

European Topic Centre on Air Quality

## **ANNUAL SUMMARY REPORT 1996**

By

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ETC Leader

This report was prepared under the supervision of Gabriel Kielland, Project Manager,  
European Environment Agency

**Note**

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## **TABLE OF CONTENTS**

<b>1. BACKGROUND</b>	<b>4</b>
<b>2. WORK PROGRAMME</b>	<b>5</b>
<b>3. PROGRESS ON TASKS</b>	<b>6</b>
<b>3.1. Maintaining and Developing the Air Quality Aspects of EIONET</b>	<b>6</b>
<b>3.2. Ad Hoc Technical Support to EEA</b>	<b>8</b>
<b>3.3. Further Developing the European Air Quality Monitoring Network</b>	<b>8</b>
<b>3.4. Further Development, Implementation and Update of the Air Quality Information System</b>	<b>9</b>
<b>3.5. Further Development of Air Pollution Modelling Infrastructure and Applications</b>	<b>9</b>
<b>3.6. Assessments and Support of EU, UNECE and WHO</b>	<b>10</b>
<b>3.7. Preparation for EEA Periodical Reports</b>	<b>13</b>
<b>4. PRODUCTS</b>	<b>14</b>
<b>5. MEETINGS AND MISSIONS</b>	<b>16</b>
<b>6. MANAGEMENT AND CO-ORDINATION; CONTACTS</b>	<b>20</b>
<b>7 MAIN ELEMENTS OF PROPOSED WORK IN 1997</b>	<b>21</b>

## 1. BACKGROUND

The European Topic Centre on Air Quality (ETC-AQ) was established by the European Environment Agency (EEA) at the end of 1994. The goal of the ETC-AQ is to support the EEA in all its tasks as far as air quality is involved.

A consortium of four institutes has been formed for the period 1995-1997:

- National Institute of Public Health and the Environment (RIVM), Bilthoven, the Netherlands (lead organisation)
- Norwegian Institute for Air Research (NILU), Kjeller, Norway
- National Observatory of Athens (NOA), Athens, Greece supported by the University of Athens and the University of Thessaloniki
- Norwegian Meteorological Institute (DNMI), Oslo, Norway.

The project leader is Roel M. van Aalst (RIVM). The deputy project leader is Steinar Larssen (NILU).

The project leader is supported by a Steering Group consisting of the contact persons for the participating institutes, seconded by their deputies on ETC matters. The Steering Group had two meetings in 1996, in February and October, in which the planning and progress of the work and the plans for future work were discussed and agreed. Two plenary project meetings were held, in March in Oslo, and in October in Bilthoven, the Netherlands.

The work on each of the tasks, as defined in the work plan, was carried out by task teams composed of team members from different institutes, lead by a task leader who was responsible for the task and its deliverables.

The project leader communicated frequently (almost daily) with the EEA Project Manager, and regularly with other EEA staff and ETCs, particularly regarding air emissions.

The relatively simple organisational structure worked satisfactorily. Experience from the task teams and the plenary meetings indicated that, next to the contacts via mail, telephone and e-mail, personal and informal contacts are essential for effective work.

Information on the work programme, progress and products of the ETC-AQ in 1995 can be found in the Annual Summary Report 1995 (EEA Topic Report 22/1996). The current report presents a summary of the work carried out in 1996.

## **2. WORK PROGRAMME**

The work of the ETC in 1996 is derived from the EEA Annual Work Programme 1996, programme 4 “Media oriented monitoring. Assessment of the state and trends of the environment”, projects MA2 and MA3. The objectives, background, methods and products and resources of these projects are described in detail in the EEA Annual Work Programme 1996.

Project MA2: “Design and maintenance of the European air quality monitoring network and data bases.”

Objective: To set up and ensure operation of the network and exploitation of data bases.

Project MA3: “Harmonisation in the use of models for ambient air quality and pollution dispersion and transport.”

Objective: To increase consistency in use of models already in use; to develop guidance on criteria for selecting appropriate models and on their application for the assessment and management of air quality.

Work on a third project, MA1: “Air quality, general approach to assessment” was carried out in 1995; however, some work continued into 1996 to finalise draft reports produced under this project.

The current work programme extended beyond the initial specifications for projects MA1, MA2 and MA3 to include support for the Periodic Reporting and Integrated Assessment programmes of the Agency. Moreover, enhanced ad-hoc support, particularly to the EC Directorate-General XI (EC/DGX1), was provided.

### 3. PROGRESS ON TASKS

#### 3.1. Maintaining and Developing the Air Quality Aspects of EIONET

EEA National Focal Points and National Reference Centres for air quality have been involved in the work of the ETC-AQ in a number of ways.

