

## **INTRODUCTION TO THE 11TH HARMONISATION CONFERENCE**

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### **BACKGROUND**

The beginning of the Harmonisation conferences dates back to 1991, when a group of European scientists met at the Joint Research Centre in Ispra, Italy. The meeting considered the topic “European Harmonisation in Atmospheric Modelling Systems”. The concern was primarily dispersion models for short ranges, i.e. models for regulatory use and use as real-time tools. This meeting led to the formation of a steering committee, which subsequently has organised the Harmonisation workshops and conferences from 1992 until today. A useful overview of many Harmonisation activities can be found in the paper *Ten years of Harmonisation activities: Past, present and future* presented at the conference in Belgirate (Olesen, 2001).

One of the ideas behind the initiative is to make the most of the knowledge available in the modelling community. A lot of experiences with use of models are acquired over time, but there is a lack of proper mechanisms to transfer these experiences so that they are used in modelling and in the decision making process. One of the roles of the initiative is to help establish such mechanisms. Thus, the series of conferences can be said to deal with improvement of “modelling culture” in Europe.

In Europe, there is a widespread need for air quality assessments and air quality regulations. In the audience of the present conference most of us work with these types of problems. We fight the same problems, but in order to make life easier and not repeat the same mistakes, our experiences should be shared. We should develop and apply common methodologies in approaching the problems. Therefore there is a need for the harmonisation conferences.

I see two topics as very central to the conference. First:

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

And a second topic of concern is

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

Many presentations at the conference will deal with these two issues, one way or the other.

I would like to draw your attention to the presentation by Nicolas Moussiopoulos on establishment of a modellers’ network in Europe, backed up by the EEA. This is an interesting new development.

I would like also to mention that we have a special session on quality assurance of a certain class of models. The special session concerns the COST 732 action on *Quality Assurance and Improvement of Micro-Scale Meteorological Models*. This COST action is producing guidelines on evaluation of dispersion models, e.g. applied in an urban environment. In the framework of the COST action, several research groups have worked on a common sample case to test the guidance.

During the next couple of days there will be many more interesting presentations that I cannot mention here. However, I now wish to spend some time to highlight an emerging tool that is potentially very useful to the modelling community.

## THE WIKI ON ATMOSPHERIC DISPERSION MODELLING

In the community of atmospheric dispersion modellers, sometimes some of us fall into pitfalls. We may do things in an inappropriate manner, and we are not always stopped.

Sometimes the mistakes are repeated – others fall into the same traps. We are not very good to convey our experiences to each other.



However, the Internet may come to our rescue. Many of you will know the Wikipedia. The Wikipedia is a very comprehensive, free on-line encyclopaedia. It has grown rapidly in recent years, so that it now contains around 1.7 million articles in English. The Wikipedia is written collaboratively by volunteers from all around the world. Its articles can be edited by *anyone* with access to the Internet.

The Wikipedia is just one example of a *Wiki* – although the best known. In general, a Wiki is a web site based on a certain type of software. It allows users to easily create web pages and edit pages that others have created. Anybody can contribute to such web pages. It is not necessary that those who provide the contents are members of a particular group – anybody can contribute without any formalities. The Wikipedia has proven that this concept can work in practice.

After our previous Harmonisation conference in Crete, a *Wiki on Atmospheric Dispersion Modelling* has been launched. It is potentially a very powerful tool for the community of atmospheric dispersion professionals. It provides something that we normally miss in this community: An easy possibility to provide feedback and pool the experiences that we make with procedures, data sets and models related to our work.

There are many web sites dedicated to atmospheric dispersion models. However, the Wiki on Atmospheric Dispersion Modelling has the following unique qualities:

- *Warnings against pitfalls and common mistakes are of high interest.* Researchers are encouraged to report on pitfalls they encounter, and which they would like to warn others against.
- *In contrast to traditional web sites, it is possible for anyone to contribute easily to the contents of the Wiki.* Therefore, the site has the potential to become far more comprehensive than a site maintained by a single web master. Contributions can be actual information content, or they can consist of links to material elsewhere on the web.
- In contrast to traditional scientific publishing, one can add small bits of information – you do not have to wait, until you have prepared a complete scientific paper.
- In contrast to existing email distribution lists, the information compiled is archived in a structured manner. Furthermore, one can add information on findings that are only of interest for a very small audience, not for an entire mailing list.

