Report of the

Workshop on Plans and Programmes of
Air Quality and National Emission
Ceilings Directives

Brussels, 1-2 September 2004

Organised by
European Commission
Environment Directorate General

in association with
European Federation of Clean Air and Environmental Protection Associations (EFCA)

and
European Environment Agency (EEA)
# Table of Contents

1. Programme of the workshop, including links to the presentations ........................................ 3
2. Background of the workshop ................................................................................................... 7
3. Introductory session ................................................................................................................ 8
4. Experiences with Plans and Programmes under the Framework Directive ........................... 9
   4.1 Plans and Programmes: setting up procedures that work ................................................. 9
   4.2 Plans and Programmes: taking measures to bring levels down ..................................... 10
   4.3 Plans and Programmes: attainment problems ................................................................. 11
   4.4 Plans and Programmes: reconsidering the system .......................................................... 11
5. Experiences with National Programmes under the National Emission Ceilings Directive . 12
   5.1 National Emission Ceilings: reporting to the Commission ............................................. 12
   5.2 National Emission Ceilings: progress towards the ceilings ........................................... 12
   5.3 National Emission Ceilings: development of national programmes .............................. 13
   5.4 National Emission Ceilings: improving the system ...................................................... 13
6. Concluding session: A way forward ...................................................................................... 14
Annex: List of participants .......................................................................................................... 16
1. Programme of the workshop

The PowerPoint files and abstracts of the presentations given at the workshop can be viewed or downloaded at the Commission’s CAFE website:

http://europa.eu.int/comm/environment/air/cafe/general/workshop_on_plans_programmes.htm

Improving Air Quality in the enlarged EU:
Workshop on Plans and Programmes of Air Quality and National Emission Ceilings Directives

Brussels (Building Albert Borschette)
1-2 September 2004

Day 1 (10:30-17:30)

10:30-10:50 Welcome and greetings
Peter Gammeltoft, DG Environment, European Commission
Giuseppe Fumarola, The European Federation of Clean Air and Environmental Protection Associations (EFCA)
Gordon McInnes, European Environment Agency

10:50-11:10 London Calling: London IUAPPA Workshop outcome
Richard Mills, NSCA/IUAPPA\(^1\) (United Kingdom)

Morning session: Experiences with Plans and Programmes under AQ FWD

Chairman: Matti Vainio, DG Environment (European Commission)

11:10-11:30 Introduction, overview and initial experiences
Stefan Jacobi, DG Environment (European Commission)

11:30-12:00 Opportunities and constraints in delivering effective Action Planning: a UK perspective
Nicky Woodfield, University of the West of England (United Kingdom)

12:00-12:20 Plan for the structural improvement of the air quality and for the struggle against the global warming 2002-2010
Gabriel Torres, Brussels Institute for the Management of the Environment (Belgium)

12:20-12:40 Discussion and summary

1 12:40-14:00 Lunch

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\(^1\) NSCA: National Society for Clean Air and Environmental Protection; IUAPPA: The International Union of Air Pollution Prevention and Environmental Protection Associations
Afternoon session: Air quality management - preparation and implementation of Plans and Programmes

Chairman: Peter Buïjtjes, VVM-CLAN/TNO, on behalf of EFCA (Netherlands)

14:00-14:20 Management of air quality improvement in several agglomerations and zones in Bavaria (Germany), including experience with a concerning Czech/German Twinning project
Reiner Strauss, Ministry of Environment, Bavaria (Germany)

14:20-14:40 Managing air quality in the City of Prague
Josef Janota, Prague Town Hall (Czech Republic)

14:40-15:00 Implementing plans and programmes under Air Quality Directives in condition of difficult attainability of limit values: the case of Lombardy Region
Carlo Maria Marino, ARPA Lombardia (Italy)

15:00-15:20 High population density and heavy industry: the challenge for air quality management in Nordrhein Westfalen
Sabine Wurzler, Landesumweltamt Nordrhein Westfalen (Germany)

15:20-15:40 Coffee break

15:40-16:00 Air quality management in the region of Silesia
Dorota Kaminska, Ministry of Environment (Poland)

plus regional representative to be determined (Poland)

16:00-16:20 Air quality management in the Netherlands: PM10 in Rotterdam-Rijnmond area
Leo Hermans, DCMR Rijnmond (Netherlands)

