



EUROPEAN
COMMISSION

Community Research



Implementation of Environment and Health Action Plan RESEARCH ASPECTS

Dr Tuomo Karjalainen
European Commission Research Directorate-General
Directorate I (Environment)
Tuomo.Karjalainen@cec.eu.int
Marialuisa.Tamborra@cec.eu.int

Third Meeting of the Working Party on Health and Environment - Luxembourg,
23 May 2006



EUROPEAN
COMMISSION

Community Research

Research themes in the Environment & Health Action Plan

- ❑ Integrating and exploiting research results for policy development (**Action 5**)

- ❑ Analysis of environment/health interactions to improve understanding & prevention of the priority diseases (putting emphasis on children, e.g. asthma, allergy, neuro-immune disorders, cancers, endocrine disruption) (**Action 6**)

- ❑ Developing methodologies to assess better the risks coming from environmental factors and improving economic valuation (externalities concept) and impact analyses of prevention strategies (**Action 7**)

- ❑ Launching research on emerging issues (**Action 8**)
 - climate change & health (e.g. spreading of emerging diseases)
 - water pollution (e.g. emerging pathogens in drinking water)



EUROPEAN
COMMISSION

Community Research

Implementing Action 5:

Integrating and exploiting
research results for policy
development

Around €8M spent!



EUROPEAN
COMMISSION

Community Research

Implementing Action 5



FP5 projects

▶ **Key Action: Environment and Health (92 projects, € 160 M)**

▶ **ENVIRONMENTAL STRESSORS COVERED:**

- ❖ Chemicals, especially endocrine disruptors, but also heavy metals and others (40 projects)
- ❖ Air pollutants (13 projects)
- ❖ EMF (8 projects)
- ❖ UV light (3 projects)
- ❖ Noise (4 projects)

▶ **EFFECTS STUDIED:**

- ❖ Cancer
- ❖ Reproductive parameters
- ❖ Neurodevelopmental effects
- ❖ Allergy/asthma
- ❖ Cardiovascular disease etc

▶ **METHODS USED:**

Cohort studies, biomarker approaches for exposure and effect; 'monitoring' of general populations or certain occupational groups for exposures, susceptibility and effects.

**MOST FP5 E&H PROJECT RESULTS ARE OF POLICY RELEVANCE -
DISSEMINATION ACTIONS ONGOING AND PLANNED**

Final results available: http://europa.eu.int/comm/research/quality-of-life/ka4/index_en.html



EUROPEAN
COMMISSION

Implementing Action 5

FP5 projects: 2 examples



► **CHILDRENGENONETWORK: European network on children's susceptibility and exposure to environmental genotoxics** [2003-2005, €1.1M]

<http://cgn.pubhealth.ku.dk/childrengenoen/>

- ❖ Concerted action exploring gene-environment interactions during the foetal, neonatal and infancy developmental periods
- ❖ Focus on genotoxic exposures and environmental factors with focus on air pollution (traffic and tobacco)
- ❖ Pilot studies initiated in BE, NL, NO, ES, HU, EL to explore adult vs. child/newborn gene expression, susceptibility
- ❖ Database European mother/child cohorts with biobanks (www.birthcohorts.net)

► **PINCHE: Policy interpretation network on children's health and environment** [2003-2005, €1M]

www.pinche.hvdgm.nl/index.html

- ❖ Thematic network analysing studies related to children's health and environment
- ❖ Analysis and interpretation of research results of the 4th and 5th Framework Programmes, as well as nationally funded studies
- ❖ Policy-relevant recommendations and identification of research gaps related to children, health and the environment
- ❖ Focus on air pollution, cancer, neurotoxicity, noise



Final results available: http://europa.eu.int/comm/research/quality-of-life/ka4/index_en.html



EUROPEAN
COMMISSION

Community Research

Implementing Action 5

FP6 projects (2002-2006)



