**ST2:** Protocol for measurements of ambient Black Carbon (BC) with instrumental and operational settings to determine the source contributions from biomass burning and road traffic.

The linked resources for ST include:

- RI-URBANS general guideline document on non-regulated air pollutants:
  D1 (D1.1) Guidelines, datasets of non-regulated pollutants incl. metadata, methods <a href="https://riurbans.eu/wp-content/uploads/2022/10/RI-URBANS\_D1\_D1\_1.pdf">https://riurbans.eu/wp-content/uploads/2022/10/RI-URBANS\_D1\_D1\_1.pdf</a>
  Particularly section 3.
- 2) Data requirements for the NRT online source apportionment is described in D4 (D1.4) NRT source apportionment ST for submicron carbonaceous matter (pilots) <a href="https://riurbans.eu/wp-content/uploads/2023/01/RI-URBANS D4 D1 4.pdf">https://riurbans.eu/wp-content/uploads/2023/01/RI-URBANS D4 D1 4.pdf</a>
- 3) The guidelines and standard operating procedures are updated by ACTRIS Calibration Facility for aerosol in-situ measurements: https://www.actris-ecac.eu/particle-light-absorption.html

Scientifically this ST2 links Savadkoohi et al. (2023): <a href="https://doi.org/10.1016/j.envint.2023.108081">https://doi.org/10.1016/j.envint.2023.108081</a>, which summarizes the current state-of-the-art in BC and provides scientific interpretation of the recent BC measurements in urban European environments.