

Urban transport-related emissions in European cities: Insights from canister sampling and mobile measurements in Net4Cities



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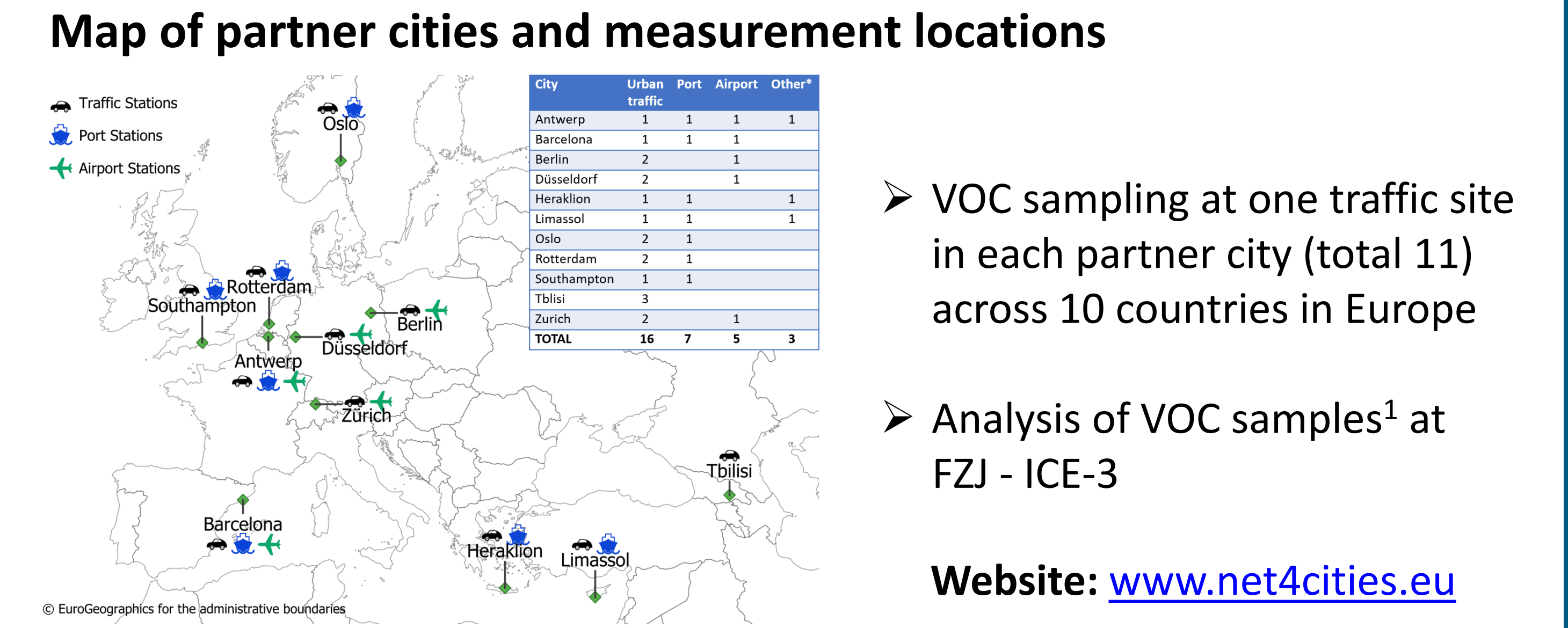
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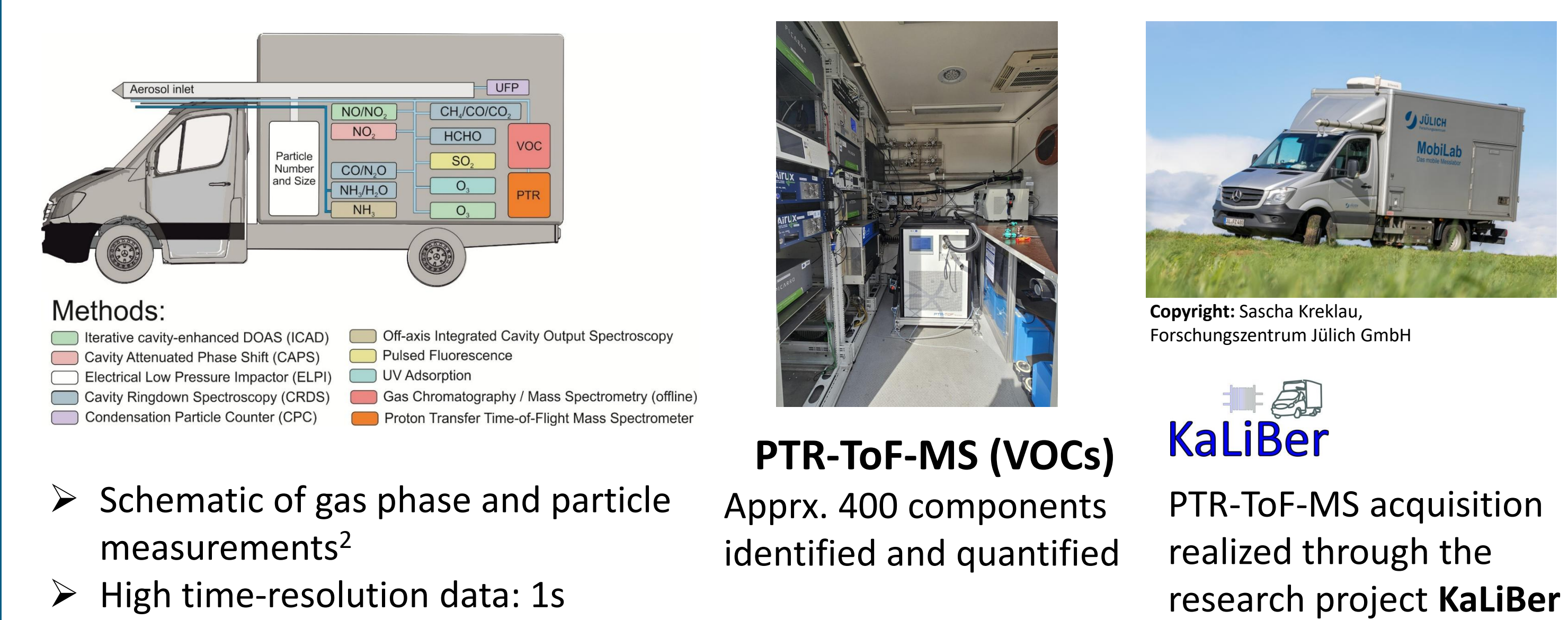
1. Introduction

