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Thematic strategies

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During the last three months the European Commission organised a consultation on its new Thematic Strategy on Air Pollution (TSAP). Strategies aim to detail the direction and options for new policies that may have to be developed. The current TSAP dates from 2005 and primarily focused on streamlining the existing regulations, with new approaches, such as the inclusion of PM_{2.5} regulation. Among the pieces of legislation resulting from it are the Air Quality Directive (2008) and the Industrial Emissions Directive (2010).

The present TSAP, possibly meant for a five-year period, in fact had to bridge eight years, too long a period. In 2005 it was not foreseen that the short-lived climate pollutants (SLCPs), black carbon, ozone and methane, would hold the key positions with respect to both climate change and air quality they presently have.

The EU's Climate Action policy has until now confined itself to CO₂ and F-gases. However, without addressing the emissions of the SLCPs it will appear to be impossible to stay within the agreed maximal two degrees temperature rise which, it is assumed, is necessary to prevent the most disturbing climate risks. Recently, black carbon has been estimated to be the strongest climate forcer after CO₂; there are no signs that it will be addressed soon.

With respect to air quality, black carbon has stronger associations with health risks than PM_{2.5} which, together with the oxidant couple, nitrogen dioxide/ozone is held responsible for considerable excess mortality in Europe.

Unfortunately, the current TSAP did not provide guidance for an integrated approach with Climate Action policies. It is, therefore, unlikely that the proposals for the revised Air Quality Directive and NEC Directive in the 'Year of Air' will contain strong incentives in this direction.

In its response at the TSAP consultation EFCA has pleaded for a **TSPA, a Thematic Strategy for the Protection of the Atmosphere**, rather than the present compartmental approach for climate and clean air policies. A TSPA could include the guidance for regulation which addresses persistent air quality problems. It could, however, make greater focus on the co-benefits with climate objectives a priority and consequently set the stage for furthering cost-effectiveness in future policies.

Developments in EU policy – Air Quality

Health risks assessed

On 31 January this year the World Health Organisation (WHO) presented main results of the “Review of evidence on Health Aspects of Air Pollution (REVIHAAP)”. The REVIHAAP-project had been carried out at the request of the European Commission in the framework of the 2013 review of the European Union’s air policy.

The Air Quality Directive of 2008 is based on the 2005 WHO Air Quality Guidelines (AQGs). At that time associations of respiratory and cardiovascular effects with exposure to PM_{2.5} were sufficiently strong to include PM_{2.5} in the Directive of 2008. The present review reports evidence that it also can trigger atherosclerosis, adverse birth outcome and childhood respiratory diseases. Furthermore, the review also suggests a possible link with neurodevelopment, cognitive function and diabetes.

Over 80 % of Europeans are exposed to particulate matter (PM) levels above WHO’s 2005 Air Quality Guidelines. This on average deprives each citizen of 8.6 months of life.

It has now been found that associations exist between PM_{2.5} and mortality at levels below the current AQGs of 10 µg/m³ as annual average.

The information was presented at a workshop in Brussels on 30-31 January under the title:

“Understanding the Health Effects of Air Pollution: Recent Advances to Inform EU Policies”,

co-organized by the European Commission, the World Health Organization Regional Office for Europe, and the US-based Health Effects Institute.

More information:

<http://www.healtheffects.org/Workshops/Brussels2013/brussels2013-agenda.htm>;

<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/air-quality/publications/2013/review-of-evidence-on-health-aspects-of-air-pollution-revihaap/>

Consultation on Thematic Strategy on Air Pollution

In December last year the Commission announced a Consultation on its Thematic Strategy on Air Pollution (TSAP) for the next period. The present TSAP was adopted in 2005 and meant to serve as guidance the EU’s air pollution policy during the period 2006-2011. In 2011 a two year process was started for an overhaul of the air policy framework which is to be concluded in 2013.

The objective of the consultation is to gather views on the review of the EU’s Thematic Strategy on Air Pollution and on the possible options identified by such review for a comprehensive air pollution policy package that would aim to ensure full implementation of the existing legal framework and make further progress to reduce the negative impacts of air pollution in the longer term. This consultation marks the final stage of a broad consultation on the review of EU air policy foreseen to end in 2013 at the latest.

