



**FAIRMODE**

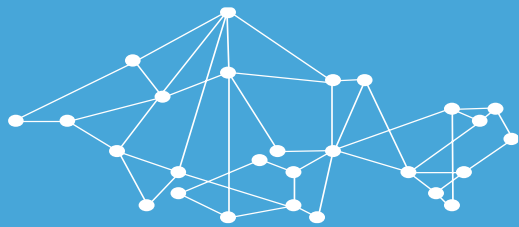
Forum for air quality modelling in Europe

CT8 – #1:

## SPATIAL REPRESENTATIVENESS OF MONITORING STATIONS

### INTRODUCTION

STIJN JANSSEN, LEONOR TARRASON



## **CT8 | Exposure and exceedances indicators (3 h) Wednesday 06/10**

09:15 -09:25 Introduction to the Spatial Representativeness (SR) intercomparison (S. Janssen)

09:25 -09:35 SR analysis for Emilia-Romagna, Italy (R. Amorati)

09:35 -09:45 SR analysis for Poland (G. Jeleniewicz)

09:45 -09:55 SR analysis for Friuli Venezia Giulia, Italy (G. Bonafè)

09:55 -10:15 SR analysis for two cities in Sweden (K. Eneroth & M. Ross-Jones)

10:15 -10:25 SR analysis for Spain (F.MartinLlorente)

10:25 -10:35 SR analysis for Europe (B. Rolstad Denby)

10:35 -10:50 SR analysis for various regions in Germany (S. Nordmann)

10:50 -11:00 SR analysis for Tuscany Region, Italy (F. Guarnieri)

11:00 -11:15 Discussion and next steps (All)

15:00 - 15:15 Exceedance situation indicators: findings of the hackathon (S. Janssen)

15:15 - 15:30 Spatial Representativeness: lessons learnt from an intercomparison (S. Janssen)

15:30 - 16:00 Network design: proposal for new exercise (L. Tarasson)



## CT8.1 EXERCISE

### *Test the Spatial Representativeness recipe and provide input for FAIRMODE Recommendations*

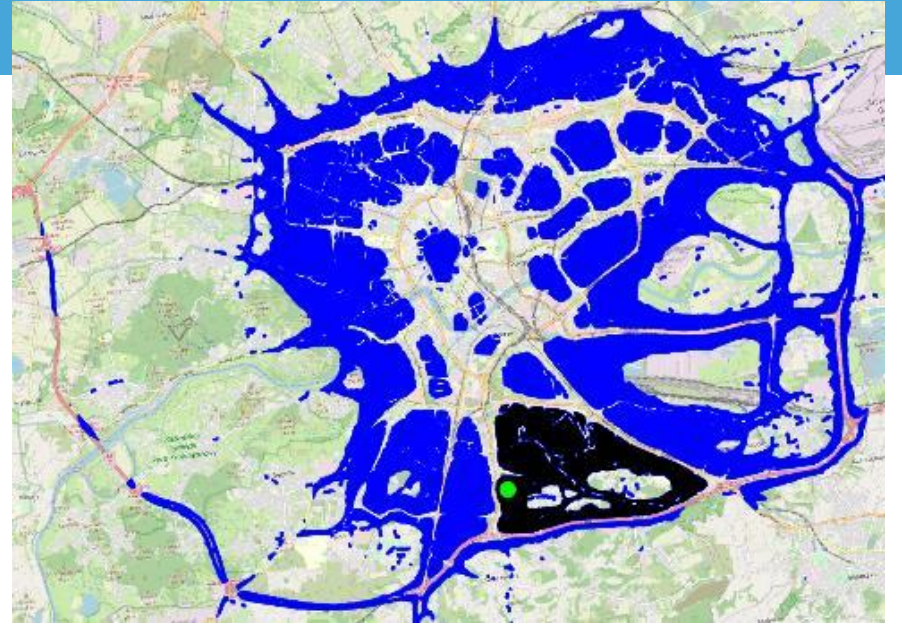
- Make use of your existing modelling results
- Apply the recipe to delineate an SR area for a number of “interesting” stations in your country (rural, urban background, traffic, industrial)
- *Optional: perform your own sensitivity analysis on threshold values, contiguity, similarity criterion, lower cut-off, station type*
- *Optional: Compare these SR areas to results of other SR assessment methodologies used in your region/country*



## SUGGESTION FOR A SR DEFINITION / RECIPE

- Discontiguous SR area
- Similarity criterion: annual mean concentrations
- Threshold value: 20% with absolute cutoff for low concentrations
- Limit SR area to the IPR AQ zone
- $\text{NO}_2$ ,  $\text{PM}_{10}/(\text{PM}_{2.5})$ ,  $\text{O}_3$

→ Use modelled concentrations at station location (assuming bias is small → fit-for-purpose model)



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## PARTICIPANTS CT8.1

Name	Country/Region
Vasiliki Assimakopoulou, Kyriaki-Maria Fameli	Athens
Doreen Schneider, Christiane Lutz-Holzhauer	Baden-Württemberg
Andreas Kerschbaumer	Berlin
<b>Michele Stortini, Roberta Amorati</b>	<b>Emila Romagna</b>
<b>Bruce Rolstad Denby, Eivind Grøtting Wærsted</b>	<b>Norway / Europe</b>
Alicia Gressent	France
<b>Bonafè Giovanni</b>	<b>Friuli Venezia Giulia</b>
<b>Stephan Nordmann</b>	<b>Germany</b>
Antonio Piersanti	Italy
Jutta Geiger	North Rhine-Westphalia
<b>Grzegorz Jeleniewicz</b>	<b>Poland</b>
Alexandra Monteiro	Portugal
Angela Morabito, Ilenia Schipa, Francesca Intini	Puglia
Susanne Bastian, Uwe Wolf, Martina Strakova	Saxony
Katrin Zink	Schleswig-Holstein (Northern Germany)
<b>Fernando Martin</b>	<b>Spain</b>
<b>Kristina Eneroth</b>	<b>Stockholm County</b>
<b>Matthew Ross-Jones, Hilma Engholm</b>	<b>Sweden</b>
<b>Bianca Patrizia Andreini, Chiara Collaveri, Francesca Calastrini, Caterina Busillo, Francesca Guarnieri</b>	<b>Tuscany</b>