



# Composite Emission Mapping Exercise

FAIRMODE Technical Meeting 27-29 June 2016, Zagreb, Croatia

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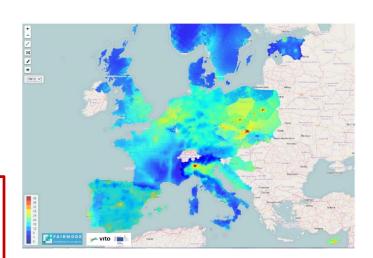
## WG1: EU Composite Mapping Exercise



First Prototype presented in the FAIRMODE 9th Plenary Meeting (Feb 2016)

A catalyst to trigger discussions, such as:

- Border effects which will become visible between neighboring regions/countries
- Use of data assimilation or data fusion techniques to produce air quality maps
- Quality and consistency of underlying emission inventories
- Choice of an adequate spatial resolution for a particular application.



http://fairmode.jrc.ec.europa.eu/tools.composite.map.html

## WG2: △ Emission tool

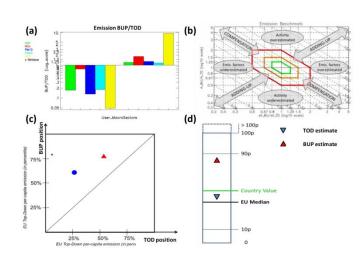


## Δ DELTA Benchmarking

Fairmode Tools and Software

### A set of diagrams that support:

- Comparison of bottom-up (BU) and top-down (TD) emission inventories
- Flag out anomalous behaviors in the emission inventories
- Get insight in possible explanation for the inconsistencies
- Reasons for discrepancies between emission totals over a given geographical area (city, region, country)



http://aqm.jrc.ec.europa.eu/emission/emissionDownload.aspx

Air Qual Atmos Health (2016) 9:325-333
DOI 10.1007/s11869-016-0402-7

A novel approach to screen and compare emission inventories

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## WG2: EU Composite Mapping Exercise

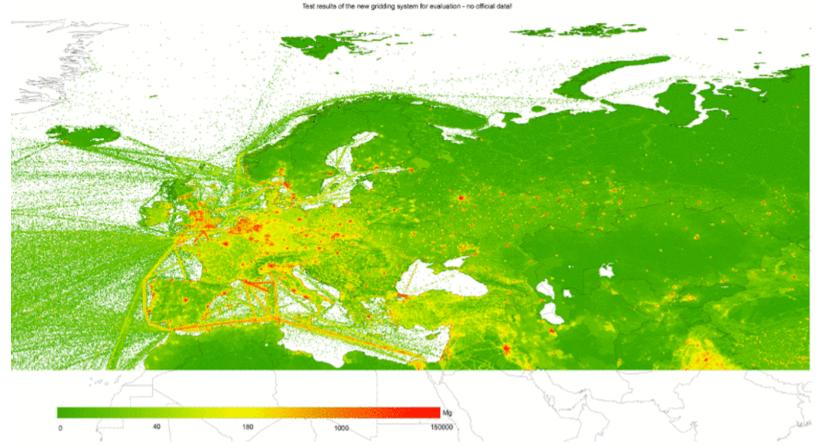
transmissions of air pollutants in Europe







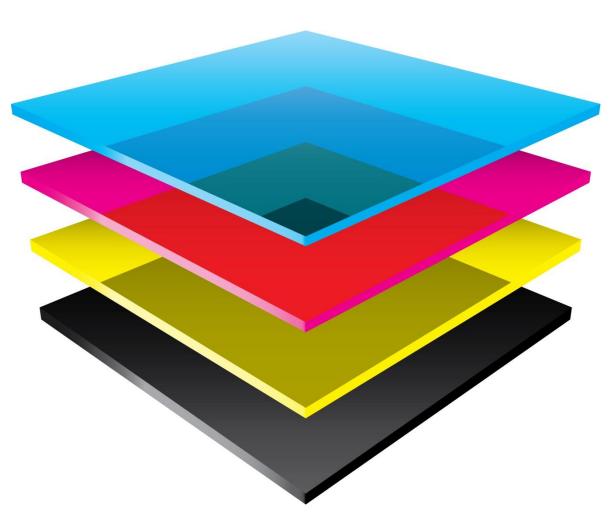
#### NOx - National Total - 2011



How would the map look if based on a Composition of Bottom-up Emissions?

