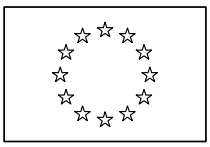

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 9.6.2004
COM(2004) 416 final

Volume II

TECHNICAL ANNEXES

to the Communication of the Commission on the European Environment and Health Action Plan 2004-2010

TABLE OF CONTENTS

ANNEX I : ACTIONS DURING 2004-2010

Improve the information chain by developing integrated environment and health information

The integrated environment and health information will be built upon three pillars:

– Monitoring of health using indicators to specify information needs and produce comparable data, in particular concerning the four priority diseases and disorders (childhood respiratory diseases, neuro-developmental disorders, cancer and endocrine disrupting effects);

To know the scale of a health problem, we need to know how many people are affected. This **information need** can be specified more precisely in the form of **indicators**: an example would be 'incidence of chronic obstructive pulmonary disease in Europe'. Once the relevant indicator is identified, we can identify whether the **data** required to implement it are available, in a sufficiently comparable way, and initiate or modify the relevant data collection.

– Monitoring of the environment and the various routes through which people are exposed, using appropriate tools to convert data into relevant human exposures taking into account the multi-causality of disease and the wide range of environmental factors (physical, chemical, biological, life-style and socio-economic) that may be involved in the disease process;

Ambient air monitoring gives concentrations of pollutants in the air we breathe. But to know how much pollution is taken up in our bodies, we need to know how long we spend outdoors, at what times of the day, how much we tend to inhale, and so on.

– Targeted biomonitoring of humans when justified by specific concerns relating to environmental exposure or health indicator outcomes.

For example, monitoring might indicate that significant exposure of a population may be occurring. Biomonitoring can then verify the actual exposure and so provide better evidence for guiding appropriate responses.

The Commission will work closely with Member States and the relevant international organisations to support and develop the necessary measures. The Commission will be careful to build on initiatives at EU level (such as the CAFÉ programme[1] which monitors air pollutants and the Health Information System developed under the Public Health Programme 2003-2008) and in the Member States.

[1] Clean Air for Europe.

The specific actions 1-4 are detailed below:

Action 1: Develop environmental health indicators

Health indicators specify the data needs on disease occurrence, for those diseases which are significant public health problems, and for which the environment plays a significant causal role.

STATE OF PLAY ON THE FOUR PRIORITY DISEASES

Asthma and allergies indicators have been reasonably well developed by international (ISAAC) and European studies (European Health Respiratory Survey). A new European project (IMCA) will establish indicators on asthma and chronic obstructive pulmonary diseases related to the ECHI[2] list. Data on allergies and asthma are currently collected through these different studies in a somewhat heterogeneous way, and the results are gathered by the Commission.

Cancer related indicators are well developed, and the related data collection is reasonably well established through the network of IARC (International Agency for Research on Cancer). The remaining challenge is to strengthen the links between these health indicators and relevant environmental indicators.

For neurodevelopmental disorders and endocrine disruption effects we are much less advanced. Research is needed to identify the health outcomes related to endocrine disruption, and those neurodevelopmental disorders particularly linked to environmental factors. Further, harmonisation of diagnostic criteria for neurodevelopmental disorders is needed.

The indicators will be developed as follows and will be reviewed periodically :

2004: The EU-supported WHO ECOHEIS[3] project will produce its final report with a set of health indicators in October 2004. These will be evaluated with a view to their application at EU level.

2004: Based on this evaluation, recommendations will be made for the inclusion of relevant indicators of health outcomes (on the short list of health indicators being developed under the Community health indicators process)[4].

2005 : The data collection required to make the agreed indicators operational will be organised through the Public Health Programme in full consultation with all parties concerned and using, where necessary, the Community Statistical Programme to promote synergy and avoid duplication. The Commission will work with the Member States to improve the quality, comparability and accessibility of the relevant health data, taking into account the existing data sets of the EEA, WHO, Eurostat and the connected national statistics institutes.

---

2 European Community Health Indicators" funded project, from October 2001 to July 2004.

3 European Community Health and Environment Information System.

4 Through ECHI and the Health Indicators and Environment and Health Working Parties established within the public health programme.