E&H projects of interest - under negotiation

HENVINET *Health and Environment Network*
[Coordination action;
€3.2M; 2006-2010]

- Establish expert teams for each of the four priority diseases of the E&H Action Plan
- Summarise the current scientific basis regarding the links between health and environment and best practices
- Identify and evaluate the methods and tools for describing interlinkages between health effects & environmental stressors
- Prepare policy-relevant material for dissemination to decision makers and other stakeholders
- Create a dynamic web-based information system

ENVIRISK *Assessing the risks of environmental stressors: Contribution to the development of integrating methodology*
[STREP; €0.9M; 2006-2008]

- Develop integrated methodological framework to identify health risks caused by exposure to environmental stressors, in view to provide a quantitative assessment and comparison of benefits of alternative prevention and targeted policy measures against their respective costs



EUROPEAN
COMMISSION

Implementing Action 5 FP6 projects (2002-2006)



Community Research

Priority 8: Scientific Support to Policy

Research projects addressing policy needs identified by policy-makers
(http://europa.eu.int/comm/research/fp6/ssp/themes_en.htm)

**Air quality assessment
for Europe: from local
to continental scale**
(2004-2006)

www.air4eu.nl



- Best practices for the combined use of monitoring methods and models to assess air quality from hotspot/street level to continental level for various users (local, regional, national and EU level)

**Effects of the exposure to
electromagnetic fields:
From science to public
health and safer workplace**
(2004-2008)

www.jrc.cec.eu.int/emf-net



- Coordination Action for the coordination of the results of the research activities related to the biological effects of EMF, including occupational exposure

**Coordination action
on indoor air quality
and health effects**
(2004-200?)

<http://indoorairenvie.cstb.fr>



- Co-ordination Action interfacing science and policy making in the field of indoor air quality. Collecting and interpreting scientific knowledge from on-going research (EU funded projects, Joint Research Center activities), to elaborate policy relevant recommendations on health impacts of indoor air quality.



EUROPEAN
COMMISSION

Community Research

Action 6

Analysis of environment/health interactions to improve understanding & prevention of the priority diseases (putting emphasis on children, e.g. asthma, allergy, neuro-immune disorders, cancers, endocrine disruption)

Around €95M spent!



EUROPEAN
COMMISSION

Community Research

Implementing Action 6 - asthma and allergies and children's health

11 FP5 projects - finished or ongoing

Example: **AIRALLERG: Effects of outdoor and indoor air pollution on the development of allergic disease in children** [Finished]

More info:

Final reports: http://europa.eu.int/comm/research/quality-of-life/ka4/ka4_reports_en.html [currently 2 reports]

2 FP6 projects - ongoing



Global allergy and asthma European network [Network of excellence ; 2004-2009; €14.4M] www.ga2len.com

- Consortium of 26 leading European research teams and two societies (EAACI and EFA) committed to work with each other and to establish an European Research Area of excellence in the field of allergy and asthma



The prevalence, cost and basis of food allergies across Europe [Integrated project; 2005-2009, €14M] www.ifr.bbsrc.ac.uk/Science/ScienceBriefs/europrevall.html

- Aims include, among others, to identify risk factors and novel predictive markers for food allergy, which would allow implementation of preventive measures





EUROPEAN
COMMISSION




Implementing Action 6 -
neuroimmune disorders

Community Research

8 FP5 projects -finished or ongoing

Impact of endocrine disrupters (PCBs, flame retardants, phthalates...) and heavy metals (e.g., methylmercury) on neurodevelopment (**COMPARE, FIRE, ANEMONE...**)

Risk assessment of brominated flame retardants as suspected endocrine disrupters for human and wildlife health

 **FIRE**

[€4.8M; 2002-2006;
www.rivm.nl/fire)

- One aspect: Impact of brominated flame retardants on neurodevelopment

More info:

- Final reports: http://europa.eu.int/comm/research/quality-of-life/ka4/ka4_reports_en.html
- Progress or final reports:
http://europa.eu.int/comm/research/endocrine/index_en.html



