

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

www.AIR4EU.nl

Air4EU

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Editorial of Project manager

This is the first Newsletter of the AIR4EU project. Air pollution levels within the EU have generally decreased over the last few decades. However, health effects of particulate matter, NO₂ and O₃, climate change, acidification and eutrophication in relation to air pollution are still a major concern in the EU.

The Clean Air for Europe programme and air quality (AQ) directives provide a framework to address this concern. AIR4EU supported by the EU 6th Framework Programme will provide recommendations on air quality assessment from the local and hot-spot scale, over regional to the continental scale. The main target group are local authorities, as cities especially face difficulties to balance the need for economic growth, increasing transport and to maintain air quality in compliance with the EU Directive. In AIR4EU researchers closely interact with authorities from seven major European cities (Oslo, Prague, London, Rotterdam, Paris, Rome and Athens) on the issue of appropriate AQ assessment. On the basis of reliable AQ data derived from monitoring and modelling programmes, measures and scenarios may be developed to improve especially urban air quality in Europe. AIR4EU intends to support this process.

This newsletter provides (and the two following newsletters) will give an overview of the progress achieved in AIR4EU and includes information about AQ related events taking place in the near future. I hope that you will enjoy reading the newsletter.

Peter Bultjes
Project Manager

What do people expect from AIR4EU?

"In Prague, we have established a monitoring network and we are using models to calculate the air pollution. However, the models need input data on traffic and meteo which are not easy available in Prague. I hope that AIR4EU may provide practical recommendations to solve this problem."

Maria Kazmukova,
City Development Authority, Prague

"Wood-burning and the use of studded tires are typically for the Scandinavian winters. In Oslo, we do not know the contribution of these activities to the levels of particulate matter. Also, we noted a gap between modelling and measurements of PM in Oslo. We are looking forward to interact with researchers in AIR4EU on PM issues."

Ingrid Myyrteit,
City Authority, Oslo

"In Athens and Rome, two-wheelers contribute to benzene levels in streets. Also, the amount of particulate matter due to emissions by two-wheelers is unknown. In a case study in the AIR4EU project, we will learn more about the air pollution caused by two-wheelers, so can develop an Action plan to address this issue."

Fabio Nusio of STA,
Rome Mobility Agency and *Spyridon Papagrigoriou of Athens*

"In Rotterdam, we have been monitoring NO₂ over many years. The last five years we notice that NO₂ levels in Rotterdam area do not decrease anymore, while NO_x emissions of traffic has been reduced significantly. So, projections of improving air quality due to emission reduction measures may be too optimistic and more measures may be required to meet EU AQ standards. In the AIR4EU project we will interact with researchers on this topic."

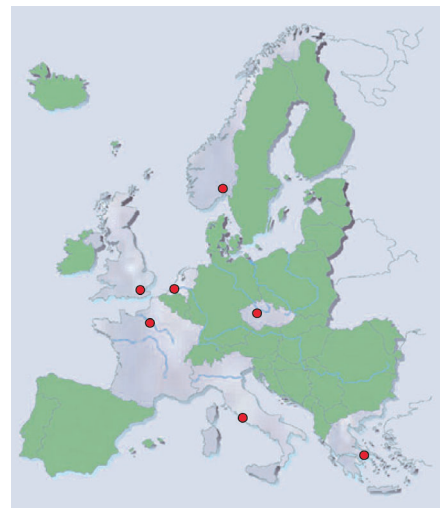
Leo Hermans,
Regional Environmental Agency,
Rotterdam

"The Roissy Airport near Paris may contribute to NO₂ levels by increased road traffic around the airport, but also due to air pollution emitted by air traffic. A method based upon passive sampling in combination with a model was used to distinguish the contribution of various sources. We would like to evaluate with the researchers in AIR4EU, the method we applied for this "hot-spot" study."

Dominique Gombert,
Airparif, Paris

"In London, air pollution has been on the political agenda since the famous Smog in 1953. Consequently, a monitoring network and the use of models

AIR4EU's partner cities



have been applied for many years, and London is quiet advanced in air quality management. Also, extensive measures have been introduced to address urban air pollution such as the well known "congestion charging". In AIR4EU we would like to interact on new developments such as data-assimilation, which may reduce costs of AQ monitoring."

*Lucy Sadler,
Greater London Authority - reformat*

What is AIR4EU about?

The wider aim of AIR4EU is to help improve, harmonise and facilitate AQ assessment in Europe. Presently, various methods are used to monitor and model AQ, but local authorities encounter problems to select an appropriate AQ assessment methodology for specific information needs on air pollution. For example, it is important to distinguish the contribution of different local sources from the regional background. This type of information is important to prepare effective local measures in case of exceedances of the EU AQ limit value. Another example, is Environmental Impact Assessment which may entail AQ assessment of future developments. This normally requires a modelling exercise and again the user require guidance to select the most appropriate approach. In view of these various information demands, there is a need for practical recommendations on AQ assessment. In practice we hope that the project outcomes will help users to answer questions such as: "How many stations do I need to adequately monitor the urban background?" or "What model do I need to calculate the urban background?"

In AIR4EU, the starting point for research is an inventory of information required on AQ by local authorities. The research within AIR4EU will then help city users to identify an adequate AQ assessment method for tackling their problem.

Research in AIR4EU is directed according to three spatial scales: "hotspot", urban and regional. Cross-cutting issues have been identified, which are relevant on all scales: emissions; uncertainty; representativity of monitoring stations and models; scale interaction and data-assimilation.

Who are involved in AIR4EU?

The research in AIR4EU is performed by scientists from the University of Stuttgart, the University of Thessaloniki, the University of Hertfordshire and the University of Aveiro. In addition, researchers from the Norwegian Institute for Air Quality Research (NILU) and the Netherlands Research Organisation (TNO) are involved. Finally, Heich Consult provides support to the management and dissemination of the results of AIR4EU.



The AIR4EU team in Thessaloniki

Interaction of researchers with city authorities through workshops and in case studies is also an important aspect of AIR4EU. Especially, case studies to be implemented by the researchers in co-operation with AIR4EU city authorities serve as a platform for interaction ensuring the practical applicability of the products developed in AIR4EU. These case studies will take some local needs and constraints into account. Research and the outcome of the case studies, will result in practical

recommendations on AQ assessment. These recommendations are than disseminated to other cities in Europe, as we are aware that some of the AIR4EU cities already posses considerable experience of AQ assessment as compared to many other cities in Europe.

AIR4EU progress till date

- Apeldoorn meeting in February 2004: AIR4EU kick off;
- Paris meeting in May 2004: AIR4EU cities presented the "state-of-the-art" of AQ assessment in their cities and expressed their expectations on the outcome of AIR4EU;
- Thessaloniki meeting in September 2004: Researchers in AIR4EU planned their activities in Workpackages 3-5 on AQ assessment on hotspot, urban and regional scale, respectively, taking the cross cutting issues into account.

AIR4EU: What is next?

- Questionnaires have been submitted to AIR4EU cities to collate additional information and to prepare case studies. This information will represent a base of information and experience on AQ assessment and will help in identifying areas of improvement;
- Reviews of current AQ assessments methodologies are being prepared.

Future Meetings

- Stuttgart meeting on 27-28 January 2005: AIR4EU progress meeting for partners;
- Athens workshop on 29 June 2005: Interaction with AIR4EU cities. This workshop is especially for city officials and if you wish to participate please send your details to the contacts. This workshop will help to define the case studies that form a major part of the AIR4EU work programme.

AIR4EU newsletter is edited by Menno Keuken and Hermann Heich.

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AIR4EU: Structure of Workpackages 1-8

