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# FAIRMODE

## A Forum for Air Quality Modelling in Europe

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# FAIRMODE: The beginning

EEA and JRC were activated towards setting up a Forum for Air Quality Modelling in Europe as a response to the requirement for increased modelling use in air quality assessment as put forward within the frame of the new Air Quality Directive (AQD) 2008/50/EC.



# The use and limitations of modelling in Air Quality Management and Assessment

<b>AQ Modelling</b>	
<b>Use</b>	<b>Limitations</b>
<ul style="list-style-type: none"><li>• Assess potential environmental impacts of development plans</li><li>• Evaluate potential future policies</li><li>• Examine compliance with long-term standards</li><li>• Quantify air pollution patterns in space and time (mapping)</li><li>• Identify pollution sources and quantify source contributions</li></ul>	<ul style="list-style-type: none"><li>• Not always easy to use</li><li>• Input data not always available</li><li>• Inaccurate/unrealistic predictions</li></ul>



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# The scope

In response to the new AQD, FAIRMODE aims to address two basic needs:

- ◆ Model evaluation and assessment so that suitable tools can be identified for policy purposes
- ◆ Establish common infrastructure that will facilitate harmonised model use in all member states

Both needs have to be satisfied so that an effective modelling infrastructure and guidance for EU policy use can be developed



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# Detailed Objectives

- To establish tools and mechanisms for enhancing communication between modellers. E.g. interfaces, databases (such as MDS, COST728 Metadatabase, EEA Data Centre), workshops, seminars.
- To provide a centralised portal for information concerning the AQD and the use of models, data storing and sharing in a standardised and harmonised manner and modelling experiences of other users.
- To promote model validation and quality assurance through the organisation of and participation in model validation and intercomparison exercises.



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# Detailed objectives

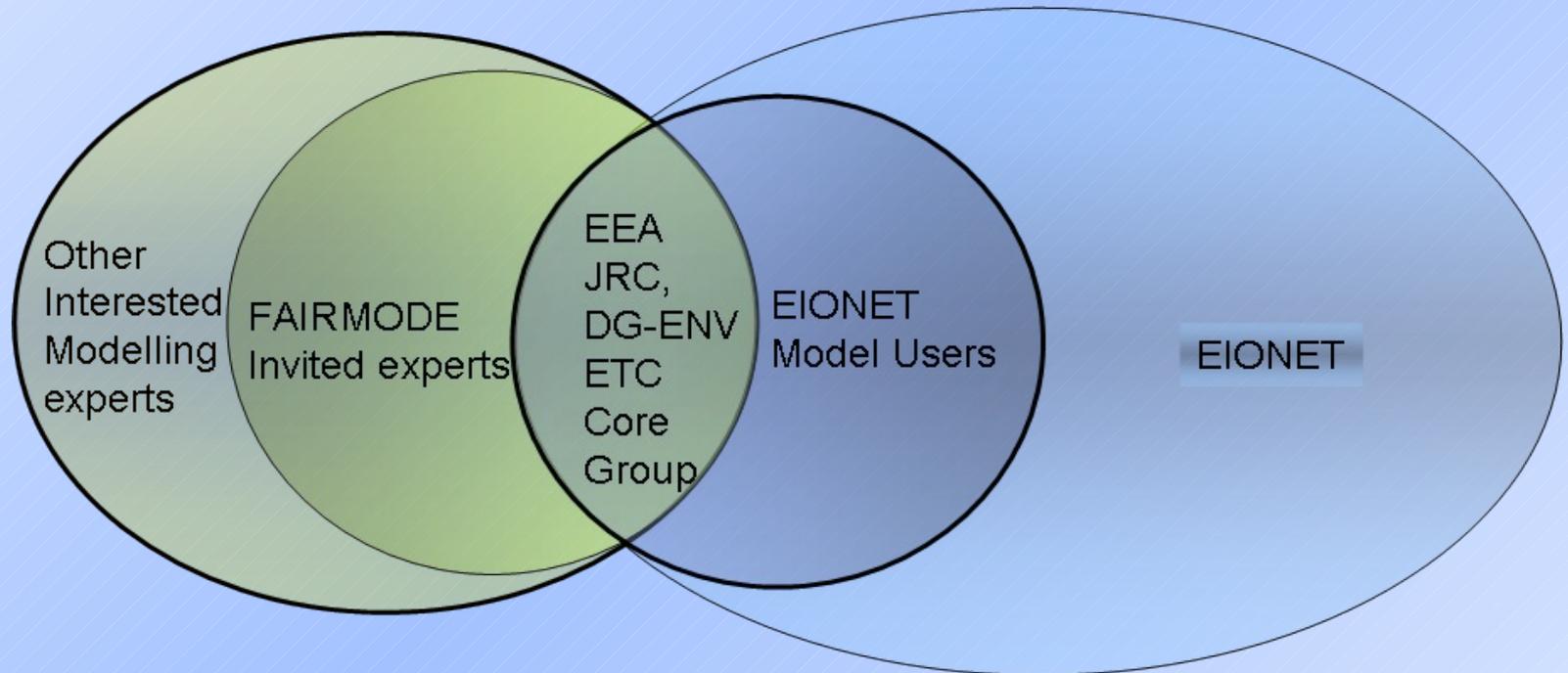
- To produce guidance on the use of air quality models for assessing current and future air quality for the purposes of complying with the AQD and in preparation to the revision of this Directive
- To make recommendations for further research and other relevant improvements, such as improvements on emission inventories, meteorological data, boundary conditions etc.

