

Net4Cities

Real-Time Monitoring Networks and
Transport Emissions for Tailored Zero
Pollution Action Plans in European Cities

**Erika von Schneidemesser &
the Net4Cities Consortium**



With the support
of



This project has received co-funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101138405



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



**UK Research
and Innovation**

Project Overview

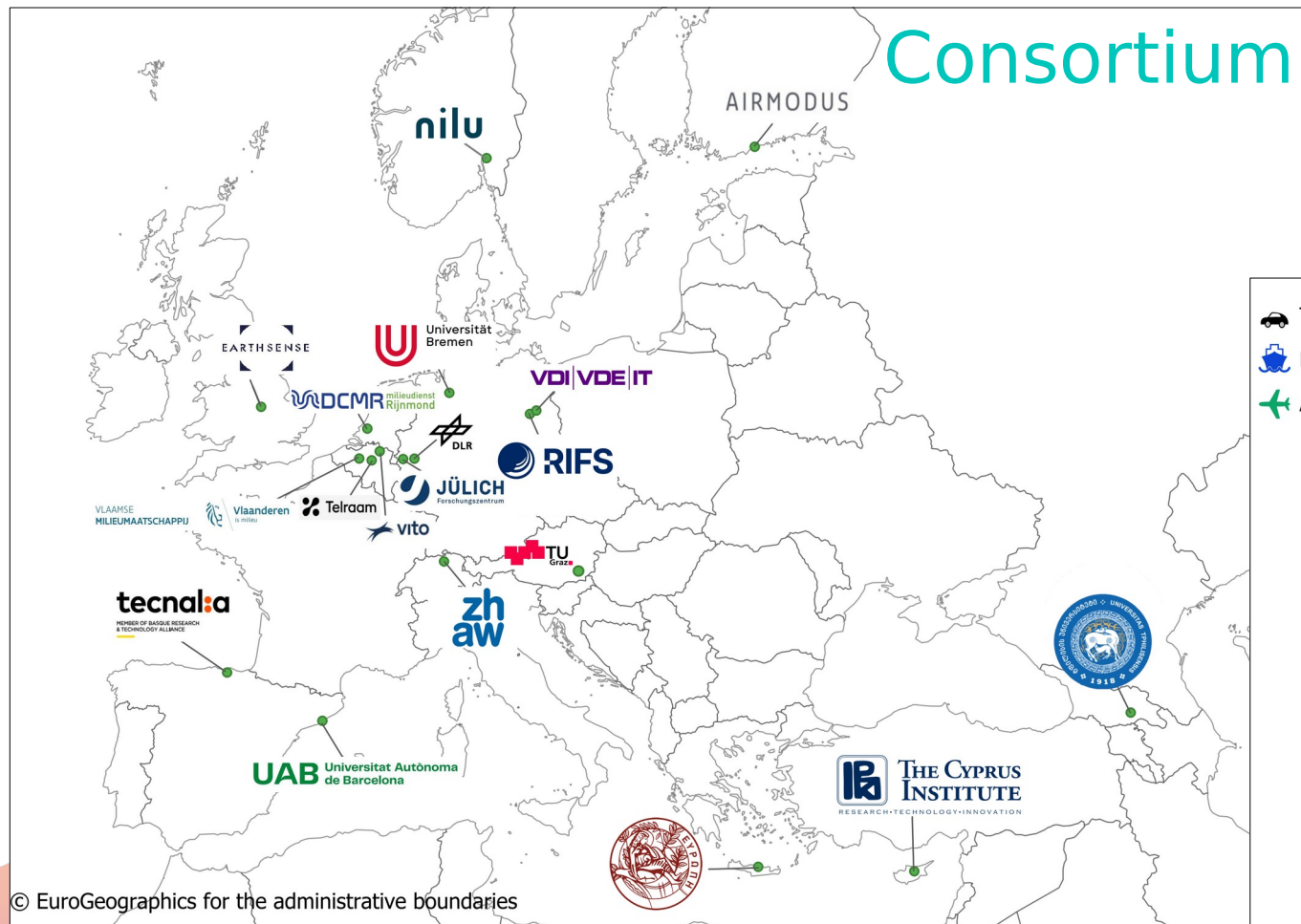


Net4Cities



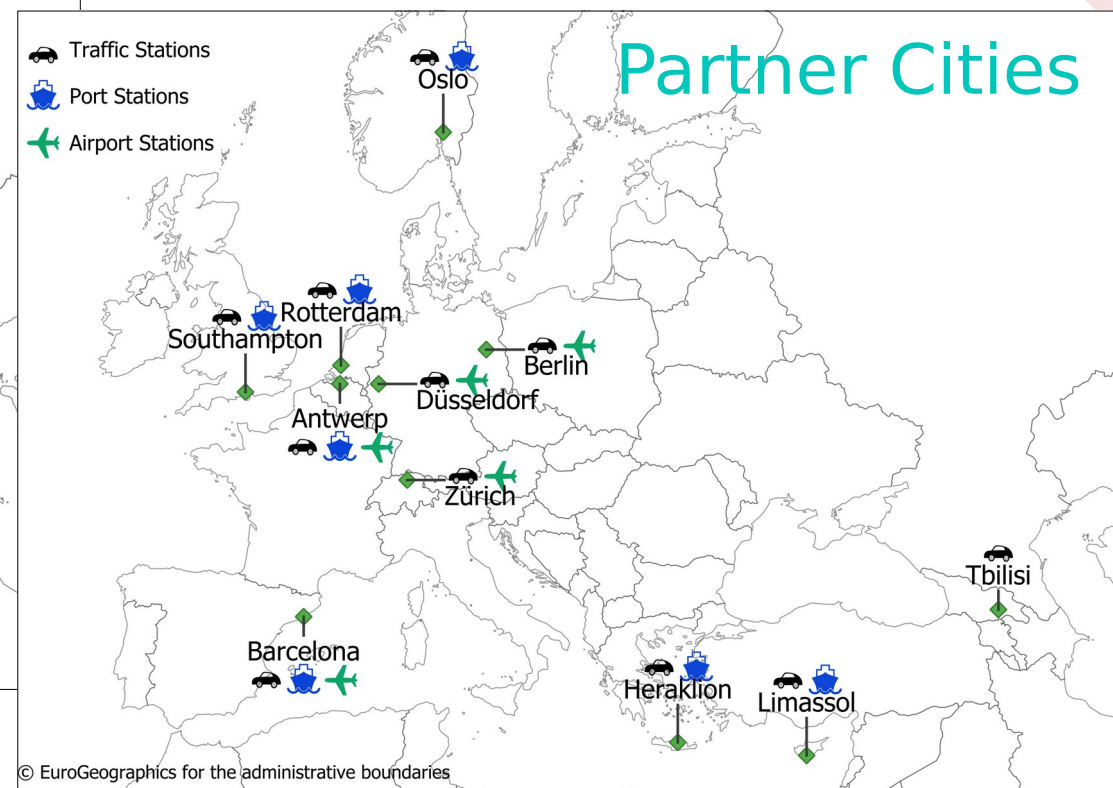
Consortium

■ 2024 – 2027, 5 mil €



© EuroGeographics for the administrative boundaries

Partner Cities



© EuroGeographics for the administrative boundaries

Net4Cities Objectives

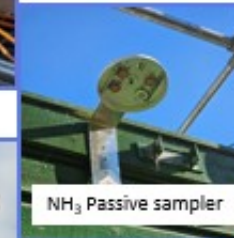
1. **Co-create** evidence-based, tailored policy solutions for **effective air and noise pollution reduction** plans.
2. **Advance monitoring networks** for transport-related **air** (exhaust and non-exhaust) **and noise** pollution – providing real-time information for policy, decision-support.
3. Generate data on (emerging) pollutants and noise in to **support source apportionment and modelling applications** and the improvement of emissions inventories.
4. Consolidate in databases integrated information from the monitoring and activity databases that enables **assessment of transport-related emissions and identification of non-compliant sources**, contributing to enforcement and the **reduction of health impacts**.
5. Create the Net4Cities Studio, including a variety of policy recommendations and guidance for e.g., **expanded monitoring network design**.

