Introduction to the 12th Harmonisation conference

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Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes

A bit of history...

- Kick-off meeting in Ispra, Italy in 1991
- First workshop at Risø, Denmark in May 1992
- Ever since then: conferences every 1½ year
- Most recently in Cambridge, July 2007
- The web site www.harmo.org contains proceedings of all conferences since 2001.

Background for the kick-off meeting (Ispra, 1991)

- There was (and still is) a great number of regulatory models in use within Europe.
- Generally, the models applied were not scientifically up-to-date.
- There was a lack of common standards and tools.

Harmonisation?

- It was never the idea to achieve complete harmonisation in the sense that one model is appointed as ’the one and only’.
- However: **Many tools, procedures and datasets should be harmonised** in order to avoid unnecessary duplication of effort.
- A central issue: How can we pool experiences and encourage re-use of our work?
- One of the roles of the initiative: Help establish mechanisms for this.

Another central issue at the conference

- Model evaluation
- Evaluation is important because we should assure that assessments based on modelling are considered trustworthy.

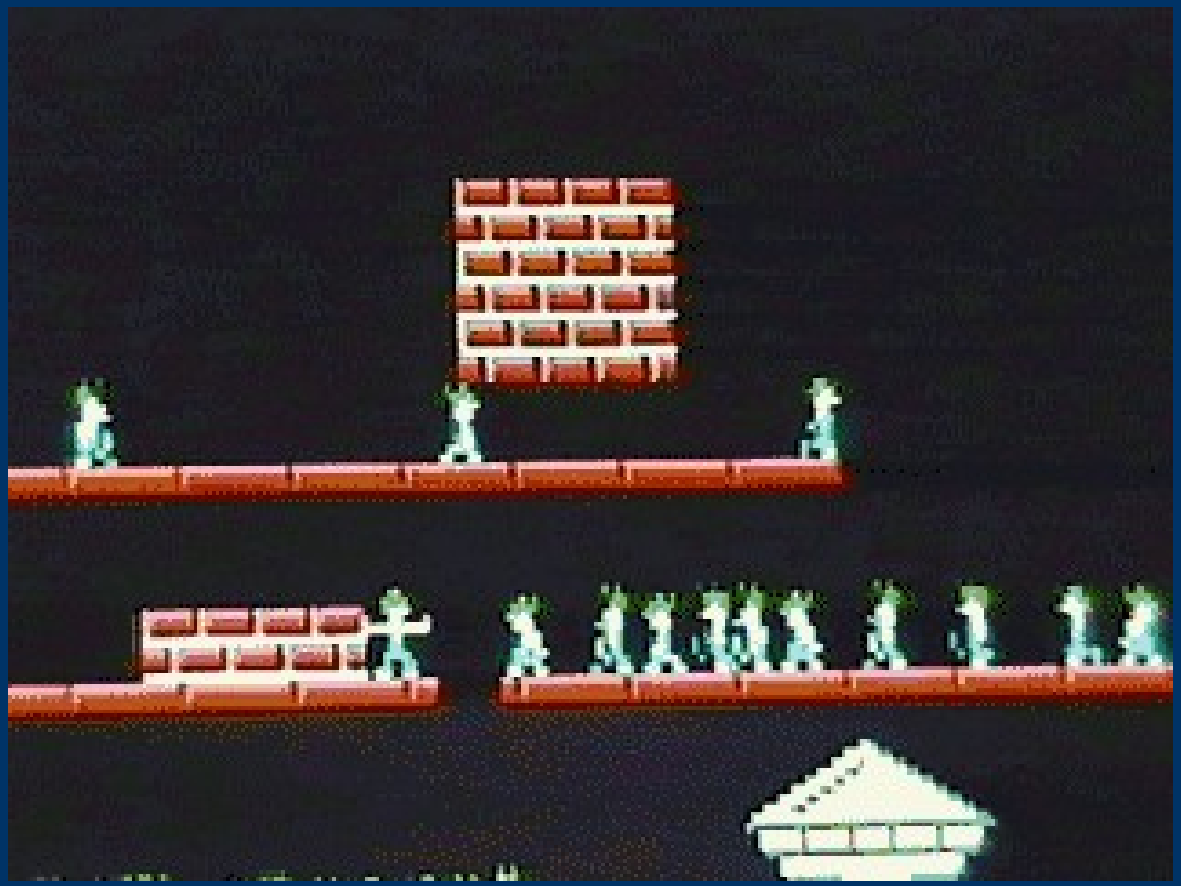
A wish for the coming days

- In your presentations, please highlight common tools.
  Make us aware of common resources that we may not all be aware of: Web sites, data sets, pools of experience etc.

A Wiki exists on the subject of Atmospheric Dispersion Modelling

A Wiki provides something that we normally miss in the community of atmospheric dispersion professionals:

An easy possibility to provide feedback and pool our experiences with procedures, data sets and models related to our work.



A Wiki is potentially a powerful tool for our community

- A ***Wiki*** **is a web site that allows users to easily create web pages and edit pages others have created.**
- **The *Atmospheric Dispersion Wiki* allows anybody to contribute to its web pages.**
- **On the *Atmospheric Dispersion Wiki* warnings against pitfalls and common mistakes are of high interest.**

Home page of the Atmospheric Dispersion Wiki

navigation
- Main Page
- Community portal
- Pages by category
- Recent changes
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search

Go Search

toolbox
- What links here
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article | discussion | edit | history | protect | delete | move | watch

Main Page

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1 Wiki on Atmospheric Dispersion Modelling
- 1.1 Subjects - entry to the substance of the site
- 1.2 What is unique about this site?
- 1.3 Navigating the site using the "Categories" page
- 1.4 Active users and contributors
- 1.5 What's new on this site?
- 1.6 How do I add contents?

