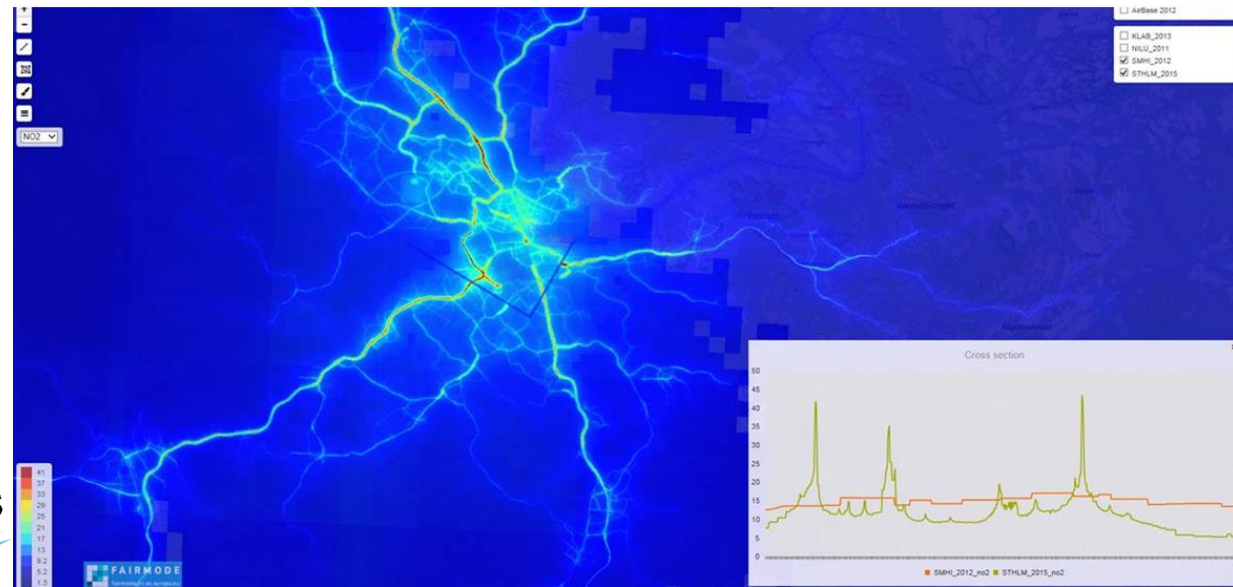# WG5 Pilot Stockhom

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WG1 Assemssement

- We have not worked with MQO within Fairmode.

- We have downloaded the deltaTool but we have not yet tested it with our dispersion modeling and monitoring data.

- We have contributed to the Composite Mapping tool for concentrations.

WG2 Emissions

- We have benchmarked our bottom-up emission inventory for Stockholm with the top-down inventories using Fairmode WG2 emission tool.

- We have presented and discussed the results of the emission inventory comparisons at the last two Fairmode Technical meetings, that is, in Aveiro 2015 and in Zagreb 2016.

- We will contribute to the Composite Mapping tool for emissions (planning to send the data in beginning of June).
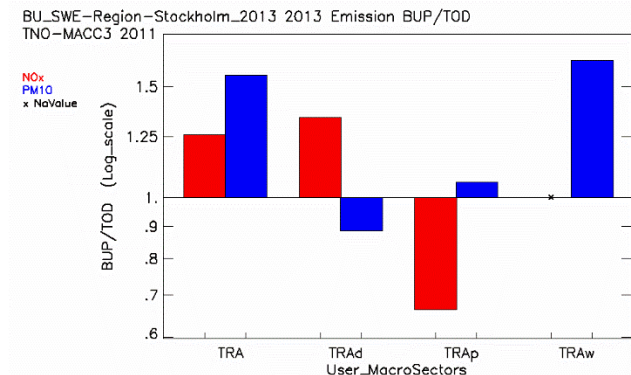
WG3 Source apportionment

- We have not worked with Source apportionment within the framework of Fairmode.

- Source apportionment in our own organization:
  - Fossil and non-fossil source contributions to PM and black carbon
    - Measurements of levoglucosan + 2 other sugars, tracers for cellulose in biomass burning.
    - Measurements of radio-carbon

WG4 Planning

- We tried to work with SHERPA during a session at the latest Technical Meeting in Zagreb 2016. After that we have not tried it further.

- If there is the possibility to base the analysis in SHERPA on our own bottom-emission inventories and model simulations, I think it would be very interesting.

- As part of the municipality organization, we make a lot of analyzes of future measures and scenarios for air quality, mostly concerning road traffic emissions. For example:
  - Introduction of congestion taxes
  - Introduction of low emission zones
  - Urban mobility strategies
  - Future fossil-free fleet of vehicles
  - Exploitation of residential neighborhoods
  - Construction of Stockholm bypass highway

Our expectations

- Get knowledge and access to tools that can help us improve and evaluate our emission inventories and dispersion modeling.

- Get better insight about SHEPA, and how we can benefit from the tool.

- We have not worked so much with source apportionment so we think we can develop and learn a lot about this area.

- Better knowledge of how other countries and cities in Europe work with air quality issues.

- Influence Sweden's guidelines for emission inventories and modeling of air quality.

- Conversely, we hope that our participation will help developing the work and tools produced within the Fairmode network, making them more usable for agencies and regional/local authorities.

Pollutants

- We have high quality emission inventories for NO_x, PM10 and PM2.5. In addition we have inventories for VOC, SO_2, benzene, black carbon, metals and more, but these are of poorer quality and not comprehensive for all emission sectors.

- Normally we perform dispersion calculations of NO_2 and PM10, as we have trouble meeting the environmental quality standards for these pollutants. We also perform modeling of PM2.5.

- PM10 in Stockholm: very high local emissions of wear particles (up to 80-90%) due to the use of studded tires in winter. Good pollutant for us to work with?
    - Yes? - we can contribute knowledge about conditions in the Nordic countries
    - No? - difficult to compare with other European countries
        - European emissions inventories, eg TNO-MACC , JRC underestimate the emissions and resuspension of wear particles in Sweden

- **We prefer to work with NO_2 or/and PM10** (see comments regarding PM10 above)

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