In an Explanatory Note on the Consultation three key problems which were identified in the review of the present policy framework are discussed:

- Widespread non-compliance with the current air policy legislation
- Incoherence between European legislation and international air quality commitments
- Adequate protection of human health and the environment will not be provided by the current EU air quality policy framework in the future

In an analysis of the main drivers it is admitted that, apart from other reasons, synergies between air pollution and other policies are presently not managed optimally.

The Consultation was open for organisations and citizens from 10 December 2012 until 4 March this year. EFCA responded to the Consultation (see page 11 for details).

More information:

http://ec.europa.eu/environment/consultations/air_pollution_en.htm

Attitudes in EU towards air quality

A Eurobarometer survey has shown that a strong majority of European citizens ask for a stronger EU air quality policy. An average of 56% of Europeans think that air quality has deteriorated in the last ten years; in Cyprus, France, Greece, Hungary, Italy, Rumania and Spain this percentage is between 70 and 80%. Nearly nine of ten respondents believe that air quality related diseases such as respiratory and cardiovascular diseases are a serious problem and nearly four of five think that the EU should take additional measures to address air pollution.

More information:

http://ec.europa.eu/public_opinion/archives/flash_arch_360_345_en.htm#360

Cleaner fuels for shipping

On 17 December the amended EU Directive on the quality of fuels for shipping entered into force. It regulates the sulphur content of fuels as agreed in 2008 within the International Maritime Organisation. In sensitive areas, such as the Baltic Sea, the North Sea and the English Channel maximum permissible S-contents will fall from the present 1.5% to 0.1% as of 1 January 2015. Without such measures SO₂-emissions from shipping were to exceed those from all land-based sources in the EU by 2020. An additional benefit of this regulation is that also emissions of particulate matter will fall considerably.

More information:

<http://ec.europa.eu/environment/air/transport/ships.htm>

Developments in EU Policy – Climate

Low-carbon contest for climate solutions

On 11 February this year Commissioner Connie Hedegaard announced the “World you like Challenge” a contest on low-carbon solutions which could help to reduce global warming. During a period of three months the Commission awaits proposals from citizens and organisations based in an EU Member State.

The proposals will be published on line during May and June and visitors will be able to vote for the most inspiring initiatives resulting in a shortlist of ten projects. A jury which will be chaired by Commissioner Connie Hedegaard will select three winners.

More information:

<https://world-you-like.europa.eu/en/>

Emission trading: saving the ETS

On 24 January the Commission issued an unusual Press release with an urgent appeal from Climate Action Commissioner Connie Hedegaard on Member States with respect to the functioning of the European Carbon Market. She asked them to agree with the proposal of the Commission to backload a new auction of allowances to the second half of the present auction period. The Commission considers an agreement to be essential for continuing the EU’s Emission Trading System.

More information:

http://europa.eu/rapid/press-release_MEMO-13-32_en.htm

Renewable energy projects: €1.2 billion

At the end of last year the Commission awarded the sum of €1.2 billion for 23 demonstration projects for innovative renewable energy. The awarded projects include advanced biofuels, concentrated solar power, geothermal power, ocean energy and smart grids, as well as a number of (off-shore) wind energy projects. This first call did not include a project on CCS; an amount of €275 million remains available for CCS-projects. The projects are part of the NER300 funding programme which is financed in part by the sale

of emission allowances to new entrants to the ETS. Projects are supposed to become operational during 2016-2017. The NER300 fund will provide about 50% of the 'relevant costs', meaning costs which represent the innovative elements of the projects; the part considered as 'proven technology' is to be financed by private investment or national funding.

It was announced that a second call for proposals is being prepared.

More information:

http://ec.europa.eu/clima/policies/lowcarbon/ner300/index_en.htm

Developments at UN level

UNFCCC: Results Doha

On 8 December last year the 19th Conference of the Parties to the UNFCCC closed in Doha. The Commission and the Council consider its outcome as a basis for more ambitious international action against climate change in the short term, paving the way for a new global climate agreement in 2015 while enabling a second period of the Kyoto Protocol from the beginning of 2013.

For the second period of the Protocol the EU has taken on its domestic target of cutting emissions by 20% of 1990 levels in 2020, with the option of stepping up to 30% reduction if conditions are right. The EU could also demonstrate that it is on track with its pledge for a fast start finance of €7.2 billion for the period 2010-2012. Several EU Member States and other countries made pledges for the period 2013-2015.