First, NFPs were involved in discussions on the work plan. Work plans and developments were presented at three NFP/EIONET meetings in February, June and October, in which the project leader and sometimes other ETC members participated. Six ETC reports prepared in 1995 were submitted for comment to NFPs/NRCs, and useful comments were received and used for improvements.

In a workshop organised by the ETC in Copenhagen, 23-25 April, 58 participants of 17 EEA member countries, 10 PHARE countries, the ETC-AE and international organisations (EC-DGXI, JRC-ERLAP, WHO-ECEH, and UNECE-EMEP) reviewed and discussed ETC work and results, and proposed priorities for future work. Five position papers on monitoring, assessment, modelling and information systems were presented at the workshop by the ETC. A workshop report available from the ETC summarising discussions and conclusions, was prepared and sent to all participants. See also Box on page 6.

A program for visiting the EEA member countries has been started. ETC experts visited Austria, Germany, Greece, Sweden and France. In these visits, mostly combined with national meetings of regional/urban institutions for air quality monitoring and assessment, ETC work was presented, with emphasis on the monitoring network EURO-AIRNET and the information system AIRBASE, the national infrastructure in monitoring, modelling and data bases and information systems were discussed, and prospects for intensified collaboration were explored. These visits were considered very useful, both by the ETC and the countries, and will be continued.

NFPs and/or NRCs delivered upon request national air quality data. Most of these were provided to DGXI, and hence to the ETC, voluntarily under the EC Exchange of Information Decision (EoI); the procedures for non-EU members were synchronised with the EoI, and the same formats and procedures were used.

Three newsletters informing a wider audience on recent ETC developments and products were produced and disseminated to about 900 addresses in Europe.

In June, the ETC participated in the launch meeting of the PHARE-EEA project for collaboration with 13 Central and Eastern European countries. ETC work and plans were presented and discussed with participants from these countries. The ETC helped in defining terms of reference for the PHARE Topic Link, a consortium from PHARE countries that is intended to expand and reinforce the ETC work and help expand into a pan-European co-ordination effort.

The European Air Quality Monitoring and Information Network EURO-AIRNET is intended to provide the basic data, with a time delay of maximum 6 months, that is necessary to fulfil the EEA information requirements. Basic principles as presented to the Copenhagen Workshop 23-25 April 1996.

