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Community-funded research on indoor air pollution and health












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Workshop on Indoor Air Quality and Health Effects, Brussels, 5-6 March 2008



Main DGs and agencies of the Commission addressing E&H health issues

FUNDING OF EUROPEAN RESEARCH		
 RESEARCH	Research Directorate-General (DG Research): ✓ Environment Directorate ✓ Health Directorate ✓ Biotechnologies, Agriculture and Food Directorate	
 Information Society and Media	Information Society and Media Directorate-General (DG Infso)	
POLICY MAKING		
 Environment	Environment DG (DG ENV)	European Environment and Health Action Plan (EHAP), air pollution, noise-related issues, climate change, water pollution, REACH...
 FOOD AND FEED SAFETY  CONSUMER AFFAIRS  PUBLIC HEALTH	Health and Consumer Protection DG (DG SANCO)	EHAP, Public health policies (EMF, indoor air issues...), Community legislation on food contaminants, risk assessment committees (SCHER, SCENHIR), Programme of Community Action in the Field of Health 2008-2013 ...
 Enterprise and Industry	Enterprise and Industry DG	Community legislation on substances, REACH...
 Directorate General for Employment, Social Affairs & Equal Opportunities	Employment, Social Affairs and Equal Opportunities DG	Occupational health...
OTHER ACTORS		
 JRC EUROPEAN COMMISSION	Joint Research Centre DG	Validation of chemical testing methods, EHAP...
 EEA	European Environment Agency	Reporting...
 ECHA	European Chemicals Agency	REACH





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Research on indoor air quality: Two Directorates involved in DG Research

1. *Environment Directorate*




→ responsible for 2 sub-activities that deal with IAQ issues:

- *‘Environment and Health’*
- *‘Environmental Technologies for Observation, Simulation, Prevention, Mitigation, Adaptation, Remediation and Restoration of the Natural and Man-made Environment’*

2. *Health Directorate*

→ responsible for *‘Enhanced Health Promotion and Disease Prevention’* sub-activity



Framework Programme		Nb projects dealing, at least to some extent, with IAQ issues
	Fifth Framework Programme of Research (1998-2002)	12
	Sixth Framework Programme of Research (2002-2006)	11
	Seventh Framework Programme of Research (2006-2013)	2 (after 1st call)





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➤ **Indoor air quality-related
health impacts:
FP5 projects**



AIR POLLUTION-RELATED HEALTH IMPACTS

FP5 projects addressing indoor air issues

Air Pollution and Respiratory Health

- AIRALLERG** - Effects of Outdoor and Indoor Air Pollution on the Development of Allergic Disease in Children. ←
- BIOAIR** - Longitudinal Assessment of Clinical Course and Biomarkers in Severe Chronic Airway Disease. ←
- ECHRS II** - European Prospective Study on Environment, Allergy and the Lung. ←
- HELIOS** - Biomarkers for the Non-invasive Assessment of Acute and Chronic Effects of Air Pollutants on the Respiratory Epithelium. ←
- HEPMEAP** - Health Effects of Particles from Motor Engine Exhaust and Ambient Air Pollution. ←
- MOCALEX** - Measurement of Occupational Allergen Exposure. ←
- PAMCHAR** - Chemical and Biological Characterisation of ambient air coarse, fine and ultrafine particles for Human Health Risk Assessment in Europe. ←
- PATY** - Pollution and the young combined analyses of cross-sectional studies of respiratory health of children and air pollution. ←
- PAWG** - Programmable Air Wave Generator with Controlled Temperature, Pressure, Humidity and Air Wave Frequencies for Calibration. ←
- RAIAP** - Respiratory Allergy and Inflammation due to Ambient Particles - A Europe-wide Assessment. ←
- RUPIOH** - Relationship between Ultrafine and Fine Particulate Matter in Indoor and Outdoor Air and Respiratory Health. ←

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Air Pollution and Genotoxic or Carcinogenic Effects

