

#### Coordination of national environment and

health research programmes

## **ERA-ENVHEALTH**



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## Survey of national research programmes related to Environment and Health



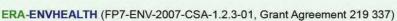
Report based on the analysis of data collected via a questionnaire for the ERA-ENVHEALTH partner countries only

**April 2009** 



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# WP1: Information Exchange: describing the E&H research landscape for transnational research

# Task 1.2: Information collection and description of current programmes and projects

## Deliverable D 1.2.1: Draft overview of programmes

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#### **EXECUTIVE SUMMARY**

Environment and Health (E&H) research is a broad and complex area that requires the cooperation of a wide community of experts and authorities. The European Commission, as well as the World Health Organisation, have expressed the need for better coordination and use of research results to support policy development on Environment and Health. This "Draft overview of programmes" provides a first description of the E&H research landscape and gives a survey of national programmes owned or managed by the ERA-ENVHEALTH consortium partners. Necessary information was collected through a questionnaire survey focused on describing the programme manager organisations, providing overall information on the E&H programmes (objectives, budget and source of funding, topics) and information on the number of projects funded by the E&H programmes. The information was collected from 14 organisations which provided information on 18 E&H programmes. The survey confirmed that the E&H programmes dealt with a very wide range of objectives, agents, topics and other E&H issues and that there is a need to bring together scientists from many disciplines including environmental, medical, biomedical and socio-economic sciences, public health research, economists and legal experts to find solutions to environmental issues related to health and human well-being problems. The information collected in this overview will serve as an input into the E&H research database which will be a platform for mutual information and experience sharing within the E&H partners.

#### **KEY WORDS**

Environment, health, research, programme, project, fund, funding, questionnaire, scientific organisation, experts, database, E&H, objective, manager organisation, ERA-ENVHEALTH







#### 1. INTRODUCTION

"Environment and health" (E&H) is a term with a large scope of meaning and has become increasingly important in the past few decades. The reasons for undertaking actions related to these broad issues are to enlighten the relationship between environmental risk factors and human health effects aimed at prevention and health protection. To find solutions to the issues arising from adverse environmental effects is a task for an interdisciplinary team of experts involved in environmental science, human health protection, socio-economic aspects and the policy-making process. The platform supporting their joint effort leading to improving environment and health is to network experts, scientific organisations, public authorities and decision-makers and provide tools for mutual information, sharing experience and scientific results.

#### 2. AIM OF THE TASK AND THIS FIRST REPORT

The "Draft overview of E&H programmes" within the ERA-ENVHEALTH partner countries was undertaken in line with the "Description of Work" for the ERA-ENVHEALTH project – "Coordination of national environment and health research programmes – Environment and Health ERA-NET".

The "Draft overview of programmes" is one of the outcomes of Task 1.2. – "Information collection and description of current programmes and projects" resulting from Work Package 1 – "Information exchange: describing the E&H research landscape for trans-national research".

The aim of this work package is to gather information on programmes with an environment and health (E&H) component within the ERA-ENVHEALTH consortium. It is dedicated to provide the basic facts on research programmes in order to help understand the overall portfolio of research being funded and facilitate mutual knowledge and systematic exchange of information concerning research programming. The information collected via this overview will support the identification of opportunities for joint activities.

The aim of the "Draft overview of programmes" was to provide a first description of the E&H research landscape in partner organisations and to provide the first overview of national programmes and projects owned or managed by the ERA-ENVHEALTH consortium partners.

The necessary information was collected through a questionnaire survey focused on the description of programme manager organisations, overall information of the E&H programmes (objectives, budget and source of funding, topics) and information of the number of projects funded by the E&H programmes. More detailed information about the relevant projects will be collected in the next stage.

In the next steps, the draft overview will be supplemented to the final overview of programmes and projects including a synthesis and recommendations for effective funding of E&H research and effective cooperation arrangements between experts. The information collected under this overview will serve as a first input into the database developed under task 1.1.

Another consequence of this overview, as well as of the activities undertaken in the ERA-ENVHEALTH project as a whole, will be finding a way to better support research in the field of E&H and in particular better support research looking at reducing negative environmental impacts on human populations and their health in order to improve human health protection and prevention.







# 3. METHODOLOGY AND EVALUATION OF THE QUESTIONNAIRE ITEMS

#### 3.1. Definitions of Environment and Health (E&H)

The subjects of the deliverable D1.2.1 – "Draft overview of programmes" were Environment and Health (E&H), E&H programmes, E&H projects and the programme management organisations.

Environment and Health is a very broad topic that covers all possible mutual relations, links, interactions and approaches.

The WHO working definition of Environment and Health identifies environment and health as comprising those aspects of human well being, health and disease that are determined by factors in the environment. It also relates to the theory and practices of assessing and controlling factors in the environment that potentially affect health or well being.

The working definition of Environment and Health used for the ERA-ENVHEALTH project purposes is:

"Environment and health is concerned with aspects of human health and disease that are determined by factors in the natural and built environment. It includes both the direct pathological effects of chemical, physical and some biological agents, and the effects (often indirect) on health and well-being of the broad physical, psychological, social, and aesthetic environmental factors. It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations."

Therefore the E&H programmes covered by this questionnaire survey means programmes that promote and finance projects aiming at supporting scientific research, cooperation and policy development in the wide areas of the above mentioned E&H definition. The programmes implemented by the ERA-ENVHEALTH partner organisations were taken under consideration in this survey.

#### 3.2. Methodology of the questionnaire survey

The draft overview of programmes was elaborated on the basis of a questionnaire survey.

#### Aim of the questionnaire

The questionnaire was dedicated to provide the basic facts on the research programmes in the partner organisations in order to help understand the overall portfolio of research being funded and to facilitate mutual knowledge and systematic exchange of information concerning research programming in environment and health. An additional questionnaire will be sent later on specific questions related to the programme management, administrative and scientific organisation, and procedures of evaluation and selection of the projects for funding in ERA-ENVHEALTH partner organisations in order to help prepare a second call for E&H research projects.







The information provided by this questionnaire assists with the following deliverables for the Work Package 1, coordinated by the Public Health Authority of the Slovak Republic (UVZ):

- 1. D1.1.1: Specification of the database
- 2. D1.1.3: Database of Environment and Health research programmes, projects and facilities
- 3. D1.2.1: Draft overview of programmes
- 4. D1.2.2: Final overview of Programmes and projects including synthesis and recommendations

The first purpose of the questionnaire survey was to gather information on E&H research programme management organisations, their fields of activities and task related to E&H issues. This information will be kept in the research database and will be used for acquiring contacts and establishing cooperation to help support E&H activities and resolve E&H issues.

The second purpose of the questionnaire survey was to gather information on Environment and Health (E&H) programmes and projects to create a database of these projects and their outcomes. The database can consequently help experts engaged in the same field of professional activities to share data, experience, findings and conclusions and to find potential partners for next E&H projects. The research database will represent an important inventory of scientific activities in the E&H area among the partner countries. It will provide a basis for the consequent identification of opportunities for joint activities, and will help to create an efficient network by fostering improved communication, developing better knowledge and promoting trust-building among the partners through a mutual learning process and systematic exchange of information and good practices.

#### Respondents

Respondents who were asked to provide this initial information via the questionnaire were the ERA-ENVHEALTH partner organisations. The scope of respondents will be enlarged in the second phase for the final report during which all ERA-ENVHEALTH partners will be asked to contact other national and regional E&H research programme managers to help complete the ERA-ENVHEALTH research database. Known contacts in other countries will also be invited to complete information in the database.

#### Time period covered by the questionnaire

The questionnaire aimed to gather information on national Environment and Health programmes, projects, and research priorities  $\underline{\text{from 2006 to March 2009}}$  (as was agreed during the first WP1 workshop held in Brussels on the  $29^{\text{th}}$  of October 2008).

#### **Questionnaire template**

The common questionnaire template was used as a basis for the structure of the research database prepared under Task 1.1. The questionnaire template was approved by the ERA-ENVHEALTH consortium in January 2009.

The questionnaire was divided into 3 sections:

- SECTION A: The programme manager's organisation
- SECTION B: Funding of the E&H programme
  - o B. 1. Overall information on the programme
  - o B. 2. Output of the programme
  - o B. 3. Future priorities of the programme
- SECTION C: Relevant projects funded by this E&H programme

There were 27 questions. The persons asked to complete the questionnaire were preferably the programme managers rather than the funding organisations (programme owners, if different from the programme managers). The questionnaire template is attached in Annex 1.

Following the conclusions of the teleconference on the 10<sup>th</sup> of February 2009, for this first phase of the work and due to the time frame for the draft overview of programmes, the ERA-ENVHEALTH partners







were asked to only respond to the first 9 questions. The other questions will be completed in the second phase of the work to take place in the second trimester of 2009 and will be fed into the final report. Therefore only the first 9 questions (i.e. section A and Section B-B.1) have been evaluated in this report.

#### 3.3. Number of countries who participated and number of responses

14 organisations from the 16 partner organisation of the ERA-ENVHEALTH consortium responded to the first phase to give information on their E&H research programmes. The percentage of return of the questionnaire was 87.5% by the 24<sup>th</sup> of March 2009. The two partners who did not respond will provide information for the next "Final overview of Programmes" (D1.2.2.).

Information on about 18 programmes was collected (the subsidiary programmes of The Emissions Research Programme in Sweden were evaluated as a two different programmes and the MistraPharma programme in Sweden has been revised as a project). Programmes were implemented in 9 countries of the ERA-ENVHEALTH consortium (The Netherlands, United Kingdom/England and Wales, Sweden, Belgium, Germany, France, Slovak Republic, Italy, Ireland).

# 4. ANALYSIS OF THE E&H PROGRAMMES - METHODS AND RESULTS

#### 4.1. Management organisations

#### Methods

Management organisations represent organisations who are owners or managers of the E&H programmes and provide financial support for realisation of E&H research projects. The aim of the E&H programmes is the identification of environmental hazards and the impacts of environmental factors on human health and well being.

Obtaining basic information about the management organisations was covered in the questionnaire in Section A, under the questions 1, 2, and 3.

Questions focused on:

- Contact data: name, acronym, url, country, city, post address, phone, fax
- Description of the organisation and its role: general view of the organisation, key purpose, role and responsibilities of the organisation
- Type of organisation: ministry, federal agency, public body, non profit organisation, foundation, regional agency, research organisation, international organisation, private organisation, other.

#### Results

14 research programme managing organisations from 9 countries partners of the ERA-ENVHEALTH network responded to the questionnaire survey.

#### Contact data, description of the organisation's role

Information on the activities in relation to E&H programmes was provided by the following organisations:







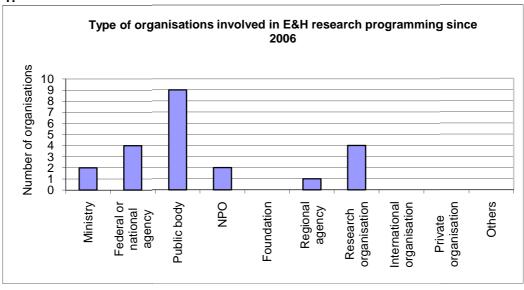
Name	Acronym	Country
Ministry of Housing, Spatial planning and the Environment	VROM	The Netherlands (NL)
National Institute for Public Health and the Environment	RIVM	The Netherlands (NL)
Environment Agency of England and Wales	EA	The United Kingdom (UK)
Natural Environment Research Council	NERC	The United Kingdom (UK)
Swedish Environmental Protection Agency	Swedish EPA	Sweden (SE)
Belgian Science Policy	BelSPO	Belgium (BE)
Belgian Federal Public Service Health, Food Chain Safety and Environment	FPS	Belgium (BE)
Federal Environment Agency	UBA	Germany (DE)
French Agency for Environmental and Occupational Health Safety	Afsset	France (FR)
French Environment and Energy Management Agency	ADEME	France (FR)
French Ministry of Ecology, Energy, Sustainable Development and Land Use Planning	MEEDDAT	France (FR)
Public Health Authority of the Slovak Republic	UVZ	Slovak Republic (SK)
National Research Council	CNR	Italy (IT)
Environmental Protection Agency	EPA	Ireland (IE)

Contact information and a description of the overall roles and activities of the E&H programme managing organisations based on the information provided via the questionnaire and information available on their web pages are given in Table 2 (see Annex 2).

#### Types of organisations

Most of the organisations who responded to the questionnaire survey were public bodies (9 organisations) and, to a lesser extent, federal or national agencies (4 organisations), research organisations (4 organisations), non-profit organisations (2 organisations), ministries (2 organisations) and regional agencies (one organisation).

Figure 1:









#### 4.2. Overall information and general objectives of the E&H programmes

#### Methods

The term E&H programme for the purposes of this evaluation meant whatever national or international programme, which has been or can be used for funding projects dealing with environment and health issues and which continued, started or terminated since 2006 to date. The programmes were implemented by ERA-ENVHEALTH partners described in the previous chapter.

The frequency and nature of the programmes were also evaluated. The nature of the programme looks at whether the programme has permanent objectives and lifetime, or whether it was created exceptionally for some emerging issues, or whether the objectives of the programme are policy oriented and change with the political issues.

Obtaining basic information about overall E&H programme objectives was covered in the questionnaire in Section B, under the questions: 4, 5. Questions focused on:

- General information on the programme: name, acronym, url, address, start and end date, frequency of the programme (for e.g. annual, biannual...), nature of the programme (permanent, exceptional...).
- General objectives of the programme: general details relating to the E&H programme and specific details relating to area of research that are funded.

#### Results

The questionnaire survey showed that since 2006, to the day of processing of the questionnaire (February / March 2009), 14 programme managing organisations implemented 18 different E&H programmes.