Wiki on *Atmospheric Dispersion Modelling* [edit]

This wiki addresses the international community of atmospheric dispersion modellers - primarily researchers, but also users of models. Its purpose is to **pool experiences gained by dispersion modellers during their work**.

The Wiki is still in its infancy, but you can help it grow by adding contents related to your work.

Subjects - entry to the substance of the site [edit]

- Dispersion models (links to sites with models; comments on various types of models.
- Model evaluation (tool boxes; results of model evaluation exercises)
- Experimental data sets (links to sites with data sets; comments on data sets)
- Air pollutants (articles concerning air pollutants such as PM, NO_2, etc.)
- Pet topics (This is where you can contribute articles on your pet topics. Many experienced researchers have valuable experiences that should be communicated to others)
- International networks on atmospheric pollution (information and links to activities such as the "Harmonization initiative", ACCENT, CLEAR, COST 732, etc.)
- National Agencies, Organization and Institutes (Here is where to find or contribute articles describing any

Contributions

Contributions can be actual information content, or they can consist of links to material elsewhere on the web.

The Wiki is well suited to pool experiences on data sets, because anybody can contribute with experiences, now and in future.

- The Wiki is potentially a powerful tool...

- The existing Wiki has not been used much.
- A major obstacle: In our professional lifes we are extremely busy. Contributing to a Wiki is not part of our normal job.
- Ideas for improving the concept are welcome...

Pet topics…

Pet topics - overview and introduction

Many knowledgeable researchers have pet subjects. They possess a vast experience, which newcomers to the field lack. Here, experienced researchers can in an informal way issue advice related to these pet subjects.

For instance, you may be able to warn others against certain pitfalls and common mistakes.

Do you feel that certain issues are under-exposed and should be more widely communicated to the atmospheric modelling community?

Here is your chance to do something about it!

Write an article here on the web. How? Make a link to it from the current page, and possibly also from other relevant pages. As the present page grows, it will be re-structured, and pertinent links will be added.

See also: Rules of conduct for the Atmospheric Dispersion Web site.

[edit]

Address of the Wiki on Atmospheric Dispersion Modelling

AtmosphericDispersion.wikia.com

Forgot the address?

Search for
Wiki Atmospheric Dispersion

- or go through www.harmo.org

On Friday:

- **Kick-off meeting in ’FAIRMODE’**

- **Presentation at the previous Harmonisation conference in Cambridge:**
- ***Towards a modelling network in support of the new Air Quality Directive*** **(Moussiopoulos et al.)**

FAIRMODE:
Forum for AIR quality MODElling

- **FAIRMODE is a modellers' network in support of the new EU Air Quality Directive.**

  It is a joint action by EEA and JRC/Ispra.

- **Two work groups**
  - **WG1 on Guidance on the Use of Models**
  - **WG2 on Quality Assurance of Models**

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(Acts adopted under the EC Treaty/Euratom Treaty whose publication is obligatory)

DIRECTIVES

DIRECTIVE 2008/50/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 21 May 2008

on ambient air quality and cleaner air for Europe

Table 6: showing the modelling quality objectives, called 'uncertainty', as stated in Annex I of the directive.

Modelling uncertainty	SO2, NO2, NOx and CO	Benzene	PM10, PM2.5 and Pb	Ozone and related NO and NO2	Benzo(a)pyrene, PAH, arsenic, cadmium, nickel, total gaseous mercury
Hourly	50 %	—	—	50 %	—
8 hour averages	50 %	—	—	50 %	—
Daily averages	50 %	—	Not yet defined	—	—
Annual averages	30%	50 %	50 %	—	60 %*

* Uncertainty estimate in the heavy metals directive is defined slightly differently to the directive uncertainty

'The uncertainty for modelling is defined as the maximum deviation of the measured and calculated concentration levels for 90 % of individual monitoring points, over the period considered, by the limit value (or target value in the case of ozone), without taking into account the timing of the events. The uncertainty for modelling shall be interpreted as being applicable in the region of the appropriate limit value (or target value in the case of ozone). The fixed measurements that have to be selected for comparison with modelling results shall be representative of the scale covered by the model.'

Draft

Guidance on the use of models for the European air quality directive

A working document of the Forum for Air Quality Modelling in Europe
FAIRMODE

ETC/ACC report
Version 2.5

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- Fairmode is an open network
- Indicate your interest to be kept informed or to participate actively
- You will hear more on Thursday in the session ”Use of modelling in support of EU air quality directives”

Keep in mind throughout the conference

- Are there issues that should be brought to the attention of Fairmode?
- FAIRMODE steering committee members are present during the conference.
- There will also be an opportunity to raise issues at the closing session on Thursday

FAIRMODE steering commitee

- Nicolas Moussiopoulos, Aristotle University Thessaloniki
- Anke Lükewille, European Environment Agency (EEA)
- Panagiota Dilara, JRC, IES, Transport and Air Quality Unit, Ispra
- Andrej Kobe, DG-ENV
- Bruce Denby, NILU, Norway
- Helge Rørdam Olesen, NERI, Denmark
- Jesef Keder, Czech Hydrometeorological Institute
- Peter Builtjes, TNO
- Ranjeet S Sokhi, University of Hertfordshire
- Ana Isabel Miranda, University of Aveiro
- Evrim Dogan, Ministry of Environment and Forestry,Turkey
- Laurence Rouil, INERIS, France
- Nathalie Poisson, ADEME, France
- Sari Lappi, Finnish Meteorological Institute
- Leonor Tarrason, Norwegian Meteorological Institute, MSC-W

Thursday – closing session

- If you have input, please contact me..