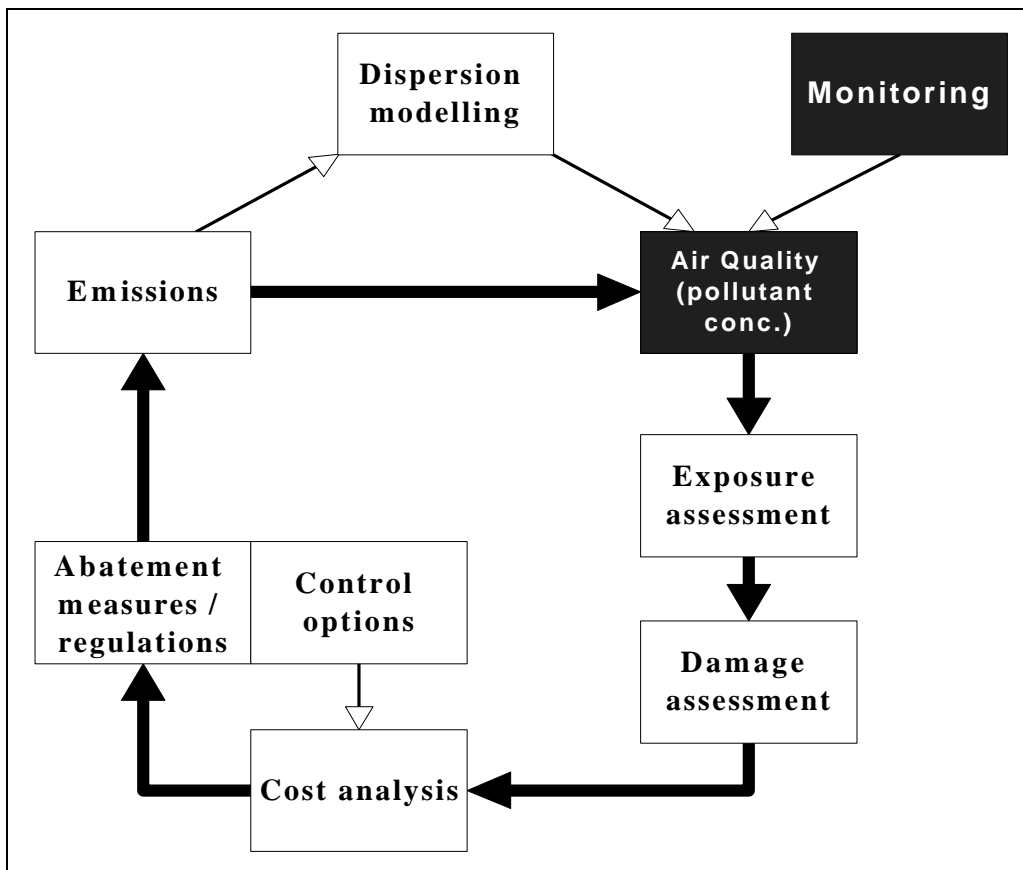
**Purpose :**

- ↪ providing data for reliable and up-to-date assessments

**Requirements of stations (to be) :**

- ↪ selected from existing stations network
- ↪ have QA level 3 or 4 (national QA or under accreditation)
- ↪ report to EoI, EMEP, HELCOM, OSPARCOM, GAW and/or EEA within 6 months after the year
- ↪ have provided documentation on methodology and on station environment following the new EoI
- ↪ have a specified representativity

The conceptual framework for Air Quality Management, presented at the Copenhagen Workshop 23-25 April 1996.



### **3.2. Ad Hoc Technical Support to EEA**

In the first half of 1996, work under this task included support of ~~EC~~ DGXI, including participation in various working groups on Air Quality Directives, reports under the Ozone Directive, and work on the Guidance report on supplementary assessment under the new Framework Directive (96/62/EEC). This work is reported here under section 3.6.

On request of EEA, the ETC commented on various draft reports, including the ISIS Air Manual, and the WHO-EEA booklet on Air Pollution, and participated in meetings such as the EC/DGXI acidification abatement strategy, and the ETC/MC Inter Regional Forum.

The ETC supported IVM, the Netherlands, in the DGXI project "Evaluation of air quality targets" by providing concentrations of particulate matter (PM10), calculated on the basis of an emission inventory compiled for RIVM and the Dutch Environment Ministry by TNO. This IVM work will be reported early 1997.

Resources under this task were also used to enhance interactions and develop contact with the EEA Scientific Committee.

### **3.3. Further Developing the European Air Quality Monitoring Network**

In a position paper for the ETC workshop in April, which can be considered as a first draft guidance report, the goals and principles of a European air quality monitoring network were developed. The network, called EURO-AIRNET, should be formed from selected existing stations and networks, but should meet defined requirements on quality assurance, representativeness, and data reporting in order to satisfy the needs of EEA's assessment reports. The position paper was discussed at the workshop and conclusions were laid down in the workshop report, copies of which can be made available on request to the ETC.

Substantial effort was spent in updating and revising a report that had been prepared in 1995 "Report on state of the air pollution monitoring situation in Europe - problems and trends" (main report and Appendix) on the basis of comments from the NFPs/NRCs and new information coming in from various countries. The final version of this report was delivered to EEA in November and will be published as Topic Report 26/1996 in 1997.

Work was continued on a guidance report on quality assurance, on the basis of an earlier draft report on a common minimum quality assurance program prepared in 1995. This work was carried out in collaboration with JRC-ERL and should be completed and published in 1997.



### **3.4. Further Development, Implementation and Update of the Air Quality Information System**

An air quality information system called AIRBASE has been designed, and partly implemented. The system was designed to be fully consistent with the new EC Exchange of Information Decision, building on the experience obtained with the EC systems APIS and GIRAFE, which had been reviewed by the ETC in 1995. It combines air quality data with information on monitoring networks and stations. The system, which is designed to provide information at different levels of aggregation to a variety of users, consists of three layers. Two of these layers have been implemented: a relational database which forms the basic layer, and an Internet World Wide Web access facility as the top layer, which was released in July. Due to budget restrictions, a PC version designed as the intermediate layer could not be implemented in 1996 and facilities in the top layer remain limited.

A user-friendly PC input module for network and station information called AIRBADM has been developed and made available via ETC's Homepage (<http://www.etcaq.rivm.nl>) where documentation on AIRBASE and AIRBADM is also available. Help is provided to member countries, if necessary by personal advice.

The basic database has been initially filled with the information from APIS and GIRAFE, which has been subject to screening procedures and quality assurance. In July, EC/DGXII and EEA requested member countries to voluntarily submit data and information for 1994/1995 and earlier years in agreement with the previous Exchange of Information Decision. As standard formats, ISO 7168 and NASA-AMES formats were accepted as well as formats used previously by the countries. By the end of 1996, data and information had been received from only 10 EEA member countries and two other European countries, and was almost completely inserted into the database. Due to minor or sometimes major deviations from the format, considerable extra resources were needed for data conversion while information in non-standard format could not be accepted. The ETC is contributing to the revision of the ISO 7168 format. Procedures for calculation of statistics have been reviewed by the ETC, revised and applied, in preparation for reporting of the data.

The ETC Homepage where AIRBASE can be accessed is also used to present ETC newsletters and, since December 1996, also links to ETC reports on ozone (see 3.6) published by the EEA on its Homepage (<http://www.eea.dk>).