16:20-16:40 The Austrian strategy to reduce PM: perspectives and challenges
Christian Nagl, Austrian Environmental Agency (Austria)

16:40-17:00 Local action to improve air quality: the Marseille experience
Laurent Neyer, Regional Directorate for Industry, Research and Environment (France)

17:00-18:00 Discussion and summary

20:00 Dinner

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2 VVM-CLAN: The Clean Air Section of the Netherlands Association of Environmental Professionals; TNO: Netherlands Organisation for Applied Scientific Research

3 ARPA: Regional Agency for Environmental Protection

4 DCMR: Environmental Protection Agency Rijnmond
Day 2 (9:00-16:30)

Morning session: National programmes under NECD of the EU 25

Chairman: Gordon McInnes, EEA

8:30-9:00 Morning coffee

9:00-9:20 Reporting national programmes under the NECD - experiences and outlooks
Andreas Barkman, European Environment Agency
Peter Taylor, European Topic Center for Air Quality and Climate Change

9:20-9:40 National programme of the Flanders region: burden sharing in a federal state
Bob Nieuwejaers, Ministry of the Flemish region, Environmental department (Belgium)

9:40-10:00 National programme under NECD: the Portuguese experience
Julia Seixas, New University of Lisbon (Portugal)

10:00-10:20 Ensuring consistency between different national policies in preparation of the national programme: the Slovene experience
Matej Gasperic, Environment Agency of the Republic of Slovenia (Slovenia)

10:20-10:40 Coffee break

10:40-11:10 An integrated management of national programme under NECD and plans and programmes under AQFWD in the Czech Republic, with the practical experience from the Moravskoslezsky region
Eva Rychlikova, Ministry of Environment (Czech Republic)

11:10-11:20 Preparation of the national programme: the Hungarian experience
Robert Toth, Ministry of Environment (Hungary)

11:20-11:40 Poland : Preparation of the national programme in Poland in the light of inconsistencies between different EU requirements: a way forward
Andrzej Jagusiewicz, Chief Inspectorate of Environmental Protection (Poland)

11:40-12:00 National programme under NECD: the French experience
Marc Rico, Ministry of Ecology and sustainable development (France)
Benedict Oudart, CITEPA (France)

12:00-12:20 The NEC Directive in context of national economic growth and the Lisbon agenda, climate change policies (including emission trading) and energy policies
Giuliana Gasparini, Ministry for the Environment and Territory (Italy)

12:20-12:50 Discussion
12:50-14:20 Lunch

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CITEPA: Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique
**Afternoon session : A way forward**

**Chairman : Peter Gammeltoft, DG ENV**

14:20-14:50 US Air Quality Management: Approaches and Lessons Learned  
*Jake Schmidt, Center for Clean Air Policy (USA)*

14:50-15:10 EU focus in 2005: CAFE:T/S on air pollution and the NEC review  
*Stefan Jacobi, DG ENV and Alistair Ritchie, ENTEC (UK)*

15:10-15:30 Coffee break

15:30-16:00 Discussion

16:00-16:30 Conclusions
2. Background of the workshop

Problem to be addressed by the workshop

“Plans and Programmes” and “National Programmes” are key obligations under the European Air Quality and National Emission Ceilings directives respectively. Their implementation at local and national level is one of the major tools to improve air quality in the Member States. Assessment of these programmes on a European level is however difficult, since reports on these obligations by the Member States vary and are not easily comparable. There is a need for further guidance and exchange of information on preparing, implementing and reporting of plans and programmes, in particular since the number of open issues is likely to increase further after the accession of the new Member States.

Purpose of the workshop

The workshop was intended to provide a forum to exchange initial experiences on fulfilling these obligations and to communicate to the Member States related EEA and EC activities, as well as the outcome of the workshop on Air Quality Management during IUAPPA World Clean Air Congress in August in London. The Workshop’s objective was to disseminate good practices and facilitate integration of the new Member States. It aimed to focus on how to involve all stakeholders in preparing, implementing and reporting of plans and programmes, among them competent authorities, decision-makers at all levels, industry and NGOs. Issues relating to the coherence of plans and programmes internally and with related policy areas such as climate change could also be addressed.