EUROPEAN
COMMISSION



Implementing Action 6 - neuroimmune disorders

Community Research

5 FP6 projects - ongoing

***Chemicals as
contaminants
in the food chain:
a NoE for research,
risk assessment and
education***

[Network of excellence;
€14.4M; 2004-2009;
www.cascadenet.org]



- Ultimate research objectives:
 - ✓ provide novel information on the mechanism of action of chemical residues and contaminants in food that interfere with nuclear receptor signalling pathways (Focus on 4 model compounds [genistein, vinclozilin, bisphenol A and TCDD])
 - ✓ develop in vivo, in vitro and in silico test methods to screen for the potential of a broad range of chemical residues in the food, including food extracts and mixtures and metabolites of chemical residues
 - ✓ identify biological markers of exposure
 - ✓ provide mechanistic information regarding disease development (disruption of neurodevelopment or interference with the development and functioning of male or female reproductive systems, hormonally dependent cancer in prostate and breast, colon cancer, metabolic diseases and osteoporos)



EUROPEAN
COMMISSION



Implementing Action 6 - neuroimmune disorders

Community Research

5 FP6 projects - ongoing

*Public health
impact of
long-term,
low-level
mixed element
exposure in
susceptible population
strata*



[Integrated project ;
€13M;2006-2011;
[www.med.lu.se/english/
research/phime](http://www.med.lu.se/english/research/phime)]

- Will assess the impact of toxic metals (Cd, Hg, Pb, Mn) exposure through foods on diseases of public health concern (nervous system, cardiovascular, osteoporosis/fractures, kidneys, diabetes)
- Focus on interaction between toxic elements in mixed exposures and on “new” elements (platinum, palladium, rhodium and manganese) and susceptible groups (foetuses/infants/children, fertile women and elderly)
- New methods for biomonitoring of exposures will be developed and validated
- Geographical patterns/sources of exposure in the EU, especially in children and women, will be defined
- Time trends of exposure will be assessed, retrospectively and prospectively.



EUROPEAN
COMMISSION



Implementing Action 6 - neuroimmune disorders

Community Research

5 FP6 projects - ongoing

Newborns and genotoxic exposure risks: Development and application of biomarkers of dietary exposure to genotoxic and immunotoxic chemicals and of biomarkers of early effects, using mother-child birth cohorts and biobanks
[Integrated project; €13.6M; 2006-2011; No website available yet]



NewGeneris

- Overall goal is to develop and apply two categories of biomarkers in relation to exposures and childhood disease:
 - ✓ *biomarkers* of dietary *exposure* to chemicals with carcinogenic and associated immunotoxic properties (focus on PAHs, acrylamide, mycotoxins, organochlorines, heterocyclic amines...);
 - ✓ *biomarkers* of pre-carcinogenic and immunotoxic *effects*.
- These biomarkers will be utilised to test the research hypothesis that maternal exposure to these compounds results in *in utero* exposure and subsequently induces carcinogenic and immunotoxic events in the unborn child, thereby leading to increased risk of cancer and immune disorders in later childhood.
- Will use existing European mother-child birth cohorts and set up new biobanks in different European regions to generate specific information predominantly on dietary exposures of mothers and fathers



EUROPEAN
COMMISSION



Implementing Action 6 - neuroimmune disorders

Community Research

5 FP6 projects - ongoing

*Toxic threats
to the developing
nervous system:
in vivo and in vitro
studies on the
effects*

*of mixture of neurotoxic
substances potentially
contaminating food*

[Specific targeted research
project (STREP); €2.4M;
2003-2006;
www.imm.ki.se/devnertox]



■ aims to develop experimental models to improve predictive toxicity testing and mechanism-based risk assessment for neurotoxic food contaminants

*Assessing the
toxicity and
hazard of
non-dioxin-like
PCBs present in food* [STREP;
4.6M; 2006-2010; no website
yet]



■ NDL-PCBs constitute a major part of the PCBs found in food and human tissues

■ Poorly characterised from a toxicological point of view - no health risk assessment available.