### **3.5. Further Development of Air Pollution Modelling Infrastructure and Applications**

Reports on model requirements ("Review of requirements for models and model applications" Topic Report 18/1996) and on state of the art ("Ambient air quality, pollutant dispersion and transport models. State of the art, needs and trends" Topic Report 19/1996) prepared in 1995 were revised taking into account comments by member countries, and delivered as final version. The reports will be published in 1997.

Work on a guidance document on selection of models and input data for groups of applications, started in 1995 was continued, a draft report was submitted for comment to EEA in July, but work to improve the draft continued into 1997. A guidance report on urban modelling is also under development.

At the workshop of the ad-hoc initiative on harmonisation of modelling in Oostende, Belgium, 6-9 May, ETC experts presented ETC work on modelling, and participated in a panel discussion. The work in this task was also presented at various other conferences.

The ETC developed, in collaboration with the ad-hoc initiative, an information and documentation system on atmospheric models, accessible through the Internet. An internal pilot version, including description of 13 models, was realised in summer. Model experts throughout Europe were invited to provide documentation on their models. By the end of the year, various responses were received, but more information is needed before the system can be made widely accessible.

### **3.6. Assessments and Support of EU, UNECE and WHO**

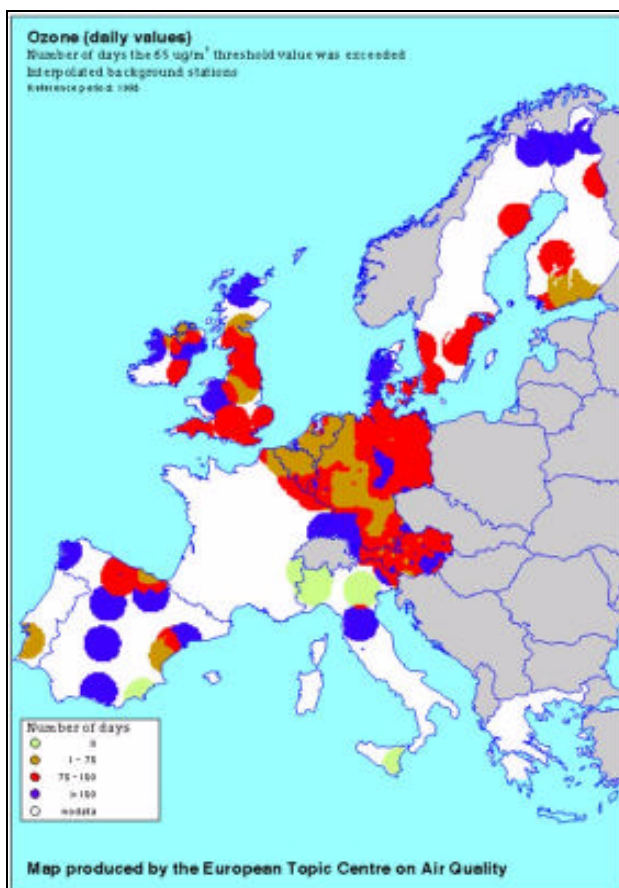
#### ***Air Quality in Europe 1993 report***

On the basis of comments received from member countries and additional information, the report "Air Quality in Europe, 1993, a pilot report" (main report and appendices), that had been prepared as a draft in 1995 was substantially revised. The report was then delivered to EEA as a final version in December for publication as EEA Topic Report 25/1996 in 1997.

#### ***Supporting and improving ozone forecasting and information exchange***

In May 1996 Ministers for the Environment meeting at the London Conference on Tropospheric Ozone in Northwest Europe called on the European Environment Agency, in co-operation with technical experts throughout Europe, to develop an action plan for a co-ordinated European system for data exchange and for forecasting air pollution episodes. The Ministers agreed to establish a pilot group for the North European-sub region and expected as outcome the promotion of further exchange of expertise and methodology, the exploration of methods of improving forecasts and the development of a programme for joint evaluation of the systems.

Under co-ordination of the ETC, a Technical Working Group on Data exchange and Forecasting for Ozone episodes in Northwest Europe (TWG-DFO) was formed. This group, with experts from 10 countries met for the first time on 11 October, and decided to produce a first report reviewing national systems for ozone episode forecasting, developing criteria for evaluation, and making recommendations on rapid data exchange. The report, to be edited by the ETC, will be published as an EEA Technical Report in 1997.



Days of exceedances of the threshold value for damage to vegetation observed at background stations 1 January - 31 December 1995. Data as reported under the Ozone Directive and presented to the European Council.

### ***Reporting for EC/DGXI under the Ozone Directive***

On request of EC/DGXI, the ETC has prepared reports on the basis of data submitted to the Commission by Member States in the framework of the Ozone Directive. In May, the ETC delivered an Annex and update to an earlier report “Exceedance of ozone threshold values in the European Community in 1994”, taking into account data delivered after the deadline by Germany. This Annex was not planned in the initial work programme, and hence was completed under the ad hoc support task.