#### General information

A list of implemented E&H programmes and a description of the programmes is shown in Table 3 (see Annex 3). The list includes the following programmes:

Name	Acronym	Organisation acronym	Country
Policy support with regard to the living space	BMP	VROM and	The
and environment	DIVIE	RIVM	Netherlands
Environment and Human Health	EHH	EA	The United
Environment and riuman riealth	ЕПП		Kingdom
Joint Environment and Human Health	E&HH	NERC	The United
Programme	ΕάΠΠ	NEKC	Kingdom
Clean Air Research Programme	SCARP	Swedish EPA	Sweden
The Emissions Research Programme -	EMFO	Swedish EPA	Sweden
Subsidiary programme: Particles	LIVII O	Swedish LFA	Sweden
The Emissions Research Programme -			
Subsidiary programme: Health and	EMFO	Swedish EPA	Sweden
environmental impact			
Reproduction and Chemical Safety Programme	ReproSafe	Swedish EPA	Sweden
Swedish National Air Pollution and Health	SNPA	Swedish EPA	Sweden







	T	·	1
Effects Programme			
Science for Sustainable Development - Health and Environment	SSD/HE	BelSPO	Belgium
The Belgian National Environment and Health Action Plan	NEHAP + CEHAP	FPS	Belgium
Action Programme Environment and Health / Environment Action Plan	APUG/UFOPLAN	UBA	Germany
Environmental Specimen Bank	ESB	UBA	Germany
National Environmental and Occupational Health Research Programme (Programme national de recherche Environnement-Santé- Travail)	PNR EST	AFSSET	France
Inter-organism national research programme for better air quality at the local and regional scale (Programme de recherche interorganisme pour l'amélioration de la qualité de l'air à l'échelle locale)	PRIMEQUAL	MEEDDAT and ADEME	France
National research programme on endocrine disruptors (Programme national de recherche sur les perturbateurs endocriniens)	PNRPE	MEEDDAT and ADEME	France
National Environment and Health Action Plan	NEHAP III + CEHAPE	UVZ	Slovak Republic
Environment and Health Interdepartmental Project	PIAS CNR	CNR	Italy
Science, Technology, Research and Innovation for the Environment	STRIVE	EPA	Ireland

In terms of the evaluation time schedule it can be stated that 16 of the 18 programmes had already been implemented before 2006 (included), three programmes were terminated before 2009, 5 will be completed in 2009 and 10 programmes will continue after 2009. The duration of the programmes with a fixed start and end date ranges from 24 to 84 months (average 58 months). Five other programmes were designated as permanent.

The frequency of the programme was: single call, annual, quadrennial, quinquennial, 7-annual, permanent.

The nature of the programme was mostly permanent or exceptional or cyclical, in a few cases timelimited or policy-oriented.

In practice, it is possible that sometimes the programmes aimed at funding E&H projects are prematurely closed. The projects running under such programmes can be transferred to other kinds of programmes; however they do not have to focus exactly on one E&H topic. Cross-cutting themes across other programmes rather than a specific E&H programme can also be applied. That was the case of the EHH programme in England and Wales which was transferred to one of the six new programmes (Climate Change, Modern Regulation, Integrated Catchment Science, Flood Risk Science, Resource Efficiency and Innovation for Efficiency).

General information on the programmes mentioned above is given in Table 3 (see Annex 3).

#### General objectives of the programmes

The general objective of the E&H programmes was to adopt appropriate actions and measures to protect the human population against adverse environmental impacts based on better understanding

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of the relationship between risks due to environmental hazards with regards to human health. Knowledge of cause-consequence interactions between the environment and public health is the basic step towards effective prevention of human health effects and diseases caused by environmental factors.

General objectives of particular programmes mentioned above are described in Table 3 (see Annex 3).

#### 4.3. Funding sources for E&H programmes

#### **Methods**

Financial sources for E&H programmes, for the purposes of this survey, meant the resources that financially secured the implementation of the E&H programmes since 2006 (included), i.e., programmes whose implementation was carried out, started or planned in and from 2006, including the following years.

Information on the types of funds was collected at the level of national/federal funds, regional/subnational funds, European funds, international funds and donations by individuals.

Data on the total budget or the annual budget have been obtained directly from the questionnaire or have been converted on the basis of the budget information and the number of months of the programme duration. In the case of a permanent programme, with unlimited duration, the total budget was calculated on the basis of the annual budget planned until 2013. (The year 2013 was chosen for this evaluation because the last non-permanent programmes will terminate in this year).

The number of projects financed by the E&H programme means the number of projects funded since 2006 (included) until the end of 2008, because the overview was carried out in the beginning of 2009 (February / March 2009).

Obtaining basic information about E&H programmes funding sources was covered in the questionnaire in Section B, under the questions: 6, 7, 8. Questions focused on:

- Type of funding sources for E&H programmes: (National/Federal, Regional/Subnational, European, International, Donations by individuals).
- Total budget of the E&H programmes (Total budget, Yearly budget, Budget spent until now).
- Number of project funded through the E&H programmes from 2006 to date.

#### Results

#### Type of funding

All the programmes implemented within the ERA-ENVHEALTH partners who participated in the survey, were funded by national or federal sources. Only one programme, NEHAP III (Public Health Authority of Slovakia), was funded from national and European sources.

#### Total budget

The information about the budget of the programmes has to be considered as only approximate. Average figures have been used and change depending on the projects and other priorities in scientific programmes. Most of the programmes have not terminated yet (15 programmes) and their total or yearly budget can be only assumed. Also, a case when it was not possible to define which part of the particular programme is used only for funding research has occurred because the budgets of





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some programmes can not clearly distinguish between research funding and other activities related to the whole programme implementation (e.g. NEHAP III/ UVZ).

Because of the facts mentioned above and because of the absence of a uniform methodology used to calculate the budget by the involved organisations (developing such methodology was not the objective of this "Draft overview"), the presented funding results can be distorted.

For the purposes of this "Draft overview", to at least make a simple comparison and approximately assess the budgets of the E&H programmes, the information about the duration of the programmes (in months, and during the particular years) and on their budget (total, yearly, spent until now) were used to calculate approximate assumed yearly budgets of the E&H programmes covered in this "Draft overview".

The results of this simple calculation are as follows:

Total financial sources invested in the years 2006-2008 for 18 E&H programmes within the ERA-ENVHEALTH consortium represent 58 M€. During this period approximately 440 projects were funded. 61 M€ are planned to be invested between 2009 and until the end of 2013. Yearly investments in E&H research programmes ranged from 60 thous.€ to 4.5 M€ that means 1.3 M€ on average annually.

#### Number of project funded through the E&H programmes from 2006 to date

The number of projects funded through the E&H programmes since 2006 to date (e.g. to the end of 2008) was approximately 440.

Table 1: Yearly budget of the E&H programmes and number of projects funded from 2006 to date

Programme name	Programme acronym	Aprox. yearly budget (thous. €)	Number of project (from 2006 to date)
Policy support with regard to the living space and environment	BMR	4 500	80
Environment and Human Health	EHH	750	21
Clean Air Research Programme	SCARP	808	22
The Emissions Research Programme - Subsidiary programme: Particles	EMFO	60	4
The Emissions Research Programme - Subsidiary programme: Health and environmental impact	EMFO	2 550	6
Reproduction and Chemical Safety Programme	ReproSafe	636	17
Swedish National Air Pollution and Health Effects Programme	SNAP	600	17
Science for Sustainable Development - Health and Environment	SSD/HE	724	6
Action Programme Environment and Health / Environment Action Plan	APUG/ UFOPLAN	1 200	41
Environmental Specimen Bank	UPB/ESB	4 300	15
The Belgian National Environment and Health Action Plan	NEHAP + CEHAP	200	7
National Environmental and Occupational Health Research Programme	PNR EST	2 000	104
Joint Environment and Human Health Programme	E&HH	1 785	37



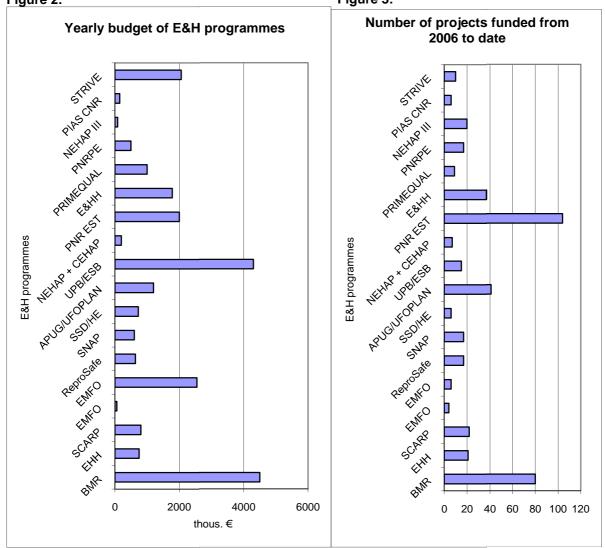




Inter-organism national research programme for better air quality at the local and regional scale	PRIMEQUAL	1 000	9
National research programme on endocrine disruptors	PNRPE	500	17
National Environment and Health Action Plan III.	NEHAP III + CEHAPE	83	20
Environment and Health Interdepartmental Project	PIAS CNR	150	6*
Science, Technology, Research and Innovation for the Environment	STRIVE	2 060	10

<sup>\*</sup> number of working groups

Figure 2: Figure 3:





#### 4.4. Topics of the E&H programmes

#### Methods

Environment and health is an issue that extends to the wide range of topics related to assess the causal–consequence relations between the state of environment and population health. The topic of the E&H programmes is very broad. It includes the issues of environmental protection, prevention and protection of human health but also social and economic aspects of development in human society.

Obtaining basic information about E&H programme topics was covered in the questionnaire in Section B, under the questions of point: 9.

These questions focused on:

- Themes related to human health aspects
- Agents
- Human Health Effects
- Methodologies
- Social aspects of environment and health

#### Results

#### **Topics**

Most of the E&H programmes are built on a very wide scope and create conditions for funding and supporting research on very different problems and issues, which would result in recommendations and adoption of steps leading to improvement of the population health status.

The 18 programmes included under the survey showed that, from the point of view of <u>assessing the state of the environment and its relation to human health,</u> most attention is devoted to assess the effects of air quality (outdoor and indoor) and the effects of the occupational environment on human health. The highest frequency of other topics was in the following order: transport, water quality and water supply, soil contamination, food safety, climate change and green space. Others topics such as the socio-economic factors, human biomonitoring and E&H indicators were stated too.

Figure 4:	



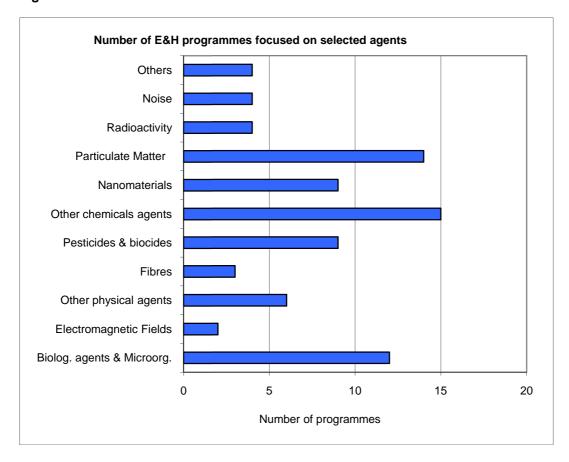
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From the "Agents" point of view the most of the programmes deal with chemical agents, followed by particulate matter, and biological and microbiological agents, pesticides and nanomaterials. To a lesser extent, the programmes were focused on other physical agents, radioactivity, noise, fibres and electromagnetic fields. Others agents such as human pharmaceuticals (active ingredients), emerging pollutants, pathogens and flooding were stated too.

Figure 5:

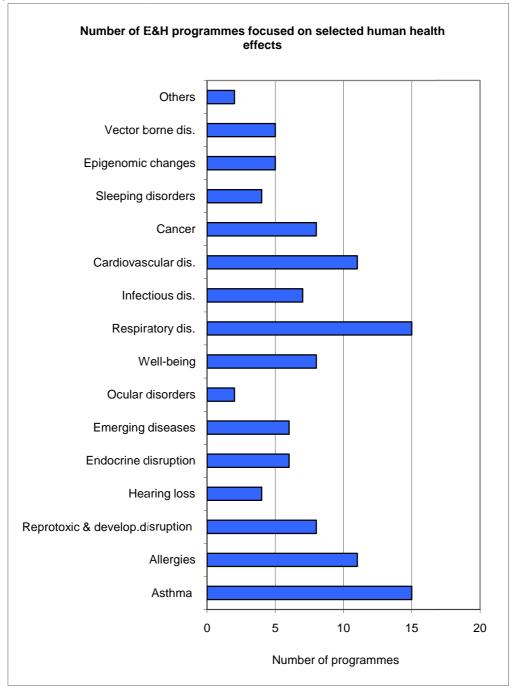






With regard to <u>human health effects</u>, the E&H programmes deal mostly with asthma, respiratory diseases, allergies and cardiovascular diseases, followed by reprotoxic & developmental disruption, cancer, well-being / (risk perception), endocrine disruption, infectious diseases, emerging diseases, epigenomic changes, hearing loss, sleeping disorders, vector borne diseases and ocular disorders. Finally, sensitisation against indoor mould fungi effects was stated.

Figure 6:



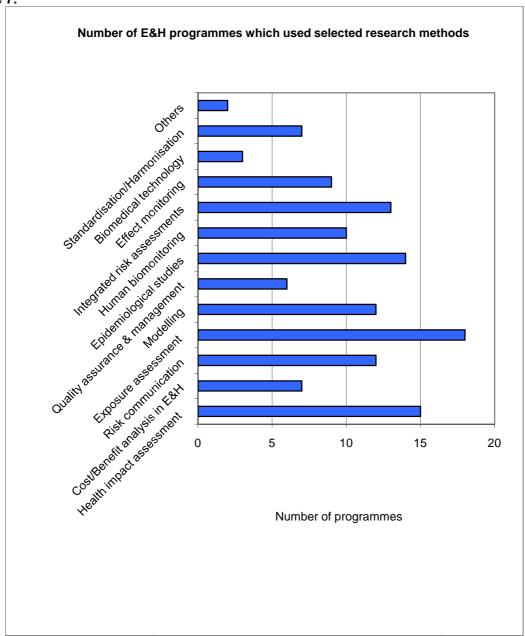






The most commonly used methods to assess impacts of the environment on human health are exposure assessment, health impact assessment, integrated risk assessments, risk communication and modelling, followed by human biomonitoring, effect monitoring, cost-benefit-analysis in E&H, standardisation/harmonisation, quality assurance & management and biomedical technology. Storage of specimens and retrospective monitoring, as well as social-history were also recorded.

Figure 7:

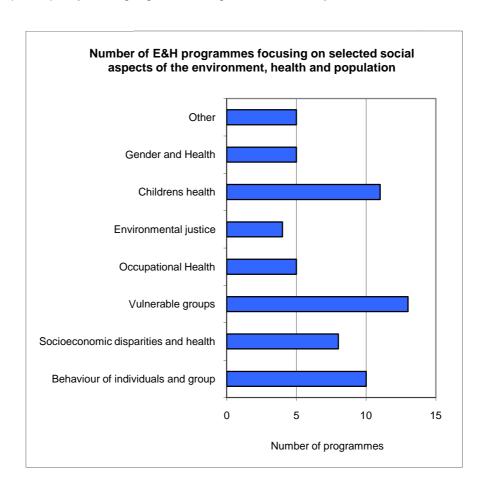






As for social aspects of environment and health and populations in the E&H programmes, they are most often related to vulnerable groups and children, and followed by behaviour of individuals and group and socioeconomic and health disparities. Occupational health, environmental justice, gender and health, public policy making, agenda setting, the socio-history were also recorded.

