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Proposal of structure of new guidelines
Source Apportionment with Source Oriented Models

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1. Introduction to Source Apportionment with Source Oriented Models

- General notes on the use of Air Quality models for S.A.
- Preliminary introduction of some key concepts: linear effects, zero-out modelling, tagged species approach

2. Source Apportionment protocol for source oriented models

2.1 Problem framework

- Area of study, kind of sources, kind of pollutants

2.2 Emissions

- Emission inventories and other requested data
- Speciation profiles: a key aspect

Only PM species?

Actually, this is a key aspect in case of SM and RM comparison either when the focus is on specific pollutants. It is less relevant for PM bulk mass

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2.3 Base Case (or Reference) simulation

- Input definition
- Model validation
- ...

The base case simulation is exactly the same as a traditional air quality evaluation. Could we refer to PM modeling guidance already published in FAIRMODE?

2.4 Source apportionment

- Zero out modelling: approach, weaknesses and strengths
- Tagged species modelling: approach (PSAT LOTOS, PSAT CAMx, ISAM CMAQ, others?), weaknesses and strengths
- Category sources and Area sources

3. Comparing Source and Receptor oriented modelling

- Introduction: the need for source apportionment “validation”
- Methods:
 - Source definition
 - Mass closure verification
 - Source ranking and estimates
 - Temporal correlation and exceedances analysis
 - Specific sources analysis
 - Secondary pollutants
 - Use of tracers

Only a description of the different approaches? Examples of applications?