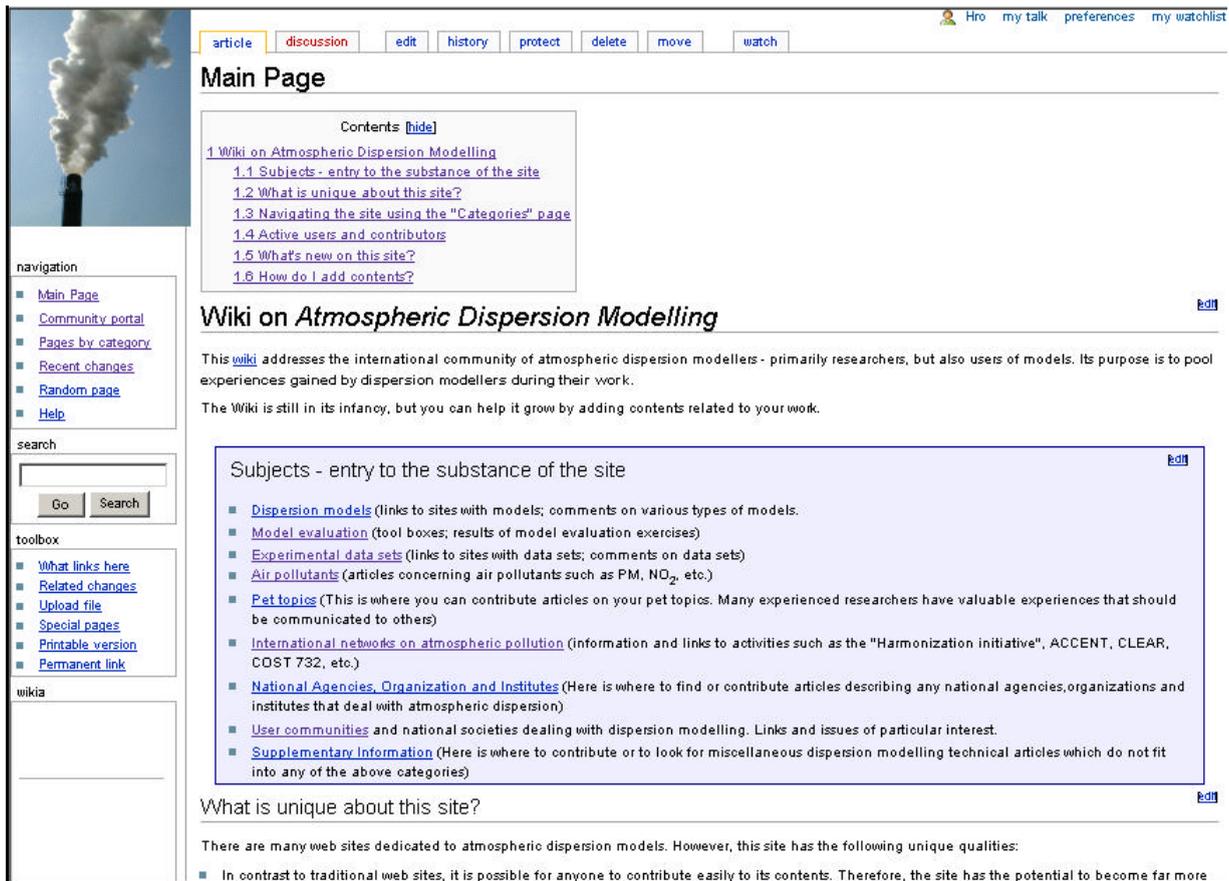


Figure 1. The main page of the atmospheric dispersion Wiki.

- Many knowledgeable researchers have pet subjects. They possess a vast experience, which newcomers to the field lack. There is a dedicated set of pages on the Wiki where experienced researchers in an informal way can issue advice related to their pet subjects.

A single example can illustrate how the unique qualities of a Wiki can come to their right: The Wiki can be used to pool experiences on *experimental data sets*. Typically, data sets have pitfalls. When the data sets are used, errors and peculiarities are discovered. Users may find that the documentation is insufficient or incorrect. For instance, the classic Prairie Grass data set has been used by numerous researchers, but it is not easy to get an overview of the features and peculiarities of the data. The original data were published in a hardcopy report in 1958, but this report is not readily available. Several researchers have created electronic versions of the data set, but there are certain differences between these data sets. These electronic versions are available from individuals – there is no truly official version of the Prairie Grass data set. When the data are applied for model evaluation, is it customary to discard some of the data. But which data should be discarded, and what is the justification for this? A researcher who is new to the field will be confronted with many such problems. However, the Wiki is a potential remedy. There is a section on the Wiki devoted to experimental data sets and experiences with their use.

However, the topic of experimental data sets is certainly not the only one where the Wiki can be useful. Also when applying models and procedures, as well as in other aspects of our work, it makes sense to have somewhere to look for other people's experiences.

In order for the Wiki to realise its full potential, it will have to reach a critical mass. The Wiki is now at a modest beginning, but already now there is useful information to obtain at the Wiki. I will encourage you to visit the site and contribute with links to your work, text about your work and information about pitfalls. If the Wiki becomes widely used, over the years it will generate a comprehensive body of information.

The address of the Wiki is

<http://atmosphericdispersion.wikia.com>

If you don't recall the web address of the Wiki on Atmospheric Dispersion, just search for: *Wiki Atmospheric Dispersion*.

## **REFERENCES**

*Olesen, H.R.*, 2001: Ten years of Harmonisation activities: Past, present and future'. 7th international conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, Belgirate, Italy, May 28-31, 2001. Available on the web, <http://www.harmo.org/Docs/TenYears.pdf>