

AIR4EU (2004-2006) will provide recommendations on Air Quality assessment by monitoring and modelling for regulated pollutants in Europe.

[www.AIR4EU.nl](http://www.AIR4EU.nl)

# Air4EU

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### Editorial of Project manager

This is the final Newsletter of the AIR4EU project. AIR4EU, supported by the EU 6<sup>th</sup> Framework Programme, has provided basic requirements, best practices and scientific recommendations on air quality assessment from the local and hot-spot scale, over urban to the regional/continental scale. In AIR4EU research was performed in close cooperation between the Universities of Thessaloniki, Hertfordshire, Aveiro and Stuttgart and the research institutes NILU and TNO.

AIR4EU aims to support implementation of the existing and forthcoming AQ Directives in Europe. Compliance with existing standards especially in cities on NO<sub>2</sub> and PM<sub>10</sub> is still a major challenge, but also new standards on PM<sub>2.5</sub>, PAH and heavy metals may be problematic. From a health perspective, AQ remains on the political agenda as epidemiological research indicates health effects even at AQ levels below standards, especially for pollutants such as ozone and PM. Even more important for the topic of AQ are the alarming signals of climate change. All three topics: compliance with the AQ Directives, health effects and climate change underline the need for more reliable and cost-effective AQ assessment. AIR4EU contributed to this objective by research directed at combining monitoring and modelling by data assimilation at different spatial scales and mapping AQ fields including information on the uncertainty. This newsletter provides an overview of the results in AIR4EU as presented at the final Conference in Prague in November 2006. Also, it includes information on Case Studies implemented in the AIR4EU partner cities: Oslo, Prague, London, Rotterdam, Paris, Rome and Athens as well as on the European scale.

I hope you will enjoy reading the newsletter. It was a great pleasure to coordinate AIR4EU.

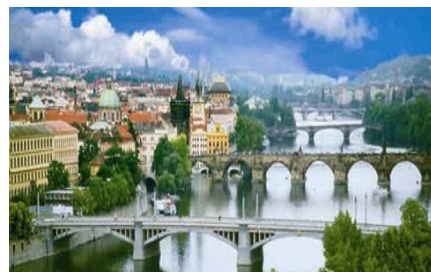


Peter Bultjes  
Project Manager

### Final Conference in Prague (November 2006)

The results of AIR4EU were presented at the Final Conference in Prague by oral presentations and an exhibition of posters. *All presentations and posters are available on the AIR4EU website <http://www.air4eu.nl/dissemination.html>.*

The Conference also offered a unique opportunity for discussion, feedback and exchange of ideas between air quality researchers, the city end users, including participants of the CITAIR project and representatives of DG Research and DG Environment and the European Environmental Agency.



The Prague Conference was very well attended by 63 participants from 21 European countries and the USA. Next to the EU-project officer Ib Troen, Andrej Kobe of DG Environment, Jaroslav Fiala from the EEA and also member of the High-level Steering Group were present.

After an introduction by AIR4EU's coordinator Peter Bultjes (TNO), Ib Troen and Andrej Kobe informed the audience on, respectively, the outline of the FP7 programme and the EU thematic strategy on air pollution. From an epidemiological perspective, Bert Brunekreef of the University of Utrecht provided background on new WHO AQ guidelines, which are more strict than existing AQ standards. Subsequently, Vlad Isakov from USA EPA/NOAA highlighted a modelling suite from regional to residential level to assess AQ for exposure studies.

An overview on the recommendations of AIR4EU was presented by Steinar Larssen (NILU). The structure relates to AQ assessment at three spatial scales: hotspots, urban and regional/continen-



## Air4EU Mapping Tool



The Air4EU air quality mapping tool allows maps of air quality to be shown for a wide variety of pollutants and all spatial scales using an interactive GIS system.

The maps available include case studies carried out within the European 6th framework project Air4EU as well as other contributed assessment maps.

Through this tool maps on all scales and from different regions can be selected, visualized and compared in an homogenous and interaction fashion.

Go to the "Mapping Room" to select maps  
or click on a city to select and view maps

The webpage of the Air4EU mapping tool

tal with recommendations on three levels of complexity. These levels pertain to *basic requirements* – aimed at minimum requirements to assess regulated pollutants, *best practices recommendations* – reflecting on improved AQ assessment by achievable methods and *scientific recommendations* – directed to further research on AQ assessment. Carlos Borrego (University of Aveiro) provided feedback on research in AIR4EU on the calculation and mapping of uncertainty in AQ assessment. An improved method is proposed to assess uncertainty. Agnes Dudek (NILU) showed examples of the mapping tool developed in AIR4EU, which is accessible via the website ([www.air4eumaps.info](http://www.air4eumaps.info)).

The mapping tool enables EU citizens, policy makers and other stakeholders to view AQ on-line in their respective cities. EEA expressed their interest to support this initiative after the end of AIR4EU. Case studies served to interact with users and to test the practical applicability of recommendations resulting from research in AIR4EU. The results of a number of case studies were presented by a poster exhibition and four cases as an oral presentation. The first one was on assessment of non-exhaust PM emissions by road traffic in Rome, Oslo, Rotterdam and London by Menno Keuken (TNO), followed by Ranjeet Sokhi (University of Hertfordshire) who presented two case studies, one on traffic management in London and the need for reliable modelling results of AQ and another one on the impact of industrial NO<sub>x</sub> emissions on regional ozone concentrations. Peter Bultjes (TNO) showed in the Europe case study the advantage of data assimilation to improve the uncertainty in assessment of regional/urban background PM, NO<sub>2</sub> and O<sub>3</sub> fields. As a result of this work a proofed method to deliver these concentration fields for local AQ assessment is available on request.

## AIR4EU: What is next?

- The recommendations on AQ assessment at the local, urban and regional scale as delivered by the Work packages in AIR4EU will be finalised and presented on the website. It also contains documents on the five cross-cutting issues: emissions, representativeness, scale interaction, uncertainty and data assimilation.
- The reports on the case studies will be finalised and also presented on the website of AIR4EU. The case studies are guided by NILU in Prague and Oslo, by the University of Hertfordshire in London, by the University of Thessaloniki in Athens and by TNO in Rotterdam, Paris and Rome.
- Special attention is requested for the AIR4EU mapping tool ([www.air4eumaps.info](http://www.air4eumaps.info)).
- Two conferences in 2007 are mentioned as scientific platforms to disseminate the results of AIR4EU: firstly the "6th International Conference on Urban Air Quality" (27-29 March 2007; Cyprus; [www.urbanairquality.org](http://www.urbanairquality.org)) with a special session dedicated to AIR4EU and secondly, the conference "Harmonisation within atmospheric dispersion modelling for regulatory purposes" (July 2007; Cambridge; [www.harmo.org/harmo11](http://www.harmo.org/harmo11)).
- Finally, the website on AIR4EU will remain active at least till January 2008.

AIR4EU newsletter is edited by Menno Keuken and Hermann Heich.

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