Action 2: Develop integrated monitoring of the environment, including food, to allow the determination of relevant human exposure

To determine exposure, we must identify the environmental factors known or suspected to be the most detrimental to health, and integrate monitoring of their concentrations in the various environmental media. The Commission has launched a review of monitoring and reporting within environment policy, and is preparing a number of Thematic Strategies on key environmental media such as air, soil and the marine environment. These Thematic Strategies, to be proposed in 2005, will pinpoint the parameters relevant for human exposure which should be monitored, and will adjust monitoring requirements as necessary to improve exposure assessment. In addition, there is a need to consider exposure through food (as one of the potential exposure routes) and seek to improve the communication between health, food and environment professionals. The programme for carrying out this action will be as follows:

2004: An inventory of existing environmental monitoring exercises will be prepared and priorities selected on the basis of all available information,

2004-2005: The existing state of exposure assessment will be examined to identify whether sufficient information is available on the relevant environmental factors, and any recommendations for change will be integrated into the overall review of environmental monitoring and reporting.

2004-2005: In cases of relevance to contaminants and residues in food, environmental monitoring will be adjusted as necessary. Where a priority environmental factor related to food is identified, this aspect will be taken into account as far as possible in the management of the food monitoring tools deriving from food legislation.

The Commission will ensure full involvement of environment, food, health and research experts, Member State authorities and relevant stakeholders, and will co-operate closely with the EEA. It will ensure that recommendations made in the Technical Working Group Reports which have contributed to the development of this approach are taken into account.

The information on route-specific exposures will be combined into an integrated exposure assessment. Furthermore, the Commission will evaluate how biomonitoring can complement exposure assessment.

Action 3: Develop a coherent approach to biomonitoring in Europe

Human biomonitoring includes monitoring of biomarkers in e.g. blood, hair, urine that are indicative of *environmental exposures, diseases* and/or *disorders* and *genetic susceptibility*, and their potential relationships. Biomonitoring is not an automatic instrument, which can be considered in isolation, but has to be integrated with environmental monitoring, toxicological and eco-toxicological data and especially with considerations related to analytical epidemiology.

In different Member States, a substantial number of biomonitoring projects are running and significant resources are devoted to these efforts[5]. Similar aspects are addressed in nearly all countries: exposures to heavy metals, dioxins & PCBs and outcomes, such as asthma, allergy and neurodevelopmental disorders. However, most of these relate to research projects established with different scientific goals and different methodologies, and it is therefore difficult to compare the data generated by these projects. Moreover, data collected under research actions are often permitted under a limited remit and may not be available for more general biomonitoring activities.

Coordination of the ongoing biomonitoring activities in Europe will contribute to better data comparability between countries and will allow a better integration of information by bringing together available knowledge and by actively promoting exchange of experiences between teams and countries. It will also enable a more effective use of resources through shared development of tools and strategies.

When there is an indication of a link between an environmental stressor and a particular health outcome, human biomonitoring can provide public authorities with a more comprehensive view of *actual exposure*. This can guide them in the development of regulatory strategies for disease prevention and exposure reduction measures, provide a warning signal on urgency, allow follow-up of the efficiency of reduction strategies and allow the development of policies which take into account geographical variation.

EXAMPLE: Cotinine is a metabolite of nicotine that can be measured in blood and urine. Cotinine levels are used to track exposure to environmental tobacco smoke (ETS) among non-smokers and to estimate exposure to ETS in every day-life situations on an individual basis and also on children. Higher cotinine levels indicate more exposure to ETS, which has been identified as a human carcinogen.

The Commission is fully aware of the difficulties and limitations of biomonitoring, such as agreeing harmonised and validated criteria and methods both for carrying out the biomonitoring and interpreting the results; recruitment of the study population, logistics, ethical issues, collaboration among disciplines, adequate dissemination of results and reporting to the relevant authorities etc. The Commission also recognises that the returns of biomonitoring must be cost-efficient. Therefore, a step-by step procedure is proposed, working in close co-operation with the Member States at every stage.

2004-2007: The Commission will set up a multidisciplinary working group (WG) to develop a coordinated approach for biomonitoring based on existing expertise and experiences. The WG will examine the range of objectives of biomonitoring and identify those which are suitable for an EU approach. It will start from the experiences available in Member States' surveillance programmes and results from research[6]. It will also benefit from knowledge generated in other fields, such as

[5] See Baseline Report on http://europa.eu.int/comm/environment/health/index_en.htm.