■ ATHON will address neurobehavioural, reproductive and developmental toxicity, and tumour promotion potential of NDL-PCBs.



EUROPEAN
COMMISSION

Implementing Action 6

-
cancer

Community Research

31 FP5 KA4 projects -finished or ongoing:



Cancer projects related to air pollution, chemicals incl. endocrine disrupters, EMF

Examples

- **CANCERRISKBIOMARKERS: chromosomal aberrations - are they predictive of later cancer risk?** [€1.3M; 2001-2005]
- **INTERPHONE International case-control studies of cancer in relation to mobile telephone use** [€3.9M; 2000-2006]

More info

- Final reports: http://europa.eu.int/comm/research/quality-of-life/ka4/ka4_reports_en.html

5 FP6 projects - ongoing



Projects with some cancer-related aspects:

CASCADE network
of excellence



Role of endocrine disrupters on cancer development (www.cascadenet.org)

SEAFOODPLUS
integrated project



Protective effect of seafood consumption to colorectal cancer development (www.seafoodplus.org)

NEWGENERIS
integrated project



Early exposure to environmental stressors, late health effects (cancer, immune dysfunctions...)

ATHON STREP



Non-dioxin like PCBs and tumour promotion



EUROPEAN
COMMISSION



Implementing Action 6 - cancer

Community Research

5 FP6 projects - ongoing

Project totally focused on environment-related cancer:

*Investigating
the role of
diet,
air pollution,
other exposures in
cancer development,
taking into account
individual
susceptibility*



[Network
of excellence; €14.4M;
2005-2009;]

- A concerted effort to achieve improved understanding of
 - ✓ the environmental causes of cancer
 - ✓ the potential of diet to prevent cancer
 - ✓ the ways by which heredity can affect individual susceptibility to carcinogens
- Will focus on the utilisation biomarker-based technologies to approach these goals (new biomarkers as well as the application of existing and new biomarkers)
- Optimal use of existing European cohorts and biobanks; population-based studies from different regions of Europe with different climates, pollution levels and dietary habits



EUROPEAN
COMMISSION



Implementing Action 6 - endocrine-mediated effects

Community Research

28 FP5 KA4 projects -finished or ongoing:

- All groups of industrial chemicals studied, including emerging compounds (brominated flame retardants...)
- Focused mostly on reproductive (e.g., **ENVIR.REPROD. HEALTH**) and neuroendocrine effects (**COMPARE**); some on multi-organ effects (**EURISKED**)
- New testing methods developed in many projects -relevant to OECD testing programme and ECVAM (*European centre for the Validation of Alternative Methods*) activities



*The cluster of research
into endocrine disruption
in Europe*

[€20M; 2002-2006;
www.credocluster.info]

- Created in 2002 to integrate environmental and human aspects of endocrine disruption
- Drafted 'Prague declaration on endocrine disruptors' on research priorities in 2005
- Will organise international workshop on endocrine disruption in Helsinki, November 2006

More info:

- Final reports: http://europa.eu.int/comm/research/quality-of-life/ka4/ka4_reports_en.htm
- Progress or final reports:
http://europa.eu.int/comm/research/endocrine/index_en.html





EUROPEAN
COMMISSION



Implementing Action 6 - endocrine-mediated effects

Community Research

4 FP6 projects - ongoing

PIONEER

*Puberty onset - influence
of nutritional,
environmental and
endogenous regulators*

[STREP; €3M, 2005-2008;
no website yet]

- Obtain updated data on the age of puberty onset in the different regions of Europe
- Identify genetic and nutritional factors involved in the regulation of the onset of puberty (including certain endocrine disrupters)
- Develop novel experimental models, optimised for the investigation of genetic and nutritional factors regulating onset of puberty
- Define if specific preventive actions could be taken within EU