Initial Results



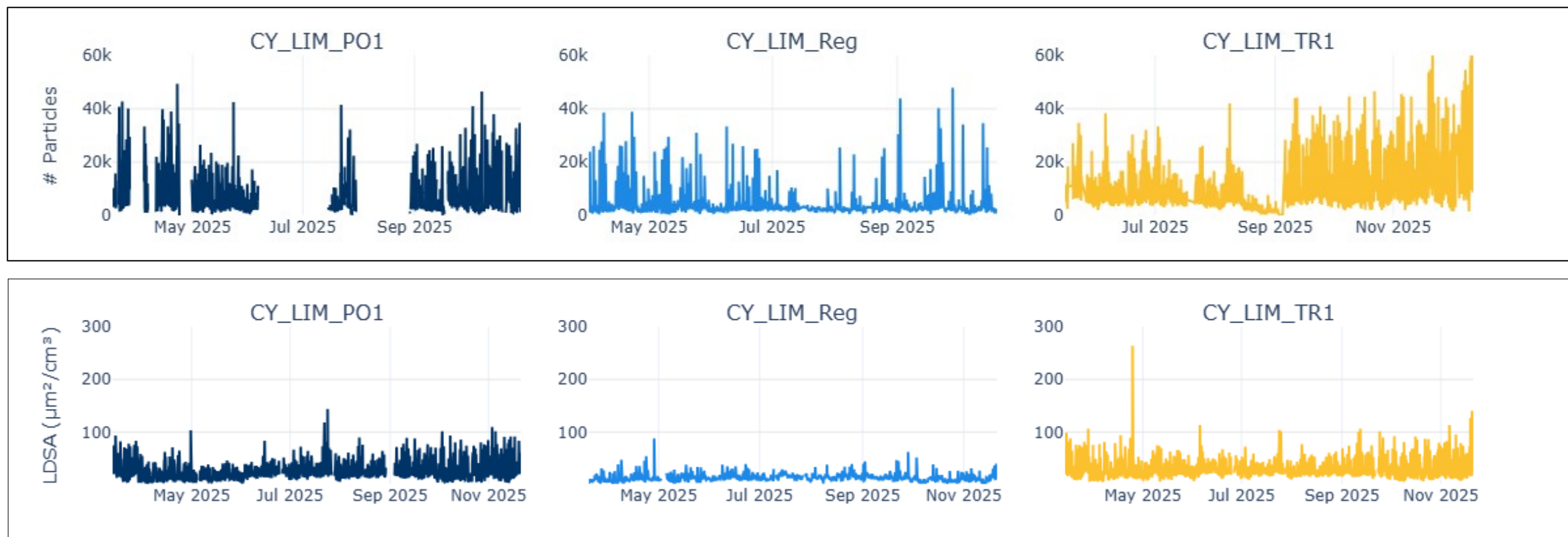
Advanced Monitoring Networks

- 11 partner cities
 - 1st year dedicated to a co-creation approach
- 2+ years of continuous measurements (online)
- Transport locations
 - 6 airport sites
 - 6 port sites
 - 18 urban traffic sites
- UFP (CPC, LDSA), PM, BC, NH₃, GHGs/NMVOCs, noise/traffic