[6] The German strategy of biomonitoring surveys may, among others, provide input for successful harmonisation of monitoring programmes within Europe. Previous and ongoing research programmes will provide information on successful applications of monitoring activities e.g. through information exchange platforms, expert working groups.

occupational health, which use biomarkers in their preventive activities[7]*. Synergies with other international activities, like those carried out by the WHO, the Healthy Environments for Children Alliance and the US National Children's Study will be pursued.*

2006- : To test the approach developed, the Commission will launch a European Pilot Project in collaboration with the Member States. This project will develop the necessary tools for coordination, identify possible problems and facilitate the establishment of collaboration networks and the sharing of methodologies.

2004-2007: The Commission will identify how biomonitoring results can be integrated most effectively with environmental monitoring data, and will develop strategies for communicating biomonitoring results so as to allow for adequate response.

Action 4: Enhance coordination and joint activities on environment and health

In most Member States, responsibilities for health and environmental protection are vested in different ministries. Differences in background, training, vocabulary and priorities can make it difficult to achieve effective cooperation and joint action. This lack of communication is one of the main obstacles to a more effective exposure reduction policy.

2004 onwards :

– *The Commission will work to promote continued exchanges between health and environment authorities and stakeholders at EU level, including through the Consultative Group*

– *Where appropriate the Commission will support exchanges between health and environment authorities and stakeholders organised at Member State level, for example by promoting best practices.*

Fill the knowledge gap by strengthening research on environment and health and identifying emerging issues.

Since the early nineties the European Research Framework Programmes have devoted significant resources to environment and health research. Together with national research programmes they have contributed significantly to European knowledge on environmental stressors and their relation to health. The Joint Research Centre (JRC) of the Commission further supports this work by undertaking activities on environmental quality, chemicals, risk assessment methodology and reference materials and standardisation. However, the information remains somewhat fragmented and better integration is needed, as well as a strengthening of the interface between results and policy development.

---

[7] Experiences from occupational health biomonitoring programmes and studies may be useful: the same procedures may be applied, at however different exposure levels, and the same institutions may be involved.

The specific actions 5-8 are detailed below:

Action 5: Integrate and strengthen European environment and health research

The aim is to analyse and make full use of the results from the projects, networks and clusters funded under the EU and national research programmes in policy development. The activities will aim to strengthen networking between researchers, policy makers and stakeholders in order to facilitate the transfer of scientific knowledge to policy development, to exchange ideas about best practice and to help identify emerging issues on environment and health.

In addition, the part of the 6th Framework programme on strengthening the foundations of the European Research Area provides for activities intended to step up research co-ordination, and to support the coherent development of research and innovation-stimulation activities in Europe.

2004-2006: The Commission will

– *analyse the final results of relevant Community funded research projects, and ask the Member States to provide an analysis of relevant national initiatives, with a view to ensuring that these research results are taken into account in policy making.*

– *aim to consolidate ongoing research results in the priority areas (e.g. actions on allergies and on national endocrine disrupters test strategies).*

– *organise together with the Member States, European Conferences on Environment and Health to highlight the research results achieved in different priority areas and their relevance to policy development.*

The importance of integrating and exploiting research results for policy development: The FP5[8] Thematic Network PINCHE (Policy Interpretation Network on Children's Health and Environment) focuses on air pollution, noise, neurobehavioral and developmental toxicants and environmental carcinogens. Its main objective is to improve quantitative health risk assessment in different human development periods and to investigate the use of biomarkers in the process of risk assessment. The network clearly demonstrates the relevance and need for such integration and reinforces the transfer of know-how and information from research to policy development. (http://www.pinche.hvdgm.nl)

Action 6: Target research on diseases, disorders and exposures

The aim of this action is to improve knowledge of the links between environmental exposures and the four priority diseases and to strengthen the integration of the research results into relevant policy measures.

[8] EU Fifth Framework Programme.

