

SHORT ABSTRACT

The FAIRMODE CT9 platform: assessing sensitivity of model responses to emission changes towards effective emission reduction strategies

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Abstract

Air quality models are essential tools for the assessment and prediction of the distribution of pollutant concentrations in the atmosphere. The Forum for Air Quality Modelling (FAIRMODE) in Europe was launched in 2007 to bring together air quality modellers and users in order to promote and support the harmonized use of models by EU Member States, with emphasis on applications under the European Air Quality Directive. In this directive, the use of modelling tools is recommended, in particular to evaluate air quality plans to curb air pollution.

In the framework of FAIRMODE and, in particular, in its Cross Cutting Task 9 (CT9), the set-up of a dedicated intercomparison exercise has been decided. The goal is to evaluate the robustness of air quality models when studying projections and to address the issue of the sensitivity of model responses to emission changes, in particular to identify, investigate and possibly reduce model discrepancies. This will allow for robust support to model users and developers, and, consequently, policy makers.

The goal of this presentation is three-fold: (i) presenting the FAIRMODE CT9 platform and the set of models involved, (ii) introducing the benchmark tool used to evaluate model differences, and (iii) providing a first evaluation of model responses to emission changes through the use of adequate statistical indicators.