- AMBIPATH** - Mechanism-based Approaches to Improved Cancer Risk Assessment of Ambient Air Polycyclic Aromatic Hydrocarbons (PAHs). ←
- CHILDRENGENONETWORK** - European Network on Children's Susceptibility and Exposure to Environmental Genotoxins. ←
- EXPAH** - Effects of PAHs in Environmental Pollution on Exogenous and Endogenous DNA Damage. ←
- GEN-AIR** - Molecular Changes and Genetic Susceptibility in Relation to Air Pollution and Environmental Tobacco Smoke: a case-control study in non-smokers nested in the epic investigation. ←

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Air Pollution and Cardiovascular Effects

- AIRGENE** - Air Pollution and Inflammatory Response in Myocardial Infarction Survivors: Gene-environment-interactions in High-risk Group. ←
- HEAPSS** - Health Effects of Air Pollution on Susceptible Subpopulations: Ultrafine particles and myocardial infarction. ←
- MAAPHRI** - Multidisciplinary Approaches to Airborne Pollutants Health-Related Issues. ←

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Air Pollution and Networking, Risk Assessment

- AIRNET** - A Thematic Network on Air Pollution and Health. ←
- EMECAP** - European Mercury Emission from Chlor-alkali Plants. ←





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FP5 projects addressing indoor air issues

MULTIPLE STRESSORS AND FACTORS AND HEALTH IMPACTS

E21-4AYC – Environmental Influences and Infection as Aetiological Agencies in Atopy and Asthma in Young Children. ←

EPILYMPH – Environmental Exposures and Lymphoid Neoplasms.

GEOPARKINSON – Parkinsonism and Parkinson's Disease.

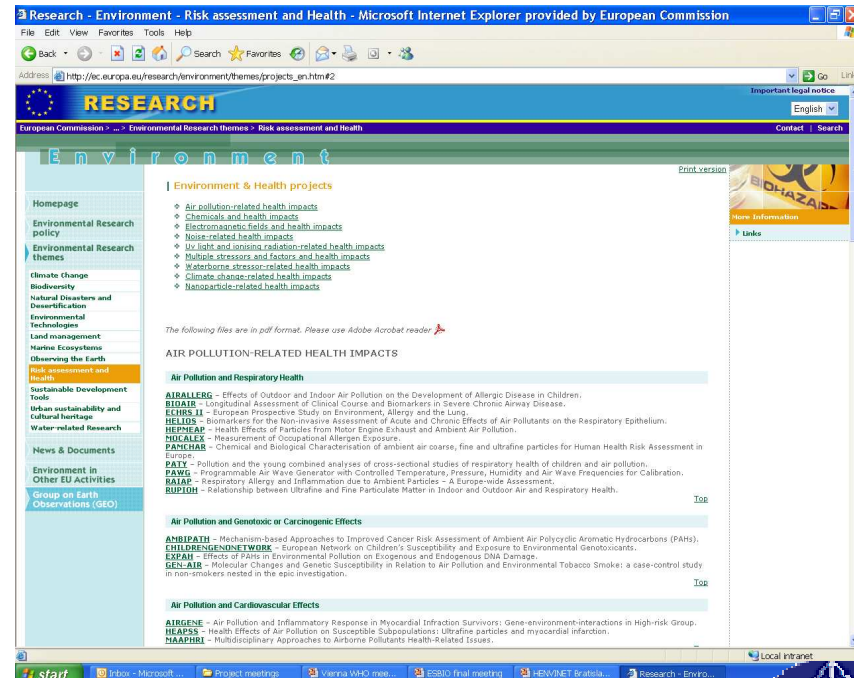
HEARTS – Health Effects and Risk of Transport Systems.

PARSIFAL – Prevention of Allergy – Risk Factors for Sensitisation in Children related to Farming and Anthroposophic Lifestyle.