- Net4Cities is a European project measuring transport-related air and noise pollution across 11 cities in 10 countries, providing harmonized and comparable datasets.
- Focus on emerging pollutants, among them volatile organic compounds (VOCs), ultrafine particles (UFPs), and ammonia (NH₃) to improve understanding of urban emission sources and impacts.
- Contributing to the implementation of the EU's Zero Pollution Action Plan and the new EU Air Quality Directive (EU/2024/2281).

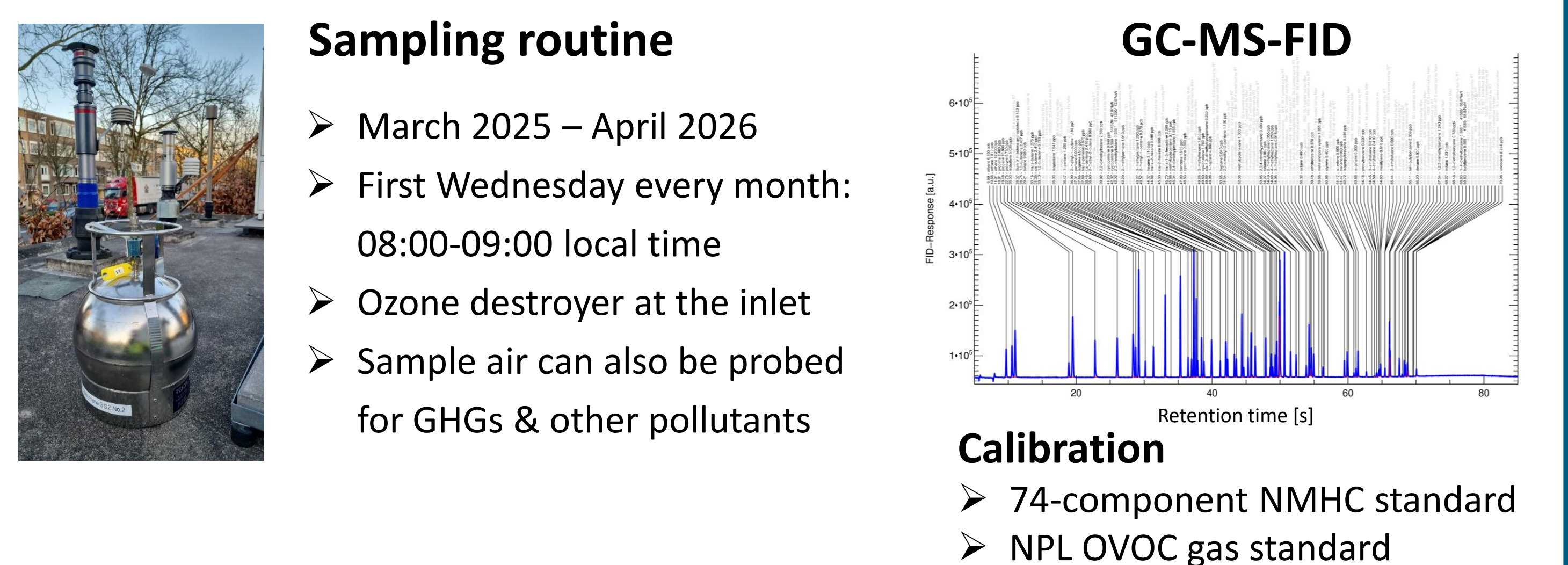
2. Net4Cities



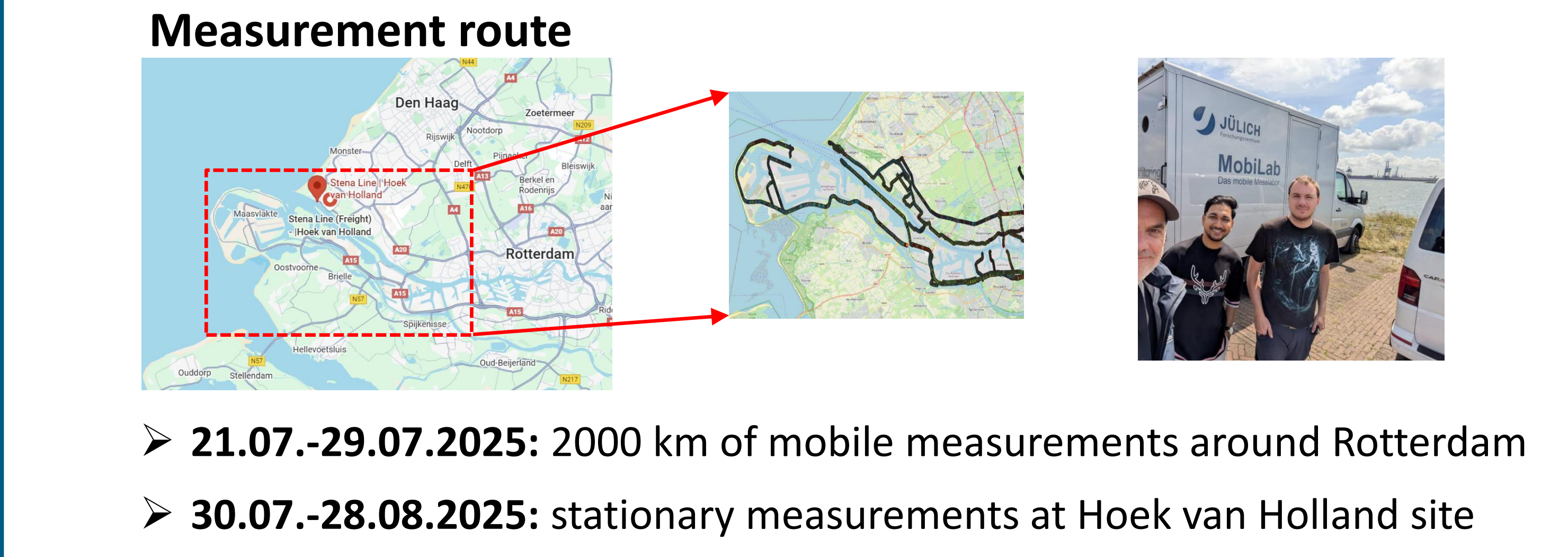
3. MOBILAB



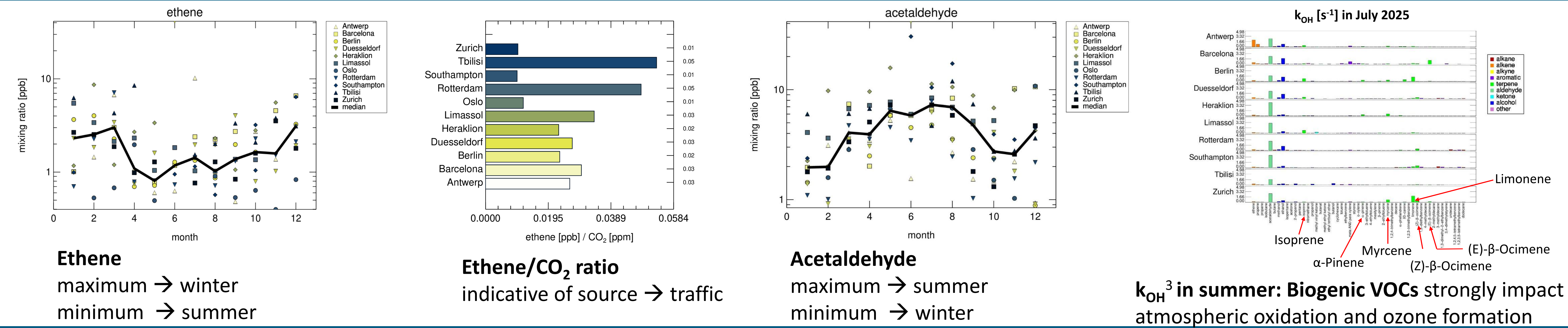
4. Stationary measurements - Canisters



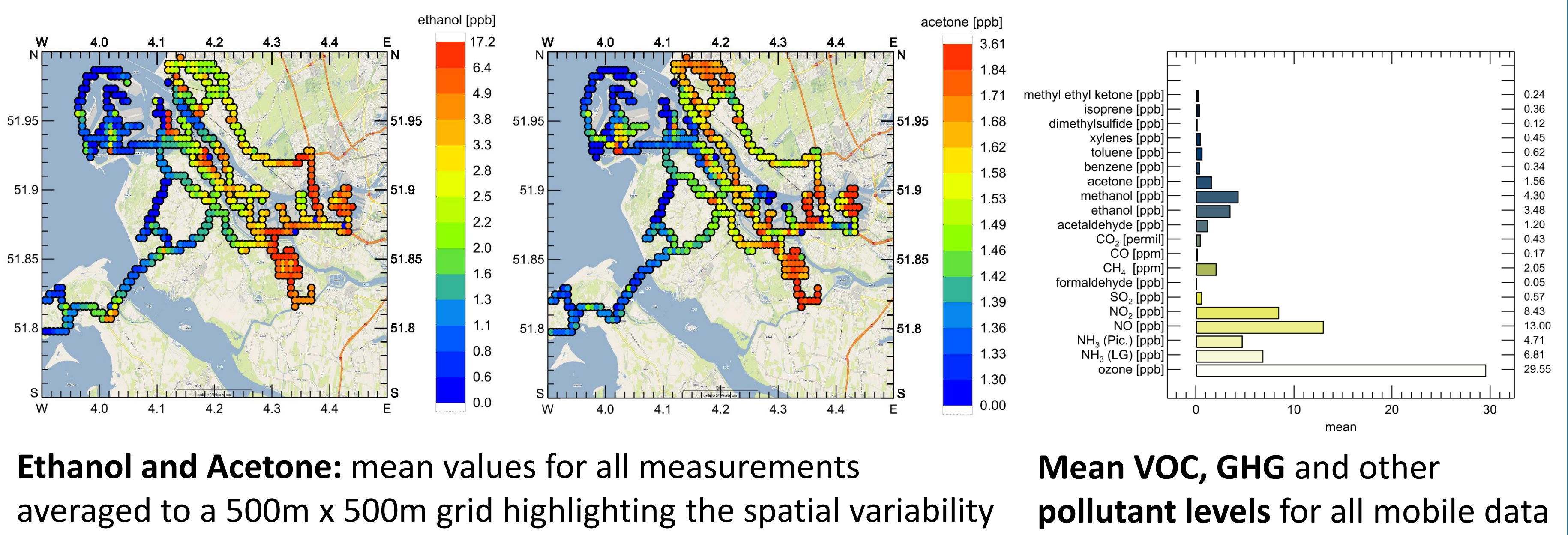
5. Mobile measurements - MOBILAB



6. Canister measurement results



7. Mobile measurements in Rotterdam



8. Summary and conclusions

- Standardized canister sampling reveals seasonal and detailed compositional patterns of VOCs across European cities, while highlighting strong spatial variability driven by local emissions.
- High-resolution mobile measurements are essential to capture short-term pollution events and aid in source attribution. Multi-purpose use of mobile and stationary capability.

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