The report “Exceedance of Ozone threshold values in the European Community in 1995” by DeLeeuw and VanZantvoort was delivered to EEA and DGXI in September. The report contains information and data from 858 stations in 15 EU member states as submitted to EC under the Ozone Directive, and draws conclusions on exceedances and statistics of ozone concentrations.

The report “Information Document concerning air pollution by Ozone- Overview of the situation in the European Union during the 1996 summer season (April-July)” by Shyyter and VanZantvoort was delivered early October to EEA and DGXI. The report provides a first evaluation of exceedances of ozone threshold values in summer 1996, on the basis of information received from 15 EU member states. These reports were published on the EEA Homepage <http://www.eea.dk> in December and will be published in printed form as Topic Report in 1997.

### ***Participation in EC AQ Directive working groups***

On request of EC/DGXI, ETC experts participated in four EC Air Quality Directive working groups preparing position papers for  $\text{SO}_2$ ,  $\text{NO}_2$ , lead and (fine) particulate matter and in the Steering Group supervising these activities. The ETC experts provided information on the European level as written comments to the lead country authors. These position papers provide a basis for the Commission's proposal for a Daughter Directive for these pollutants under the Framework Directive 96/62/EC. ETC experts also participated in work of the EC Expert Group on Photochemical Pollution.

### ***Guidance report on supplementary assessment under EC Framework AQ Directives***

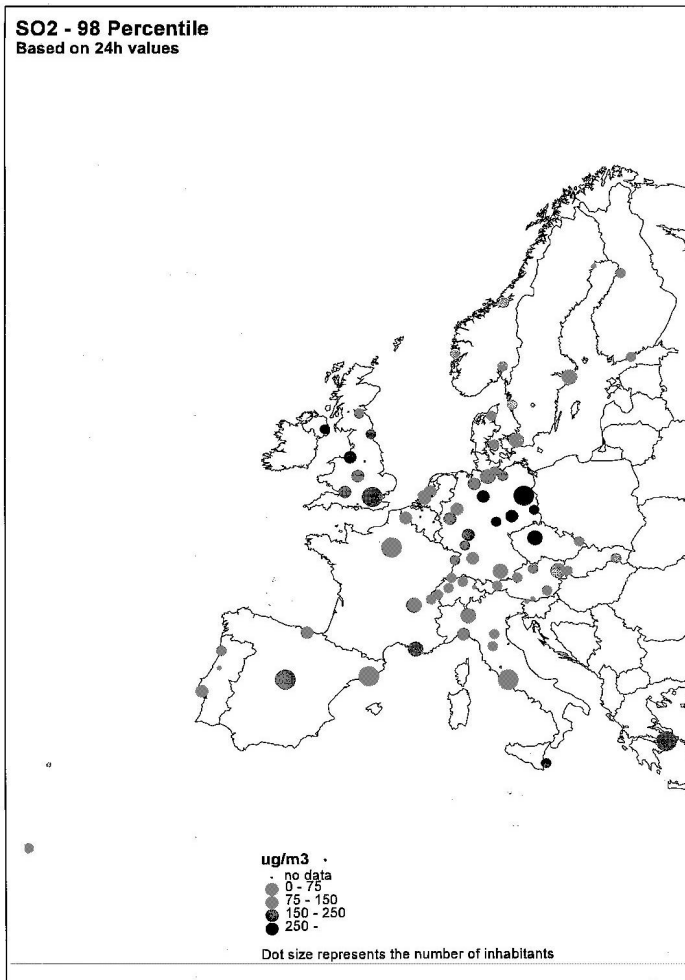
On request of EC/DGXI, the ETC has prepared a draft guidance report on supplementary assessment under the EC Framework Directive on air quality assessment and management. The report should provide guidance on preliminary assessments, monitoring station siting optimisation, and generalisations of monitoring results, by combining measurements, emission data, and modelling. An early draft submitted to EEA and DGXI for comment in September was reconsidered to make it more practical; a next version is now planned to be submitted to the Steering Group on Air Quality Directives in February 1997.

### ***Support of WHO-ECE-EEA health impact assessment***

Support was offered by EEA and the ETC to a project set up by a consortium including WHO-ECEH, the UN-ECE Coordination Centre for Effects and IIASA and others, to assess the health impact of urban and regional air pollution under various scenarios, using the RAINS model for integrated assessment. The work was specifically set up to support the UN-ECE second  $\text{NO}_x$  protocol to be negotiated in 1997.

### ***Air Pollution in Europe 1997 report***

This report, which will analyse four major air pollution issues (climate change, acidification, eutrophication, tropospheric ozone and (urban) air quality along the causal (DPSIR) chain, is to be prepared by March 1997 jointly by the ETC-AE and ETC-AQ. Project planning and report annotated contents were produced and data collection and analysis was started. A very important element in this report is the urban emission estimates compiled by the ETC-AE.