The Durban Platform for Enhanced Action has been asked to draw up a new global climate agreement with all countries, to be adopted in 2015. In addition, it should identify ways to achieve more ambitious global emissions reductions for 2020, in order to close the gap

between current pledges and what is needed to hold global warming below 2°C.

More information:

http://europa.eu/rapid/press-release_IP-12-1342_en.htm

UN Environment Assembly established

The United Nations Environment Programme recently moved to step up its position in the ranks of the UN. In its meeting in February the UNEP Council established a United Nations Environment Assembly (UNEA). The Assembly status means that all UN Members automatically have a seat in UNEA, different from the construction with a Governing Council. It follows from decisions taken at Rio+20 and means that environmental considerations will be better integrated in the UN system; it is now subject to approval by the UN General Assembly.

Being attached directly to the UN General Assembly Ministers in UNEA are allowed to make strategic and politically important decisions. The better political accountability also implies a stronger funding base of UNEA.

Ultrafine Particles: Sources, Effects, Risks and Mitigation Strategies

16-17 May 2013, Brussels, Belgium

The UFP-series is a joint activity with our German member GUS e.V., the Confederation of European Environmental Engineering Societies (CEEES), and the Karlsruhe Institute of Technology KIT.

The first EFCA symposium on Ultrafine Particles (UFP-1) took place in 2007. EFCA's main reason for this initiative was the uncertainty on preferred metrics for air quality aspects and the protection of human health against the effects of particulate matter. At UFP-4 EFCA aims to assess recent progress.

This year UFP-4 includes a plenary session on the results of the AirMonTech project. AirMonTech (Air Pollution Monitoring Technologies for Urban Areas) is a European research project with the aim to identify trends and new monitoring devices, to set-up a dedicated database for all stakeholders on monitoring metrics and techniques, and to develop a research roadmap for future urban air quality monitoring. The consortium comprises nine partners from leading European research organisations.



Symposium Chairman: Thomas Leisner

PROGRAM 16 May, 09.00 – 18.30

9.00 **Welcome**



AirMonTech Workshop 16 May, 09.10 – 12.30

The program of this session will be published at ufp.efca.net

12.30 **Lunch**

Opening session UFP-4 16 May, 13.45 – 15.00

13.45 **Welcome and Greetings UFP Symposium**

Representatives of the State of Baden-Württemberg, the Ministry for Environment Baden-Württemberg, EFCA and KIT

14.00 **Keynote:** Toxicology and biodistribution of Ultrafines
Flemming Cassee, RIVM, Netherlands

14.30 **Keynote:** Aerosol mass spectrometry, source attribution and secondary aerosols
André Prévôt, PSI, Switzerland

15.00 **Coffee Break**

Monitoring of UFP
Session B
16 May, 15.30 – 16.50

Dresden – An UFIREG project measurement station with an extensive quality assurance program

Susanne Bastian, Saxon State Office, Germany

Ultrafine particles at the regional background in 2005-2010 and down-wind of an airstrip and an industrial area in the Netherlands

Menno Keuken, TNO, Utrecht, The Netherlands

Seasonal and diurnal pattern of particle number concentration and size distribution at traffic exposed, urban background and rural sites in Po Valley, Italy.

Giovanni Lonati, Politecnico di Milano, Italy

Chemical characterization of ultrafine particles in a mid-sized city in the Po valley

Senem Ozgen, Politecnico di Milano, Italy

Health effects
Session C
16 May, 15.30 – 16.50

Ultrafine particles are not major carriers of carcinogenic PAHs and their genotoxicity in size-segregated aerosols

Jan Topinka, Institute of Experimental Medicine, AS CR, Prague, Czech Republic

Air-liquid interface exposure system for in vitro toxicological studies of combustion aerosols in the HICE project

Hanns-Rudolf Paur, ITC, KIT, Germany

Chemical characterization and evaluation of toxicological effects on human bronchial epithelial cells BEAS-2B of fine and ultrafine airborne particles collected in Lebanon

Mireille Borgie, Université Lille Nord de France, Lille, France

Biokinetics of inhaled Ir-192 nanoparticles

Rachel Smith, Nanotoxicology Research Centre Chilton, Oxfordshire, UK

16.50 Coffee Break

Monitoring of UFP
Session D
16 May, 17.10 – 18.30

Comprehensive chemical characterisation of UFPs within the German Ultrafine Aerosol Network

