Status of the pilot exercise

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WG2
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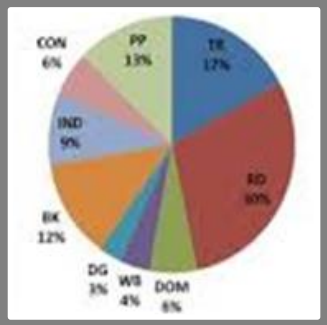
WG1
S. Janssen

WG5: Pilot on Air Quality management Practices

European Commission

WG1
Assessment

WG2
Emissions



WG3
Source App.

WG4
planning

WG5: Improved air quality management practices

Chairs: C. Guerreiro (NILU) E. Pisoni (JRC)
Support: All other WG chairs and co-chairs

Joint Research Centre

WG5: Pilot on Air Quality management Practices

European Commission

Context

Guidance, methodologies and supporting tools have been developed in the past years…

Objectives of the "pilot"

Tune FAIRMODE Methodologies/Guidance/Tools to better fit air quality management needs.

Means

- Increase the efficiency of the FAIRMODE QA/QC process by focusing on specific areas where all data are consistently linked.
- Strengthen bilateral interactions between FAIRMODE and the pilots to support data preparation, applications and interpretation of results.

Joint Research Centre

Increase the efficiency of the FAIRMODE QA/QC

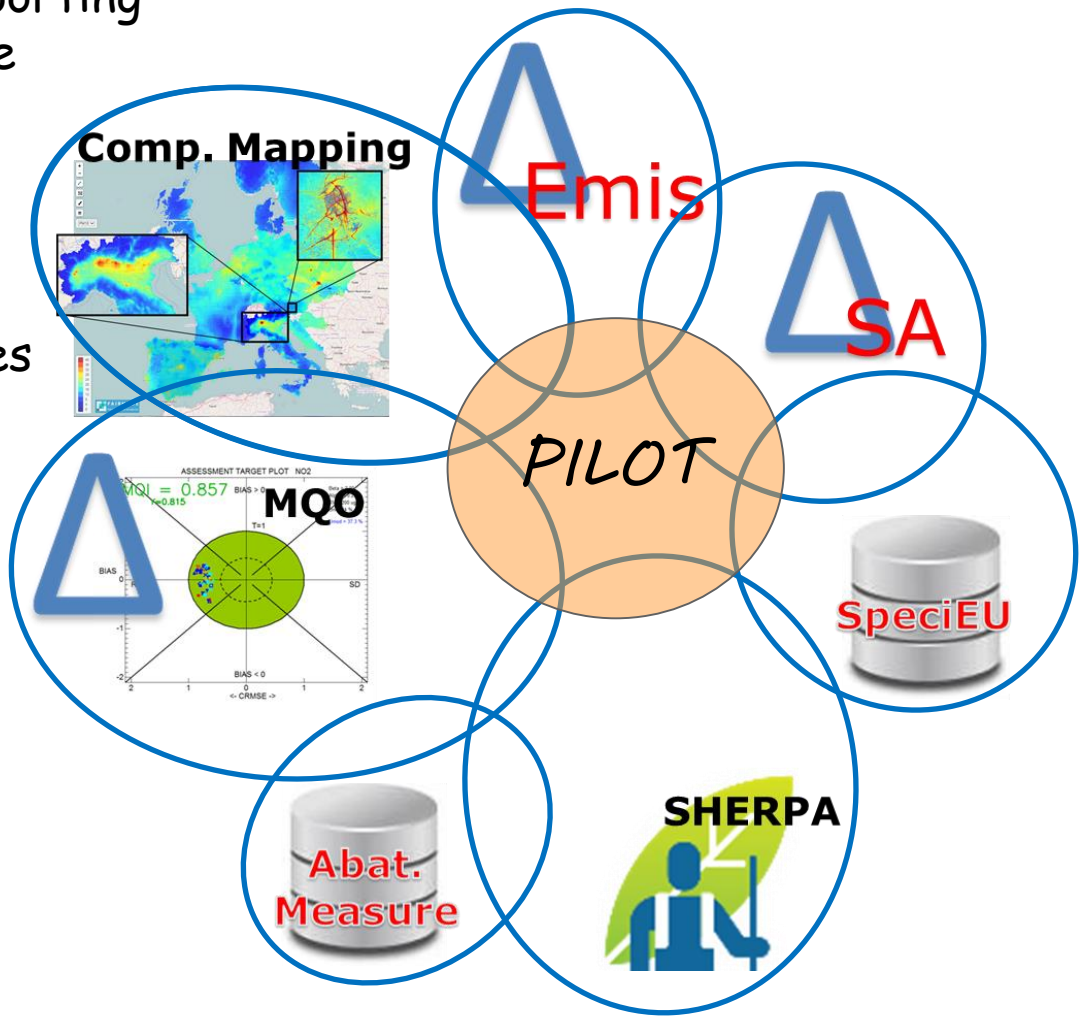
European Commission

Guidance, methodologies and supporting tools have been developed and are available in the different WGs

Each of these tools/methodologies is supported by a group of users/participants

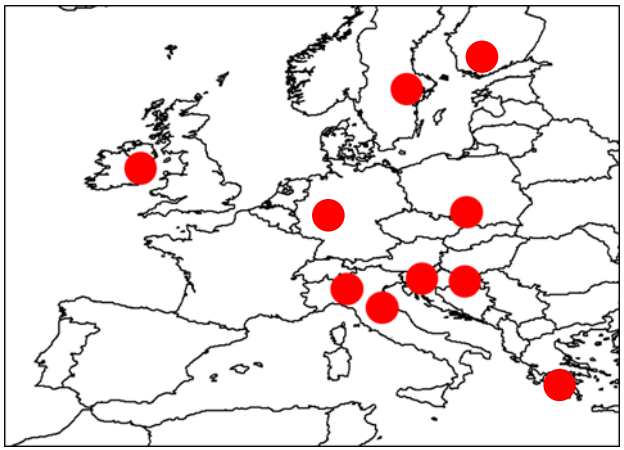
Limited intersection do exist, preventing a consistent process

Pilot interacts with most WG topics in a consistent way



Current Pilots

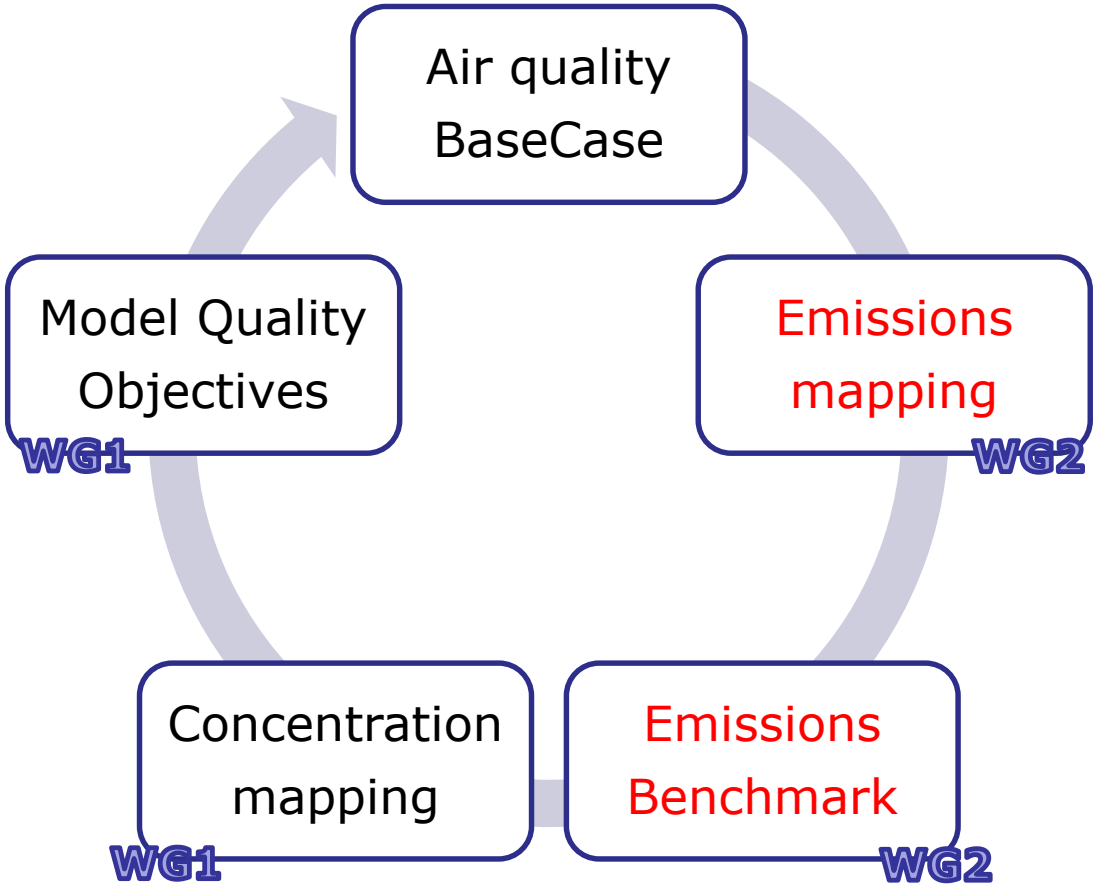
Pilot city/region
Stockholm city/region (SE)
Emilia Romagna region (IT)
Milan city (IT)
Dublin city (IE)
Country/Ljubljana (SL)
Malopolska Region (PL)
Croatia (HR)
Athens (GR)
Helsinki (FI)
Hessen state (DE)
ENEA (IT)