98 percentile SO<sub>2</sub> concentrations in selected European cities 1993. Presented in the pilot report “Air Quality in Europe”.

### 3.7. Preparation for EEA Periodical Reports

The ETC has provided extensive comments to draft chapter outlines and guidelines for data collection for the next EEA Europe’s Environment “Dobris+3” report. The ETC has prepared a work plan for contributions to the report, with lead responsibilities for chapters on stratospheric ozone, tropospheric ozone, and acidification, and contributions to chapters on urban stress and chemicals. The EEA has contracted the ETC for this work. The ETC has also agreed to contribute to the EEA/JRC project on Data Flow Analysis for Integrated Assessment.

## 4. PRODUCTS

### *EEA Topic Reports*

- Annual Summary Report 1995 (22/1996)
- Exceedance of Ozone threshold values in the European Community in 1995 (29/1996)
- Information Document concerning air pollution by Ozone- Overview of the situation in the European Union during the 1996 summer season (April-July) (29/1996)
- Requirements on European air quality monitoring information (17/1996)
- Report on state of the air pollution monitoring situation in Europe - problems and trends (26/1996)
- Air Quality in Europe 1993, a pilot report (25/1996)
- Review on requirements for models and model application (18/1996)
- Models for ambient air quality and pollutant dispersion/transport - state of the art, needs and trends (19/1996)

### *ETC Technical Reports*

- European workshop on air quality monitoring and assessment, Copenhagen, 23-25 April - workshop report
- Annex to the report: "Exceedance of ozone threshold values in the European Community in 1994": Data from Germany.
- Review of current database system APIS and GIRAFE for air quality and monitoring stations

### *Position papers presented at the April workshop*

- The European Topic Centre on Air Quality and EIONET: building Europe's air quality information
- Assessment of air quality
- European Air Quality monitoring and information network
- AIRBASE: The European air quality information system. Database concept, system contents and data formats
- Air pollution modelling

**Other products**

- European workshop on air quality monitoring and assessment, Copenhagen, 23-25 April 1996
- Air quality information system AIRBASE
  - relational database
  - World Wide Web access facility
  - input module for network and station information AIRBADM
  - documentation on AIRBASE and AIRBADM
  - update of AIRBASE contents (ongoing)
- ETC Homepage <http://www.etcq.rivm.nl> with newsletters, AIRBASE access and documentation, link to ozone reports
- Information and documentation system on atmospheric models the Internet internal pilot version
- Three newsletters
- Work plan for contributions to the EEA Europe's Environment "Dobris+3" report

	Good	←	Poor
<b>SO<sub>2</sub></b>			
<b>Particulate matter</b>			
<b>PM size &lt; 10 μm</b>			
<b>NO<sub>2</sub></b>			
<b>Ozone</b>			
<b>CO</b>			
<b>Benzen</b>			
<b>PAH</b>			
<b>Lead</b>			
<b>Other metals</b>			

Spatial coverage of European air quality monitoring. Presented to the Copenhagen Workshop 23-25 April 1996.

## 5. MEETINGS AND MISSIONS

When	Where	Event	Participants	Purpose
9-10 January	Brussels	Working Group on SO2 Directive	project leader	Support EC daughter directive position paper
11-12 January	Ispra	Working Group on NO2 Directive	project leader	Support EC daughter directive position paper
15-16 January	London	Working Group on particles Directive	Larssen	Support EC daughter directive position paper
22-23 January	Barcelona	Working Group on Lead Directive	project leader	Support EC daughter directive position paper
29 January	Brussels	Expert Group on Photochemical Pollution	project leader	Support DGXI ozone work. Present ETC ozone exceedance report
5-6 February	Copenhagen	COST CITAIR	van Aalst, de Leeuw., Larssen, Moussiopoulos, Grønskei w/McInnes	Connect ETC to DGXII-COST action on urban AQ
6 February	Copenhagen	ETC-AQ Steering Group meeting	project team	Discuss work plan
7 February	Copenhagen	Topic Centres meeting	project leader, Lalas, Larssen, Berge	Discuss EEA work programme, co-ordinate ETC work
8-9 February	Brussels	Steering Group meeting AQ Directives	project leader w/McInnes	Discuss, evaluate and steer work on position papers
20 February	Brussels	Meeting with EEA/DGXI	project leader w/McInnes	Discuss EEA support to DGXI
26-27 February	Copenhagen	National Focal Point meeting	project leader	Communication in EIONET
5-6 March	Brussels	Working Group on SO2 Directive	project leader	Support EC daughter directive position paper
6 March	Copenhagen	Meeting with EEA information experts	Sluyter, consultant	Present and discuss AIRBASE AQ information system
8 March	Brussels	meeting with DGXI-D3	Sluyter	Discuss technical aspects of data exchange and reporting
11-12 March	Roskilde	Workshop Urban air pollution measurement	de Leeuw	Participate in this EEA-connected activity of NERI
13 March	Amsterdam	Meeting with JRC/ISPRA	van Aalst, Buijsman, Lalas, Larssen	Discuss draft report; set up European QA plan