Figure 8:



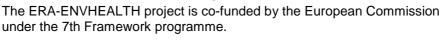
#### 5. DISCUSSION

The WHO working definition identifies environment and health as comprising those aspects of human well being, health and disease that are determined by factors in the environment. In order to tackle the broad and complex issues encompassed in E&H, both the environmental science and the public health communities need to be mobilised to work together. Many networks relevant to E&H exist but no network provides access to national research programmes and none fully integrates E&H issues. Therefore the ERA-ENVHEALTH project is intended to bring together key participants in E&H research management from ERA-ENVHEALTH partners and others with the objectives of achieving critical mass and ensuring better use of resources facilitating access to experts joining forces to provide answers to common problems, global or specific geographical issues and developing common approaches and governance principles to develop more coherent E&H policies.

**ERA-ENVHEALTH partner organisations** provide most of all underpinning evidence base for policy development and operational tools. They work at regional and national or federal level as independent

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authorities acting on the basis of a governmental funding and supervision. The scope of activities and responsibilities of ERA-ENVHELATH partners is very broad.

The ERA-ENVHEALTH consortium is represented mostly by public bodies which operate in the field of environmental and health protection and assessment. Their tasks are to ensure that political decisions are implemented as well as to support decision makers with proposals for environmental policy and legislation. The emphasis is placed on implementation of the highest standards of environmental protection and management that embrace the principles of sustainable and balanced development. These organisations also evaluate the effectiveness of adopted measures to attain environmental quality objectives, fund research and provide information about the state of the environment and protection of public health (EA of England and Wales, Swedish EPA, UBA, FPS, AFSSET). Environment and health issues have a mutual influence on each other and they blend together very closely. Therefore outcomes from environmental authorities' findings become important inputs for the adoption of health protection measures.

ERA-ENVHELATH partners may be <u>policy-oriented organisations</u>. Their scope of responsibilities is to implement policy, establish legislation in co-operation with professional organisations as well as social partners, and undertake inspections to make sure that rules are observed (VROM). The institutions which perform expertise on both environment and health (RIVM) also play an important role in advising the government on the risks to public health.

Many partners in the ERA-ENVHEALTH consortium are <u>scientific organisations</u>. Their mission is to prepare, execute and evaluate science policy and its extensions at the national or federal level and provide scientific support for governmental organisations. Scientific authorities within the ERA-ENVHEALTH consortium mostly coordinate, support, fund and implement research programmes and carry out research related to environmental topics (BelSPO, UBA, NERC, CNR, EPA). Some ERA-ENVHEALTH partners also fund and carry out wider interdisciplinary scientific and technological research, concerning several sectors: biotechnology, medicine, materials, environment and land, information and communications, advanced systems of production, judicial and socio-economic sciences, classical studies and arts (CNR). Supporting cooperation within the experts' network and applying an interdisciplinary approach in research activities is accepted as the best way for explaining environment and health issues.

Certain organisations have oriented the scope of their main activities specifically to <u>environment and health policy</u> and related management planning. Their aim is to protect human health, to assess environmental health risks, to contribute to ensuring health safety in all types of surroundings including the occupational environment, to eliminate negative impact of chemical substances, electromagnetic fields, noise pollution, occupational exposure, food contamination with regards to human health. They provide the scientific and technical support needed to develop and implement public health as well as environmental legislation (FPS, AFSSET, RIVM). <u>Health authorities</u>, which are also partners of the ERA-ENVHEALTH consortium, identify health risks and monitor and collect data in relation to health determinants and public health as well as in relation to the health conditions of different population groups within their living conditions and working conditions (UVZ).

All ERA-ENVHEALTH partners are conscious of the importance and necessity of exchange of scientific knowledge to best explain and help resolve environment and health issues and to promote the effectives and wide spread utilisation of the outputs of their research. Therefore, every organisation is willing to cooperate, network, and share experience and data. On an international level some organisations work as contact points or permanent secretariats for commissions or conventions. For example FPS works as a permanent secretariat of the National Environment and Health Cell which is responsible for implementing the Belgian NEHAP and funding the NEHAP projects. UBA acts as partner and as Germany's contact point for many international organisations, including the WHO. EA chairs the Environment Research Funders Forum, which is a network of the major funders of environmental science research throughout the UK, spanning the research spectrum from academic to







applied research. At national level, RIVM is a focal point for medical and environmental expertise for the Municipal Health Services and carries out studies and investigations for other government authorities.

The **general objective of the E&H programmes** implemented by the ERA-ENVHEALTH partners is to better understand relation between environmental hazards and risks to human health and thereafter adopt appropriate actions and measures for improved health protection against adverse environmental impacts as well as measures for environmental protection. Knowledge of cause-consequence interactions between the environment and public health is the basic step towards the effective prevention of human effects and diseases caused by different factors in the natural and built environment.

The E&H programmes are concerned with large-scale practises and actions related to direct or indirect effects of chemical, physical and biological agents on human health and well-being. In a general, their specific objectives can be grouped in the following categories, which support each other in a cause-effect framework of DPSEEA (**D**riving forces-**P**ressures-**S**tate-**E**xposure-**E**ffects-**A**ctions):

- Support scientific research activities aiming at identifying environmental hazards and exposure with regards to human health
- Assess impacts and reduce environmental hazards leading to a wide spectrum of health effects
- Provide support for policy makers to take measures and actions for health protection against environmental risks
- Improve cooperation among experts and authorities
- Inform the public

Of course, most E&H programmes deal with all these types of objectives at the same time, and it is not possible to categorise a particular programme according only one particular objective.

#### Identification of environmental hazards and effects on human health

The first step, which precedes the actual assessment of environmental health risks, is to improve scientific knowledge on the causes and links between environmental hazards and the public health status. However, the research and subsequently related activities are limited to the comprehension of the risk factors, their emergence, their cumulative effects on health and the development of the evaluation methods, management, regulation and risk reduction. Research results are essential to support the decision-making processes, in setting the goals of environmental and health policy. It should also be noted that besides the environmental effects, the synergetic effect of external factors (for e.g. social and economic situation) may also affect the results of E&H projects.

Among the national E&H programmes implemented by the ERA-ENVHEALTH partners, the priority on scientific activities in the field of E&H is characteristic for the <u>Science for Sustainable Development - Health and Environment (SSD/HE / BeISPO)</u> programme. The general objectives of this programme are to preserve and develop the scientific potential in various strategically important areas (with the objective of reducing scientific uncertainties and anticipating future needs for knowledge); to contribute to developing scientific knowledge and instruments (models, concepts, indicators, etc.) aiming at the analysis of processes. The research on Environmental Health under this programme is focused on two axes: risks related to the exposure to chemical, physical and biological risk factors and workplace health risks (including organisational risks at work).

The research activities are supported also by the <u>Action Programme Environment and Health / Environment Action Plan (APUG/UFOPLAN / UBA)</u>. Its purpose is to forge closer links between environment protection and health protection and thereby provide improved protection of health against environment influence. The main area of the subject of this programme are research projects examining the exposure and sensitivity of children and adolescents to pollutants or chemical and





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biological pollution of indoor environments or aspects of noise, radiation and environmental medicine etc. The research projects take place also under the <u>German Environmental Specimen Bank (ESB / UBA)</u> programme which is focused mostly on emerging substances.

Ensuring health safety in general and occupational environments by mobilising the scientific and technical expertise necessary for risk evaluations is also covered by the <u>National Environmental and Occupational Health Research Programme (PNR EST / AFSSET)</u> programme. This programme aims at promoting excellent research in environmental and occupational health, developing new methods and tools in all stages of health risk assessments on subjects which need decisions to be taken by risk managers and policy-makers. The programme has four axes: characterisation of hazards and exposure estimation; linking exposure to health effects; modelling and health risk assessment, study of the link between risk and society. Scientists funded by the programme tackle the complicated mix of environmental, social and economic factors that influence health, particularly focusing on naturally occurring toxins, man-made pollutants, nanoparticles and pathogens.

Promotion of integrated research to enhance knowledge on links between pollution and health effects, to establish methods and tools to examine the interactions between the environment and health and methods and tools for risk assessment is also the purpose of the <a href="Environment and Health Interdepartmental Project (PIAS CNR / CNR)">Environment and Health Interdepartmental Project (PIAS CNR / CNR)</a> programme. The aim of the <a href="Swedish Clean Air Research Programme">Swedish Clean Air Research Programme</a> (SCARP / Swedish EPA), the <a href="Emissions Research Programme">Emissions Research Programme</a> (SNAP / Swedish EPA) is to improve the understanding of the effects of air pollution on human health.

The development of national capacity for conducting research in environment and health is the aim of the E&H themes of the <u>Science, Technology, Research and Innovation for the Environment (STRIVE / EPA)</u> programme. The programme currently funds projects with a strong health impact including: environmental impacts on drinking water quality; endocrine disrupting substances in the Irish aquatic environment; air quality including particulate matter; eutrophication from agriculture sources; health impact assessment; health effects of climate change. Outcomes of the projects are used to generate data and assess priorities in environment – health issues.

#### Assessment of impacts and reduction of risks of environmental effects on human health

Support for assessment and monitoring of the impacts of various environmental factors on population health is an aim of the <u>Policy support with regard to the living space and environment (BMP / VROM and RIVM)</u> programme. Potential environmental impacts on public health are estimated and predicted by the different methods including computer models and methods. Assessment is focused also on environmental impacts on public health caused by exceptional circumstances such as accidents and disasters.

The other programme, <u>Environment and Human Health (EHH / EA)</u>, is focused on identifying, prioritising and evaluating risks to, and impacts on, environmental and human health in particular understanding the relative significance of risks from anthropologic processes and activities. This also involves the development of tools and techniques necessary to support the delivery of proportionate risk management of chemicals and microbes and prioritising hazardous substances and microbial threats of concern and risks from the combined effects of multiple stressors.

The specific subject of monitoring and assessment is characteristic of the German Environmental Specimen Bank (ESB / UBA) programme. ESB deals with, for example, sampling of human, biological, and abiotic material, trace analysis of pollutants, cryobank operation. After two decades of operation the ESB provides continuous historical record of the state of the environment in Germany during this period. It allows the retrospective monitoring of pollutants to identify temporal trends and spatial load differences and to analyse samples from the past with desirable precision using the analytical methods of the future. The Reproduction and Chemical Safety Programme (ReproSave / Swedish EPA) programme also looks at the specific subject of monitoring and assessment. It is focused on chemicals





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in the environment and their possible impact on human health and reproduction. Other subjects related to air pollution and its quantitative risk assessment is covered in the <u>Swedish Clean Air Research Programme (SCARP / Swedish EPA)</u> and the <u>Swedish National Air Pollution and Health Effects Programme (SNAP / Swedish EPA)</u>.

The objective to reduce risk arising from environmental impacts has a close connection to risk assessment and depends on the undertaken measures. This objective is crucial for the National Environment and Health Action (NEHAP III / UVZ) whose priorities range from food safety, soil, air pollution, drinking water quality, healthy working environment and healthy work conditions, health services and environmental health services, houses, communication with public and NGOs to education and promotion towards environmental health.

#### Providing support for policy-makers

All outputs of the projects carried out under the E&H programmes implemented by the ERA-ENVHEALTH partners (i.e. scientific research results, evaluations of state of the environment and state of the health, studies, problem formulation, environmental risks assessment, prognoses of progress etc.) create very broad and valuable information and knowledge basis. This basis is crucial for further analyses and synthesis, and for adoption of the best actions and measures for environmental health protection and improvement.

To enhance the ability to set and communicate priorities and protection goals based on a better understanding of the relative risk to the environment and human health is the overall objective of the Environment and Human Health programme (EHH / EA). Some of the specific objectives of this programme are to improve understanding and application of the Risk Assessment Framework, to develop environmental quality goals, guidelines & standards that are protective of the environment and human health in a way that is consistent, transparent, scientifically defensible, and with due consideration of socio-economic impacts, and to identify future issues using emerging science and current knowledge of pollutant properties and impacts.

Advice on measures to prevent and reduce risks to human health are also provided to policy-makers based on the environmental monitoring and modelling carried out under the <u>Policy support with regards to the living space and environment (BMP / VROM and RIVM)</u> programme. Production of knowledge directly useful for elaborating prevention policies is also done through the <u>National Environmental and Occupational Health Research Programme (PNR EST / AFSSET)</u>.

Objectives of scientifically-oriented programmes such as the <u>Science for Sustainable Development - Health and Environment (SSD/HE / BelSPO) programme</u> are also aimed at providing scientific support for authorities responsible for the preparation and implementation of appropriate environmental and health policies. SSD/HE provides the scientific support required for vertical (across policy levels) and horizontal policy (across policy domains) integration oriented towards sustainable development.

The Emissions Research Programme – Subsidiary programme on health and environmental impact (EMFO/Swedish EPA) is more oriented towards industry. Its objective is to give industry and authorities access to the knowledge required to develop vehicles and vehicle components in a sustainable direction, with the lowest effects to the environment from air pollutant emissions and noise to arise from vehicles on public roads, as well as from heavy working vehicles, and consequently with lowest effect on human health. Outcomes from quantitative risk assessment regarding air pollution for decision-makers in the field of environmental and health policy are also provided through the Swedish National Air Pollution and Health Effects Programme (SNAP / Swedish EPA).

To support to policy is indeed the final stage of the tasks of all programmes, including  $\underline{SCARP}$  /  $\underline{SWedish\ EPA}$ ,  $\underline{EMFO}$  /  $\underline{SWedish\ EPA}$ ,  $\underline{NEHAP\ III}$  /  $\underline{UVZ}$ , etc.







#### Improving cooperation

Objectives which focus on cooperation, networking between experts, research potential and scientific knowledge exchange are the domains mostly of the scientific programmes such as for example the Science for Sustainable Development - Health and Environment (SSD/HE / BelSPO) programme. SSD is aiming at encouraging interdisciplinary research and promoting dialogue and information exchange between scientists, decision-makers, and other involved actors at the regional and national level as well as in a European and international context. The specific characteristic to bring scientists from many disciplines (including environmental science, medical, biomedical, socio-economic and public health research), stakeholders and policy-makers/administration experts to work together is also an aim of the Belgian National Environment and Health Action Plan (NEHAP+CEHAP / FPS), the Joint Environment and Human Health Programme (E&HH / NERC), the Environment and Health Interdepartmental Project (PIAS CNR) and the Science, Technology, Research and Innovation for the Environment programme (STRIVE / EPA), etc.

#### Informing the public

To provide information on environmental health to the public is one of the key objectives of the <u>Action Programme Environment and Health / Environment Action Plan (APUG/UFOPLAN / UBA)</u>. Information to the public can be taken under consideration as a added value of all E&H programmes because of directive 2003/4/EC on free public access to information on environment or Aarhus Convention.