Sebastian Scheinhardt, TROPOS, Leipzig, Germany

Aerosol size distribution clustering and comparison with other air quality parameters in two Spanish cities

Mariola Brines, Spain

Analysis of atmospheric pollution level during the wintertime

Fabian Lenartz, ISSeP, Liège, Belgium

The use of mobile air quality measurements to assess the spatial and temporal variability of urban UFP and BC concentrations

Jan Peters, VITO, Mol, Belgium

Methods and Instruments
Session E
16 May, 17.10 – 18.30

Particle Number PN complementing Particle Mass PM for vehicle engine emission measurement

Andreas Mayer, TTM Technik Thermische Maschinen, Niederrohrdorf, Switzerland

Comparison of UFP concentration and size distribution instruments at an urban site

Jeroen Staelens, VMM, Belgium

Particulate emissions and their control at modern small-scale wood combustion boilers

Hanns-Rudolf Paur, ITC, KIT, Eggenstein-Leopoldshafen, Germany

Micro SOA chamber: a tool for the evaluation of the secondary organic aerosol production potential from wood burning appliances

Alejandro Keller, University of Applied Sciences North-western Switzerland, Windisch, Switzerland

Poster session and Buffet

16 May, 18.30 – 20.00

Chemical characterization of PM in a residential area in Beijing, China. **K. Schäfer et al**, *IMK-IFU, KIT, Germany*

Size fraction determination of tree crown deposited particles in an urban street canyon. **Jelle Hofman et al**, *Univ. of Antwerp, Belgium*

Nanometer particles in the air of Raciborz and Zabrze in Poland during smog episodes in 2010. **L. Ośródko et al**, *IMWM-NRC, Katowice, Poland*

Catalytic stripper technology enables measurement of solid particle size and concentration. **H.-J. Schulz et al**, *Anavitec GmbH, Rosenheim, Germany*

Change of morphology of soot particles by UNECE Reg. 83 treatment. **Tristan Reinisch et al**, *AVL List GmbH, TU Graz, Austria*

Ultraschwarz – Ultrafine particles and health in the Ore Mountains: Annaberg-Buchholz (Germany) and Ústí and Labem (Czech Republic). **Alexander Schladitz et al**, *Saxon State Office, Dresden, Germany*

Effects of traffic congestion and extended idling on heavy duty diesel truck fine particle emissions. **Michal Vojtisek-Lom et al**, *Techn. Univ. Liberec, Czech Republic*

UFIREG project: Ultrafine particles – an evidence-based contribution to the development of regional and European environmental and health policy. **Josef Cyrys et al**, *Helmholtz Zentrum München, Germany*

Monitoring and modelling ambient PM_{2.5-10} in the city of Nijmegen. **Keesjan Valk et al**, *Witteveen+Bos, Netherlands*

On the correlation of black carbon, filter smoke number and particulate matter related elemental carbon measured at large medium-speed 4-stroke diesel engines engaged in international shipping. **Peter Lauer**, *MAN Diesel & Turbo SE, Augsburg, Germany*

New measurement system for PM and ultrafine particles. **Jürgen Spielvogel et al**, *Palas® GmbH, Karlsruhe, Germany*

Modelling the dynamics of ultrafine particles. **R. Guichard et al**, *INRS, Vandoeuvre-lès-Nancy, France*

A new device for unattended long-term measurement of UFP. **M. Pesch et al**, *Grimm Aerosol Technik GmbH & Co KG, Ainring, Germany*

Monitoring of major acidic species in PM₁₀ particle fraction in Zagreb air, Croatia. **Mirjana Čačković et al**, *IMI, Zagreb, Croatia*

Development towards a German national aerosol standard for number concentrations of soot particles in PTB. **Andreas Nowak et al**, *PTB, Braunschweig, Germany*

Particle number (N) and black carbon (BC) in current urban air quality networks in Europe. **M. Viana et al**, *IDAEA-CSIC, Barcelona, Spain*

End of first day

Programme 17 May, 09.00 – 15.30

Keynote session 17 May, 09.00 – 10.10

09.00 **Keynote:** Sources, Formation Mechanisms and Physicochemical properties of UF
Constantinos Sioutas, USC, Los Angeles, USA