<b>When</b>	<b>Where</b>	<b>Event</b>	<b>Participants</b>	<b>Purpose</b>
14-15 March	Barcelona	Working Group on Lead Directive	project leader	Support EC daughter directive position paper
18 March	Oslo	Plenary ETC-AQ project meeting	project team	Preparation for April workshop
20-21 March	Brussels	Telematics for Environment	Potma w/McInnes	Information on and co-ordination of projects
21-11 March	London	Working Group on particles Directive	Larssen	Support EC daughter directive position paper
28-29 March	Gothenburg	Working Group on NO2 Directive	Larssen	Support EC daughter directive position paper
23-25 April	Copenhagen	European Workshop AQ Monitoring and Assessment	ETC w/ EEA, national experts	Interact with EIONET on ETC products and programme
2-3 May	Brussels	AQ Steering Group meeting	project leader	Review work of AQ Directive working Groups
7 May	Bregenz	meeting with Ministry, UBA and technical experts	project leader	Discuss air quality infrastructure in Austria and ETC products of interest
8-9 May	Oostende	Workshop Harmonisation of Atmospheric Dispersion Modelling for Regulatory Purpose	Moussiopoulos, de Leeuw, vanAalst	Support workshop as indicated in work programme
14 May	Bilthoven	meeting ETC-AE and ETC-AQ	van Aalst, deLeeuw, Sluyter	Co-ordinate efforts and plan joint products
20-21 May	London	Ministerial conference on tropospheric ozone	van Aalst(nat. repr.) w/Osborn, Gee	Discuss information and abatement strategies for ozone
3 June	Amsterdam	ETC-AQ Steering Group meeting	van Aalst, Berge, Larssen, Petrakis	Discuss and finalise work plan of 1996 subvention
10-12 June	Eastbourne	ECE/WHO workshop health effects O3/NO2	Larssen	Discuss integrated assessment of O3/NO2 health effects in UNECE NOx-protocol
10-11 June	Copenhagen	PHARE-EEA launch meeting	project leader	Start formal collaboration with PHARE countries
12 June	Copenhagen	EIONET meeting	project leader	Discuss progress and prospects of EEA working programme

<b>When</b>	<b>Where</b>	<b>Event</b>	<b>Participants</b>	<b>Purpose</b>
20-21 June	Brussels	Working Group on SO <sub>2</sub> Directive	project leader	Work out position paper for Commission
27-28 June	Paris	ISO/TC146 meeting	Potma	Revision of ISO 7168 standard format for AQ data exchange
28 June	Bilthoven	Visit of EEA to the Netherlands/NFP/ETC-AQ	ETC w/Osborn	Meet with Dutch institutes related to EEA, including ETC-AQ
10 July	Brussels	Exchange of Information AQ meeting	Sluyter	Support DGXI and member states in exchange of air quality information
2-4 Sept	Geneva	EMEP Steering Body	project leader w/McInnes	Review and discuss current and future EMEP work
4 Sept	Geneva	informal evaluation of ETC	project leader w/Asimakopoulos., McInnes	Discuss in depth comments on ETC-AQ made in Scientific Committee
9 Sept.	Berlin	visit to Germany and Länder	Larssen, Sluyter	General country visit in EIONET framework; select AIRNET stations
16-17 September	Ispra	ISO 7168 WG 8	Potma	Discuss new ISO format for air quality and network information
17-18 September	Göteborg	visit to IVL Sweden	Larssen, project leader	General country visit in EIONET framework; select AIRNET stations
30 September	Brussels	AQ Directive horizontal aspects	project leader	Discuss shared aspects in the four AQ directive working group position papers
7-8 October	Rome	ETC-MC Interregional forum	Cartalis	Interaction with ETC-MC work
7-8 October	Copenhagen	EIONET meeting	project leader	Regular interaction with member countries
9 October	Copenhagen	meeting ofETCs	project leader	Enhance collaboration, discuss key EEA reports
10 October	Copenhagen	meeting EEA, ETC-AE, ETC-AQ	project leader, Berge	Enhance collaboration, discuss joint European Air Pollution Report
11 October	Bilthoven	Technical Working Group ozone forecasting	project leader, de Leeuw	Review, report and recommend on ozone

