

**ST14: Protocols for mapping urban outdoor concentrations of UFP and other pollutants by using mobile measurements, urban scale modeling and citizen's science** (smart sensors) to obtain the high spatial resolution variability of urban exposure. This will include instruments, protocols (how to calibrate the instruments, monitor the reliability of measurements and integrate them with AQ Monitoring Networks (AQMNs) official data) and the strategies to involve them. To this end, the experience of the most advanced EU cities on these observatories will be gathered, evaluated and tested to provide guidance.

The linked resources for this ST include:

- 1) D13 (D2.5) Description of methodology for mobile monitoring and citizen involvement: [https://riurbans.eu/wp-content/uploads/2022/10/RI-URBANS\\_D13\\_D2.5.pdf](https://riurbans.eu/wp-content/uploads/2022/10/RI-URBANS_D13_D2.5.pdf) summarizing the best practices and methodologies for **mobile measurements (section 3) and citizen engagement (section 2)** in these measurements.
- 2) M10 (M2.5) Guidance document for mobile monitoring in RI-URBANS pilots summarizes the guidance documents that are available for mobile monitoring for the RI-URBANS pilots.
- 3) M21 (M4.5) Mapping pollutants related to health effects: [https://riurbans.eu/wp-content/uploads/2023/10/RI-URBANS\\_M21.pdf](https://riurbans.eu/wp-content/uploads/2023/10/RI-URBANS_M21.pdf). This describes different protocols and results used in Pilot 4.5 to provide high-resolution outdoor exposure city maps for pollutants related to health effects, using modeling tools, mobile measurements of UFP, BC, PM with mid-cost sensors, novel dispersion measurements, the participation of networks of citizens and new innovative instruments.

Scientifically this ST9 links to (a) Van Poppel et al (2023): <https://doi.org/10.1016/j.atmosenv.2023.119594>, which shows the use of targeted mobile measurements by citizens to assess impact of traffic interventions, (b) Hofman et al (2023): <https://doi.org/10.3389/fenvh.2023.1232867>, which shows the use of opportunistic data collection using sensors on service fleet vehicles for pollution exposure assessments and (c) Liu et al. (2023d) (currently under review), which shows how to use mobile optical (cameras) measurements to map air pollution in cities.