09.35 **Keynote:** Ultrafine particles and neurodegenerative diseases
Roel Schins, IUF Düsseldorf, Germany

10.10 **Coffee Break**

Methods and Instruments/Emission sources

Session G
17 May, 10.40 – 12.00

Miniature electrical aerosol sensors for the measurement of lung-deposited surface area
Martin Fierz, naneos particle solutions GmbH, Windisch, Switzerland

UFP measurements at indoor and outdoor microenvironments
Giovanni Lonati, Politecnico di Milano, Italy

Fugitive fine and ultrafine particle emissions from steelworks: source characterization and ambient air mapping with a mobile laboratory
Frank Drewnick, Max Planck Institute for Chemistry, Mainz, Germany

Evolution of morphology and chemical composition of fine particles emitted by a Fe-Mn metallurgy plant during the NANO-INDUS campaign
Alodie Blondel, Université du Littoral Côte d'Opale, Dunkerque, France

Modelling and Dynamics of UFP

Session H
17 May, 10.40 – 12.00

On the Spatial Distribution and Evolution of Ultrafine Aerosols in Urban Air in Barcelona, Spain
Manuel Dall'Osto, IDÆA-CSIC, Barcelona, Spain

Modelling of particle number size distribution over Europe with chemistry transport model LOTOS-EUROS
Astrid Manders-Groot, TNO, Utrecht, the Netherlands

Short-term urban and residential monitoring of UFP concentration and size distribution
Patrick Berghmans, VITO, Mol, Belgium

Number concentrations and dynamics of airborne nanoparticles in cities
Prashant Kumar, FEPS, University of Surrey, Guildford, United Kingdom

12.00 **Lunch**

Emission Sources
Session I
17 May, 13.00 – 14.20

Size-resolved particle emission factors for individual ships

Asa Hallquist, IVL, Gothenburg, Sweden

Influence of diesel engine operating parameters on the physicochemical properties of emitted soot particles

Wolfgang Mühlbauer, LTTT- BERG, University of Bayreuth, Germany

Ultrafine particle emissions from residential combustion in Europe and their dependence on fuel quality and appliance type

Hugo Denier van der Gon, TNO, Utrecht, The Netherlands

Release of engineered nanoparticles during waste incineration –stability of nanoparticle agglomeration in flames–

Inge-Maria Liesen, ITC-KIT, Germany

Epidemiology and Indoor Air
Session J
17 May, 13.00 – 14.20

Exposure of schoolchildren to UFP and other traffic-related air pollution: the HEAPS study

Martine Van Poppel, VITO, Mol, Belgium

Selection of key ambient particulate variables for epidemiological studies - applying cluster and heatmap analysis as tools for data reduction

Josef Cyrys, Helmholtz Zentrum München, Neuherberg, Germany

Indoor and outdoor ultrafine particles levels in primary schools in Barcelona

Ioar Rivas, CREAL and IDÆA-CSIC, Barcelona, Spain

Dangerous contamination in inns, even in designated non-smoking rooms

Manfred Neuberger, Austrian Academy of Sciences, Medical Univ. of Vienna, Austria

Closing session

Session K

17 May, 13.00 – 14.20

14.50 **Keynote on behalf of the European Commission**

15.20 **Closing Remarks**

15.30 **Closure**

Venue

Representation of the State of Baden-Württemberg at the EU

Rue Belliard 60-62

B-1040 Brussels

Conference chairman

Thomas Leisner

Karlsruhe Institute of Technology (KIT)

Social Programme

A conference buffet has been arranged on 16th May at 18.30.

Conference secretariat

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Registration and Accommodation

A Registration and Hotel Booking Form and further details will be available at ufp.efca.net

Air Protection 2013

Šibenik, Croatia * 9-14 September 2013

First announcement and Call for papers

Hosted by:

In cooperation with:



**Croatian
Air Pollution
Prevention
Association**



**Institute for
Medical Research
and Occupational
Health**



**Croatian
Meteorological
and Hydrological
Service**



EFCA

Call for Papers - TOPICS

1. Managing air quality – inspection and control
2. Pollution emission into the atmosphere
3. Outdoor air pollutants - immissions
4. Developing and testing measuring methods
5. Estimating exposure and impact on health and the environment
6. Asbestos in the air
7. EFCA session on „Black Carbon Particles “

Abstracts are to be sent as an attachment to:

sazeci-zrak2013@huzz.hr in the following form: surname_name_abstract_X (X marks the number of the contribution if the first author is sending more than one abstract)

The deadline for submission is **17 May 2013**.