Envirogenomics - the analysis of environment/gene interactions - to improve understanding and prevention of childhood asthma: The Childhood Asthma Envirogenomics (CASE) initiative works to identify sub-groups particularly susceptible to asthma, and examine the genetic components of asthma risk. CASE aims to help us understand the reasons for the large regional differences in asthma incidence across the EU, which are not consistent with the geographical distribution of the known environmental risk factors. It will strive to provide a clear scientific opinion on the importance of specific risk factors to supplement existing evidence**.**

2004-2006 the Commission will address:

- *the causes of **asthma and allergy** focusing on complex interactions, such as changes in the environment and lifestyles;*

- *the causes and mechanisms of **neuro-immune disorders**, identifying genetic and environmental risk factors, and identifying genetic and environmental factors leading to the development of dyslexia in children;*

- *the development of European networks to promote research into uncommon **cancers**, the identification of gene-environment interactions involved in the development of cancer in high-risk populations, and the definition of prevention strategies;*

- *the effects of exposure to metals in the environment and particularly those ingested from food related sources. Sources of human exposure to metals should be assessed, including via uptake by plants grown on contaminated sites. Research should also focus on individual susceptibility.*

Action 7: Develop Methodological Systems to analyse interactions between environment and health

The classical scientific approaches currently applied in toxicology and risk assessment to analyse the complex interactions between environmental factors and human health may not always be the most appropriate. Therefore, research into the adequacy of current risk assessment and possible development of new methodologies are needed to assess better the risks coming from environmental factors, and to improve economic valuation and impact analyses of prevention strategies. In addition, the knowledge obtained in this action will strengthen and support the implementation of Technology Platforms (e.g. “sustainable chemistry”).

Developing economic valuation for Environment and Health impact : Externalities are those costs that are usually not taken into account in production and consumption,. The health cost of pollution from traffic is an obvious example. The project EXTERNE is looking at impacts on Environment and Health of emissions from urban transport or electricity generation. The project RED (Review of Externalities Data) established a database of available external costs, highlighting advantages and drawbacks of the methods used. The METHODEX project is developing policy tools that will allow these figures to be made suitable for wider application. http://www.red-externalities.net

This Action aims to establish (a) a methodological system to develop risk assessment methodologies including externalities and (b) a methodological system for harmonisation and validation of these methods.

a) Methodological system to develop risk assessment methodologies including externalities

This action will develop methodologies and tools for risk assessment designed to address the multi-causality of disease and the complexity of interactions between environment and health. In addition, it will strengthen the research base for the development of integrated exposure models to estimate environmental and human exposure to mixtures of environmental risk factors. It will also stimulate and support the development of models for integrating risk assessment and economic valuation. This will be done in close cooperation with the Community scientific bodies in charge of risk assessment.

Supporting development of risk assessment methodologies in relation to chemicals: The FP5 Cluster for Research on Endocrine Disruption in Europe (CREDO) is expected to provide well-founded conclusions on whether and how effects of single and combined endocrine disrupters should be considered in an integrated risk assessment scheme for humans and wildlife. (http://www.credocluster.info).

2004-2006 : The Commission will address :

– *the development of Integrated Risk Assessment methodologies and models for evaluating cumulative effects, interaction between stressors and their influence on human health.*

– *the development of methodologies, techniques, and models to address complexity in environment/health interactions (multi-causality of disease, toxicogenomics, low dose, long-term exposure, combined effects, etc).*

– *the development of accounting frameworks incorporating externalities associated with various environmental stressors, the assessment of health related externalities, and definition of sustainability thresholds.*

– *the extension and validation of methods and tools for environment and health impact assessment, cost/benefit analysis and the identification of sources of pollution.*

– *the health benefits of food assessed against the health risks of potential environmental contaminants.*

b) Methodological system for harmonisation and validation of the methods

This action aims to stimulate the creation of networks for harmonising and validating methodologies and tools. The research activities should provide measurement instruments to support epidemiology through the development of reliable biomarkers for exposure, effects and susceptibility.