#### **Topics**

The topics of the E&H programmes are mostly oriented towards environmental issues but an important emphasis is put on the interaction of environmental factors and their effects on human health and well-being. The most frequent topics relate to:

- Risk assessment of air pollution (for e.g. SCARP, EMFO, SNAP, STRIVE)
- Human health risk assessment of chemicals, physical and biological factors (for e.g. EHH, ReproSave, SSD, ESB, E&HH, SSD/HE, PNR EST, STRIVE)
- Noise emissions (for e.g. EMFO, STRIVE)
- Workplace health risk assessment (for e.g. PNR EST, SSD/HE, BMR)
- Children as a specific vulnerable group which can display particular sensitive reaction to certain environmental influences (APUG, NEHAP III)

The implementation of all E&H programmes puts specific emphasis on the very cross-cutting topics of environment and health issues and on the necessity of interdisciplinary cooperation and experience and information exchange. The appropriate and awaited tool facilitating this kind of cooperation and mutual knowledge exchange is the E&H research programmes database with wide access and data input form the broad environmental science and public health authorities.

#### 6. CONCLUSIONS AND RECOMMENDATIONS

This first overview of the environment and health research programmes (Deliverable D1.2.1.) aimed at gathering information on national E&H research programmes implemented within the ERA-ENVHEALTH partner organisations, their research priorities and project funded by these programmes. From the survey, based on a questionnaire sent to 16 organisations belonging to the ERA-ENVHEALTH consortium, the following main findings can be summarised:

ERA-ENVHEALTH partner organisations are public bodies which operate mainly in the field of environmental protection and risk assessment. Organisations whose main subject of responsibility is human health protection are a minority. For this overview, 14 organisations were analysed. Most of them are characterised as a public body (nine organisations) or as a national/federal agency and

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research organisations. Their roles and the scope of their tasks and activities can be summarised as follows:

- Conduct and coordinate expertise on health risk assessment from environmental and occupational factors
- Environmental policy implementation
- Research activities in environmental issues
- Research activities in environment and health issues
- Funding of environmental and health research programmes and projects
- Contact point and secretariat for national or international organisations, programmes and memorandums
- Combination of all of above mentioned activities

These 14 above mentioned organisations have implemented 18 E&H programmes since 2006. The average duration of the programmes is approximately 54 months, and five are permanent programmes. The frequency of the programme is: single call, annual, quadrennial, quinquannual, multi – annual, permanent and the nature of the programme is mostly permanent or exceptional, in a few cases time-limited or policy-oriented. The sources of finance of the national E&H programmes are national or federal funding sources. In one case the regional and European funding sources were also used. Approximately 58 M€ has been invested through these programmes since 2006 up to the end of 2008 and 62 M€ are planned until the end of 2013. Since 2006 approximately 440 projects were, are and will be implemented.

The general objective of the E&H programmes is to better understand the relation between environmental hazards and their impacts and risks for human health and thereafter adopt appropriate actions and measures for improved protection of health against adverse environmental influences as well as measures for environmental protection. In general, the specific objectives of the E&H programmes can be grouped in the following categories:

- To support research activities aiming to scientific identifying of unfavourable environmental effects to human health
- To assess impact and to reduce risks of unfavourable environmental effects to human health
- To provide support for policy makers to take measures and actions for health protection against environmental risks
- To improve cooperation among experts and authorities
- To inform the public

Most of the E&H programmes deal with all the types of objectives at once and at the same time, therefore it is not possible to categorise a particular programme according to only one particular objective. However, the E&H programmes are used mainly for funding research activities and for carrying out environmental and health impact assessments. Most attention was paid to assessing the air quality aspects with regards to human health and the living environment. The most often observed agents were chemical substances, particulate matter and other physical and biological agents and their effect such as a asthma, respiratory diseases, allergies, cardiovascular diseases, reprotoxic & developmental disruption, cancer, well-being/(risk perception) etc.

Because E&H encompasses the broad and complex issues captured within environmental sciences as well as public health community needs, the E&H programmes support the aim of bringing together scientists from many disciplines including environmental, medical, biomedical and socio-economic sciences, public health research, economists and legal experts, to enhance the scientists' capacity to answer complex research questions that span a wide range of disciplines and to help resolve environmental issues related to health and human well-being. Networking on national and international levels could also bring important contributions to improving and increasing knowledge for better health and environmental protection.





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Recommendations for increasing this cooperation and experience exchange are associated with the objectives of Work Package 1 – Information exchange: describing the E&H landscape for transnational research:

- Develop a database to facilitate information collection and inventory of scientific potential.
- Identify national E&H programmes and gather information on their structure and content.
- Describe E&H programmes to improve the understanding of current practices.

Based on the experience from the data collection via the questionnaire survey, the recommendation for the development of the database, from the future database user point of view, could be as follows:

- Prepare a well structured database of national E&H programmes, with search tools for ease of use across the large number of programmes, projects, managing organisation etc, which will be part of the database.
- Make a clear distinction between what is included in the E&H programme and what is not.
- Prepare an open database also for potentially non-exclusively E&H programmes as a supporting source of information for only exclusive E&H programmes.
- Deal with the situation when the programmes are not exclusively E&H but environment and health issues are cutting theme across many different environmental or public health programmes.
- Involve as much as possible national E&H authorities to provide information to the database.
- Involve more authorities and research organisation dealing with health protection or public health issues to participate in the ERA-ENVHEALTH network and to provide information to the database.
- Develop a database application available for consultation by the public, and in particular the research community.





#### 7. ANNEXES

- Annex 1: Research questionnaire template
- Annex 2: Table 2: The research programme managing organisations involved in E&H programmes since 2006
- Annex 3: Table 3: Overview of the general information and general objectives of the E&H programmes





Annex 1

## Questionnaire

To be completed in English



### **Research Programmes**

National programmes and projects related to Environment and Health within the partner countries

Dissemination level: ERA-ENHEALTH participants and national E&H research programme managers
Task leaders: BELSPO & UBA
WP1 leader: UVZ







The following questionnaire aims to gather information on national programmes, projects, and research priorities from 2006 to date (as we agreed during the first WP1 workshop held in Brussels) in the field of environment and health, among the ERA-ENVHEALTH consortium partner countries. It is dedicated to providing the basic facts on research programmes in order to help understand the overall portfolio of research being funded and facilitate mutual knowledge and systematic exchange on information concerning research programming in environment and health. An additional questionnaire will be sent later on specific questions related to the programme management, administrative and scientific organisation, and procedures of evaluation and selection of the projects for funding in ERA-ENVHEALTH partner organisations in order to help prepare a second call for E&H research projects. Concretely, the information provided by this questionnaire will facilitate the elaboration of the following deliverables for the Work Package 1, coordinated by the *Public Health Authority of the Slovak Republic* – UVZ:

- D1.1.1 and D1.1.3 specification and creation of a Database of Environmental and Health research programmes, projects and facilities. (responsible: *Belgian Federal Science Policy Office* BelSPO (Belgium)
- D1.2.1 and D1.2.2 Draft and final overview of programmes and projects including synthesis and recommendations. (responsible: *Federal Environment Agency* UBA (Germany)

#### Questionnaire

**SECTION A: The programme manager's organisation** (the persons completing the questionnaire should be the programme managers rather than the funding organisation)

1. General information: (please provide as m for mandatory information) Name* (English name): Acronym*: URL: Country*: City:	uch information as you can in	this section. Stars (*) are
Contact and address of the organisation		
Post address: Phone: Fax:  2. Description of the organisation and it organisation; it may be an abstract from th responsibilities of organisation)		
3. Type of organisation: (please tick all that a Ministry	oply) Regional agency Research organisation International organisation Private organisation	



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If other, please specify and/or add any additional comments:

**SECTION B: Funding the E&H programme.** (provide information on all the E & H funding programmes which are managed by the above mentioned organisation ending in 2006 or later or planned) (replicate this section depending on the number of programmes which you think are relevant for the future joint activities of the ERA-ENVHEALTH project)

#### B. 1. Overall information on the programme

4. General information: (please, provided for mandatory fields) Name*: Acronym: URL: Country*: Start date* (dd/mm/yyyy): End date* (dd/mm/yyyy): Frequency of the programme (e.g. an Nature of programme: (e.g. permannature)	
5. General objectives of the E&H proprogramme and specific details relating	<b>ogramme:</b> (please provide general details relating to the E&H to areas of research that are funded).
6. Type of funding source for the E&I National/Federal Regional/Subnational European International Donations by individuals	l programme:
7. Total budget of the E&H program spent until completion of this questionna Budget:  Total budget Yearly budget Budget spent until now	me in Euros: (if available, otherwise yearly budget or budget aire)
	ough the E&H programme from 2006 to date (general lease give more details for certain projects illustrating the E&H em when available – approximately)
9. Topics of the E&H programme: (ple	ease tick all that apply)
1/ Themes related to human health aspective quality outdoor Air quality indoor Climate change Transport Green space	ects Food safety  Water quality & supply Soil contamination Local/living environment



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If other please specifies and add any additional comments:

2/ Agents Biological agents & Microorganisms Other chemicals agents Electromagnetic Fields Other physical agents Fibres (incl. mineral fibres, asbestos)	Pesticides & biocides Nanomaterials Particulate Matter Radioactivity Noise
If other, please specify and add any additio	nal comments:
3/ Human Health Effects Asthma Allergies Reprotoxic & developmental disruption Hearing loss Endocrine disruption Emerging diseases Ocular disorders Well-being/(risk perception)	Respiratory diseases Infectious diseases Cardiovascular diseases Cancer Sleeping disorders Epigenomic changes Vector borne diseases
If other, please specify and add any additio	nal comments:
4/ Methodologies Health impact assessment Cost/Benefit analysis in E&H Risk communication Exposure assessment Modelling Quality assurance & management  If other, please specify and add any additio	Epidemiological studies Human biomonitoring Integrated risk assessments Effect monitoring Biomedical technology Standardisation/Harmonisation
in other, please specify and add any addition	nai comments.
5/ Social aspects of environment and health Behaviour of individuals and groups Socioeconomic disparities & health Vulnerable groups (elderly, children, poor Occupational Health	<ul><li>Environmental justice</li><li>Children's health</li></ul>
If other, please specify and add any additio	nal comments.
B. 2. Output of the programn	пе
10/ Information about the results or out of Science (scientific publications) Policy (recommendations for policy maked Public (stakeholders informed) Publicly available information If other, please specify and add any addition	rs)

\* \* \* \* \* \* \*





11/ Relevant Reports or information on the results or outcome of the programme in English language (e.g. Title, Links if available)
Other relevant information
<b>12/ Output and Recommendations:</b> (please formulate what are the most important outputs of the programme and what we can learn from this programme? please also discuss the requirements and constraints)
B. 3. Future Priorities of your E&H Programme.
13/ What is planned for your E&H programme in the near future and which of the topics stated above in question 9 are for you the most important in the coming years?
14/ What other subjects should E&H programmes in general be dealing with?
15/ In which area of research on E&H topics do you wish new or further cooperation with other partners?
16. Please make any additional comments you wish to be considered.
<b>SECTION C: Relevant Projects funded by this E&amp;H programme</b> Projects which best illustrate the programme (replicate this section depending on the number of projects funded by the programme which you think are relevant for the future joint activities)
<b>17. General information:</b> (please, provide as much information as you can in the section. Stars (*) are for mandatory fields)
Title*: Acronym: URL: Countries*: Start date* (dd/mm/yyyy): End date* (dd/mm/yyyy): Name and acronym of the funding programme of this project:
18. Type of project: (please tick all that apply)  Applied research
If other, please specify and add any additional comments





19. Orientation of the project:  Bottom up  Top down  Both			
<b>20. Objectives of the project:</b> (plear research).	ase provide gel	neral details related to the s	specific areas of
21. Methodology used in the proj materials, instruments and methodolog			I to the specific
22. Information on the outputs of the (e.g. Titles, links to the main publication			
23. Budget provided by the funding p < € 100.000	orogramme for	the project:	
24. Scientific output of the project: (the project). What are the most im information on quality assurance, recon	portant outputs nmendations and	of the project? Also, if apd constraints)	
25. Research themes of the project:	(please tick all th	at apply)	
1/ Themes related to human health asp Air quality outdoor Air quality indoor Climate change Transport Green space	ects Food safety Water quality & Soil contaminat Local/living env	ion	
If other please specifies and add any ad	dditional comme	nts:	
2/ Agents Biological agents & Microorganisms Other chemicals agents Electromagnetic Fields Other physical agents Fibres (incl. mineral fibres, asbestos)		Pesticides & biocides Nanomaterials Particulate Matter Radioactivity Noise	
If other, please specify and add any add	ditional commen	ts:	

3/ Human Health Effects



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Asthma Allergies Reprotoxic & developmental disruption Hearing loss Endocrine disruption Emerging diseases Ocular disorders Well-being/(risk perception) If other, please specify and add any additional of	Respiratory diseases Infectious diseases Cardiovascular diseases Cancer Sleeping disorders Epigenomic changes Vector borne diseases  comments:
4/ Methodologies  Health impact assessment  Cost/Benefit analysis in E&H  Risk communication  Exposure assessment  Modelling  Quality assurance & management	Epidemiological studies Human biomonitoring Integrated risk assessments Effect monitoring Biomedical technology Standardisation/Harmonisation
If other, please specify and add any additional of	comments.
5/ Social aspects of environment and health and Behaviour of individuals and groups Socioeconomic disparities & health Vulnerable groups (elderly, children, poor) Occupational Health	d populations  Environmental justice Children's health Gender & Health
If other, please specify and add any additional of	comments.
26. Keywords for the project: (please enter a	Il keywords given by the project)
27. Coordinator of the project:	
Name & surname*: Institution and address: Country*: E-mail*: URL or personal homepage: List of partner teams: (please give the organisa	ition name and country)
THIS QUESTIONNAIRE IS TO BE COMPLETE Name:	ED BY THE PROGRAMME MANAGER:
Title: Position: Institution: Date of last update: Phone: Fax: E-mail: Postal address:	