<b>When</b>	<b>Where</b>	<b>Event</b>	<b>Participants</b>	<b>Purpose</b>
				forecasting
21-23 October	Berlin	EC AQ Directive WG particulates	Larssen	Draft position paper
23 October	Copenhagen	Air ETCs Follow-up Committee	project leader	Evaluate ETC-AQ and ETC-AE
28 October	Bilthoven	plenary ETC meeting	all members	Discuss progress and way forward
31 October	Brussels	DGXI acidification abatement strategy	Berge w/McInnes	Co-ordinate efforts and contribute
4-5 November	Strasbourg	country visit to France	project leader, Larssen	Strengthen relations with national and regional AQ institutions
12-13 November	Barcelona	EC AQ Directive WG lead	project leader	Draft position paper
26 November	Copenhagen	Air Pollution in Europe report meeting	Berge, Beck, de Leeuw, Schaug	Set up contents and work plan
28 November	Brussels	meeting EEA-DGXI/D3	project leader w/McInnes, Kielland, Jol, Koch	Evaluate collaboration and co-ordinate efforts
28 November	Brussels	visit to DGXIII	project leader w/Kielland	Explore opportunities financing telematics applications
3-4 December	Vienna	EC AQ Directive WG NO2	project leader	Draft position paper
17-18 December	Brussels	Steering Group AQ Directive	project leader	Evaluate position papers, economic study
19 December	Brussels	visit to DGXVI	project leader, Moussiopoulos	Explore opportunities for collaboration

## 6. MANAGEMENT AND CO-ORDINATION; CONTACTS

Progress in the work was reported to EEA in four quarterly reports, based on information from the task leaders and on managerial and financial information from the institute contact persons. On request of EEA, an Annual Summary Report 1995 (not foreseen in the initial work plan) was prepared in January.

Throughout the year, various contacts were maintained with international organisations and a wide variety of institutions.

Inside EEA, various contacts were maintained, and particularly collaboration with the European Topic Centre on Air Emission has been very important. For contacts within EEA's Environmental Information and Observation Network EIONET, see section 3.1.

Contacts were particularly frequent and intensive with EC/DGXI and JRC-ERLAP. Contacts were also laid with the DGXIII Environment Informatics Programme, and with DGXVI on the European Spatial Development Programme.

There are close connections to UN-ECE, particularly the EMEP programme: Two ETC partner institutes are Co-ordinating Centres of EMEP, and the ETC project leader is a member of the Bureau of the EMEP Steering Body. Efforts were taken to ensure compatibility between the air quality information system AIRBASE and the EMEP database EBAS.

Collaboration with WHO was mainly through the WHO European Centre for Environment and Health in Bilthoven.

Mutual exchange of information was maintained with various other organisations and programmes, such as WMO and WHO/UNEP GEMS-AIR.

Contacts with research communities were also manifold. On request, the ETC contributed to a Strategy Paper for the DGXII Fifth Framework Programme for R&D. The ETC was also involved in the formulation of the second phase of the EUROTRAC project, and will participate in the EUROTRAC Environmental Assessment Group that will serve as an interface between the research community and applications by operational institutions such as EEA.

## **7. MAIN ELEMENTS OF PROPOSED WORK IN 1997**

At the moment of writing this report, the work plan under the 1997 subvention (April-December 1997) was still being developed. The elements below should therefore be seen as indicative only. Foreseen products are arranged under the eight tasks currently being undertaken by the ETC.

### **1. Management and co-ordination:**

- Annual Summary report 1996
- quarterly progress reports

### **2. Maintaining and developing the air quality aspects of EIONET**

- newsletters
- work plans to be presented to EIONET
- country visits
- workshop in combination with EMEP, June 1997

### **3. Ad hoc Technical support to EEA**

### **4. Further developing the European air quality monitoring network**

- guidance report on monitoring networks and sites
- report on data clearance and reporting procedures
- report on site selection
- finalisation of reports on representativeness and quality assurance initially drafted in 1995

### **5. Further development, implementation and update of the air quality information system**

- maintenance and further development of AIRBASE components
  - data input module
  - statistical module
  - extend internet access facilities
- 1996 data update
- further development of ETC-AQWebsite

### **6. Further development of air pollution modelling infrastructure and applications**

- finalisation of guidance report on model selection and application
- guidance report on urban modelling
- further development of model documentation system on Internet
- workshop for evaluation
- development of model evaluation toolkit

### **7. Assessments and support of EU, UNECE and WHO**

- guidance report on ozone forecasting and data exchange
- guidance report on supplementary assessment under EC AQ Directives
- participation in EC AQ Directive working groups
- support of WHO-ECEH/UNECE health impact assessments
- support to EC AUTO-OIL II Programme
- EC consolidated report under Ozone Directive

Periodical reports and assessments:

- air pollution in Europe report (jointly with ETC-AE)
- contribution to “Dobris+3” report
- contribution to “EU98” report
- EC report on EoI data
- EC annual reports under Ozone Directive