*Pharmaceutical
products in the
environment:
Development and
employment of novel
methods for assessing
their origin, fate and
effects on human
fecundity* [STREP; €1.75M;
2005-2008]



<http://foodandfecundity.factlink.net/182059.0/>

- Develop and employ validated methods for the screening and testing of pharmaceutical products (mainly estrogens, androgens and progestogen-like compounds) and their metabolites
- Determine their adverse effects, origin, fate, and mechanism of action
- Assess their risk on male and female fecundity in various geographical locations and exposure scenarios in Europe.



EUROPEAN
COMMISSION



Implementing Action 6 - endocrine-mediated effects

4 FP6 projects - ongoing

Mentioned earlier



***Chemicals as contaminants
in the food chain:
a NoE for research,
risk assessment and
education*** [Network of
excellence; €14.4M; 2004-
2009; www.cascadenet.org]



***Assessing the toxicity and
hazard of non-dioxin-like PCBs
present in food***
[STREP; 4.6M; 2006-2010;
no website yet]



EUROPEAN
COMMISSION

Community Research

Implementing Action 7

Developing methodologies to assess better the risks coming from environmental factors and improving economic valuation (externalities concept) and impact analyses of prevention strategies

Around €30M spent!



EUROPEAN
COMMISSION

Community Research

Implementing Action 7 FP6 projects (2002-2006)



INTARESE

*Integrated assessment
of health risks from
environmental
stressors in Europe*

Integrated project;
€12M; 2005-2010;
www.imperial-consultants.co.uk/intarese.org/home.htm

- Develop a conceptual framework as a basis for integrated assessment of both environmental and health impacts and risks
- Identify the key gaps in existing monitoring and analytical capacity in Europe
- Develop and test new systems for monitoring and modelling (e.g. biomonitoring, exposure assessment)
- Build an operational toolbox for integrated assessment that can be applied to different stressors and environmental media (air pollution, water pollution, climate change etc), settings (ambient, domestic, occupational) and agents (chemicals, solid wastes, natural hazards, noise etc)
- Apply this approach for integrated assessments in a range of key policy areas, including transport, housing, agricultural land use, water, chemicals, waste and climate.



EUROPEAN
COMMISSION

Community Research

Implementing Action 7 FP6 projects (2002-2006)



*Novel methods for
integrated risk
assessment of
cumulative stressors
in Europe*

Integrated project;
€10M, 2005-2009

<http://viso.jrc.it/nomiracle>

- Develop a research framework for the description and interpretation of cumulative exposures and effects
- Develop new methods for assessing the cumulative risks from combined exposures to several stressors (including mixtures of chemical and physical/ biological agents)
- Achieve more effective integration of the risk analysis of environmental and human health effects
- Quantify, characterise and reduce uncertainty in current risk assessment methodologies
- Develop assessment methods which take into account geographical, ecological, social and cultural differences in risk concepts and risk perceptions across Europe



EUROPEAN
COMMISSION

Community Research

Implementing Action 7
FP6 projects (2002-2006)



Priority 8: Scientific Support to Policy
Research projects addressing policy needs identified by
policy-makers

http://europa.eu.int/comm/research/fp6/ssp/themes_en.htm

- **ESPROME: *Reducing the environmental impact of heavy metals*** (2004-2006)
- **DROPS: *Development of macro and sectoral economic models aiming to evaluate the role of public health externalities on society*** (2006-2008)
- **VERHI CHILDREN: *Valuation of environment-related health impacts*** (2006-2008)



EUROPEAN
COMMISSION

Community Research

Implementing Action 7
FP6 projects (2002-2006)



Related FP6 project - ongoing

- ***METHODEX: Methods and data on environmental and health externalities: harmonising and sharing of operational estimates*** (2004-2007) - www.methodex.org



EUROPEAN
COMMISSION

Community Research

Implementing Action 7
FP6 projects (2002-2006)