# Annex 2 Table 2: The research programme managing organisations involved in E&H projects since 2006

Ministry of Housing Spatia	al planning and the Environment	Acronym:	VROM
Country / City	The Netherlands / The Hague	Acronym	NL
Postal Adress	Rijnstraat 8 P.O. Box 30945 International P.O. Box 645 2500 GX Den Haag The Netherlands	Type of organisation:	Ministry
Phone:	+31 703 394947		
Fax:	+31 703 391288		
URL:	www.vrom.nl		
Decription of role:	VROM's goal is to make a policy in pace and harmony with current social, technological and political developments. VROM implement that policy in close co-operation with other ministries, local and regional governments, social organisations, businesses and interest groups as well as other national governments.  The Memorandum on the Implementation of the Climate Policy based on various international agreements is a good example of that. Other major components of VROM's policy are: the Memorandum Living in the 21st century, the Fifth Memorandum on Spatial Planning as well as the National Environmental Policy Plan No. 4. These memoranda not only serve as guidelines for laws and regulations. They serve as important guidelines for provinces and municipalities. These memoranda make once again clear that issues on 'living', 'space' and 'environment' exercise a mutual influence on each other and have to be approached in their complexity.		
Web page abstract:	VROM is a political organisation operating under the leadership of two ministers. The Ministers are responsible to the Lower House of the Parliament about the tax money at the disposal of the Ministry. VROM works together with several organisations, groups and individuals, including: local, regional national and international governments; companies and businesses; intermediary organisations and institutions; interest groups; inhabitants of the Netherlands. The area of its policy is: Spatial Planning and Development, Housing and Urban Development, Environment, Integration and Communities. The main overall objective of VROM is: "Working for a permanent quality of the living environment." The most important guidelines for VROM are the following: Freedom in responsibility - Citizens are free to make decisions in a socially responsible way; Sustainable development - Managing the living environment, energy, raw material and nature in a way that will allow future generations to benefit from them optimally; Diversity - The quality of the living environment; Social justice - Satisfying expectations and wishes of the general public as well as being considerate towards the weak in our society. VROM tries to put the above plans into practice by: preparing memoranda formulating the views of VROM; establishing legislation in co-operation with social partners; inspections aimed at making sure that rules are observed; supplying organisations and individuals with subsidies; influencing the social agenda in order to feature subjects and opinions important for VROM. The roles of VROM in above are: guidance, consulting, reacting, facilitating, delegating,		



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controlling, stimulating and inspiring partners. VROM is not an executive
organ. It is primarily a policy making body that creates favourable
circumstances for others

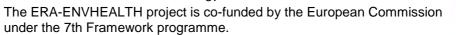
<b>National Institute for Publi</b>	c Health and the Environment (RIVM)	Acronym:	RIVM
Country / City	The Netherlands / Bilthoven	Acronym	NL
	PO Box 1 3720 BA Bilthoven	Type of	National agency,
Postal Adress	The Netherlands	organisation:	Reseach
Dhono	+31 30 2749111		organisation
Phone: Fax:	+31 30 2749111		
URL:	http://www.rivm.nl	<del></del>	
Decription of role:			
	RIVM is a recognised centre of expertise in the fields of health, nutrition and environmental protection. The results of its research, monitoring, modelling and risk assessment work are used to underpin policy-making on public health, food, safety and the environment. RIVM's mission statement is 'Research at the service of man and the environment'. RIVM has a public task. It works on subjects with political and societal relevance on behalf of government bodies in general, and for three ministries in particular (Health, Welfare and Sport; Housing, Spatial Planning and the Environment; and Agriculture, Nature Management and Food Quality). RIVM also cooperates with international bodies such as the European Union and United Nations organisations, including WHO, FAO and UNEP. RIVM is an independent agency and has sole responsibility for its research and publications. RIVM not only conducts research itself, but gathers data from all over the world, which it then interprets and applies. RIVM conducts a lot of research in the area of environment and health. Furthermore, in their assignment from the MoE as 'Environmental Health Information Centre', RIVM has the task to integrate the results from ongoing RIVM projects and better streamline the research questions coming from the Ministries in the area of E&H. RIVM has contributed to the development of the EU public health information strand through the coordination of the ECHland EUPHIX- projects and participation in the ENHIS-project. RIVM employs over 1500 researchers and technical personal. About 20% work in the area of Environment and Health. RIVM conducts research commissioned by a number of ministries.		
Web page abstract:	The National Institute for Public Health and the Environment (RIVM) is a recognised leading centre of expertise in the fields of health, nutrition and environmental protection. RIVM works mainly for the Dutch government. RIVM also share its knowledge with governments and supranational bodies around the world. The results of RIVM research, monitoring, modelling and risk assessment are used to underpin policy on public health, food, safety and the environment. RIVM employ over 1500 employees, many of whom work in multidisciplinary fields. Missions of RIVM: RIVM is a centre of expertise., RIVM has a public task, RIVM monitors and keeps watch, protects, forecasts the future, joins forces and generates knowledge, values quality. We work on the basis of clear assignments, deliver how and when we promise and keep an eye on costs. Scientific supervision, certification, reviews, and national and international audits ensure quality safeguards. This is why we value autonomy in the conducting and publishing of our research.		



<b>Environment Agency of Er</b>	Acronym:	EA				
Country / City	England and Wales / Bristol	Acronym	UK			
Postal Adress	Rio House, Waterside Drive, Almondsbury, Bristol, BS32 4UD England and Wales United Kingdom +1454 624420	istol, BS32 4UD Type of Public b				
Phone: Fax:	+1454 624409					
URL:	www.environment-agency.gov.uk					
Decription of role:	The Environment Agency is the leading public body for protecting and improving the environment in England and Wales. It's our job to make sure that air, land and water are looked after by everyone in today's society, so that tomorrow's generations inherit a cleaner, healthier world. Environment Agency has offices across England and Wales working on carrying out Government policy, inspecting and regulating businesses and reacting when there is an emergency such as a flood or pollution incident.					
Web page abstract:			Food and Rural environmental 000 staff, is the The Agency's by its Science organisation to evelopment and earch funders in Human Health d synergy in the event of the environment of collaborations or Europe and exagency chairs or england and of sustainable anagement and end working in the event of the Agency, rning from best			

Swedish Environmental P	Acronym:	Swedish EPA	
Country / City	Country / City Sweden / Stockholm		SE
Postal Adress	Valhallavägen 195, SE-106 48 Stockholm Sweden	Type of organisation:	Public body
Phone:	+46 8 6981000		
Fax:	+46 8 202925		









URL:	www.naturvardsverket.se
Decription of role:	The Swedish Environmental Protection Agency, created in 1967, is the national agency for environmental protection and nature conservation as well as outdoor recreation and hunting issues. Its key tasks are to present proposals for environmental policy and legislation to the Swedish Government and ensure that environmental policy decisions are implemented. Funded by central government, the Swedish EPA is independent authority acting on the basis of a government ordinance that defines its terms of reference.
Web page abstract:	The Swedish Environmental Protection Agency is the national agency for environmental protection and nature conservation as well as outdoor recreation and hunting issues. Its key tasks are to present proposals for environmental policy and legislation to the Swedish Government and ensure that environmental policy decisions are implemented. The Agency complies with the ISO 14001 environmental management standard and EMAS for both direct and indirect environmental impact. The Swedish EPA supplies expert knowledge and proposals to central government in its national, EU and international work on environmental issues. Nationally the Agency regulates, sets standards and acts as a guide, coordinator and evaluator. Some 100 Swedish EPA employees are involved as experts and Swedish representatives in EU-related work and in international multilateral or bilateral cooperation. Funded by central government, the Swedish EPA is an independent authority acting on the basis of a government ordinance that defines its terms of reference. Areas of responsibility: Providing guidance on environmental and regulatory issues to other national agencies as well as to regional and local authorities, Evaluating the effectiveness of different measures in attaining the National Environmental Quality Objectives and proposing new measures where necessary, Monitoring and reporting on the state of the environment, Developing environmental policy instruments, including environmental legislation, Appearing in courts of law (principally on licensing matters), Promoting sustainable treatment of waste, Funding environmental research, Communicating expert knowledge, Funding environmental protection (i.e. liming of acidified lakes, site remediation and grants to local climate investiment programmes), Protecting land and water (including Natura 2000 sites), Dealing with hunting and wildlife issues, Promoting outdoor recreation, Cooperating multilaterally and bilaterally with other countries.

Belgian Science Policy		Acronym:	BelSPO		
Country / City	Belgium / Brussels	Acronym	BE		
Postal Adress	Rue de la Science 8 Wetenschapsstraat B-1000 Brussel Belgium	Type of organisation:	Federal agency, Public body		
Phone:	+32 2 2383411				
Fax:	+32 2 2305912				
URL:	www.belspo.be				
Decription of role:	The Belgian Science Policy is a federal administration which covers a very broad area. It manages an annual budget of about 513 million Euro and has the following missions:  1. Preparation, execution and evaluation of science policy and its extensions.  2. In particular, on Belgian Government instructions,				





# **ERA-ENVHEALTH**Grant agreement number 219337



implement	ation of scientific and technical means in support of
Federal A	uthority competences.

- 3. Development of a permanent knowledge resource within scientific and technical spheres at the service of the Federal Authority.
- 4. Support to the 10 Federal Scientific Institutions under control of the Federal Science Policy, and also to the STIS and Belnet, for the administrative, financial and material management, the coordination and valorisation of research activities and activities as scientific public service.

### Web page abstract:

The Belgian Federal Science Policy Office was previously known as the 'Federal Office for Scientific, Technical and Cultural Affairs' (OSTC). This name change follows the Copernic reform of Belgium's federal administration. The department's interventions cover a very broad area. It manages an annual budget of about 513 million euro. Today, it has some 2.700 staff, 33% of whom are university graduates and 55% of whom are contractual staff. The Federal Science Policy Office wants to be a Federal innovative administration with respect of the environment, where creativity and excellence are at their best in supporting the policy decision making and the services to the citizens. The mission of the Federal Science Policy Office is to prepare, execute and evaluate science policy and its extensions, in particular: 1/ the implementation, at the Government's behest, via the Directorates-General Research & Space and Coordination & Information, of scientific and technical resources in support of the areas of competence of the Federal Authority, 2/ the formation of a permanent expert capability in the universities and research centres to serve the Federal Authority in the scientific and technical fields, 3/ the provision of support to the ten Federal Scientific Institutions, placed under the supervision of the Federal Science Policy Office, as well as to the Scientific and Technical Information Service (SIST) and to Belnet, the research communications network, in their administrative, financial and material management and the coordination and development of their research and scientific public service activities, 4/ in addition, in January 2002, the Prime Minister and the Minister for Science Policy agreed to give the department responsibility for the question of the cultural artefacts seized from the Jewish community during the war. Other missions of BelSPO related to: 1/ coordination of the science policy on federal, inter-federal and international levels, 2/ monitoring of dossiers involving federal cultural competences; monitoring of dossiers involving federal competences on education, 3/ development and analysis of R&D indicators and their insertion into international databases, 4/ implementation of research programmes, actions and networks on Belgian or international levels, 5/ supporting the Federal Scientific Institutes in their administrative. financial and material management, co-ordinating and valorising their research activities and their scientific public service, 6/ management of Belgian participation in programmes and activities of the European Space Agency and of other national or international organizations which are responsible for research and scientific public service.

Federal Environment Ager	Acronym:	UBA	
Country / City	Acronym	DE	
Postal Adress	Wörlitzer Platz 1,	Type of	Federal
	06844 Dessau-Roßlau	organisation:	Agency







	Germany			
	Comany			
	Postfach 1406,			
	06813 Dessau-Roßlau			
	Germany			
Phone:	+340 21030			
Fax:	+340 21032285			
URL:	www.umweltbundesamt.de			
Decription of role:	Founded in 1974, the UBA is Germa	ny's central federal authority on		
	environmental matters. Its key statutory	mandates are:		
		the Federal Government (e.g. the		
		ent; Health; Research; Transport,		
	Building and Urban Affairs)			
		tal laws (e.g. emissions trading,		
	authorisation of chemicals,	pharmaceuticals, and plant		
	protection agents)			
	- information of the public about			
	<ul> <li>identifying tomorrow's problems</li> <li>The UBA sees itself as an early warnir</li> </ul>			
	future adverse impacts on mankind a			
	fashion, assesses associated risks, an			
	solutions. To that end, experts at the			
	house laboratories in addition to com			
	scientific institutions in Germany and			
	exacting interdisciplinary approach			
	economists, chemists, biologists or lega			
	to find solutions to environmental pro	blems. The Agency can thereby		
	cover a wide range of topic areas			
	commitment and motivation of its s			
	Germany's contact point for many international organisations, including			
	the WHO.			
	For further information see	and What we do":		
	<ul> <li>Flyer "Who we are http://www.umweltdaten.de/pub</li> </ul>			
		nt Agency – For People and the		
	Environment":	it Agency – For Feople and the		
	http://www.umweltdaten.de/pub	olikationen/fpdf-l/3122 pdf		
Web page abstract:	For man and the environment is the r			
Web page aboutest.	Environment Agency (UBA). Founded			
	central federal authority on environm			
	mandates are: 1/ To provide scient			
	Government (e.g., the Federal Mini			
	Research; Transport, Building and Urb	oan Affairs); 2/ Implementation of		
	environmental laws (e.g. emissions tra			
	pharmaceuticals, and plant protection	<b>O</b> ,,		
	public about environmental protection.			
	today. The UBA sees itself as an ear			
	potential future adverse impacts on m			
	timely fashion, assesses associated			
	practicable solutions. To that end, e			
	research in in-house laboratories in ad			
	projects to scientific institutions in G			
	adopts an exacting interdisciplinary example, economists, chemists, biolo			
	Tovambie, economists, chemists, biolo	gioto di legal experto may well		





work together to find solutions to environmental problems. The Agency can thereby cover a wide range of topic areas and rely on the high level of commitment and motivation of its staff. UBA acts as partner and Germany's contact point for many international organisations, including
the WHO.