The major outcomes of the workshop should be further guidance to the Member States, as well as advice to the Commission on potential items to be included in the Thematic Strategy on Air Pollution.
3. Introductory session

Matti Vainio, chairman and co-ordinator of the Clean Air For Europe (CAFE) programme, welcomed the participants and invited them to freely express their views in the informal discussions foreseen. The views would not be regarded as official views of the Member States or bodies to which they were affiliated.

Peter Gammeltoft, head of the unit Clean Air & Transport of DG Environment, said that a major goal of the workshop was to strengthen the links between the EU15 and the new EU Member States in the field of air pollution. Some examples of questions to be discussed were:

- What would be a good mix of measures at the local level and at other levels (including the Community level)?
- How to arrange air quality planning after the limit values have entered into force?
- Are the provisions on Plans and Programmes and National Programmes in the directives useful and effective?

Giuseppe Fumarola, chairman of the European Federation of Clean Air and Environmental Protection Associations (EFCA) emphasized that the legislation brought forward in the last 30 years in this field has made a tremendous impact on the reduction of air pollution, but it has on the other hand introduced constraints through standards, limit values and rules, reducing degrees of freedom where further action is still required. The workshop, he concluded, should provide important outcomes in addressing this issue, so actors on all levels can efficiently continue to combat air pollution.

Gordon McInnes, deputy director of the European Environmental Agency (EEA) viewed the workshop in the context of the agency’s core mission to support the Commission and Member States. He emphasised the strong links that existed in practice between the air quality directives and the NEC directive.

Richard Mills (NSCA and IUAPPA) reported on the outcomes of the Special Conference Managing Urban Air Quality: international perspectives, held the week before on 24/25 August 2004 as part of IUAPPA’s World Clean Air Congress in London. The major concern which emerged in London is that limit values do not always provide adequate health protection. Mills summarized a number of recommendations that had been identified at the Conference which could increase health benefits in Europe and could make air quality management more cost-effective. Several outcomes were reflected also in the other workshop sessions and are integrated in the report below. A report on the conference is available from NSCA (admin@nsca.org.uk).
4. Experiences with Plans and Programmes under the Framework Directive

The major part of the first day was devoted to the experiences with ‘Plans and Programmes’ (P&Ps), set out in Article 8.3 of the Framework Directive 96/62/EC. This article requires Member States to ensure that a plan or programme is prepared or implemented in situations where exceedance of a limit value can be foreseen in or after the year in which the limit value enters into force. After an introduction on P&Ps by the Commission, ten presentations from Member States were given. The presentations and discussions on P&Ps are described below in four themes:

- Setting up procedures that work
- Measures to bring levels down
- Attainment problems
- Reconsidering the system.

4.1 Plans and Programmes: setting up procedures that work

By the time of the workshop, the Commission had received reports on Plans and Programmes (P&Ps) from three Member States, in spite of the requirement for Member States to submit the report before 31 December 2003. It had proven to be very difficult to finalise the P&Ps in time; many were still under development.

In the development of P&Ps, local, regional and national authorities are usually involved. Many presentations explained how these procedures had been set up in a country or region. Collaboration between the governance levels was pointed out to be necessary. One reason was that the regulatory competencies were usually not all at a single level, another reason was that local authorities often had limited resources and limited knowledge of the effectiveness of reduction options. Guidance from ‘higher’ governance levels would be very helpful.

A third reason for collaboration between governance levels was that pollution problems were often caused by sources at the local, regional, national and international scale. As an example, vehicle emission standards had been presented as an international measure upon which you can then locally offer incentive for faster uptake. In order to put an effective package of reduction measures together, one should not only think of measures at a single level. Local authorities should also be aware that they are not only suffering from imported pollution, but are also exporting pollution themselves, thus contributing to the background levels elsewhere. The co-operation between these different levels can still be improved.

The integration of AQ plans and programmes and the NEC emission reduction programme on a regional scale as implemented in some countries has also been presented as an interesting way forward. IUAPPA Conference recommendations for stronger horizontal integration of AQ plans with other policies, such as climate change and economic policies to achieve more effective and cost-efficient solution has also been echoed.

Making the necessary budgets available was often a problem, especially since the actual costs of the air pollution reduction measures are not always easy to determine especially taking into account different assumptions and definitions of “costs”. Who actually pays depends strongly
on the measure taken. It was helpful to involve stakeholders and to show to politicians that they are the owners of air quality problems.