PASTURE – Protection against Allergy: Study in Rural Environments. ←

PDCAAE – Prevalence and Determinants of Childhood Asthma and Allergies across Europe. ←

PINCHE – Policy Interpretation Network on Children's Health and Environment. ←



http://ec.europa.eu/research/environment/pdf/env_health_projects/env_health_brochure.pdf

Final reports:
http://ec.europa.eu/research/environment/themes/projects_en.htm





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➤ **Indoor air quality-related
health impacts:
FP6 projects**





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Impetus for increased spending on E&H issues: European Environment and Health Action Plan [EHAP] adopted in 2004 → 66 projects funded by the Sixth Framework of Research (2002-2006) with a total EC contribution of over €200M → results starting to become available





✓ Review of European research on the most indoor air- relevant health effects and respective exposures to contaminants in indoor air

✓ Evaluation of interventions on environment and health exposure reduction measures on a regional level and promoting of implementation of successful initiatives in other regions of Europe
 ✓ Focus on the exchange of useful practices in two areas: (i) the reduction of traffic-related health hazards (ii) improvement of indoor air quality

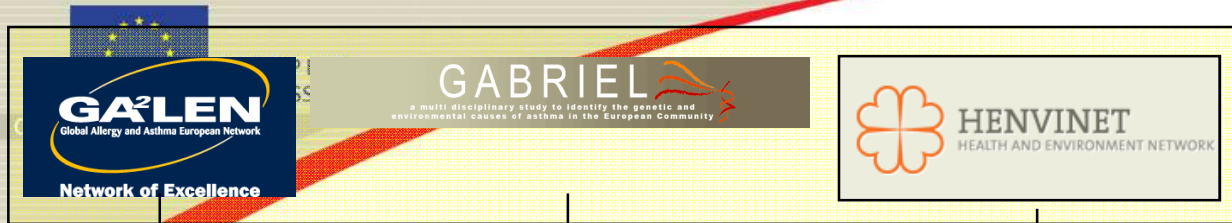
✓ Main objective is to increase the information on the PM characteristics throughout Europe, describing the PM-system with respect to geographical and meteorological conditions, particle formation processes and their transport.
 ✓ IAQ a minor aspect

✓ Identification of the remaining knowledge gaps in the field of air pollution and health in relation to the objectives of Environment & Health Action Plan
 ✓ IAQ a minor aspect

- ✓ **ENVIE**: www.envie-iaq.eu/home.html
- ✓ **PRONET**: <http://www.proneteurope.eu>
- ✓ **COST ACTION 633**: <http://cost633.dmu.dk>
- ✓ **CAIR4HEALTH**: www.cair4health.eu

➤ (Action 5 of EHAP) Integrate and strengthen European environment and health research → make full use of the results from EU and nationally funded projects





✓ Establishment of a network of European centres of excellence conducting integrated multidisciplinary research programmes on allergy/asthma and environmental factors (e.g., outdoor and indoor pollution), nutrition, lifestyle (including occupation), infections and genetic susceptibility

✓ Identification of how genes and the environment cause the development of asthma
 ✓ Identification of both risk and protective factors, with the long-term aim of preventing the illness

✓ Establishment of expert teams for each of the four priority diseases of the European Environment and Health Action Plan (allergy/asthma; cancer; neurodevelopmental disorders; endocrine disrupting effects), to summarise the current scientific basis regarding the links between health and environment

➤ (Action 6 of EHAP) Target research on diseases, disorders and exposures → improve knowledge of the links between environmental exposures and four priority diseases and to strengthen the integration of the research results into relevant policy measures.

- ✓ **asthma, allergy**
- ✓ neuro-immune disorders
- ✓ cancers
- ✓ endocrine-disrupting effects



- ✓ **GA2LEN**: www.ga2len.com
- ✓ **GABRIEL**: www.gabriel-fp6.org
- ✓ **HENVINET**: www.henvinet.eu





✓ aims at producing a new integrated risk assessment framework, based on the full chain approach (causal chain spanning sources of pollution, releases into various media, dispersion and transport, exposure medium inhalation/dermal contact/ingestion, intake, uptake, dose, health effects and impacts)

✓ Sub-projects (SP),

❑ SP1 will review and develop the tools and methods needed for integrated assessments;

❑ SP2 will review and develop monitoring and modelling methods necessary to support integrated assessment;

❑ SP3 will apply the methods developed in SP1 to seven policy areas (Transport, **housing**, agricultural land use, water, household chemicals, waste and climate);

❑ SP4 will design a web-based integrated assessment toolbox or system which will be the operational means to assess environment and health risks.