Belgian Federal Publi Environment	ic Service Health, Food Chain_Safety and	Acronym:	FPS		
Country / City	Brussels / Belgium	Acronym	BE		
Postal Adress	Eurostation II. Place Victor Horta, 40 box 10. B-1060 Brussels Belgium	Type of organisation:	Federal agency, Public body		
Phone: Fax:	+32 2 5247111 +32 2 5249527				
URL:	https://portal.health.fgov.be				
Decription of role:	(FPS) consists of four General D institutions. FPS is funding research in questions concerning health and/or en in the health-environment Federal Politwo main strategic objectives are to d science based policy along the axis He to the citizen and the society; and integrated way on an international, and DG Environment is notably in charge climate change, chemical products, GMO's and biodiversity. The implementating part in the Steering Committee developed by the Belgian Science Pothe federal environment-health secton NEHAP recommendations for feder recommendation 3 dealing with environals of the coordination of the permaner Environment and Health which is researched.				
Web page abstract:	The Federal Public Service (FPS) Environment was set up in 2001. Its co the former Ministry of Social Affairs, H the regionalized Ministry of Agric establishments are linked to the FPS a supporting matters or issue advisory Agrochemical Research Centre, IPH, S SHC, Superior Health Council. The Security is responsible for all verification Mission: to developing a transparent, policy that takes care of people's healt a better environment for everyone, both	impetencies were lealth and Enviror ulture. The foll and carry out resety reports: VAR, Scientific Institute Federal Agency ons with regard to dynamic and soth, provides a safety	transferred from ment and from owing scientific earch into policy- Veterinary and of Public Health, for Food Chain food safety FPS ientifically-based e food chain and		

The	French	Agency	for	Environmental	and	Occupational	Acronym:	AFSSET
Heal	th Safety							







Country / City	France / Maisons-Alfort	Acronym	FR		
	253, avenue du Général Leclerc	Type of			
Postal Adress	94701 Maisons-Alfort cedex	organisation:	Public body		
	France	organioation.			
Phone:	+33 1 561930				
Fax:	+33 1 43963767				
URL:	http://www.afsset.fr				
Decription of role:	The French Agency for Environmental and Occupational Health Safety				
	(Afsset) is a public body reporting to the French Ministers for ecology, for				
	health and for employment.				
	The Agency's mandate is to identify an	d avaluata baalth i	ricke related to		
	the general and occupational environr				
	with scientific and technical expertise				
	authorities any precautionary or preven				
	health hazards related to the state of the				
	direction of health control and surve				
	environment; and to make public its re	commendations ar	nd opinions. In		
	order to fulfil its aim of protecting huma	an health, the Age	ncy's missions		
	are to:				
	- Contribute to ensuring health s		of surroundings,		
	including occupational environr - Assess environmental health r		ooifically within		
	occupational environment	isks, and more sp	ecilically within		
	- Coordinate environmental h	ealth and occur	ational health		
	expertise	eaith and occup	alional nealth		
	- Use all means to provide the g	overnment with the	e expertise and		
	scientific and technical sup				
	implement legislation and regul		'		
	- Inform the public and contribute to the public debate				
		, ,			
	While the AFSSET focuses particular				
	assessing risks related to chemical sul				
	a wide scope of topics, from chemical environmental to noise pollution, and or				
	environmental to noise politition, and of	cupational exposu	ii <del>C</del> .		
	The Agency plays a central role in	the provision of i	nformation and		
	scientific expertise in the area of enviro				
	It also has close relations with both the		•		
	communities, especially in Europe.				
	It organises a network of bodies with	scientific expertise	relevant to its		
	areas of competence and works	in partnership w	ith over thirty		
	establishments.				
	The AFCCFT is posieted in its and it	u o oly oomenius	of openialian		
	The AFSSET is assisted in its work b				
	experts (CSE). It can also provide incentive-raising funding via environmental and occupational health research programmes.				
	The AFSSET can be called on by government departments, public				
	bodies or registered associations. It can also intervene on any issue that				
	comes within the scope of its activities.				
Web page abstract:	The French Agency for Environmental and Occupational Health Safety (AFSSET) is a public body reporting to the French Ministers for ecology,				
	for health and for employment. In order to fulfil its aim of protecting				
	human health, the Agency missions are	e: 1/ Contribute to	ensuring health		



SEVENTH FRAMEWORK PROGRAMME



safety in all types of surroundings, including occupational environments, 2/ Assess environmental health risks, and more specifically within occupational environment, 3/Coordinate environmental health and occupational health expertise, 4/Use all means to provide the government with the expertise and scientific and technical support needed to develop and implement legislation and regulations, 5/ Inform the public and contribute to the public debate. While the Afsset focuses particularly on coordinating expertise in assessing risks related to chemical substances, its activities encompass a wide scope of topics, from chemicals to electromagnetic fields, from environmental to noise pollution, and occupational exposure. The Agency plays a central role in the provision of information and scientific expertise in the area of environmental and occupational health. It also has close relations with both the French and international scientific communities, especially in Europe. It organises a network of bodies with scientific expertise relevant to its areas of competence and works in partnership with over thirty establishments. The AFSSET is assisted in its work by a six committees of specialized experts (CSE). It can also provide incentive-raising funding via environmental and occupational health research programmes. The AFSSET can be called on by government departments, public bodies or registered associations. It can also intervene on any issue that comes within the scope of its activities.

Natural Environment Res	earch Council	Acronym:	NERC		
Country / City	United Kingdom / Swindon	Acronym	UK		
Postal Adress	Swindon, Wiltshire, SN2 1EU		Public body, Non profit organisation		
Phone:	+44 17 93411500				
Fax:					
URL:		L O (NEDO)	: <b>f</b> -:		
Decription of role:	http://www.nerc.ac.uk/  The UK's Natural Environment Research Council (NERC) is one of eig UK Research Councils that fund and manage scientific research ar training in the UK. NERC uses a budget of around £350 million a year fund independent research and training in the environmental science About half our budget goes to universities and half is invested in o wholly and part owned research centres. NERC employs 2,700 staff, ar funds approximately 85 Fellows, 1000 PhD Students and 300 Maste Students, as well as supporting around 700 staff in Higher Education Institutes employed on grants.  NERC funds research that increases our knowledge of planet Earth as complex, interacting system. NERC work covers the full range atmospheric, earth, terrestrial and aquatic sciences, from the depths the oceans to the upper atmosphere. It invest in a broad spectrum research from non-directed 'responsive mode research', through a rang of directed investments in specific research programmes, to applied ar long-term strategic research and survey activities that underpin nation and international needs.  Environment and Human Health Programme:  The joint Environment and Human Health Programme will explore he both man-made and natural changes to the environment can influence human health. Core funding is provided by the Natural Environment				







	Defence.
Web page abstract:	NERC is the UK's main agency for funding and managing research, training and knowledge exchange in the environmental sciences. NERC coordinates some of the world's most exciting research projects, tackling major issues such as climate change, environmental influences on human health, the genetic make-up of life on earth, and much more. Working internationally, NERC have bases in the most hostile parts of the planet. NERS run a fleet of research ships and aircraft and invest in satellite technology to monitor gradual environmental change on a global scale. NERC provide knowledge, forewarning and solutions to the key global environmental challenges facing society. NERC is non-departmental governmental public body, funded mainly by government through the Department for Innovation, Universities & Skills. Although NERC receive public money, we remain independent of government. NERC uses a budget of about £370m a year to fund research in universities and in our own research centres. The work NERC fund covers the full range of atmospheric, earth, terrestrial and aquatic sciences - from the depths of the oceans to observing the Earth from satellites in space. NERC work with many national and international partners, for example, the Met Office, the European Space Agency and NASA. NERC work complements that of other research funders, such as the Environment Agency, the Department for Environment Food & Rural Affairs (Defra) and the European Union. NERC seek and encourage partnerships and collaborations to further the quest for better understanding of the environment. As one of seven research councils funded by the Government, NERC work collectively with the other councils on issues of common concern under the banner of Research Councils UK. Policies of NERC are oriented towards: Health and safety, Risk management, Ethics, Science in society etc.

Ministry of ecology, e	energy, sustainable development and land	Acronym:	MEEDDAT
Country / City	France / Paris	Acronym	FR
Postal Adress		Type of organisation:	Ministry
Phone: Fax:	+33 1 42191729		
URL:	http://www.developpement-durable.gou		
Decription of role:	The French Ministry of Ecology as Development (MEDAD) was estable environment, the MEDAD's mission environment, protect nature, prevent, reand other nuisances, and enhance the different types of actions.  • The first are aimed at preserving and this includes the prevention of polliconservation, the protection of lamanagement of water resources.  • The second are aimed at developing the state of the environment and tax	lished in 1971. is to monitor the educe or totally elime quality of life. It d protecting space ution and of majorandscapes and research, improvir	In terms of quality of the minate pollution undertakes two es and species: or risks, nature sites and the eg knowledge of
	both the European and international I Both these activities also contribute awareness and informing all the actors able to contribute to the protection of th	e to educating, t s, whether public o	







French Agency for Environi	ment and Energy Management	Acronym:	ADEME
Country / City	France / Angers	Acronym	FR
, ,	20 avenue du Gresille	,	
Postal Adress	BP 90406 - 49004 Angers Cedex 01	Type of	Public body
	France	organisation:	
Phone:	+33 2 41204120		l
Fax:	+33 2 41872350		
URL:	www.ademe.fr		
Decription of role:	The French Agency for Environment	and Energy Ma	nagement is a
	public institution of an industrial and closely involved in the implementation and contributes to France's compliance It also plays a role in sustainable declimate change. Within the frame or government, the Agency's mission is facilitate and perform operations aiminand energy management.  ADEME focuses on the following areas - preventing and controlling air precovery and conversion, - developing clean and economical fighting noise pollution.  In each of these fields, ADEME programmes at the national, regional based contract entered into with the reiterated the following priorities:  - help anticipate and prepare research and technological deconomical energy-management fields, - support investment in emerging pilot sustainable development - favour a regional approach, - inform companies, local companderships with multilateral organauthorities, local communities, busine	I commercial nature of environment e with international evelopment and the public policies of the stimulate, animal and the environment expension of the environment expension of the environment expension of the environment expension of the future expension of the environment enviro	are. ADEME is all and energy, I commitments. It commitments are fight against defined by the ate, coordinate, ment protection aste disposal, and implement The objective-02-2006 period by supporting ronmental and dields and in general public ell, developing and regional
	society.		
Web page abstract:	French Environment and Energy Mana commercial public agency, under the Ministries for Ecology, Sustainable De (MEDAD) and for Higher Education ADEME is encouraging, supervising undertaking operations with the aim of managing energy. Priority areas of Almoise, transport, waste, polluted soft management. ADEME has three central Paris (75) and Valbonne (06); representative offices in France's representative office in Brussels. ADE expertise to to achieve its missions: 1/2	he joint supervise evelopment and Sand Research. To and Research. To g, coordinating, for forotecting the eropement and sites, and tral departments in 26 regional browerseas territo ME relies on three	ion of French patial Planning The mission of facilitating and nvironment and re: energy, air, environmental n Angers (49), anches, three ries and one e main areas of





out environmentally friendly solutions, 2/ Expertise and advice: to guide decision-makers in their projects and choices, 3/ Results and experience in the field: pooled in the agency's own Resource Centre to promote the circulation of best practices. With a skills base in multiple fields, the agency is able to get involved in various ways: 1/ Orienting, managing and financing research programmes (ADEME manages, finances and develops research and technological innovation in the fields of energy and the environment. The agency is also contributing to the establishment of a European research centre dedicated to these fields), 2/ Advice and expertise (ADEME offers companies, public authorities and individuals its technical skills, helpful advice and financial assistance in order to help them choose the solutions best suited to their needs.), 3/ Developing practical tools and disseminating best practices (ADEME develops practical tools and promotes the model initiatives it has financed, in addition to the studies, research projects and fieldwork it has developed, in order to help spread the most effective practices and best Technologies), 4/ Financing decisionsupport assistance, exemplary operations and projects (By offering grants and comprehensive project guidance, ADEME provides valuable support for implementing projects and installations that seek to manage energy consumption more effectively and conserve our environment.), 5/ Training, information, communications and awareness-raising initiatives (ADEME is eternally committed to guiding companies, public authorities, NGOs and the general public in changing their behaviour by sharing information, raising awareness, providing training and conducting communication campaigns.

Public Health Authority of the Slovak Republic Acronym: UV		UVZ	
Country / City	Slovak Republic / Bratislava	Acronym	SK
Postal Adress	Trnavska 52 826 45 Bratislava Slovak Republic	Type of organisation:	Public body
Phone: Fax:	+421 2 49284376 +421 2 44442870		
URL:	www.uvzsr.sk		
Decription of role:	The Public Health Authority of the Si sector of the Ministry of Health of the monitor the relation of health determine basic data in the field of public health condition of the population and its ground working condition, lifestyle and working and to carry out the identification within a main scope of activities and Authority also drafts proposals of elemphasis to be a solution of national and international health and carries out scientific resear Authority cooperates with the Europeas for elaboration of national reports (Drinking Water Directive, Bathing Windse Directive).	Slovak Republic. In the protection, to more ups in relation to liber and the health ation of health risks responsibilities the nentary directions a public health, part of the programs signified in this field. The concerning the	ts mission is to ealth, to collect nitor the health ving conditions consciousness at the Public Health and priorities of cicipates in the cant for public the Public Health at is responsible EC Directives
Web page abstract:	Public Health Authority of the Slov organisation led by the Chief Hygiel operates within the sector of the M	nist of the Slovak	Republic and







Republic. Its mission is to organise measures targeted at health protection in living and work environment, at optimal health management of children and adolescents, of nutrition, at radiation protection, epidemiology of infectious and non-infectious diseases, medical microbiology, health promotion and medical statistics. The role of management of environmental health research is tightly interwoven between the Ministry of Health and the Public Health Institute. Both the Ministry of the Health and the Office of Public Health are managing the programmes focusing on environmental health issues. The Public Health Authority is responsible for executing the agenda on environmental health research. The project activities of the UVZ are focused on environmental exposure to lead, arsenic, POPS, mercury, pesticides, childhood asthma and atopia, legionella species in the water systems of dwellings (single houses and residential blocks) or recreational zones, legionella species in hospitals etc. UVZ carries out its activities on the territory of the Slovak Republic through the net of regional offices.