Pilot: 1st objective

Improving our (modelled) understanding and representation of the current situation (base case)

- Comparison with other data
- Quality assessments
- Bring in local knowledge



2nd objective: improved planning tools based on local knowledge

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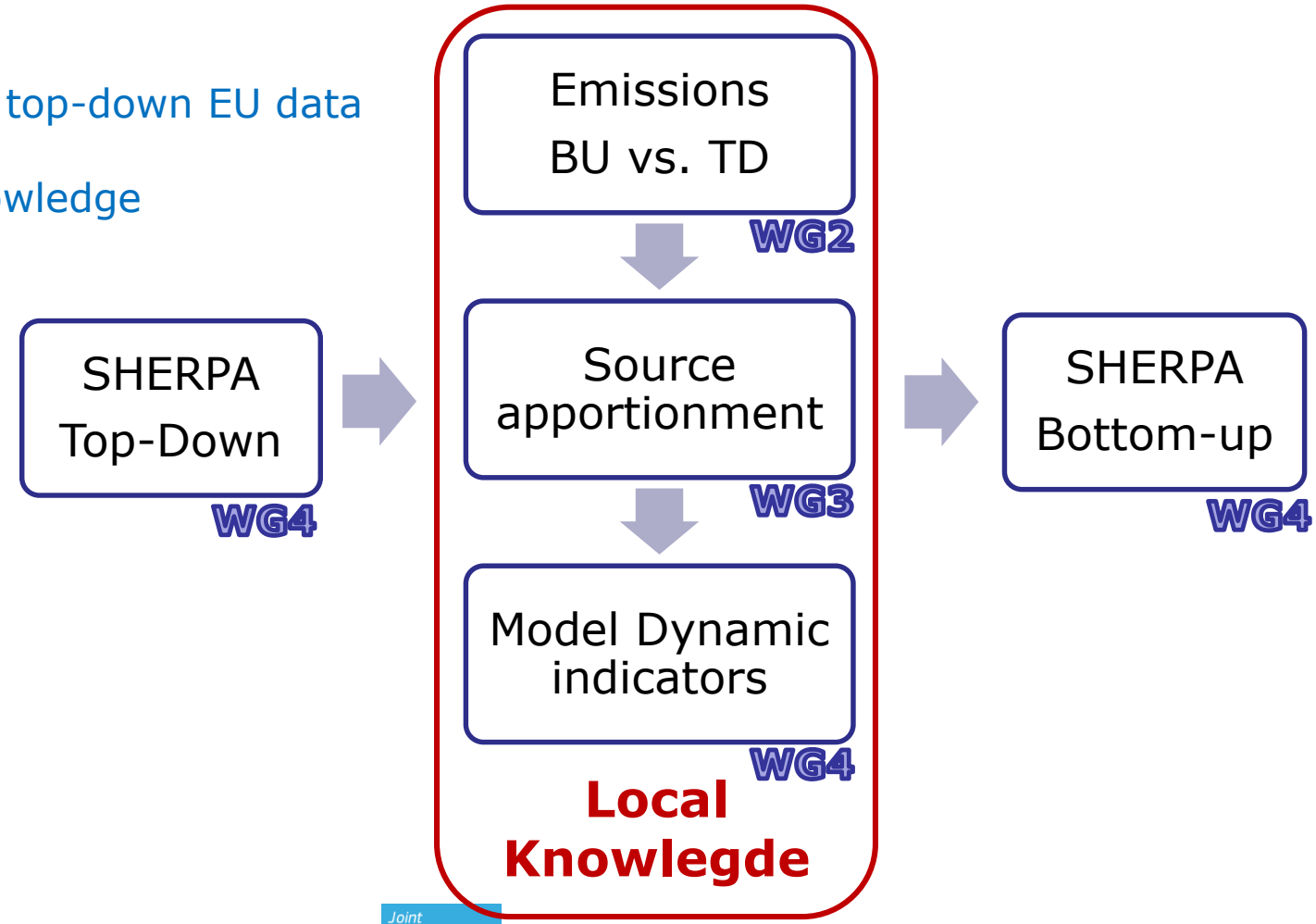
Improve planning practices (scenarios)?