2004-2006 : The Commission will address :

– *the reinforcement of European networks to foster co-operation and data exchange between environmental monitoring institutes and related regulatory bodies.*

– *the development and validation of technologies and diagnostic tools (e.g. biomarkers and biosensors) addressing real-life exposures.*

– *the harmonisation and validation of risk assessment methodologies putting emphasis on exposure assessment and the production of standards and reference materials.*

– *the facilitation of networking of researchers, policy-makers and other stakeholders to disseminate best practice and validate decision-support tools.*

Action 8: Ensure that potential hazards on environment and health are identified and addressed

To ensure that potential hazards or emerging issues on environment and health, not covered by the first cycle, will be identified and taken into account, the Commission proposes to establish a mechanism to provide early assessments of emerging issues and ensure rapid follow-up. This will call for co-operation with the WHO, the EEA and the Member States to ensure wide coverage and it is closely linked to Action 5.

In recent years, Europe has been affected by **extreme weather events**, including flooding, wind, and extreme temperatures. The heat wave which hit several Member States during the summer of 2003 has led to particular concerns. These extreme weather events can have important health impacts, in particular for vulnerable populations such as the elderly, children, and socially excluded groups. The health sector has a responsibility to be prepared to deal with these extreme events. Moreover, there are a number of issues where research is needed to verify the extent of potential health risks and a mechanism is needed for identifying and addressing new risks to health as they emerge.

2004-2006: The Commission will work with Member States and international organisations, notably the WHO, to

– *explore how health sector planning and preparation can be improved for future extreme weather events, and actions can be better targeted and evaluated.*

– *facilitate rapid assessment of emerging threats - launch a research action on the assessment of Global Change-driven factors linked to the risk of introducing and spreading emerging human diseases.*

– *address topics such as a) climate change and health; b) water pollution (e.g. emerging pathogens in drinking water sources); c) possible environmental and human health impacts of nanoparticles.*

Response : review policies and improve communication

The point of gathering information and knowledge on the health risk from the environment is to be able to make choices, both at individual level and at the level of

society as a whole. As individuals it gives us the information we need to make informed choices about our behaviour and it enables us to address better the larger risk reduction issues facing society, involving those exposures not under individual control.

The response element of the Action Plan comprises two main parts :

- Developing awareness raising, risk communication, training & education to give citizens the information they need to make better choices, and to make sure that professionals in each field are alert to environment and health interactions;

- Reviewing risk reduction policy and adjust where necessary on the basis of improved information of the links between environment and health.

In the short term there is a great deal of ongoing and upcoming work aimed at tackling the main environment and health problems which must be coordinated. There are also certain cases where new information allows or will soon allow the development of new exposure reduction measures. Finally, as new evidence on risk becomes available, the Commission will assess existing risk reduction policies and adapt them if necessary.

The specific actions 9-13 are detailed below:

Develop Awareness Raising, Risk Communication, Training & Education

In minimising the risks for human health from environmental factors it is vital not only to gather more and better information on a more coherent basis, but also to communicate available information in a useable and reliable way to all citizens.

Individuals view the hazards around them in a way that reflects not only objective levels of risk but also psychological factors. Citizens appear, for example, to be ready to accept quite high levels of risk from environmental tobacco smoke, fast driving and abuse of alcohol. On the other hand, risks related to substances in the environment, in products or in food may be perceived as more risky even when they present lower objective levels of risk. In the worst case, the hazards present in the environment will be unknown or misunderstood by those EU citizens who may be particularly vulnerable when confronted with them.

It is important to better understand what drives public perceptions of risk in the EU so that we can properly manage risk communication and thus ensure that the hazards present in our environment are understood by those who need to be aware of them.

This is particularly important in cases where contaminants present in the environment can only be reduced or removed in the medium term. Where the immediate avoidance of a given contaminant is not technically feasible, and where the cost of avoiding dangerous contaminants in the short term is judged disproportionate, the EU regulator sometimes tolerates them, at a scientifically measured level of risk. In these cases, it is important that all public authorities are explicit about the residual risk, and take pains to inform the general public how to manage those risks in order to keep them under control. This may involve advising pesticide operatives on good agricultural practice, advising pregnant women on

dietary considerations specific to their condition, or alerting individuals to the fact that there are no generally applicable safe levels for the consumption of certain substances, e.g. alcohol, where the impact on the human body would vary as a function not only of body weight but of genetic make-up.

Action 9: Develop public health activities and networking on environmental health determinants through the public health programme

Work will focus on behaviour linked to environmental risks for children and will be developed in partnership with relevant stakeholders and health and environment professionals. One particular aspect to be addressed is how parental actions can influence the effect of environmental emissions. Activities should help to raise awareness on risks to enable people to develop well founded risk perception.

