FAIRMODE
Forum for air quality modelling in Europe

WG1 - Source apportionment in support AQ management

Status and future steps

WG1 Session

FAIRMODE PLENARY MEETING
Paris - 26/27 February 2024

WG1 agenda

- **Status and future steps** (15')
- Discussion (35')
  - ❖ *How can we best use available approaches in combination to support planning in the context of the AQQD?*
    - ✓ How can we use CAMS and other SA products available at EU level?
    - ✓ How can we combine tagging and sensivity methods for SA?
    - ✓ What can we learn from the integration of source and receptor oriented models?

FAIRMODE roadmap

The FAIRMODE roadmap for 2022-2025 propose for WG1 the following activities with the main aim to deliver guidance on the fitness for purpose of different source apportionment approaches in the overall context of air quality management practices:

- Consolidating the fitness for purpose source apportionment (SA) guide, in particular with the following topics: **complementarity of SA approaches**, **receptor modelling**, extension to O3, **NO2**, ***PM coarse***...
- Supporting the ***reporting of SA results*** and update of documentation
- Developing a **SA protocol in support to planning** (key components, sequence, purpose, complementarity…).
- **Interacting with CEN**, in particular in relation to the foreseen Technical Specifications on source oriented SA.
- Provide **guidance on the use of the CAMS policy products** related to source apportionment and source-receptor relationships.

Complementarity of SA approaches

- (Sub) working group on comparison of TAG and BF approaches:
  - Meetings are temporarily suspended
  - Need of better define and streamline the goals of the activity
  - Plan to restart the activity summer 2024
  - Possible links and synergies with upcoming activity on RM-SM comparison

NO_2 intercomparison exercise

- Updated and extended IE results with new CAMx and SHERPA-QUARK simulations
- First draft of a scientific paper on IE results shared in January
- Second draft planned for April

Receptor and Source oriented models

Where are we? The FAIRMODE contribution

FAIRMODE guidance on receptor models application

- European Guide on Air Pollution Source Apportionment with Receptor Models (2014)
- European guide on air pollution source apportionment with receptor models - Revised version (2019)

CEN/TS on receptor models evaluation

- CENTS 17458 (2020)

FAIRMODE guidance on source apportionment techniques and fitness-for-purpose

- European guide on air pollution source apportionment for particulate matter with source oriented models and their combined use with receptor models (2020)
- Source apportionment to support air quality management practices, A fitness-for-purpose guide (2022)

Receptor and Source oriented models

Main goal of the proposed activity

To develop/update methods to compare SM and RM that could mainly support air quality modelling assessment. We would like to go beyond the usual IE and trying to provide concrete contribution to the guidance

To be discussed in the second part of WG1 session

Interaction with CEN/WG44

- **WG44 meetings**
  - Paris 24-25 May 2023
  - Antwerp 26-27 October 2023
  - Helsinki 14-15 March 2024 (upcoming)

- **Ongoing discussion on the TS for Source Oriented models:**
  - Terms and definitions
  - SA methods and properties
  - SA protocol and graphical representation

Guidance on the use of the CAMS policy products

Main goal of the proposed activity

How to use SA methods to apply the EU directive?

To be discussed in the second part of WG1 session

SR9 – Modelling Guidance Document – Source Apportionment

CHAPTER 5 – Source apportionment

- **First draft delivered by February 16th**
- Internal progress meeting scheduled on March 8th
- Second expert group meeting scheduled on April 9th