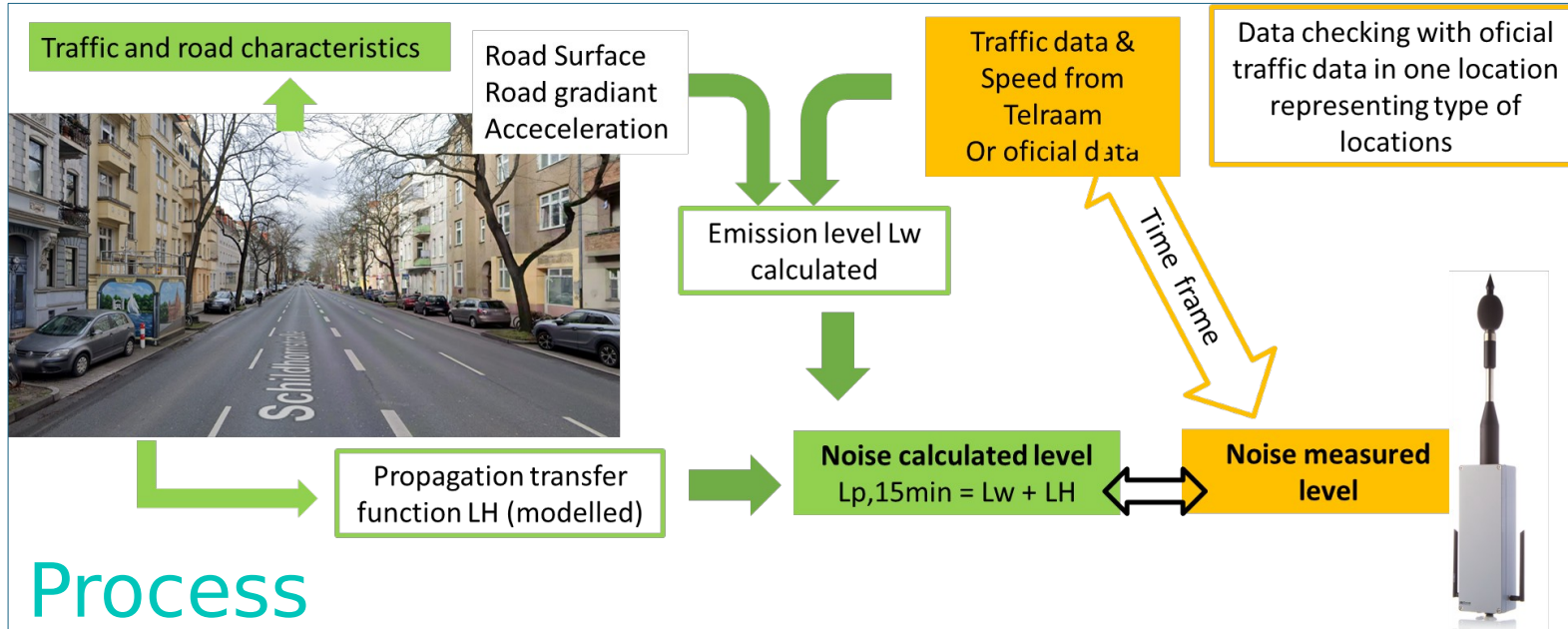


Ultrafine Particle Monitoring

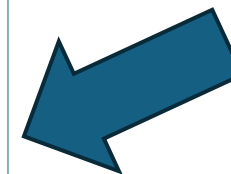
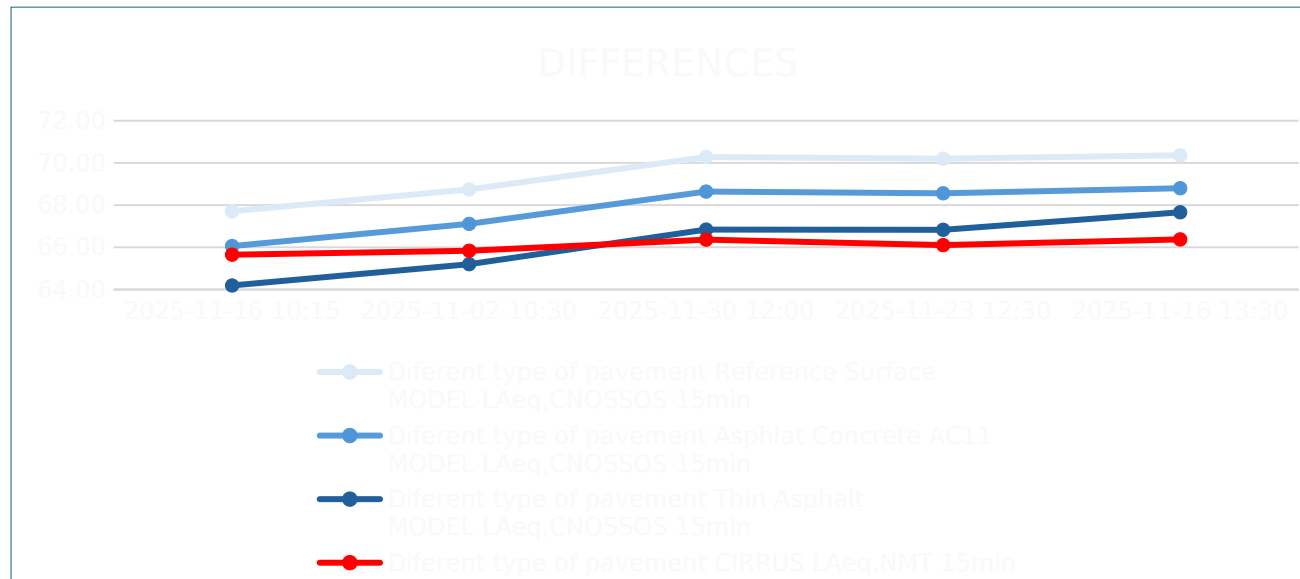