- Comparison with top-down EU data
- Bring in local knowledge



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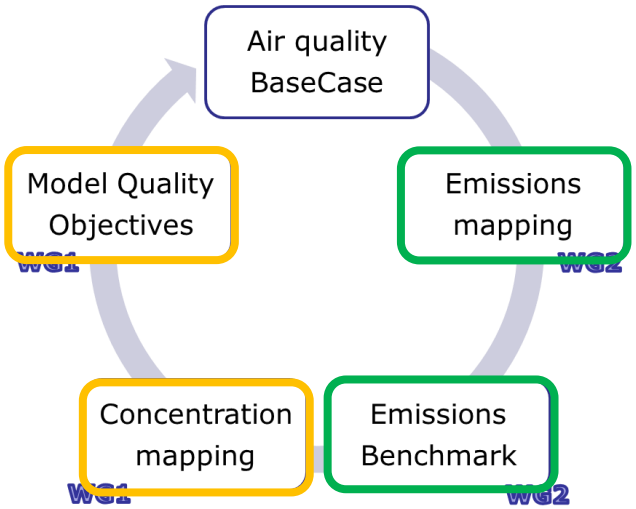
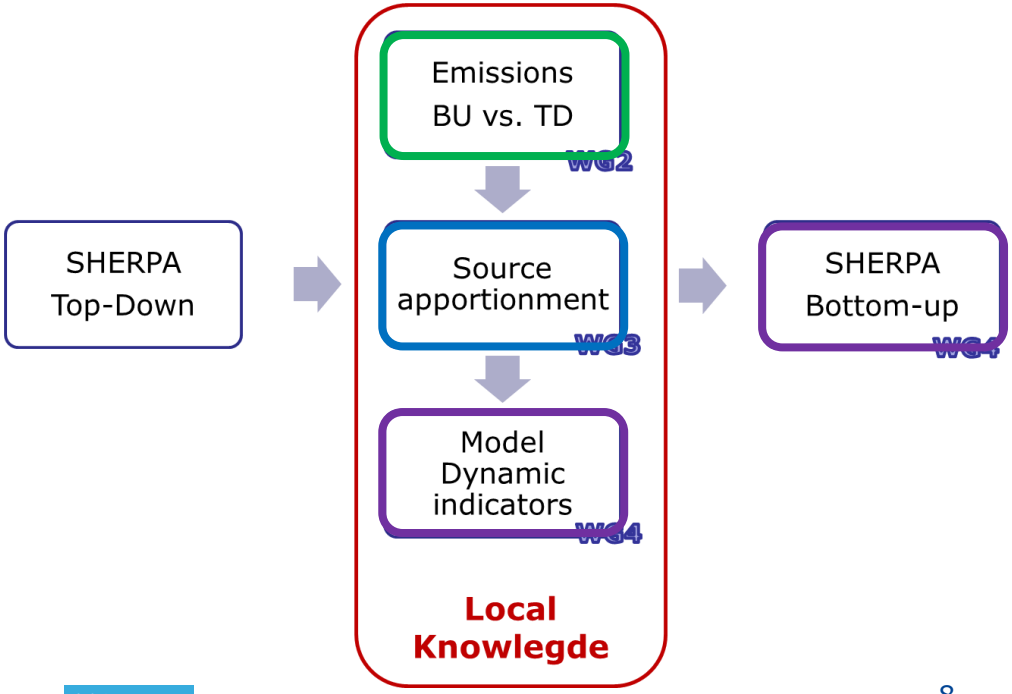
Fairmode wheel, process and timing