Commission representatives posed the question of what would have happened if the Framework Directive’s provision on P&Ps would not have existed. In the discussion several participants felt that P&Ps are a logical, inevitable consequence of the directive and would accordingly need to be drawn up anyway; others were not sure and needed more thinking about this.

4.2 Plans and Programmes: taking measures to bring levels down

Most presentations showed a variety of measures to improve air quality. For details, the reader is invited to view the PowerPoint files. Some of the measures were still options to be decided upon, others were already being implemented. Most of the measures were aiming at air pollution by traffic, but there were also measures for other source types.

Some measures were aiming solely at improving the air quality at individual locations of exceedance, but most measures presented had a broader scope, addressing other targets as well, notably urban background air quality or total emissions, or other policy issues such as congestion, noise and other environmental issues.

It was interesting to see that a single concept could lead to quite different local implementations, reflecting local circumstances, e.g. difference in infrastructure or regulatory powers. E.g. two cities were banning trucks from the city centre at the opposite time of day.

Commission representatives pointed out that in order to know whether the measures would bring levels below the limit values in time, some better information on the effectiveness of those measures would be needed. This appeared to be difficult; for most measures a quantitative evaluation was lacking. It was noted that quantification is often possible but requires substantial study.

To ensure that measures are properly implemented, it was highly advisable to monitor the progress, using e.g. indicators that characterise the changes brought about. The presentations did however not give much information on this.

Peter van Breugel (NL) mentioned the recent establishment of the ‘CEDR (Conference of European Directors of Roads) air quality group’. He invited Member States that were not yet represented to contact him.

On request the commission representatives pointed out that on the basis of the measured exceedances for PM10 in the year 2003, plans or programmes according to Art. 8.3 FD have to be launched by the Member States and that the same holds true for the measurements in the year 2004, irrespective of the fact that the plans and programmes will be sent to the Commission after the attainment date of the PM10 limit value (2005). Furthermore it was clarified that the key element of action plans according to Art. 7.3 FD consists of describing the actions to be taken in the short term to improve the air quality but that there are no formal instructions how to draw up an action plan.
4.3 Plans and Programmes: attainment problems

Many speakers said they had exceedances situations that were very difficult to tackle. Especially PM$_{10}$ and NO$_2$ caused problems. This was partly due to the high background concentrations (around 50% or more of the limit value), which were beyond the direct control of the local authorities. There were ‘Nimby’ problems (Not In My BackYard), because conflicts of interests often cannot be avoided when measures are taken. An example was reported when even a major move from a polluting power plant to a modern low pollution plant had been halted in court due to a local minor increase of an existing exceedance. There were ‘Not Something I Can Do About’ problems, in the sense that background pollution problems seemed to be beyond anyone’s competency.

The workshop agreed that a suite of measures, encompassing all levels of governance, is needed to abate the most obstinate limit value exceedances. Commission representatives stressed again that, where appropriate, different levels of governance as well as the cooperation between the Member States must be included in the abatement efforts.

The Commission was asked about infringement procedures when limit value is exceeded. Commission representatives explained that it would have a reasonable attitude to Member States that would have demonstrated properly and clearly that they have done all that is feasible, but that it should at the same time be very clear that the Commission must respect the law as well as anyone.

4.4 Plans and Programmes: reconsidering the system

Several participants pointed out that the stringency of limit values tends to be limited by the possible progress at the most polluted hotspots. Although the merits of limit values were clearly appreciated, it would be good to analyse the advantages and drawbacks of the current approach under the Framework Directive, anticipating how the system may evolve, and to think about additional approaches for bringing air pollution down, as possible supplements to the limit values. Some suggestions had been mentioned in the report from the IUAPPA workshop in London, e.g. a gap closure approach. Commission representatives explained that they are considering in this context the possibility of an emission ceiling for particulate matter. Participants from Italy suggested thinking about establishing mandatory requirements for abatement actions together with a relaxation of the limit value (e.g. by postponing entry into force) for the most problematic situations. Commission representatives however commented that at present no derogations, not already foreseen in the AQ legislation, are being considered.
5. Experiences with National Programmes under the National Emission Ceilings Directive