More information: http://www.huzz.hr/skupovi_eng.html

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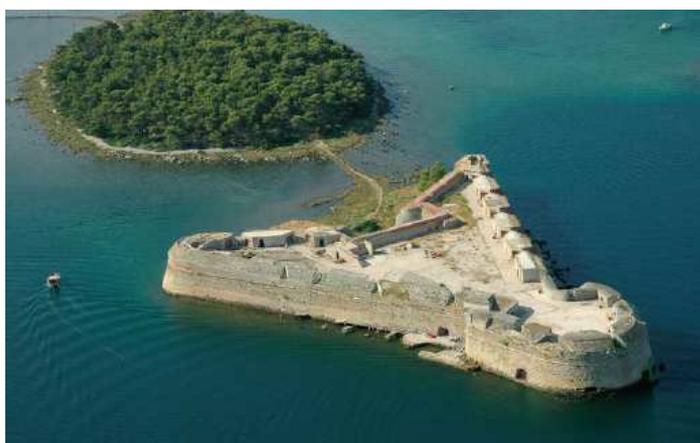
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Short news

EUROVI regulation takes effect

On 31 December of last year the stricter standards for heavy vehicles, known as the EUROVI regulation will take effect for new types. Upon complete penetration of the new models on the market EUROVI means an emission reduction of 80% for nitrogen oxides and 66% for particulate matter. The regulation introduced also world-wide harmonised test procedures and standards which will improve the export position of European producers.

EEA reports

Risks of increased flooding

Increased flooding is likely to be one of the most serious effects from climate change in Europe over coming decades. The European Environment Agency (EEA) has now made estimates of this risk for Europe's major cities.

While the climate in the South of Europe has become dryer due the climate change the more Northern parts of Europe have seen more heavy rains in the last decades. During heavy rain, cities may be flooded if the water cannot drain quickly into the ground and the sewage system in cities cannot cope with the amount of water. Cities have

a high percentage of impervious surfaces such as buildings, concrete or asphalt, where the soil is 'sealed'. In 2011, extremely heavy rainfall in Copenhagen caused widespread flooding and insurance damages alone were estimated at € 650–700 million. However, around 60% of the area of Copenhagen is sealed, less than many other cities. Information on percentage of sealed surface has now been collected for the major cities in Europe in an online mapping tool, as part of the [Eye on Earth](#) project and published 1 March 2013. The map also shows other indicators of climate change, such as number and length of heat waves. It is interesting to note that green spaces in cities which better cope with heavy rains also have a cooling effect during heat waves.

Road user charges for heavy goods vehicles (HGV)

In this report, the European Environment Agency (EEA) presents updated estimates of the external costs of air pollution for different categories of heavy goods vehicles (HGVs). This report on road transport is a continuation of previous reporting from EEA on estimates for the external costs of air pollution from industrial facilities (EEA, 2011). The estimate of health costs due to transport by heavy lorries is €45 billion.

Technical report No 1/2013, published 28-02-2013

<http://www.eea.europa.eu/publications/road-user-charges-for-vehicles>

News from EFCA

EFCA's input in TSAP consultation

The European Commission recently organised a Consultation on a revision of the Thematic Strategy on Air Pollution (TSAP). In line with its earlier Policy Initiatives, EFCA responded at the extensive questionnaire and added its recommendations.

An 'EU Staff working paper' on the Consultation had already listed some pressing problems:

- Many Member States have difficulty to comply with present air quality requirements;
- Present air quality requirements, if complied with fully, will not prevent serious health effects across Europe;
- Coherence with other policy terrains needs improvement.

In order to collect advice on effective future approaches a list of questions had been composed, some of these rather specific. EFCA answered these questions as far as it has

organised its access to relevant expertise available in our Member associations and within the scientific community at large. It avoided, however, taking position in politically sensitive issues: though, obviously, EFCA stands sympathetic towards better air quality across Europe, policies have to be balanced with priorities on other policy terrains and EFCA has no mandate for that. There is one exception: the balance between air quality objectives and climate objectives. EFCA sees opportunities here to improve internal consistency, cost-effectiveness and compliance of the EU's policy and regulation on atmospheric topics.