Related FP6 projects to be negotiated

- **Selected from the Topic ‘*Elaboration of new Accounting Frameworks for environmental externalities*’ (Integrated Project, €5M)**
- **Selected from the Topic ‘*Development of methods and tools for environment and health impact assessment and cost-benefit analysis for building and assessing future environment and health scenarios*’ (Integrated Project, €5M)**



EUROPEAN
COMMISSION

Community Research

Action 8

Launching research on emerging issues

- climate change & health (e.g., spreading of emerging diseases)
- water pollution (e.g., emerging pathogens in drinking water)

Around €27M spent!



EUROPEAN
COMMISSION



Community Research

Implementing Action 8 - Climate change and health



*Emerging diseases
in a changing
European
environment*

[Integrated
project, €11.5M,
2004-2009]

[www.eden-
fp6project.net](http://www.eden-fp6project.net)

- The main aim is to identify, evaluate and catalogue European ecosystems and environmental conditions linked to the effect global change in Europe, which can influence the spatial and temporal distribution and dynamics of pathogenic agents.
- Focus on selected pathogen groups: Tick-borne pathogens, rodent-borne viruses (hanta, arena, cowpox), Leishmaniasis, West Nile Virus, malaria, African source diseases -new strains of West Nile Virus and new diseases such as Rift Valley Fever
- A coordinated European approach adopted to provide predictive emergence and spread models including global and regional preventive, early warning, surveillance, and monitoring tools and scenarios.



EUROPEAN
COMMISSION

Community Research



Implementing Action 8 - Water pollution

Water pollution

EPI-BATHE: Assessment of human health effects caused by bathing waters
[STREP; €2.3M; 2005-2008; no website yet]

- Investigate the level of risk associated with bathing water exposure to support future reviews and revision of the Bathing Water Directive.

Methods for the detection of Adenoviruses and Noroviruses in European bathing waters with reference to the revision of the Bathing Water Directive 76/160/EEC [STREP; €2.8M; 2005-2008]
www.virobathe.org



Anticipated outcomes:

- Improved rapid detection methods for waterborne noroviruses and adenoviruses
- Surveillance data on the target viruses through a range of EU recreational waters
- Technology transfer to non-participant laboratories through a 'Tech-Transfer' Workshop at the end of the Project
- Increased confidence in water quality monitoring for EU bathing waters



EUROPEAN
COMMISSION



Implementing Action 8 -Water pollution

Water pollution - under negotiation

HEALTHY WATER

Assessment of human health impacts from emerging microbial pathogens in drinking water by molecular and epidemiological studies

[STREP; €2.4M; 2006-2009; no website yet]

- Develop and validate molecular detection technologies for emerging microbial pathogens to provide a format ready for mass application in drinking water samples
- Carry out molecular survey and comparative studies of emerging microbial pathogens in European drinking water sources and supply systems
- Understand human health impacts of emerging pathogens
- Assess risk for emerging waterborne microbial infections in Europe

HI-WATE: Health impacts of long-term exposure to disinfection by-products in drinking water

[STREP; €3.5M; 2006-2009; no website yet]

- Determine the disinfection by-product composition and levels in drinking water in various regions in Europe
- Develop predictive models
- Assess the risk of premature birth, semen quality, stillbirth and congenital anomalies, including any gene-environment interactions where possible
- Assess the risk of cancer (bladder, colon)
- Conduct risk/benefit analyses including quantitative assessments of risk associated with microbial contamination of drinking water versus chemical risk
- Assess the policy implications of current disinfection practices