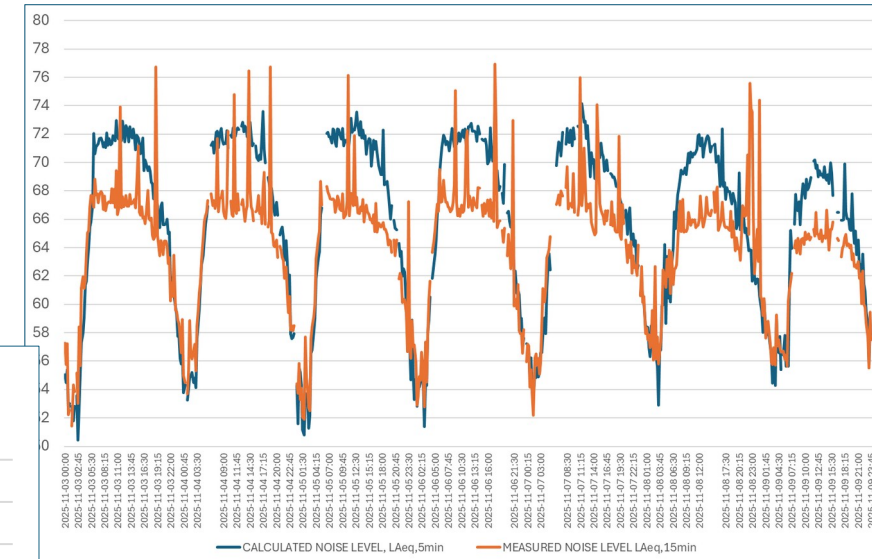
- UFP monitoring issue: CEN measurement method for UFP with CPC -> testing butanol vs propylene glycol for equivalence