Compliance

In relation to this problem EFCA pointed to the fact that an effective air quality policy requires that the sources of the pollutants are well defined. For particular matter, which is addressed by 'container metrics' PM₁₀ and PM_{2.5} this condition is not met. Consequently, national, regional and local authorities miss essential guidance on how to reach compliance. EFCA has recommended to develop a source-oriented approach for the PM-mixture.

Interaction between air pollution and climate and energy policy: SLCPs

At the questions on possible complementary action in the EU to curb emissions of short-lived climate pollutants (SLCPs) EFCA has taken a strong positive position, both for black carbon and ozone and its precursor methane.

Black Carbon (BC) is important for air quality and climate change and should be monitored, rather as total or elemental carbon (TC, EC) which can be unambiguously measured; a CEN-standard for the method is upcoming. Its emissions should be reduced by source related measures.

The urgency to address global warming also provides a strong additional motive for tightening present policy on ozone, seeking cooperation in wider frameworks, in particular the UN-ECE Convention on LRTAP and the Climate and Clean Air Coalition (CCAC).

In a further comment EFCA made the observation that the question of the SLCPs demonstrates a defect in the EU's policy development process on atmospheric problems. "Interaction" between air pollution and climate change may help but does

not guarantee optimal results. EFCA rather recommends its "One-atmosphere" approach: addressing atmospheric problems in an integrated way. The European Commission could make a start now by developing a TSPA: a **Thematic Strategy for the Protection of the Atmosphere**, rather than continuing the separate approaches on Climate Action and Air Pollution.

Adequate protection of public health

The preferred protection level against air pollution and the extent to which compliance is presently possible are related questions; in particular they come together when considering present PM regulation.

In its response EFCA made the observation that particulate matter represents a mixture of particles which vary with respect to source, size, shape, chemical composition, atmospheric behaviour, interaction with gaseous pollutants and impacts on health and environment. While for gaseous pollutants a body of knowledge exists which allows addressing them in policy by pollutant or family of pollutants, particulate matter is addressed as PM, a container notion, specified to size only, and that still incompletely.

Present knowledge is insufficient for a comprehensive approach, like that for the conventional gaseous pollutants. However, progress is being made with unravelling the PM-mixture with possible consequence for the AAQD. There is concern about health impacts of ultrafine particles (UFP, 10-100 nanometer) because of their size. Black carbon particles (BCP) from combustion processes constitute a major fraction of UFP. By introducing regulation for BCP, as recommended by EFCA, UFP may be addressed to a major part; BCP-reduction policy is anyway a no-regret option as it has additional benefits as a carrier of other toxic compounds and as a climate forcer.

For health protection, future additional action on UFP-emission reduction may prove to be necessary. This could take the form of addressing particle number concentrations (PNC) as already included in the Regulation on emissions from road vehicles. The TSAP should pave the way for this and/or other approaches by including the intention to collect scientific information and stimulating research which could fill present gaps in knowledge. Its outcome may provide arguments

for one or more additional metrics of particulate matter in the AAQD.

A BCP-policy is also likely to reduce emissions of heavy metals. Also here, this may not be sufficient to address health risks adequately, in particular at hot spots such as near metallurgical industries. The latter risks may be covered through source-oriented regulation (Ind. Pollution Directive).

Conclusion

The need for an integrated approach of the two major atmospheric problems, air pollution and climate change, is apparent since a number of years. In 2012 existing high level political agreement was made visible by establishing the Climate and Clean Air Coalition (CCAC). A logical step by the Commission in the policymaking process would be to prepare a Thematic Strategy on the Protection of the Atmosphere, rather than continuing the separate approaches on Climate Action and Air Pollution.

IIASA reports have estimated considerable co-benefits of the Energy Package 2008 for air quality. Given the present separate approach, the new TSAP should make it a top priority then to develop air pollution policies which tend towards CO₂-neutrality or rather deliver to climate action objectives. The present economic situation in Member States requires, more than ever before, that policies deliver co-benefits for reasons of cost-effectiveness.