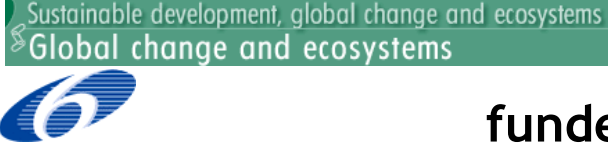



EUROPEAN
COMMISSION

Community Research

DISSEMINATION ACTIVITIES

Websites

 <p>KA4 website on FP5 E&H projects http://europa.eu.int/comm/research/quality-of-life/ka4/index_en.html</p>	<ul style="list-style-type: none"> Currently 43 final reports available (sections on air pollution, cancer, EMF, chemicals....)
 <p>Endocrine disrupter research website http://europa.eu.int/comm/research/endocrine/index_en.html</p>	<ul style="list-style-type: none"> Includes final reports of finished FP4 and FP5 projects; progress reports of ongoing both FP6 projects
 <p>Website on major projects funded by Priority 5 http://europa.eu.int/comm/research/fp6/projects.cfm?p=5</p>	<ul style="list-style-type: none"> Priority 5 contains the 'Environmental Health Risks' subarea from which large projects (NEWGENERIS, CASCADE...) are being funded
 <p>Website on major projects funded by Priority 6 www.cordis.lu/sustdev/environment/projects.htm</p>	<ul style="list-style-type: none"> Priority 6 funds, e.g., Intarese and Nomiracle Integrated Projects
 <p>European Commission-sponsored environmental research http://europa.eu.int/comm/research/environment/index_en.htm</p>	<ul style="list-style-type: none"> News and updates on environmental research and related issues

Websites



EUROPEAN
COMMISSION

Community R



Website on projects funded 'Priority 8':
http://europa.eu.int/comm/research/fp6/ssp/themes_en.htm

- 44 project descriptions available on policy-relevant research in the E&H area



Most of the FP5 and FP6 research projects have their own websites - can found with search engines

DG Research E&H research portal

- Planned for 2006
- Will list all projects with relevance to the E&H Action Plan, funded by FP5 and FP6

Publications



EUROPEAN
COMMISSION

Com
Re



***'Catalogue of
selected projects
1998-2002'***

- Project descriptions of all 92 projects funded by KA4 (Environment and Health) in FP5
- Downloadable from <ftp://ftp.cordis.lu/pub/life/docs/keyaction4.pdf>



***'Allergy and asthma -
EU research projects synopsis'***

Catalogue

- Projects funded by FP5
- Downloadable from ftp://ftp.cordis.lu/pub/life/docs/allergy_asthma_catalogue.pdf



***'Health and
electromagnetic fields'***

Brochure

- FP5 projects on health impacts of mobile phone use
- Downloadable from http://europa.eu.int/comm/research/quality-of-life/pdf/emf_brochure_and_sheets_en.pdf



Environment
and Health

***'EU research on
environment and
health -
expanding knowledge to
improve our well-being'***

Brochure

- FP6 projects relevant to the E&H Action Plan
- Downloadable from http://europa.eu.int/comm/research/environment/pdf/env_health_en.pdf



EUROPEAN
COMMISSION

Co



research



***‘Community research in action:
Supporting
Community
environmental
and public health policies
and protecting citizens’
health’***

- Updating of ‘*EU research on environment and health*’ brochure
- Planned for 2006



***‘Community
research in action:
Supporting human
biomonitoring’***

- Will list all projects funded in FP5 and FP6 with relevance to human biomonitoring
- Planned for 2006



EUROPEAN
COMMISSION

Community Research

Dissemination to policy makers and other stakeholders

1. Many projects disseminate directly to stakeholders via workshops, newsletters, Open Fora...: e.g., CREDO cluster, CASCADE NoE, EDEN IP, ESBIO CA...
2. DG Research send project Final report summaries to regulatory DGs when deemed appropriate
3. Project results contribute to Opinions elaborated by various Committees (e.g., SCHER of DG SANCO)
4. DG Research organises targeted Workshops: e.g., in 2005
 - Climate change and health
 - Endocrine disrupter testing
 - Air pollution
 - European birth cohorts
 - Human biomonitoring