Phase I	Emissions (discussed in this meeting)
Phase II	Assessment (WG1)
Phase III	Source apportionment (WG3)
Phase IV	Planning (WG4)

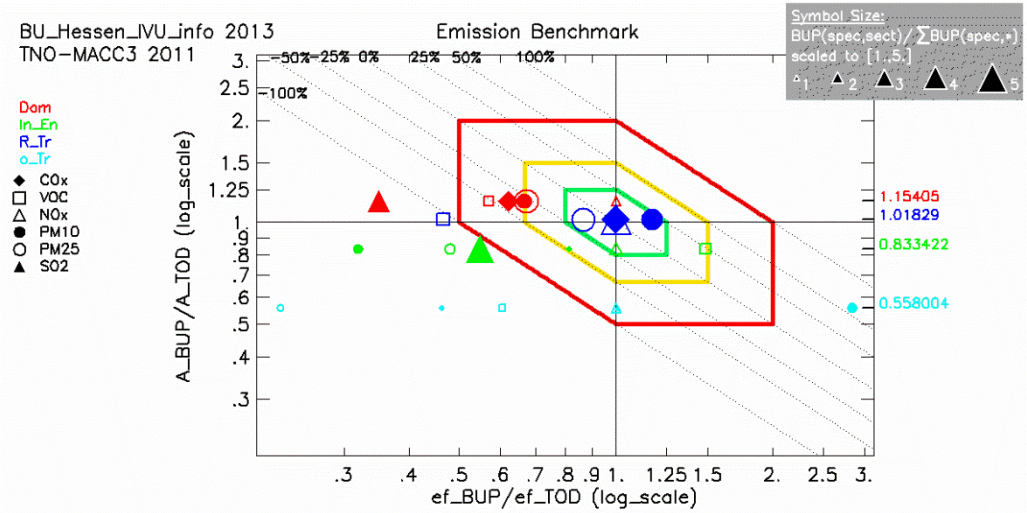
2 to 3 years



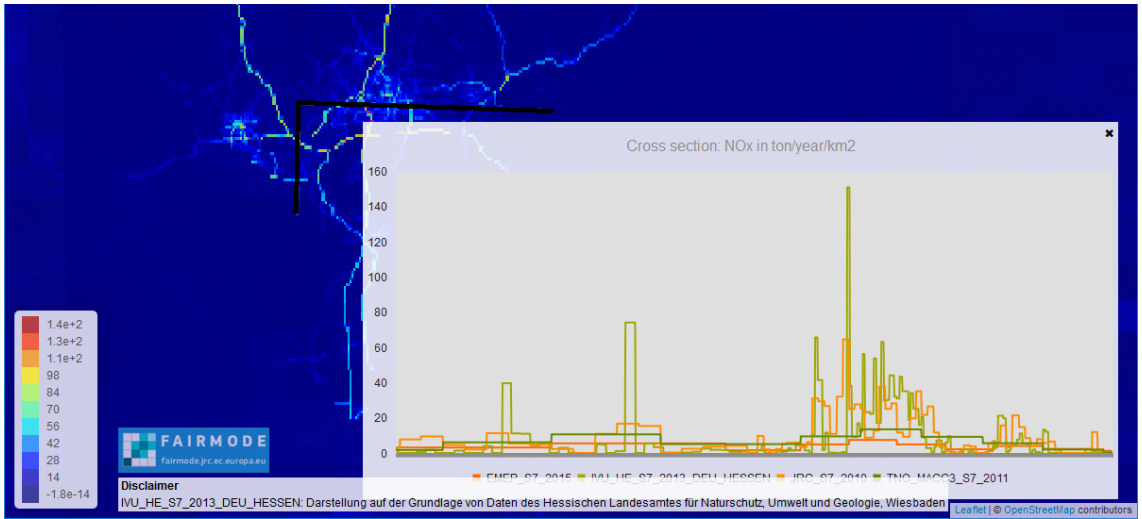


WG2 applied tools

- Delta tool on emissions (TOD vs BUP)