The authoritative report of WMO-UNEP, published in 2011, has pointed at the short-lived climate pollutants (SLCPs). Addressing emissions of (precursors of) these SLCPs is essential to stay within the 2°C temperature rise, in addition to the projected reduction of CO₂-emissions. The TSAP should prepare for a strong air pollution policy on these components which will improve air quality within Europe while delivering co-benefits for climate objections.

Calendar

CfP = Deadline Call for Papers
European Climate Change Adaption Conference –
Integrating Climate into Action
18-20 March 2013, Hamburg, Germany
(<http://www.eccaconf.eu>)

Cercl’Air Full EFCA Member

The Swish association Cercl’Air, which already participated in EFCA as Observer, has been awarded Full Membership status by the Assembly. The new status has taken effect from the beginning of this year.

Two EFCA conferences in 2013

With two EFCA events and IUAPPA’s World Clean Air Congress the agenda for scientists and professionals involved in atmospheric topics is well filled. We refer to pages 5-10 for details on the events of GUS and CAPP and their partners.

IUAPPA World Clean Air Congress

In September/October 2013 the South African organisation NACA will host the 16th World Clean Air Congress in Cape Town under the motto: Many Nations - One atmosphere: Plotting the Path to Sustainability. The motto reflects the shift of the series to integrated approaches, covering air pollution, climate change, biodiversity and ecosystem services and the international infrastructure for cooperation. At the same time, the Congress keeps its traditional role as platform by excellence for international exchange on all aspects of air pollution research and policy.

The Call for Papers was launched in September and abstracts are to be submitted before 31 March 2013. Further details are to be found at: www.iuappa2013.com.

The 3rd Annual European Raw Materials Conference
19 March 2013, Brussels (www.rawmaterials-conference.eu)

Advanced Diesel Particle Filter- and deNO_x-
Technologies - Impact of Biofuels

22 March 2013, 4th VERT Forum, Dübendorf, Switzerland

Registration by e-mail: ttm.a.mayer@bluewin.ch

European Geosciences Union General Assembly 2013
7-12 April 2013, Vienna
(<http://meetingorganizer.copernicus.org/EGU2013/session/11589>)

4th International EFCA-symposium on Ultrafine Particles
Brussels, 16-17 May 2013. Hosted by GUS and KIT
(www.efca.net)

International Conference Climate Change and Regional Response
27-29 May 2013, Dresden, Germany
(<http://www.regklam.de>)

9th International Conference on Renewable Resources & Biorefineries
5-7 June 2013, Antwerp, Belgium
(www.rrbconference.com)

17th ETH Conference on Combustion Generated Nanoparticles
23-26 June 2013, Zürich, Switzerland
(www.nanoparticles.ethz.ch) CFP: 12-04-2013

IRENEC – 3rd International 100% Renewable Energy Conference
27-29 June 2013, Istanbul, Turkey
(www.irene2013.com)

Environment and Health – Bridging South, North, East and West. Conference of ISEE, ISES and ISIAQ
19-23 August 2013, Basel, Switzerland
(<http://www.ehbasel13.org>).

33rd NATO/SPS ITM on Air Pollution Modelling and its Application
26-30 August 2013, Miami, USA (www.int-tech-mtng.org).

8th Croatian Scientific and Professional Conference: Air Protection 2013
9-14 September 2013, Šibenik, Croatia
(http://www.huzz.hr/skupovi_eng.html) CFP: 27-05-13

21st International Conference on Environmental Indicators
23-26 September 2013, Trier, Germany
(<http://www.biogeographie.uni-trier.de>). CFP: 31-01-2013

3rd Low Carbon Earth Summit-2013
26-28 September 2013, Xi'an, China
(<http://www.lcesummit.com/>)

16th IUAPPA World Clean Air Congress
29 September -4 October 2013, Cape Town, South Africa, hosted by NACA (www.iuappa2013.com) CFP: 31-03-2013

IAQ 2013 – Environmental Health in Low Energy Buildings
15-18 October 2013, Vancouver, Canada
(<http://www.ashrae.org/membership--conferences/conferences/ashrae-conferences/iaq-2013>)
CFP: 15-12-2012

EVS27 – 29th Electric Vehicle Sector conference
17-20 November 2013, Barcelona
(<http://www.evs27.org/>) CFP: 15-02-2013

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EFCA

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Newsletter

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