Noise Monitoring

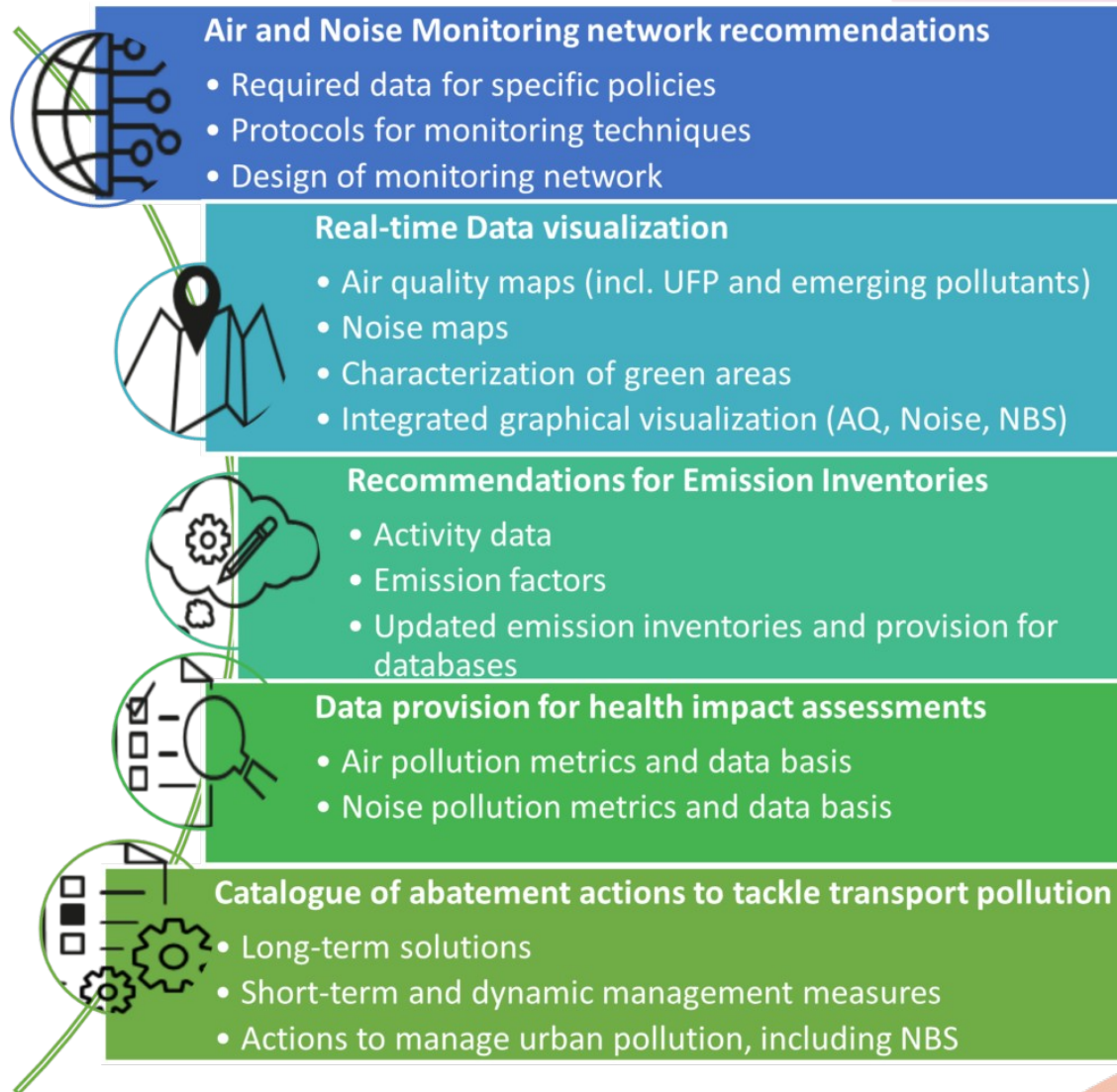
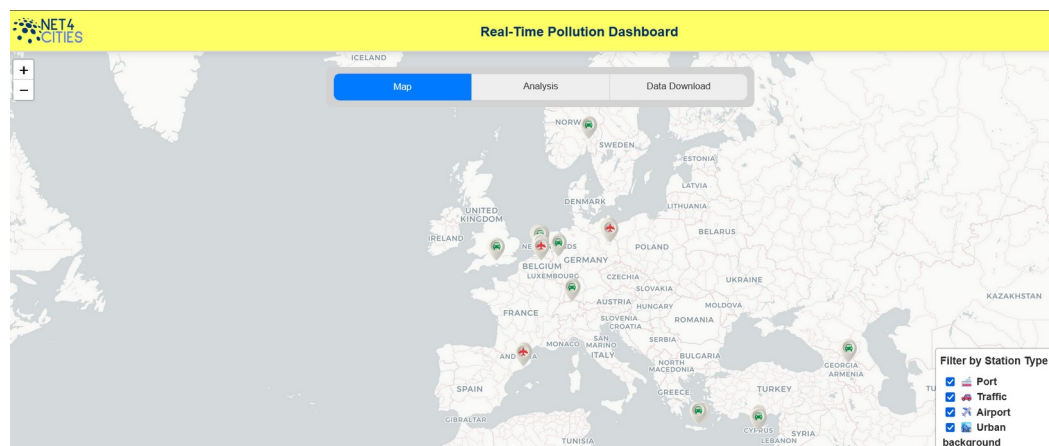