<b>National Research Counc</b>	il	Acronym:	CNR
Country / City	Italy / Rome	Acronym	IT
Postal Adress	Piazzale Aldo Moro Rome Italy	Type of organisation:	Research organisation
Phone: Fax:	+421 2 49284376 +421 2 44442870		_
URL:	www.cnr.it		
Decription of role:	The National Research Council (CNI is to carry out, promote, spread, activities in the main sectors of applications for the scientific, tech development of the Country.  The research activities of CNR a interdisciplinary scientific and tech several sectors as biotechnology, and land, information and communiproduction, judicial and socio-econ and arts.  CNR is distributed all over Italy threat consolidated experiences in coopernational, European and international, organisations, space agencies, and private and public enterprises.  The more than 100 CNR institute research and technological laborator country, with consolidated connection and international levels.	transfer and implemental transfer and implemen	prove research with and of its mic and social nacro areas of ch, concerning is, environment ed systems of lassical studies if institutes with sities and other nd technology and international que network of throughout the
Web page abstract:	The National Research Council (CNI is to carry out, promote, spread, activities in the main sectors of applications for the scientific, tecl development of the Country. To organization are divided into macro and technological research,	transfer and im knowledge grow nnological, econor this end, the a areas of interdiscip	prove research with and of its mic and social ctivities of the







and communications, advanced systems of production, judicial and socio-economic sciences, classical studies and arts. CNR is distributed all over Italy through a network of institutes aiming at promoting a wide diffusion of its competences throughout the national territory and at facilitating contacts and cooperation with local firms and organizations. From the financial point of view, the main resources come from the State, but also from the market: even 30% of its balance sheet, an extraordinary result is the result of revenues

Environmental Protection Aç	gency	Acronym:	EPA
Country / City	Ireland / Dublin	Acronym	IE
Postal Adress	EPA STRIVE Research Programme Environmental Protection Agency Richview, Clonskeagh Road Dublin 14 Ireland	Type of organisation:	Public body, NPO, Regional agency, Reseach organisation
Phone:	+353 1 2680100		
Fax:	+353 1 2680199		
URL:	www.epa.ie		
Decription of role:  Web page abstract:	The Environmental Protection Agence body set up under legislation (EPA A Department of Environment Herita mission is to promote and implement of environmental protection and reprinciples of sustainable and balance. To date, the EPA has supported sign health and intends to further developmentate. Projects currently funded by the impact including: Environmental impact including: Environmental impact including particulate matter, sources; Health impact assessment; In the main responsibilities of the EPA on quality of environment; license are disposal operations and large implementation and enforcement of ref GMOs; and funding and co-ordinate.	Act 1992) with the ge and Local G the highest practic management that d development. In the control of the highest programme with pacts on drinking the Irish aquatic endergulation of interest of clainclude: monitoring fuel storage egulations on the ution of environment.	sponsorship of overnment. Its cable standards embrace the nvironment and capacity in this a strong health water quality; nvironment; Air om agriculture imate change. g and reporting dustries, waste installations; use and release cal research.
Web page abstract:	The Environmental Protection Agent environmental protection and policic environment is protected, and most trends to detect early warning signs of Protecting environment is a huge resumber of organisations that cast functions.  The EPA is an independent public Environmental Protection Agency instruments from which we derive Management Act, 1996, and the Pr. 2003.  EPA has a wide range of functions to	ing. EPA ensure nitor changes in f neglect or deterior sponsibility, and El rry out specific lic body establish Act, 1992. The our mandate a otection of the Er	that Ireland's environmental oration. PA work with a environmental ned under the e other main are the Waste ovironment Act,







primary responsibilities include:
<ul> <li>Environmental licensing</li> </ul>
<ul> <li>Enforcement of environmental law</li> </ul>
<ul> <li>Environmental planning, education and guidance</li> </ul>
<ul> <li>Monitoring, analysing and reporting on the environment</li> </ul>
<ul> <li>Regulating Ireland's greenhouse gas emissions</li> </ul>
<ul> <li>Environmental research development</li> </ul>
<ul> <li>Strategic environmental assessment</li> </ul>
<ul> <li>Waste management</li> </ul>



## Annex 3

Table 3: Overview of the general information and general objectives of the E&H programmes

Policy support with regard t	to the living space and environment	Acronym:	BMR	
Management organisation:	Ministry of Housing, Spatial planning and the Environment	Acronym:	VROM RIVM	and
Budget (thous. EURO):	4 500	Туре	Yearly	
Duration (in years):	4	Start/End	2006/20	009
Number of project (since 2006):	80			
Objectives:	The Dutch government strives to protect the health risks of environmental pollution. RIVM Public Health and Environment, RIVM) has realise this aim. A lot of the work within the performed by RIVM, and the environmental work is described below.  Combined expertise  With its expertise on both environment and and monitor the impact of various environment of the Dutch population on national and regis essential in advising the Dutch governmental health and in underpinning appropriate a counter adverse environmental impacts.  Relationship between environment and pure RIVM carries out environmental monitoring the Netherlands in an effort to establish the environment and public health. Compute developed at the RIVM for use estimating environmental impacts on public health. In point for medical and environmental expertises Services and carries out studies and government authorities.  Environmental emergencies  RIVM assesses the environmental impacts of exceptional circumstances such as accident basis of environmental monitoring and monitoring and monitoring of a health. In the event of a disaster, RIVM advincessity of a health impact assessment and design, set-up or carrying out of the study.	health, RIVNental factors in the expertise program 'BMF health part of the health part of the health part of the relations and population and predict addition, RIV he for the Multinvestigation on public health and disast delling, RIVNental reduce rises on the use the ses on the use the expertise of the Multinvestigation on public health and reduce rises on the use the expertise of the Multinvestigation of the public health and reduce rises on the use the expertise of the Multinvestigation of the public health and reduce rises on the use the expertise of the exp	al Institute al Institute e require	e for ed to DM is VM - sess ealth ertise ublic s to es in veen ential focal ealth other ed by a the siman and

Environment and Human He	ealth	Acronym:	EHH
Management organisation:	Environment Agency of England and Wales	Acronym:	EA
Budget (thous. EURO):	750	Туре	Yearly
Duration (in years):	2	Start/End	2006/2008
Number of project (since	21		
2006):			
Description:	Overall objective of the EHH programme:  - to enhance the ability of the Agency priorities and protection goals based of relative risk to the environment and Specific Objectives:  - Improved understanding and a	on a better ud d human hea	inderstanding Ith







Assessment Framework - To improve the way we undertake risk assessments particularly for chemicals and microbes from problem formulation to decision-making by reducing uncertainty in decision-making. Improve our understanding of the significance of sources of chemicals and microbes and their subsequent environmental fate and behaviour and key routes of exposure

- Developing environmental quality goals, guidelines & standards that are protective of the environment and human health in a way that is consistent, transparent, scientifically defensible, and with due consideration of socio-economic impacts.
- Identifying, prioritising and evaluating risks to, and impacts on, environmental and human health in particular understanding the relative significance of risks from processes and activities we regulate. This involves prioritising hazardous substances and microbial threats of concern and risks from the combined effects of multiple stressors. It includes considering vulnerable groups and trade-offs in regulatory approaches to get the best overall solution for the environment and human health.
- Developing other tools and techniques necessary to support the delivery of proportionate risk management of chemicals and microbes.
- Identifying future issues using emerging science and current knowledge of pollutant properties and impacts. Investigating anomalies where observations do not fit prediction. Build networks and capacity in Science to use available science better and improve understanding
- Providing scientific support and briefings as necessary to meet policy, process and operational needs.
- Chemical and microbial risk perception and communication to improve our understanding of how people perceive risks to human health and the environment, and improve and undertake risk communication

The EHH programme was due to run for 5 years. However, following a review of the Agency's science strategy it was decided to close the programme on 31 March 2008. The projects running under the EHH programme were transferred one of the six new programmes. The new programmes are:- Climate Change, Modern Regulation, Integrated Catchment Science, Flood Risk Science, Resource Efficiency and Innovation for Efficiency.

The Environment Agency remains committed to Environment and Human Health topic with it now being a cross cutting theme across programmes rather than a specific programme. There continues to be a group of 10 scientists working in the Human Health Science team.

Clean Air Research Program	nme	Acronym:	SCARP
Management organisation:	Swedish Environmental Protection Agency	Acronym:	Swedish EPA
Budget (thous. EURO):	7 750	Туре	Until now
Duration (in years):	6	Start/End	2006/2012
Number of project (since	22		
2006):			







Objectives:	The aim of the Swedish Clean Air Research Program (SCARP) is to
	increase the scientific understanding of air pollution effects to human
	health and environment and to support policy development on a
	national and European scale.

The Emissions Research Particles	Programme - Subsidiary programme:	Acronym:	EMFO
Management organisation:	Swedish Environmental Protection Agency	Acronym:	Swedish EPA
Budget (thous. EURO):	200	Туре	Total
Duration (in years):	3,5	Start/End	2006-2009
Number of project (since 2006):	4		
Objectives:	The aim of the Emissions Research Programme (EMFO) is to give industry and authorities access to the knowledge required to develop vehicles and vehicle components in a sustainable direction. EMFO covers emissions that arise when vehicles use public roads as well as emissions from tractors and other heavy working vehicles. Emissions in this context refer to both air pollutants and noise.		

The Emissions Research Prand environmental impact	ogramme - Subsidiary programme: Health	Acronym:	EMFO
Management organisation:	Swedish Environmental Protection Agency	Acronym:	Swedish EPA
Budget (thous. EURO):	17 000	Туре	Total
Duration (in years):	6.5	Start/End	2002/2009
Number of project (since	6	<u> </u>	
2006):			
Objectives:	The aim of the Emissions Research Programme (EMFO) is to give industry and authorities access to the knowledge required to develop vehicles and vehicle components in a sustainable direction. EMFO covers emissions that arise when vehicles use public roads as well as emissions from tractors and other heavy working vehicles. Emissions in this context refer to both air pollutants and noise.		

Reproduction and Chemica	Safety Programme	Acronym:	ReproSave
Management organisation:	Swedish Environmental Protection Agency	Acronym:	Swedish
			EPA
Budget (thous. EURO):	3 500	Туре	Total
Duration (in years):	5.5	Start/End	2001/2006
Number of project (since	17		
2006):			
Objectives:	The ReproSafe programme addresses the is		
	and public concern that chemicals in the	environmen	t may impair
	human and wildlife reproduction.		-

Swedish National Air Pollution and Health Effects Program		Acronym:	SNAP
Management organisation:	Swedish Environmental Protection Agency	Acronym:	Swedish EPA
Budget (thous. EURO):	3 600	Туре	Total
Duration (in years):	6	Start/End	2001/2006
Number of project (since 2006):	17		







Objectives:	The aim of the programme is to contribute with new information that		
	can be used for quantitative risk assessment regarding air pollution.		
	This knowledge will be important for the development of future		
	environmental politics and the national environmental policy acts.		

Science for Sustainable Dev	velopment - Health and Environment	Acronym:	SSD/HE
Management organisation:	Belgian Science Policy Acronym: BelSPO		
Budget (thous. EURO):	4 950 Type Total		
Duration (in years):	6.5 Start/End 2005/		2005/2011
Number of project (since 2006):	6		
Objectives:	The general objectives of the SSD programm  to preserve and develop the scie strategically important areas, with scientific uncertainties and antici knowledge;  to offer the authorities of the courrequired for the preparation, impleme supranational, federal, regional, or lot these areas;  to offer the authorities of the courrequired for the vertical (across popolicy integration (across policy dor sustainable development;  to offer the Belgian research potential possibility of integrating itself intinitiatives at the European and interrwithin the European Research Area.  contribute to developing scientific knowleds, concepts, indicators, etc.) processes, the study of impacts; the and evaluation of (existing and/or futtory encourage interdisciplinary research decision-making on the basis of adimensions, perspectives, etc. of the promote dialogue and informating scientists, decision-makers, and othe levels of the country as well as in a scientist, decision-makers, and othe levels of the country as well as in a scientist.  The research on Environmental Health focus to the comprehension of the risks, their emergement, regulation, and reduction of risks related to the exposure to biological risk factors  workplace health risks (including organical risk factors  workplace health risks (including organical risk factors	ntific potenti the objective pating future ntry the scie entation, and ocal policy in ntry the scie licy levels) a mains) orient al in the areas to the vario national levels howledge and aiming to the e development or as as to off an integration issues conce ion exchan her involved European and on two axes ergences, the the evaluat k: chemical,	e of reducing e needs for entific support follow-up of a and between entific support and horizontal ed towards a sinvolved the ous research of in particular dinstruments are analysis of ent, follow-up, easures. Fer support to no folifferent erned; ge between actors at all dinternational and is limited eir cumulative ing methods, physical and

Action Programme Environment and Health / Environment Action Plan (Aktionsprogramm Umwelt und Gesundheit / Umweltforschungsplan)		Acronym:	APUG/ UFOPLAN
Management organisation:	Federal Environment Agency	Acronym:	UBA
Budget (thous. EURO):	1 200	Туре	Yearly
Duration (in years):	9.5 (ongoing)	Start/End	1999/ ongoing







Number of project (sin	ce 41
Objectives:	The Action Programme Environment and Health (APUG) is a cooperation of the ministries BMU (Bundesministerium für Umwelt Naturschutz und Reaktorsicherheit/Federal Ministry for the Environment, Nature Conservation and Nuclear Safety), BMG (Bundesministerium für Gesundheit/Federal Ministry of Health) and BMELV (Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz/Federal Ministry of Food, Agriculture and Consume Protection) as well as the federal authorities BfS (Bundeamt für Strahlenschutz/Federal Office for Radiation Protection), Bff (Bundesinstitut für Risikobewertung/Federal Institute for Risi Assessment), RKI (Robert Koch-Institut/Robert Koch Institute) and UBA (Umweltbundesamt/Federal Environment Agency). Its coordination office is based at UBA.  The purpose of the Action Programme is to forge closer links between environmental protection and health protection and thereby provide improved protection of health against environmental influences. A special focus is health protection for children and adolescents.  The key areas of the Action Programme Environment and Health are:  - Information: The public is to be provided with more information about environment and health risks.  - Research: Research projects examining the exposure and sensitivity of children and adolescents to pollutants or chemica and biological pollution of indoor environments or aspects o noise, radiation and environmental medicine, are in progress to study environmentally induced health risks and ensure ever better protection of children, adolescents and adults from health risks arising from environmental influences.  - Children and adolescents: Children and adolescents may display particularly sensitive reactions to certain environmenta influences. The growing body therefore requires special concern. Measures that protect children also help protect the population as a whole. In this sense the Action Programme supports a policy of sustainable development.  - German Environment Survey for Children (GerES IV): Withir the GerE







Plan (UFOPLAN) of the Federal Ministry for the Environment, Nature
Conservation and Nuclear Safety (BMU) as well as the funds of the
other involved federal ministries and authorities. UFOPLAN is a
research programme relating to different topics, one of these is
environment and health.