Workshops

- ***‘Ecological and human health risk assessment: Focussing complex risk assessment and identification of highest risk conditions’***. Organised by the Nomiracle’ IP, ISPRA, June 8-9, 2006 (<http://nomiracle.jrc.it/default.aspx>)
- ***‘EC-sponsored projects on health impacts of noise: policy relevance’***. Organised by DG Research, Brussels, November 23, 2006
- ***‘Weybridge+10 workshop on endocrine disruption’***, Helsinki, November 2006 (www.credocluster.info/news.html)
- ***‘Workshop on biomarkers to support EC policy on human biomonitoring’*** - Organised by ECNIS NoE (planned for autumn 2006)

Conferences

- ***“Environmental epidemiology and exposure”***, organised by International Society of Environmental Epidemiology and International Society of Exposure Analysis, Paris, 2-6 September, 2006
- ***”International conference on food contaminants and neurodevelopmental disorders”***, Valencia, December 3-5, 2006



EUROPEAN
COMMISSION

Community Research

FP7 budget

- **Total budget (2004 prices): 48.081 million €**
- **Indicative breakdown:**

2006	2007	2008	2009	2010	2010	2012	2013
5.044	5.170	5.612	6.088	6.704	7.486	8.170	8.851

- **In 2013 expenditure 75% higher than in 2006**
- **Current prices: Overall budget ~ €54 bn (~ 60% increase compared to FP6)**



EUROPEAN
COMMISSION

Community Research

Specific Programmes

FP7 Programmes

* Austrian Presidency
proposal for a revised
budget (€bn)

Cooperation - Collaborative
research

32.202

Ideas - Frontier Research

7.460

People - Human Potential

4.577

Capacities - Research Capacity

4.193

+

JRC (non-nuclear)

1.751

JRC (nuclear)

0.750

Euratom

4.062



EUROPEAN
COMMISSION

Cooperation

Comm

Themes

1. Health
2. Food, agriculture and biotechnology
3. Information and communication technologies
4. Nanosciences, nanotechnologies, materials and new production technologies
5. Energy
6. Environment (including climate change)
7. Transport (including aeronautics)
8. Socio-economic sciences and the humanities
9. Security and space
Euratom: Fusion energy research, nuclear fission and radiation protection



EUROPEAN
COMMISSION

Community Research

Theme 'Environment'

Activity: Climate change, pollution and risks

Areas:

1. *Pressures on environment and climate*

2. *Environment and health*



- ✓ Health effects of exposure to environmental stressors
- ✓ Methods and tools to underpin environment and health research including human biomonitoring
- ✓ Delivery of methods and decision support tools for risk analysis and policy development

3. *Natural hazards*



EUROPEAN
COMMISSION

Evolution of E&H research: From FP5 to FP7

Community Research			FP7
Major funding from	<ul style="list-style-type: none"> ▪ Key-action 4 (Environment and health) 	<ul style="list-style-type: none"> ▪ Thematic priority 5 (Food quality and safety-Environmental health risks area) ▪ Thematic priority 6 (Global change and ecosystems) ▪ 'Priority 8' 	<ul style="list-style-type: none"> ▪ Theme 'Environment', Environment and Health area
Nb projects	92	29	?
Average budget per annum	€40M (total €160M for 4 years)	€39M (total €156M for 4 years)	?
Main areas covered	<ul style="list-style-type: none"> ▪ Human health impact of chemicals (endocrine disruptors, heavy metals...), air pollutants; EMF; UV light; noise 	<ul style="list-style-type: none"> ▪ Integrated risk assessment (chemicals, combined stressors) ▪ Networks on allergy/asthma, chemicals/cancer 	<ul style="list-style-type: none"> ▪ To be presented today

This paper was produced for a meeting organized by Health & Consumer Protection DG and represents the views of its author on the subject. These views have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission's or Health & Consumer Protection DG's views. The European Commission does not guarantee the accuracy of the data included in this paper, nor does it accept responsibility for any use made thereof.