Initial results



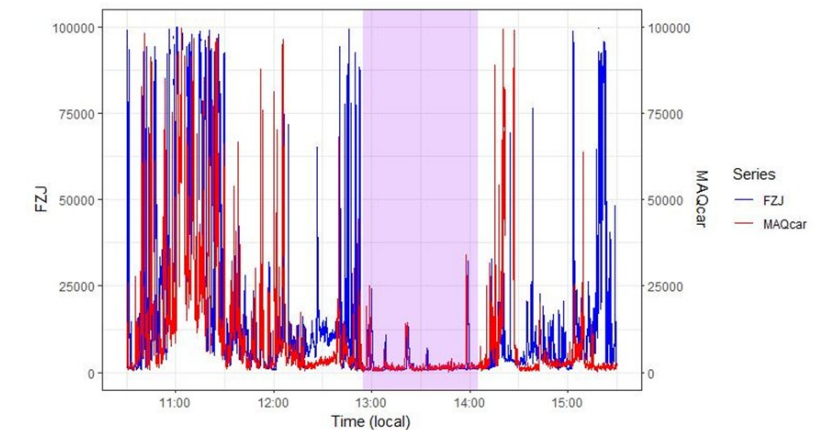
Net4Cities Studio

- Product in development
- www.net4cities.eu



Collaboration: Net4Cities + MI-TRAP

- Joint campaign for monitoring ship emissions
- Rotterdam
- July-August 2025



Mid to long term expected impacts of the project



Impacts

- Improved scientific evidence-base on contribution of transport sector to air pollution for more effective policy implementation
 - Advancement in monitoring capacity and network design, incl data to address future policy challenges for cities across Europe - Expansion of monitoring networks by working closely and supporting city authorities
 - A step-change in the knowledge on UFP and emerging air pollutants in urban areas
 - Improved understanding of contribution of transport sector to noise levels in urban areas
 - Advanced source apportionment techniques, with a focus on transport sources, especially exhaust/non-exhaust contribution

Impacts

- Support more effective policy implementation
 - Improved models to support decision-making processes
 - Information and (real-time) products to support prompt and agile anti-tampering enforcement and decision-making, enabling reduction of population exposure
 - Opportunities for new digital and smart traffic management technologies
- Inform citizens
 - Raised citizen awareness of urban pollution levels in real-time for decision support
 - Empowering citizens and NGOs with tools and data
- Contribution to ZPAP goals and health impact reduction
 - Improved quality of life thru better air quality and reduced noise



#RTR202
6



Erika von Schneidemesser
evs@rifs-potsdam.de



European
Commission

With the support
of