The morning of the second day was devoted to presentations and discussions on the experiences under the NEC Directive 2001/81/EC. Central topics were the reporting experiences, the development of emission inventories and prognoses and the development of national programmes to bring emission below the emission ceilings. The presentations from Member States were preceded by an evaluation of the first reports from Member States by the EEA. The summary of the presentations and discussions below is divided in four themes:

- reporting to the Commission
- progress towards the ceilings
- development of national programmes
- improving the system

5.1 National Emission Ceilings: reporting to the Commission

There were considerable discrepancies in the quality of the progress reports that Member States had sent under Article 8 of the NEC Directive on their emissions and the progress towards the ceilings. The evaluation by the EEA concluded that some reports were reasonably complete, but that there were severe lacks in many reports, with a substantial number of them being submitted after the deadline of 31 December 2002. Few Member States had made clear which of the measures reported were additional, i.e. taken with the specific purpose of attaining the ceilings. Apart from mandatory items missing, there were also many shortcomings in ‘good reporting practice’. The evaluation showed that in many cases the assumptions made for prognoses, uncertainties and synergies between measures had not been addressed. In addition, emission inventories and projections reported under the NECD not necessarily are the same as those used at the local level under Plans and Programmes, which leads to inconsistencies.

It was however stressed that this was a first time for preparing and reporting these programmes under NEC Art. 6 and 8 and that it was done in the absence of clear reporting guidelines.

5.2 National Emission Ceilings: progress towards the ceilings

Based on the reports, the EEA had drawn up a list on how well Member States were on track towards the ceilings. It was noted that this list did not always give the correct picture because it did not include the effect of additional measures that had yet to be adopted. Based on the available information, the EEA concluded that most Member States had problems in attaining one or even several of the ceilings. For NOx and NH3 there were more attainment problems than for the other two substances. Especially for VOC there are important uncertainties.

A problem is that the improvement of emission inventories often lead to higher total emissions, rendering the gap between current emissions and the ceiling (being absolute values) larger than foreseen – this might be an issue to consider in the review of the NEC Directive.
Several speakers said that CAFE’s baseline prognosis was not complete and too optimistic in some cases. Commission representatives emphasised the importance of bilateral consultations between Member States and CAFE to keep the data consistent and up to date.

5.3 National Emission Ceilings: development of national programmes

The speakers presented overviews of emission reduction measures in their country. Similar to the measures relating to P&Ps, there were measures taken already and measures that were still under consideration. A range of different types of measure were shown: permits, voluntary agreements with sectors, economic instruments, product standards, information campaigns. The permitting provisions under the IPPC Directive were mentioned several times as one of the most effective tools. Details can be found in the individual presentations.

In one presentation it was demonstrated how the development and implementation of a national programme, based on the provisions of the national legislation, has been integrated with the AQ plans and programmes on a national as well as on the regional scale.

The national programmes had often been set up to serve the Climate Change targets as well. This was needed not only to increase synergy, but also to identify conflicting measures (e.g. investing in emission trading for Climate Change does not necessarily reduce the national emission; promoting dieselization could reduce CO₂ emission, but increases PM pollution).

It had been very effective to involve stakeholders during the development stage of measures.

5.4 National Emission Ceilings: improving the system

Currently a consultancy study is underway to support the Commission in the review of the NEC Directive; one task is to give recommendations on guidance to Member States concerning the preparation of the national programmes and a harmonised and structured format for reporting these programmes. It was suggested that the Commission might set up international working groups and organise workshops, in order to support the development of national programme, to enhance the capability to make emission prognoses and to improve the reporting practice. The representative of European Chemical Industry Council (CEFIC) offered Member States’s support in improving their VOC inventories and prognoses.