# WG2: EU Composite Mapping Exercise





**Emission Inventory 1** 

**Emission Inventory 2** 

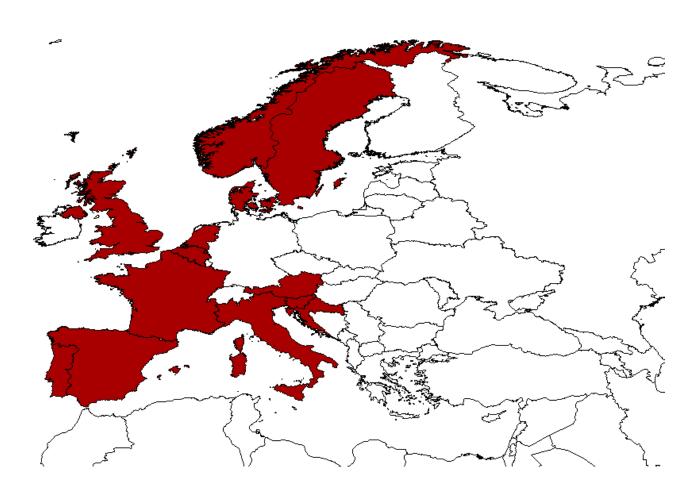
**Population map** 

**Industry map** 



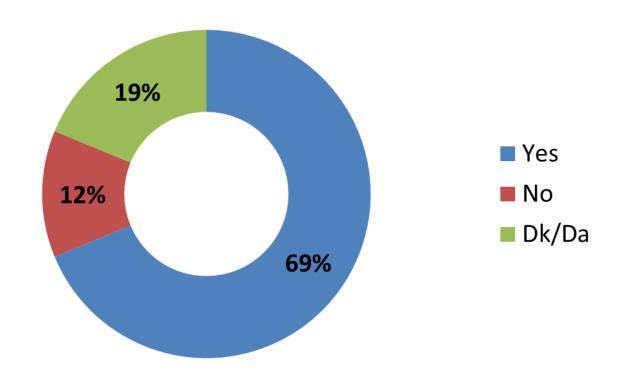


- A total of 16 participants
- More than 30 cities from 13 different countries



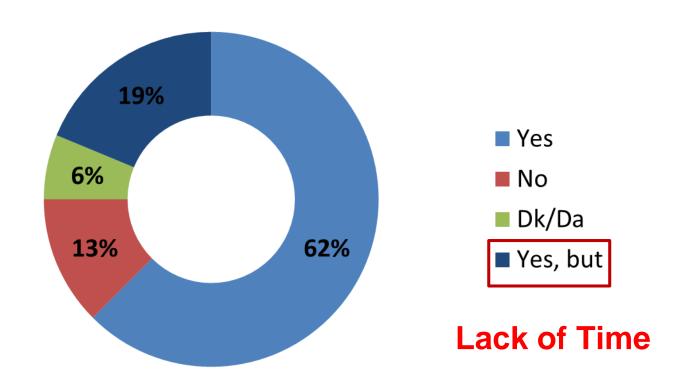


Do you think that a geospatial visualization of emissions may help to improve the estimation of emissions at local scale?



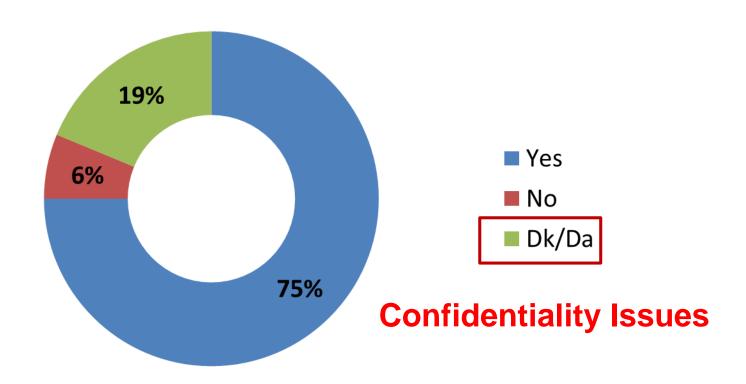


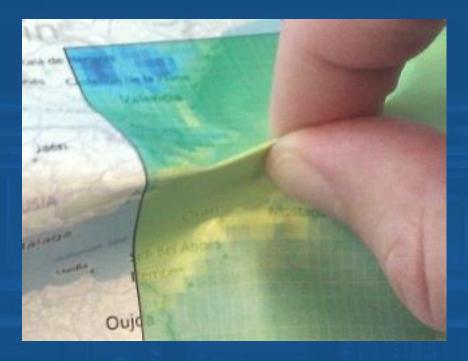
Would you be interested in participating in an activity aiming at collecting and assembling modelled emission maps?





Would you be able to contribute to this exercise providing your emission data?





https://eucompositemaps.marvin.vito.be/emissions/

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