Firstly, linked to action on exposures set out below, activities will be launched related to air quality, including developing best practice, networking and exchanging experiences on reducing active and passive smoking.

Secondly, lifestyle choices including diet play an important role in determining individual exposure, and there is scope for public health actions to address these issues. For example, behavioural changes are instrumental in reducing exposure to UV radiation. One further aspect to consider is how to create environments conducive to physical exercise.

Thirdly, public concerns, risk perception, management and communication (e.g. on electromagnetic fields) need to be better understood. Networks of actors and experiences across Europe will enable the development of better focused public health responses to risks, and serve to develop more realistic appreciations of risks.

The APHEIS project focused on improving the mapping of air pollution at local and regional levels, linking it to estimates of health effects, and developing a communication strategy on the results targeted at different audiences.

2004: The Commission has invited proposals for projects of awareness-raising with a focus on air pollution, in particular indoor air pollution, and on electromagnetic fields.

2005-2008: The Commission will develop actions on awareness-raising and risk communication on further key environmental determinants of health.

Action 10: Promote training of professionals and improve organisational capacity in environment and health

Using the instruments of the public health and research programmes as well as the LIFE programme, actions will be launched to enhance the capacity of professionals and organisations to address health and environment issues. This includes strengthening capacities to provide high quality risk communication regarding environmental health risks. While the Commission will do its best to foster the necessary developments, education is primarily a responsibility of the Member States and the Commission calls on them to take the necessary measures.

2005-2006: The Commission will launch pilot projects to train professionals in environment and health issues and to develop organisational capacity.

2004: The Commission will promote networking among the relevant stakeholders.

Review and adjust risk reduction policy

There is a great deal of ongoing and upcoming work aimed at tackling the main environment and health problems in particular in the Thematic Strategies under the Sixth Environment Action Programme[9]. The first task is to ensure that these are well co-ordinated and take into account all the available information.

The second main task is to use the increased understanding of environment and health risks resulting from the integrated information measures above to assess the effectiveness of existing policies in improving health outcomes, and stimulate a well-informed debate on proportionate responses to the remaining identified risks. On this basis, the Commission will review existing policies and adapt them where necessary. These reviews will be subject to full consultation with Member States and relevant stakeholders.

Action 11: Co-ordinate ongoing risk reduction measures on the priority diseases

The Commission is in the course of preparing and implementing a number of risk reduction initiatives of direct relevance to the four priority diseases covered by this Action Plan. Among these are the CAFE Programme and the transport component of the Urban Strategy[10] (both relevant for respiratory diseases), the Pesticides Strategy (potentially relevant for neurodevelopmental disorders and for endocrine disrupting effects) and the Mercury Strategy (also relevant for neurodevelopmental disorders). In addition there is ongoing work on dioxins and PCBs[11], and endocrine disrupters[12].

The Commission will:

Ensure co-ordination between current or forthcoming initiatives relevant to each of the major environment and health problems;

Ensure that the recommendations made by the TWGs for risk reduction measures relevant to the priority diseases or pollutants are considered in the development and implementation of these initiatives.

Action 12: Improve indoor air quality

The Commission intends to develop work on improving indoor air quality. This integrates complex indoor exposures including addressing environmental tobacco smoke by building on existing public health and employment policy (this should be supplemented by actions to be taken in the context of environmental policy). Action related to environmental tobacco smoke is particularly important given the extent of

---

9 The seven Thematic Strategies cover the marine environment, sustainable use of pesticides, air quality (CAFE), urban environment, soil protection, waste prevention and recycling.

10 COM(2004) 60 final

11 COM(2001) 593 final

12 COM(1999) 706 final

the evidence supporting a negative health impact of exposure. Actions here would directly build on Article 8 of the Framework Convention of Tobacco Control, and recommendation 4 of the December 2002 Council Recommendation on Smoking Prevention and Tobacco Control. This includes:

Encouraging the restriction of smoking in all workplaces by exploring both legal mechanisms and health promotion initiatives at both European and Member State level. At European level extension of the Carcinogens Directive may provide the basis for a legal mechanism given the growing international consensus that ETS be classified as a class 1 carcinogen.