Environmental Specimen Ba	ank (Umweltprobenbank des Bundes)	Acronym:	ESB
Management organisation:	Federal Environment Agency Acronym: UBA		
Budget (thous. EURO):			Yearly
Duration (in years):	24 (ongoing)	Start/End	1985/
, , , , , , ,	( 3 3/		ongoing
Number of project (since 2006):	15		
Objectives:	The German Environmental Specimen Barinstrument of the German Federal Ministry for Conservation and Nuclear Safety (BMU). The Federal Environment Agency (UBA) and research institutes and university groups with the particular fields (e.g., sampling of human material, trace analysis of pollutants, crycloperation of the German ESB started in 198 taken annually from students at four Germarchived as individual samples. Environmentaken annually from representative marine, ecosystems. After pooling and homogenizing are stored at temperatures below -150°C. To achieve a high degree of quality assurprocedure from sampling through transport, put the specimen to long-term storage is the subspecimen. After two decades of operation the ESB publistorical record of the state of the environ period. It allows the retrospective monitoring temporal trends and spatial load differences be those which had not yet been recognized specimens were archived (emerging pollutary analyzed with the desirable precision at the possible to analyze samples from the past used the future. So beside the routine analyses also research projects on emerging substances.	or the Environment ESB is man operated by special corrors, biological obank operated. Human syman university of a fixed serial specimental specimental specimental speciment, environment in General of pollutary of a shazardom of a fixed serial speciment in General speciment in Gener	ament, Nature inaged by the py contracted inpetencies in I, and abiotic ion). Routine pecimens are ities and are ens are also and terrestrial ental samples of the individual of the itical methods to formicals

The Belgian National Enviro	nment and Health Action Plan	Acronym:	NEHAP + CEHAP
Management organisation:	Belgian Federal Public Service Health, Food Chain Safety and Environment	Acronym:	FPS
Budget (thous. EURO):	200	Туре	Yearly
Duration (in years):	4,5 (ongoing)	Start/End	2004/ ongoing
Number of project (since 2006):	7		
Objectives:	The Belgian National Environment and Heavas created in a political context marked		` ,







National Environmental Programme	and Occupational	Health Research	Acronym:	PNR EST
Management organisation:	The French Agency f Occupational Health S	or Environmental and Safety	Acronym:	AFSSET
Budget (thous. EURO):	2 000		Туре	Yearly
Duration (in years):	5		Start/End	2005/2009
Number of project (since 2006):	104			
Objectives:	occupational environs expertise necessary for Afsset, aims at promoccupational health. Taims to lead scientific in all stages of head decisions to be taken Afsset expects the elaborating prevention assessment. A particular results enabling the programme has exposure estimation;	to ensuring health ment by mobilizing the for risk evaluations. The noting excellent researche call for proposals is a communities to development of the communities to development of the communities and which the communities and which the communities and which the communities are granted to the communities of the communities of the community of the link between	e scientific and programmerch in environg launched expopenew methor on subjects and policy-makedge directly will be used to research vieledge on human erisation of alth effects; r	and technical ne, funded by commental and very year and ods and tools which need kers. Usually, y useful for eful for their h topics with man health in hazards and modelling and

Joint Environment and Hum	nan Health Programme	Acronym:	E&HH
Management organisation:	Natural Environment Research Council	Acronym:	NERC
Budget (thous. EURO):	5 800	Туре	Total
Duration (in years):	3	Start/End	2006/2009
Number of project (since	37		
2006):			
Objectives:	A key aim of the Environment and Human enhance scientists' capacity to answer con that span a range of disciplines. This prog scientists from many disciplines including medical, biomedical, socio-economic and pul will also be close interaction with gove agencies. Working together, sharing knowle is vital for a holistic view of how the natur human health.  Scientists funded by the programme will tac	mplex resear ramme will b g environme blic health res rnment depa edge, ideas a al environme	ch questions oring together ntal science, search. There artments and nd resources ent influences







environmental, social and economic factors that influence health, particularly focusing on naturally occurring toxins, man-made pollutants, nanoparticles and pathogens to see:

- How they spread within the environment.
- How their properties change as they interact with other substances or organisms.

- How we become exposed to them.

- The impact on human health.

The outcomes of the Environment & Human Health Programme will be to:

- create working relationships between academics of different disciplines that can be built on for future multi- and inter-disciplinary research;
- increase in scientific knowledge regarding environment and human health issues;
- inform development of more effective policy and practice to improve human health.

As well as a specific programme on Environment and Human Health, NERC's research centres are also involved in research in this area. The wider issue of the health of the Environment is fundamentally part of NERC's remit.

Inter-organism national res the local and regional scale	earch programme for better air quality at	Acronym:	PRIMEQUAL
Management organisation:	Ministry of ecology, energy, sustainable development and land use planning and French Environment and Energy Management Agency	Acronym:	MEEDDAT and ADEME
Budget (thous. EURO):	1 000	Туре	Yearly
Duration (in years):	14 (ongoing)	Start/End	1995/ ongoing
Number of project (since 2006):	9		
Objectives:	PRIMEQUAL aims at providing the scientific bases and the necessary tools for decision-makers and managers in the environment sector to monitor and improve air quality in order to reduce environmental and health risks.		nent sector to

National research programm	ne on endocrine disruptors	Acronym:	PNRPE
Management organisation:	Ministry of ecology, energy, sustainable development and land use planning and French Environment and Energy Management Agency	Acronym:	MEEDDAT and ADEME
Budget (thous. EURO):	2 000	Туре	Spent until now
Duration (in years):	4 (ongoing)	Start/End	2005/ ongoing
Number of project (since 2006):	17		
Objectives:	The aim of this programme is to support the authorities, scientists and industry involved disruptors. The PNRPE thus aims to support	in research	on endocrine







арр	ied res	search	accordii	ng to	the	following	priority	axes:
met	hodologi	es of s	ifting, m	nechani	sms of	action, s	earch for	effect
bior	narkers,	fate of	f endoc	rine di	isruptors	s in orga	nisms an	d the
env	ronment	, hazard	d identifi	cation,	risk as	sessment,	monitorin	g and
polit	ical and	social pr	rocesses	i.				

Management organisation:  Budget (thous, EURO):  181 790  Duration (in years):  5  Start/End  2006/2010  Type  Total  Start/End  2006/2010  The main objectives are to reduce risk arising from unfavourable impact from the environment.  A team professionals in the field of public health has laid down following priorities:  - food safety - soil - air pollution - drinking water quality - healthy working environment and healthy work conditions – establishment of work health services - housing - environmental health services - communication with public and NGOs - public awareness in environmental health (cooperation with public and NGOs, education and promotion towards environmental health) - impacts of climate change on health - information systems (for environmental and health indicators)  The NEHAP III have implemented 4 Regional priority goals of CEHAPE aimed on children's health:  a) reduction of child morbidity and mortality caused by gastrointestinal disorders due to insufficient quality of drinking water,  b) prevention and reduction of health outcomes in children caused by accidents and injuries, c) prevention and reduction of respiratory diseases in children caused by unfavourable outdoor and indoor air quality, d) reduction of risks of diseases and invalidity in children caused by exposure to dangerous chemical substances and biological agents.  NEHAP III covers also objectives such as housing, impacts of climate change on health, establishment of information system for	National Environment and H	lealth Action Plan III.	Acronym:	NEHAP III
Budget (thous. EURO):  Duration (in years):  5  Start/End  2006/2010  Number of project (since 2006):  Objectives:  The main objectives are to reduce risk arising from unfavourable impact from the environment.  A team professionals in the field of public health has laid down following priorities:  - food safety - soil - air pollution - drinking water quality - healthy working environment and healthy work conditions – establishment of work health services - housing - environmental health services - communication with public and NGOs - public awareness in environmental health (cooperation with public and NGOs, education and promotion towards environmental health) - impacts of climate change on health - information systems (for environmental and health indicators)  The NEHAP III have implemented 4 Regional priority goals of CEHAPE aimed on children's health:  a) reduction of child morbidity and mortality caused by gastrointestinal disorders due to insufficient quality of drinking water,  b) prevention and reduction of health outcomes in children caused by unfavourable outdoor and indoor air quality, d) reduction of risks of diseases and invalidity in children caused by exposure to dangerous chemical substances and biological agents.  NEHAP III covers also objectives such as housing, impacts of climate change on health, establishment of information system for		Public Health Authority of the Slovak	Acronym:	UVZ
Duration (in years):    Start/End   2006/2010				
Number of project (since 2006):  Objectives:  The main objectives are to reduce risk arising from unfavourable impact from the environment.  A team professionals in the field of public health has laid down following priorities:  - food safety - soil - air pollution - drinking water quality - healthy working environment and healthy work conditions – establishment of work health services - housing - environmental health services - communication with public and NGOs - public awareness in environmental health (cooperation with public and NGOs, education and promotion towards environmental health) - impacts of climate change on health - information systems (for environmental and health indicators) The NEHAP III have implemented 4 Regional priority goals of CEHAPE aimed on children's health:  a) reduction of child morbidity and mortality caused by gastrointestinal disorders due to insufficient quality of drinking water, b) prevention and reduction of health outcomes in children caused by accidents and injuries, c) prevention and reduction of respiratory diseases in children caused by unfavourable outdoor and indoor air quality, d) reduction of risks of diseases and invalidity in children caused by exposure to dangerous chemical substances and biological agents.  NEHAP III covers also objectives such as housing, impacts of climate change on health, establishment of information system for				
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following priorities:			ا طلامما ا	مرينها ماميية
- food safety - soil - air pollution - drinking water quality - healthy working environment and healthy work conditions – establishment of work health services - housing - environmental health services - communication with public and NGOs - public awareness in environmental health (cooperation with public and NGOs, education and promotion towards environmental health) - impacts of climate change on health - information systems (for environmental and health indicators)  The NEHAP III have implemented 4 Regional priority goals of CEHAPE aimed on children's health:  a) reduction of child morbidity and mortality caused by gastrointestinal disorders due to insufficient quality of drinking water,  b) prevention and reduction of health outcomes in children caused by accidents and injuries, c) prevention and reduction of respiratory diseases in children caused by unfavourable outdoor and indoor air quality, d) reduction of risks of diseases and invalidity in children caused by exposure to dangerous chemical substances and biological agents.  NEHAP III covers also objectives such as housing, impacts of climate change on health, establishment of information system for			lic nealth na	as laid down
- soil - air pollution - drinking water quality - healthy working environment and healthy work conditions – establishment of work health services - housing - environmental health services - communication with public and NGOs - public awareness in environmental health (cooperation with public and NGOs, education and promotion towards environmental health) - impacts of climate change on health - information systems (for environmental and health indicators) The NEHAP III have implemented 4 Regional priority goals of CEHAPE aimed on children's health:  a) reduction of child morbidity and mortality caused by gastrointestinal disorders due to insufficient quality of drinking water, b) prevention and reduction of health outcomes in children caused by accidents and injuries, c) prevention and reduction of respiratory diseases in children caused by unfavourable outdoor and indoor air quality, d) reduction of risks of diseases and invalidity in children caused by exposure to dangerous chemical substances and biological agents. NEHAP III covers also objectives such as housing, impacts of climate change on health, establishment of information system for				
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Environment and Health Interdepartmental Project		Acronym:	PIAS CNR
Management organisation:	National Research Council	Acronym:	CNR
Budget (thous. EURO):	300	Type	Total
Duration (in years):	2,5	Start/End	2008/2010
Number of project (since	6		
2006):			
Objectives:	The objective of PIAS-CNR is the promotion	of an integra	ated research







	the CNR Institutes on Environment and on Health, in particular to
dev	/elop:
	<ul> <li>Knowledge on linkages among pollution and health effects;</li> </ul>
	- Methods and tools to examine interaction between
	environment and health;
	<ul> <li>Methods and tools for risk management and decision making in complex situations.</li> </ul>
The	e objective is to be achieved through:
	- Call for project ideas and proposal: CNR Institutes sent 130
	project ideas to PIAS-CNR coordinators;
	- Organization of working groups: six PIAS-CNR multidisciplinary
	working groups have been identified to develop contacts
	among Institutes working on a specific topic;
	- Support to project identification, funding identification, project
	drafting, identification of foreign partners;
	- Communication and dissemination of results.

Science, Technology, Resea	arch and Innovation for the Environment	Acronym:	STRIVE
Management organisation:	Environmental Protection Agency	Acronym:	EPA
Budget (thous. EURO):	4 120	Туре	Until now
Duration (in years):	7	Start/End	2007/2013
Number of project (since 2006):	10		
Objectives:	The aim of the Environment & Health theme a) Firstly, to continue development of conduct of research in key areas: ■ Water Quality, ■ Air Quality & Noise, ■ Eco-Toxicity, ■ Environment-Health Impact Assess b) Secondly, to use this expertise to assessments of priority environment-he c) Finally, and most importantly, to mobilis environment and health protection. Through the STRIVE programme, EPA €100m funding for environmental resecolleges, research organisations and pr period 2007-2013. Research is funded environment and health, biodiversity, wate change, waste and resources manageme soils and environmental and socio-economi	ment, generate da ealth issues for se this knowle will provide arch and d ivate compa I under the r quality, air nt, transport,	pacity for the ata and make or Ireland and edge for use in approximately evelopment to nies over the mes including quality, climate



## How to join the ERA-ENVHEALTH project

Your organisation funds and/or manages E&H research programme

If your organisation is interested in taking part in the ERA-ENVHEALTH project, please contact the leader of the "Extend the network" task for more information on how to join the project as an E&H research funding and/or managing organisation:

#### Luciana SINISI

ISPRA - Istituto Superiore per la Protezione e la Ricerca Ambientale Via Curatone 3 00185 Roma Italy

Tel: +39 0650071

luciana.sinisi@isprambiente.it

You are interested in becoming a member of the External Interest Group (EIG)

If you are interested in joining the External interest group to be kept informed of the progress of the project and maybe be called upon to participate in certain meetings and discussions, please contact the leaders of WP5 "Dissemination and Communication":

## Bart VERHAGEN and Mohssine EL KAHLOUN

RRA-ENVHEALTH project communication
Federal Coordination Environment & Health
Services of the President
FPS Health, Food Chain Safety and
Environment
Victor Horta Square 40, box 10
B-1060 Brussels
Belgium
Tel: +32-2524 96 89
Fax: +32-2524 90 70

You are part of another ERA-NET focusing on Environment and/or Health

Bart.Verhagen@health.fgov.be and mohssine.elkahloun@belspo.be

Other ERA-NETs with a focus on environment and health are more than welcome get in contact to exchange ideas and look at possible cooperation. In this case, please contact the coordinator of the project:

## **Adrienne PITTMAN**

ERA-ENVHEALTH project coordination European and International Relations Unit AFSSET - French Agency for Environmental and Occupational Health Safety 253 avenue du Général Leclerc. 94701 Maisons-Alfort Cedex France

Tel: +33 (0) 1 56 29 19 30 adrienne.pittman@afsset.fr

## Partners of the consortium:

Partner name	Acronym	Logo
French Agency for Environmental and Occupational Health Safety (France)	AFSSET	afsset-))
French Environment and Energy Management Agency (France)	ADEME	Apple in the Financian and in a Malarina de l'Engra
Ministry of Ecology, Energy, Sustainable Development and the Sea (France)	MEEDDM	The Control of the Co
Belgian federal Science Policy Office (Belgium)	BelSPO	BELSTAN SCIENCE POLICY
Federal Public Service Health, Food Chain Safety and Environment (Belgium)	FPS	Todas pulsos lavers IRATIN, ISBO CICHO MARTY AND ETHEROCHUM
Environmental Protection Agency (Ireland)	EPA	Epitopus ent al Pac tection Aprico
Superior Institute for Environmental Protection and Research (Italy)	ISPRA	ISPRA INFORMATION DEL L'INFORMATION COMMUNICATION DE L'INFORMATION
Swedish Environmental Protection Agency (Sweden)	Swedish EPA	NATUR VARDS & VERKET
Ministry for Housing, Spatial Planning and Environment (Netherlands)	VROM	Ministra e em Volcheisreening, Ministralijk Odining en Wil (U) deer
National Institute for Public Health and the Environment (Netherlands)	RIVM	riym
Public Health Authority of the Slovak Republic (Slovak Republic)	UVZ	Vickal Visatister 1300/VI file/VX REPRILLEY
Environment Agency (England and Wales)	EA	Environment Agency
Natural Environment Research Council (UK)	NERC	NATURAL ENVIRONMENT RESEARCH COUNCIL
Ministry of Health (Israel)	МОН	3 MINISTRY OF HEALTH
Federal Environment Agency (Germany)	UBA	Umwelt Bundes Amt ©
National Research Council (Italy)	CNR	Conspir Natural (sie Nastre

