



Introduction to the 9th Harmonisation conference

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*Harmonisation within Atmospheric Dispersion Modelling for
Regulatory Purposes***

Background for the kick-off meeting (in 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.**

More cooperation - don't reinvent the wheel

A lack of common standards and tools

The European Commission: **Thematic Strategy on Air Pollution**

Shall outline

- the environmental objectives for air quality
- measures to be taken to achieve these objectives.

CAFE: Clean Air For Europe

A programme of technical analysis and policy development

Integrated policy advice from the CAFE programme:
Planned to be ready by the beginning of 2005.

Central theme underlying the entire conference:

How can we pool experiences and encourage re-use of our work?

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A key question
- crucial to both users and modellers

**Which measures can we take
in order to assure that
assessments based on modelling
are considered trustworthy?**

The EU Air Quality Directives allow modelling for air quality assessments

**The Daughter Directive 1999/30/EC on SO₂, NO₂ etc. is
being reviewed.**

**In this context, the European Commission has
attempted to define *minimum requirements for models***

Two main instruments to achieve increased trust in models

- **Improve quality assurance of models**
- **Improve guidance on model use**

Schatzmann and Leitl (Rouen, 1999)

- **Which particular tests and which particular model/dataset comparison (one should make) for a given model type can ultimately be based only on a consensus.**

Such a consensus needs to be built up for individual groups of models (e.g. obstacle resolving prognostic models) within and by the scientific and operational community

which develops and uses those models.

Work involved in setting up model evaluation tools:

- Careful preparation of experimental data sets (input data for modelling as well as measured concentrations for model performance evaluation);
- Development of a methodology (protocol) prescribing how model results should be compared with measurements;
- Development of software that implements the model evaluation methodology.
- Test of the protocol by many groups (an iterative process)

The outcome:

A set of "Reference problems"

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Making models trustworthy

- **activities of common interest**

- **City-Delta** (intercomparison of model results for present and future air quality for 8 European cities)
- **Street Emission Ceiling (SEC) exercise** (model intercomparison for a street canyon in Stockholm)
- **COST 715** (meteorology applied to urban air quality problems)
- **Tools for model intercomparison/evaluation** (model intercomparison data archive available; new BOOT software underway)
- **Proposed COST action on *Quality Assurance of Micro-Scale Meteorological models***

Problem:

Parallel sessions most of the time

Remedy:

**Make use of the closing session on Friday
(13.30 - 14.30)**

Possible content of the final session on Friday

- **Reports from the special meetings**
- **Points of view from any of you - e.g. through 3-minute statements**
- **Bring points of interest to my attention, so I can mention them**

Contact me before Friday noon if you wish to make a statement

Two central topics of the conference:

- **How can we pool experiences and encourage re-use of our work?**
- **Which measures can we take in order to assure that assessments based on modelling are considered trustworthy?**