Working together with Member State competent authorities and other organisations to achieve full implementation and enforcement of existing legislation.

Developing networks and guidelines on other factors affecting indoor air quality (dampness/mould, building materials, indoor effects of outdoor emissions and their health implications) by using research results and exchange of national best practice.

Action 13: Follow developments regarding electromagnetic fields (EMF)

The Commission will follow the development of scientific evidence on electromagnetic fields, while keeping the 1999 EMF recommendation under review.

A project funded by the Framework Programme for Research (EMF-NET, 2004-2008) is coordinating the results of both laboratory and epidemiological studies related to biological effects of EMF. This includes potential risks related to exposure in the working environment. The Consortium involves research projects supported at the EU level and at national level; the WHO EMF project and the COST 281 Action; associations of industries and manufacturers; regulatory bodies, scientific associations and trade unions. It will monitor emerging and third generation technologies identifying main needs in terms of coordination and studies.

ANNEX II : CONSULTATION PROCESS

List of organisations consulted in the development of the Action Plan

BEUC	The European Consumers Organisation
CEEP	European Centre of Enterprises with Public Participation and of Enterprises of General Economic Interest
CEFIC	European Chemical Industry Council
CEMR LGIB	The Council of European Municipalities and Regions
CONCAWE	Oil Companies'European organisation for environment, health and safety
CPME	Comité Permanent des Médecins Européens//Standing Committee of European Doctors
EAACI	European Academy of Allergology and Clinical Immunology
ECETOC	European Centre for Ecotoxicology and Toxicology of Chemicals
EFA	European Federation of Allergy and Airways Diseases Patients' Associations
ENSP	European Network for Smoking Prevention
EPHA	European Public Health Alliance
ERS	European Respiratory Society
EURELECTRIC	Union of the Electricity Industry
EUROCHAMBRES	Association of European Chambres of Commerce & Industry
EUROCITIES asbl	Organism of 125 EU cities
EUROFER	European Confederation of Iron and Steel Industries
EUROMETAUX	European organisation of Metal Industry

EEB	European Environmental Bureau
European SREH	European Society for Research on Environment and Health
GFF	Green Facts Foundation asbl
GSM Europe	
IBFAN	International Baby Food Action Network
ICNIRP	International Commission on Non-Ionizing Radiation Protection eV
IFEH	The International Federation of Environmental Health
INCHES	International Network on Children's Health, Environment and Safety
MHE	Mental Health Europe
WECF	Women in Europe for a Common Future
WHO	World Health Organisation
ULB	Université Libre de Bruxelles
Université de Paris	
FEI	Finnish Environment Institute
SCTEE	Scientific Committee for Toxicity, Ecotoxicity and Environment
EEA	European Environment Agency
ESF	European Science Foundation
Nofer Institute of Occupational Medicine	
Keel University	
Central European University	
Institut für Epidemiologie der GSF	

List of meetings organised in the development of the Action Plan

11th July 2003	First Stakeholder Meeting on Environment and Health
10th September 2003	Preliminary Meeting of the Consultative Group on Environment and Health
6th -7th October 2003	Regional Conference in Warsaw
9th – 10th October 2003	Regional Conference in Brussels
16th – 17th October 2003	Regional Conference in Rome
25th November 2003	First coordination meeting
18th – 19th December 2003	First Consultative Forum
23rd January 2004	Second coordination meeting
19th February 2004	Informal Member States Meeting
3th – 4th March 2004	Second Consultative Forum
18th March 2004	Third coordination meeting
19th March 2004	Second Stakeholder Meeting
23rd April 2004	Informal Member States Meeting

For further details: http://europa.eu.int/comm/environment/health/index_en.htm

ANNEX III : TIME-LINES FOR IMPLEMENTATION OF THE MAIN ACTION GROUPS[13]

Integrated environment and health information

	2004	2005	2006	2007	2008	2009	2010
Action 1[14]	**ONGOING**: Work on developing and completing occurrence indicators and data collection						
Action 2	Inventory of existing monitoring completed and priority **environmental** stressors identified.	Review of current monitoring of exposure assessment, and proposals for revision produced.		Monitoring revisions agreed, implementation begins (Indicative timing)			Implementation of monitoring revisions complete. (Indicative timing)
Action 3	**Biomonitoring** WG established: preparation of protocol for EU biomonitoring.		Biomonitoring pilot project, producing recommendations for biomonitoring at EU level by 2010.				
	Analysis of how biomonitoring can best support policy development. Report integrated into development of biomonitoring protocol.						
Action 4	**ONGOING:** Promote continued exchanges between health and environment authorities and stakeholders at EU and MS level.						