**FAIRMODE** is meant to be permanent as opposed to **COST** activities and EU research projects.



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# The structure of FAIRMODE



FAIRMODE is lead by a Steering Committee jointly chaired by the EEA, DG-JRC and DG-ENV.



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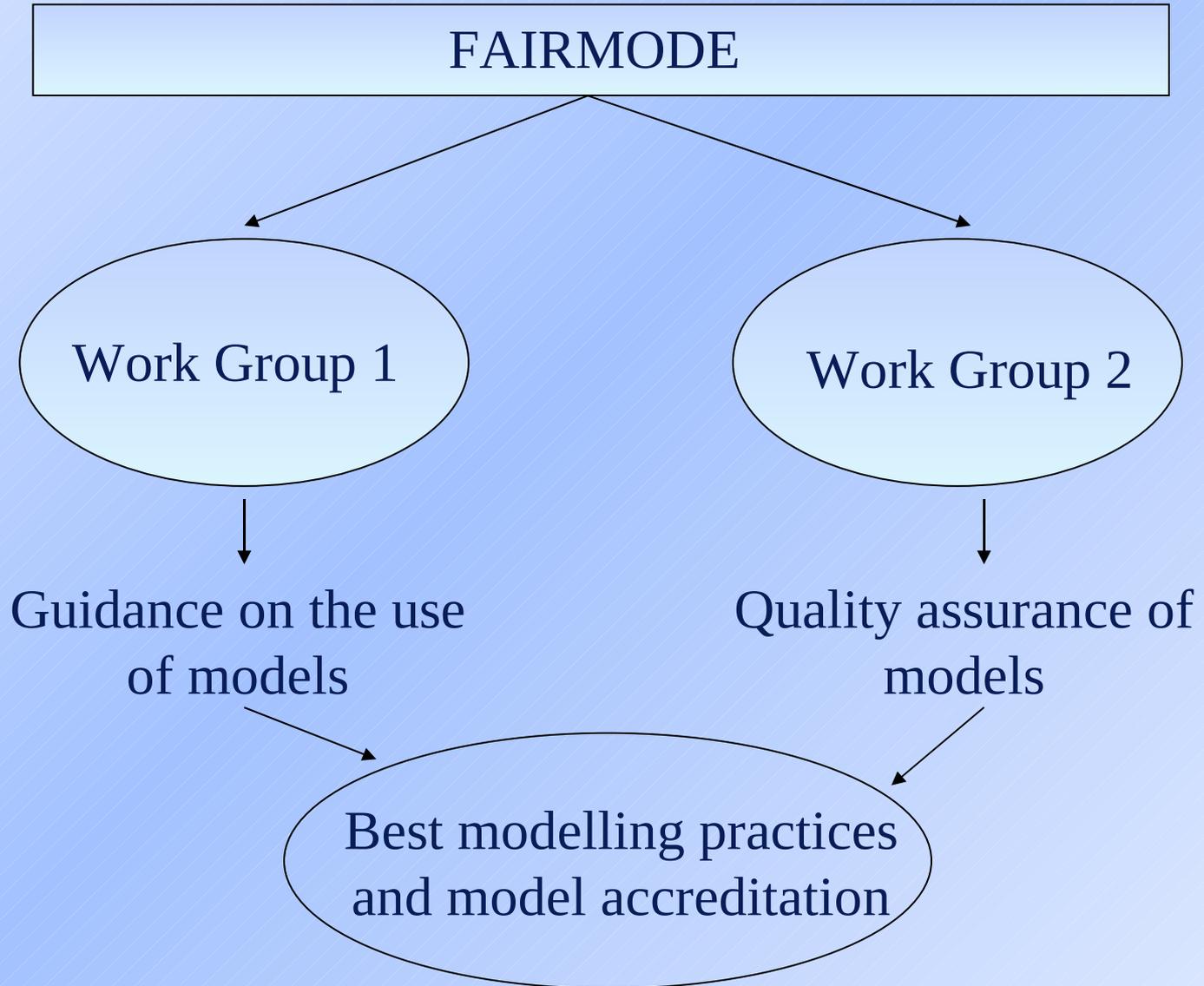
# The Steering Committee

