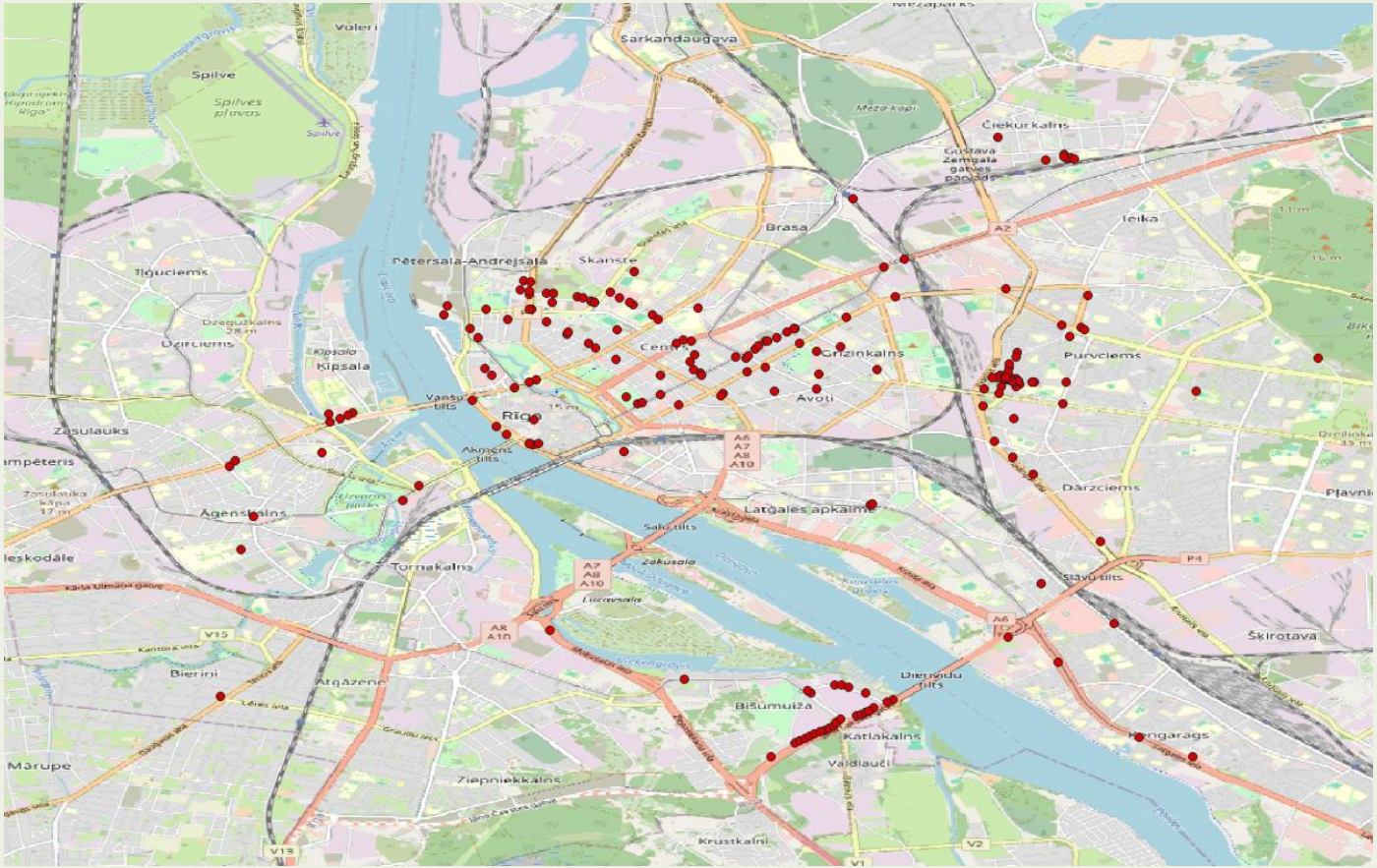
Informative page about the project

https://platform-urbanreleaf.iccs.gr/public/map/#/home

Heatmap of the frequency of observations



All thermal discomfort obervations



Too many data gaps to support policy for sustainable cities for now

Accentuated inequalities in access to ecologically high valued greenspaces and health-related benefits

Public participation developing slowly and variably - high interest in the beginning, later on goes up and down

Meaningful opportunity to increase public awareness, analytical and critical thinking

Citizen science for green urban transitions: Stories from Urban ReLeaf cities

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