13 All financial commitments until year 2006 will respect the official financial programming of the Commission, i.e. if necessary, by means of a redeployment within the relevant policy area. Financial commitments in year 2007 and thereafter are under reserve of their coherence with the new financial perspective and (if applicable) of the adoption of new programmes.

14 Financial commitments post-2008 must await a decision on a new public health action programme.

Research on Environment and Health

	2004	2005	2006	2007	2008	2009	2010
Action 5	Analyse and consolidate results of EU and MS research relevant to priority areas.			Feed results into policy development.			
			European Conference on environment and health		Possible EU conference on environment and health		Possible EU conference on environment and health
Action 6	Launch research on asthma and allergies, neuro-immune disorders, uncommon cancers and the effects on exposure to metals			The results of the research launched will become available over this period.and will be fed into policy as they emerge.			
Action 7	Launch research into methodologies for integrated risk assessment, addressing complexity in environment and health interactions, developing accounting frameworks for external costs, environment and health impact assessment, and the health benefits/risks of food.			The results of the research launched will become available over this period.and will be fed into policy as they emerge.			
	Reinforce networks between environmental bodies and related regulatory bodies; validate techniques for assessing real-life exposures; validating risk assessment methodologies; and networking of all stakeholders to spread best practice and validate decision-support tools.			The results of the research launched will become available over this period.and will be fed into policy as they emerge.			

Emerging issues

	2004	2005	2006	2007	2008	2009	2010
Action 8	Explore how health sector planning and preparation for extreme weather events can be improved.						
	Facilitate rapid assessment of emerging threats						
	Address topics on (a) climate change and health (b) water pollution (c) nanoparticles						

Awareness-raising, risk communication, training and education

	2004	2005	2006	2007	2008	2009	2010
Action 9[15]	Awareness-raising on air pollution, EMF	Awareness-raising and risk communication projects on other environmental health risks					
Action 10[16]		Pilot projects for training/capacity-building.					
	ONGOING: Promote networking between stakeholders to improve capacities on E&H.						

Review and adjust risk reduction policy

	2004	2005	2006	2007	2008	2009	2010
Action 11	**ONGOING:** Identify and coordinate existing and forthcoming risk reduction initiatives relevant to the priority diseases, taking into account recommendations of TWGs, and promote integration of research and monitoring results as they become available.						
Action 12[17]	**ONGOING:** Encourage the restriction of smoking at European and Member State level						
	ONGOING: Work with Member States to achieve full implementation of existing indoor air quality legislation.						
	ONGOING from 2005 : Develop networks and guidelines on other factors affecting indoor air quality.						
Action 13[18]	Follow development of scientific evidence on electromagnetic fields, while keeping 1999 EMF Recommendation under review.						

The mid-term review of 2007 will identify the appropriate follow-up of the above actions.

15 Financial commitments post-2008 must await a decision on a new public health action programmel
16 Financial commitments post-2008 must await a decision on a new public health action programmel
17 Financial commitments post-2008 must await a decision on a new public health action programmel
18 Financial commitments post-2008 must await a decision on a new public health action programmel

GLOSSARY

APHEIS : Air Pollution and Health: A European Information System

CAFE : Clean Air For Europe

CBA : Cost Benefit Analysis

CEA : Cost Effectiveness Analysis

ECHI : European Community Health Indicators Project

ECOHEIS : European Community Health and Environment Information System

EFSA : European Food Safety Authority

EEA : European Environment Agency

EMF : Electromagnetic fields

ETS : Environmental Tobacco Smoke

LIFE : L'Instrument Financier pour l'Environnment

OECD : Organisation for Economic Cooperation and Development

PCBs : Polychlorinated Biphenyls

PINCHE : Policy Interpretation Network on Children's Health and Environment

TWG : Technical Working Group

UN : United Nations

WHO : World Health Organisation