- **European Commission**, Mr. Andrej Kobe, Ms. Panagiota Dilara (JRC)
- **EEA**, Ms. Anke Lükewille
- **ETC-ACC**, Mr. Nicolas Moussiopoulos (AUT), Mr. Bruce Denby (NILU)
- **EEA EIONET Experts**, Ms. Sari Lappi, Ms. Evrim Dogan, Ms. Nathalie Poisson, Ms. Ana Isabel Miranda, Mr. Jeseff Keder
- **Other Experts**, Ms. Leonor Tarrason, Mr. Helge Rørdam Olesen, Ms. Laurence ROUIL, Mr. Ranjeet S Sokhi, Mr. Peter Builtjes



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# Work Plan





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# Web portal

<http://pandora.meng.auth.gr/modnet>

- A centralised web portal has been created in support of FAIRMODE. A web site is also hosted by EEA ( <http://fairmode.ew.eea.europa.eu/> )
- The present version provides information on the scope, objectives and structure of FAIRMODE. It includes links to relevant projects, legislation, guidance documents on model use and guides to specific models.
- A “members’ area” is dedicated to internal communication and exchange of data and information.
- Results of the FAIRMODE modelling exercises will be presented via the web portal using appropriate storage and analysis tools.



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# Web portal

<http://pandora.meng.auth.gr/modnet>

- In its final version, the web portal is expected to function as a common platform for reporting and storing modelling information that will facilitate communication between countries, but also between modellers and policy makers.
- An online registration service is about to be established so that interested parties can register and receive an electronic newsletter and up-to-date information related to the activities of the network



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# http://pandora.meng.auth.gr/modnet/

**MODNET | Air Quality Modelling Network: HOME - Mozilla Firefox**

File Edit View Go Bookmarks Tools Help

http://pandora.meng.auth.gr/modnet/

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## Forum for Air Quality Modelling in Europe

European Environment Agency EEA

JRC EUROPEAN COMMISSION

Supported by DG Environment

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### Forum for Air Quality Modelling

The main aim of the Forum for AIR quality MODelling (FAIRMODE) is to bring together air quality modellers and users in order to promote and support the harmonised use of modelling practices for the assessment of air quality by EU member countries.

Within this scope, a main aspect of the Forum will focus on scientific research that will establish improved and validated modelling tools on which decision making will be based.

The forum is a joint response action of the European Environment Agency (EEA) and the European Commission Joint Research Centre (JRC) towards the new Air Quality Directive.

### What's new?

21/05 2008

[Steering Committee Meeting, Brussels, 9-4-2008](#)

### FUTURE EVENTS

[1st Plenary Meeting of the Forum for Air Quality Modelling within the HARMO 12 Conference](#)

24/04 2008

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# WG1: Guidance on the use of models for the European air quality directive

- This activity is lead by EEA's European Topic Centre on Air and Climate Change (ETC-ACC).
- Main aim is to build up confidence in air quality modelling and its use within the framework of the EU air quality legislation.
- It includes an interpretation of respective requirements of the new AQD, followed by the specific topics of model validation, QA/QC and the use of models for air quality assessment and the development of mitigation strategies.
- Best practices for reporting model use and results as well as topics of special interest such as air pollutant source apportionment and natural source contribution are also addressed.
- The latest version will be introduced for comments during the 1<sup>st</sup> Plenary meeting of FAIRMODE, tomorrow, and is available online on the FAIRMODE website.



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# WG2: Quality Assurance of models in relation to EU air quality directives

The **overall goal of the WG2 activities** is to develop a methodology for quality assurance of models in support of the new EU AQD. More specifically:

- To identify issues and problems related to the uncertainty analysis for air quality assessment
- To propose methods and strategies to deal with these issues and consequently to develop and recommend an EU wide standard procedure for uncertainty evaluation and model performance indicators in support of air quality assessment according to the EU AQD
- To steer any potential modifications of the EU AQD
- To start preparing ground for the planned revision of the AQD in 2013
- A scoping paper is ready (soon to appear online)



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# Dissemination

The main aim of FAIRMODE is to bring together air quality modellers and model users in order to support harmonised use of modelling for the assessment of air quality in Europe. Thus, dissemination of results and ideas to all relevant stakeholders is of primary importance and will be achieved through:

- Web portal
- Conferences, seminars, meetings, workshops
- Newsletter
- Modelling exercises
- Documents and deliverables published in journals, scientific reviews
- Private communication
- Plenary Meetings



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# 1<sup>st</sup> FAIRMODE Plenary Meeting

- The FAIRMODE kick-off meeting takes place tomorrow
- The 1<sup>st</sup> Plenary Meeting is expected to:
  1. Introduce participants to FAIRMODE's concept and terms of reference in more detail
  2. Inform participants about the work progress in the two working groups and invite them to participate actively
  3. Invite participants to share their needs and expectations and to provide input to shape FAIRMODE's future work