The consultancy study on the NEC review was to include an analysis of the pros and cons of a possible emission ceiling for particulate matter. During the discussions several other possible improvements were brought up. The links with Climate Change should be improved; this is an important goal of the CAFE programme. Commission representatives wondered if the reporting under the NEC Directive and under the Climate Change programme could be merged into a single national report. It was mentioned that a further analysis of the possibilities for emission trading under the NEC Directive could be helpful. Some speakers suggested to reconsider the timetable for the emission ceilings in view of the difficulties to attain these in time.
6. Concluding session: A way forward

USA experience

Jake Schmidt (Center for Clean Air Policy, USA) gave an account of the experience in the USA. There were many similarities between the US system and the approach under the AQ Framework Directive: USA’s National Air Quality Standards have a similar role as the air quality limit values in the EU; Air quality Control Regions resemble the Framework Directive’s zones. But there were also substantial differences. The issue of regional transport of air pollution is now upcoming in the USA, while this is a long-standing issue in Europe. The State Implementation Plan (SIP) in the USA includes both air quality and emissions and is broader and more integrated compared to the P&P required under the EU AQ legislation and, once approved, becomes enforceable as a national or state law. A more elaborated SIP, including additional federal emission caps is required when it is established that emissions are severely contributing to the neighbour’s problems.

Emission trading is a central mechanism for emission reduction in the USA. A striking difference is that the US Environmental Agency has many resources for following and influencing the development and implementation of regional air pollution policies: it has a large staff for reviewing and approving SIPs and has the competence for issuing warnings, giving sanctions and prescribing local abatement measures. US-EPA even has the competence to restrict the funding to single States based on the failure complying with environmental standards.

In response to a question on the effectiveness of emission trading, Jake Schmidt said that there were good experiences particularly with SO₂, but that the system should be tuned to the pollutant and to local conditions.

NEC review

The Commission presented an overview of the NEC review procedure. It was pointed out that the revision of ceilings under the NEC Directive would not be part of this review. The process to revise the NEC Directive will start in 2005/2006. However, apart from the ceilings there are several items in the Directive to be reviewed. A consultancy study had been launched to support the preparation of this review report. ENTEC UK Ltd. will prepare a report early next year. ENTEC gave a presentation on their tasks. The main tasks ENTEC will work on are the following

- In depth analysis of the NEC National Programmes
- Feasibility of an emission ceiling for PM
- A first draft NEC review report and recommendations for the Thematic Strategy on air pollution

In the discussion some participants questioned the usefulness of emission ceilings for particular matter. This was acknowledged but is exactly the reason for assessing the pros and cons of it in the consultancy study.
Final discussion and conclusion

Peter Gammeltoft, DG Environment, structured the final discussion around the following issues.

- **Should our abatement strategy include both local and Community measures?**
  This was agreed without discussion.

- **Should we attempt to link the limit value approach of the AQ Framework Directive with the NEC Directive?**
  There was a general appreciation of the added value when the both pieces of legislations are used coherently and with proper consideration on all governance levels. It was however not evident from the discussion that merging the two issues at the EU level would lead to significant improvement over the existing situation.

- **Can a high background level be an excuse for not acting locally?**
  It was remarked that there are still many uncertainties in scientific knowledge, but on the other hand this should not be an excuse for not acting. There was a suggestion to applying the integrated assessment modelling RAINS on a country scale, as is currently being done in Italy. Commission representatives encouraged to do this, but pointed out that this has to be done under national responsibility.

- **Should we consider a ceiling for methane in the NEC Directive?**
  The question did not lead to a conclusive discussion.

A participant pointed out that a timing problem between NEC ceilings possibly being revised and the next reporting of national programmes in 2006 could emerge. Commission representatives said that this will not be a problem, as it is unlikely that revised ceilings will be adopted already by that time.

Commission representatives sketched the way forward regarding possible further structuring of the reporting of the national programmes under the NEC Directive. After recommendations from the consultancy study on a structured reporting, this could be given shape in the CAFE WG on Implementation and the CAFE Steering Group, after which guidance or a legal decision might follow.

Commission representatives announced a seminar on the dissemination of the CAFE baseline scenario on 27 September 2004 and a workshop on the use of policy instruments to reduce air pollution on 11/12 November 2004 – more information can be found on the CAFE website [http://www.europa.eu.int/comm/environment/air/cafe/](http://www.europa.eu.int/comm/environment/air/cafe/).

Finally, Peter Gammeltoft concluded that the workshop had been a very useful exchange of experiences between Member States, especially between the old and new ones, and between the Member States and the Commission. He thanked the participants for the presentations and for the discussions, views and suggestions.
Annex: List of participants

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*The Ministry of Environment*  
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GREFEN Klaus
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GASPARINETTI Marco
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SPONAR Michel
*European Commission*

JACOBI Stefan
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