- Composite mapping



WG2: Lessons learnt

- FAIRMODE provides methodologies and tools to compare TOD and BUP EIs in a transparent and consistent way;
- This triggers an analysis of the inventories from an aggregated level to a more detailed analysis of spatial, temporal, sectoral details;
- Discussion is also triggered inside member states (national/regional/local EIs, be it BUP or TOD)...
- To really learn the reason for the differences (BUP vs TOD), you need detailed knowledge of emission inventories (metadata of TOD)

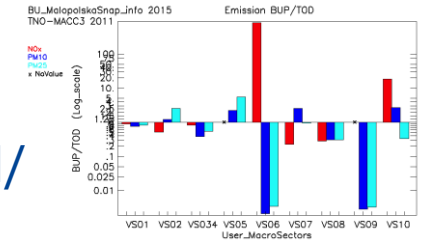
WG2: Recommendations

- Need to promote a dialogue between BUD and TOD communities; learning from and complementing each other:
  - Within each MS establish a platform for regional, local and national EI experts. The FAIRMODE tools can be instrumental for this discussion
  - At European level: TOD EI communities (TFEIP) with BUP EI communities (e.g. from FAIRMODE)

- Need for guidance to:
  - Compiling BUP EIs (Reporting best practices for different sectors...)
  - Best practices for TOD spatial / temporal disaggregation (which proxies/methodologies?)

WG2: How to improve the tools

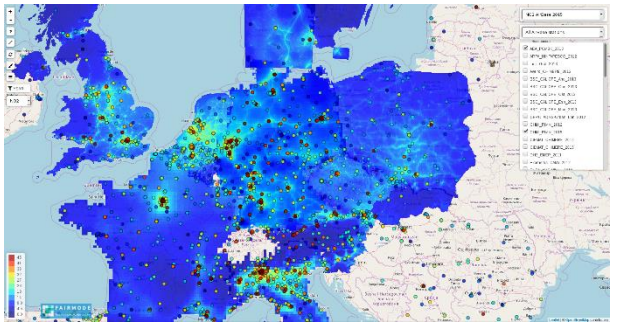
European Commission



DELTA TOOL ON EMISSIONS

- Better explanation of the assumptions behind the tool/ transparency --> external review ?
- Guidance on the analysis and interpretation of plots and results
- Need for examples to show the "meaning" of different plots
- Need for TOD metadata

COMPOSITE MAPPING ON EMISSIONS



- Total emissions VS average in the grid cells
- Different reference years
- Personalised colour scale (zero=transparent)
- Need for TOD metadata
- Bring in Satellite data for comparison (spatial patterns)
- Predefined political boundaries for aggregations to compare total emissions
- CHIMERE (that feeds SHERPA) should be in the composite map

WG2: What the tools cannot do

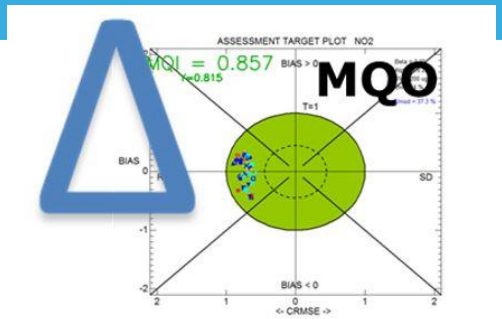
For modelling purposes, other data on emissions are necessary (not currently considered by the tools):

- Effective emission height
- Temporal profiles
- Meteorological influence on total emissions (process understanding)
- Natural emissions (fires, desert dust, etc…)

  - Recommendations for future work...

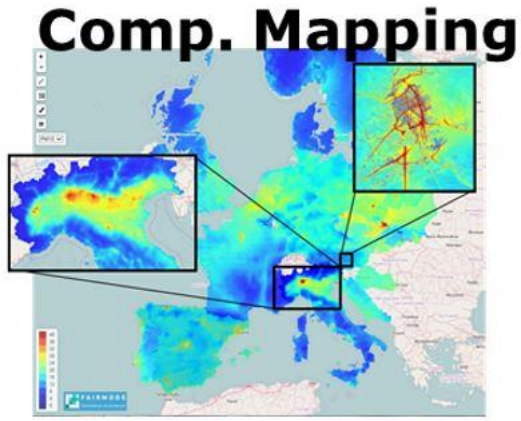
We are going to summarize these results in a paper…

WG1 planned work



Priority work

- MQO
- Composite mapping on concentrations



Additional options

- MQO for forecast
- CFD
- …

✓ We will organize a first VC mid of March (details will follow)