Housing - including the effects both separately and in combination of environmental tobacco smoke, indoor air pollution (e.g. from cooking and heating, moulds, furnishings etc), noise and indoor climate (including temperature and dampness) on acute and chronic health (respiratory illness, cardiovascular illness, winter mortality and infant mortality).

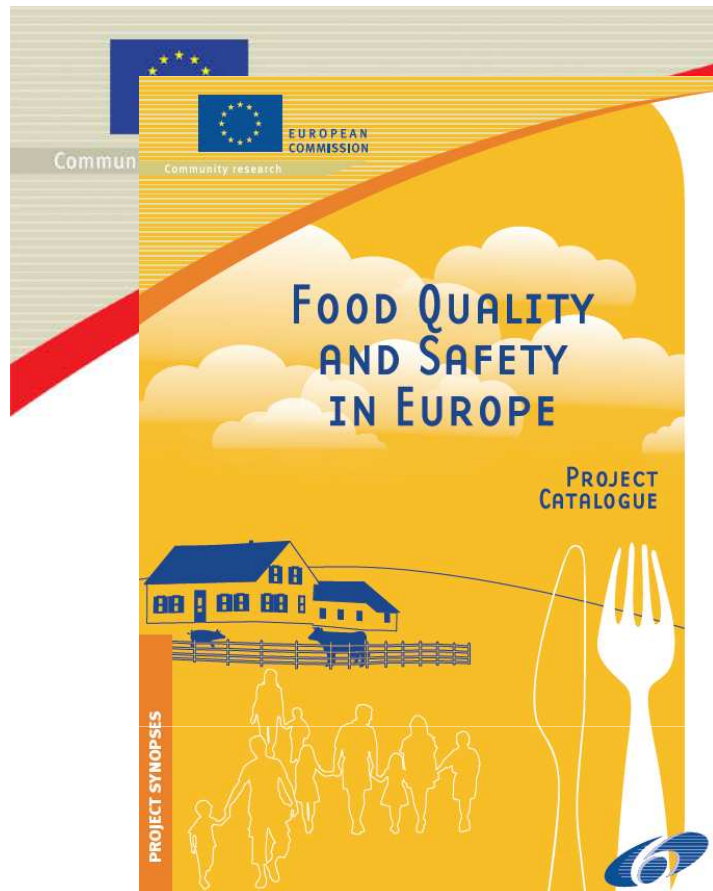
➤ (Action 7 of EHAP)
Develop methodological systems to analyse interactions between environment and health
→ research into the adequacy of current risk assessment and possible development of new methodologies to assess better the risks coming from environmental factors, and to improve economic valuation and impact analyses of prevention strategies



- ✓ **INTARESE**: www.intarese.org
- ✓ **HEIMTSA**: www.heimtsa.eu
- ✓ **2-FUN**: www.2-fun.org
- ✓ **DROPS**: www.nilu.no/DROPS
- ✓ **ENVIRISK**: <http://envirisk.nilu.no>



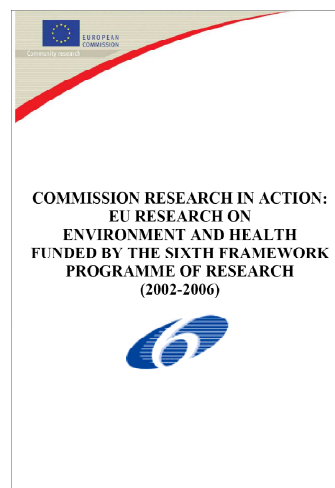
More information on FP6 projects - catalogues



<ftp://ftp.cordis.europa.eu/pub/food/docs/fp6-tp5-projects.pdf>



http://ec.europa.eu/research/environment/pdf/global_change_ecosystem.pdf



More information on FP5/FP6 projects -websites

The screenshot shows the top navigation bar of the European Commission Research website. The main header reads "European Commission RESEARCH". Below it, a breadcrumb trail indicates "European Commission > Research > Allergy and Asthma". The page title is "Allergy and Asthma". A sidebar on the left contains a menu with items: Home, News, Projects, Meetings and Workshops, Publications, International Partners, and Links. The main content area features an "Introduction" section with a green background image of a flower. The text states: "Developed countries have seen a marked increase in the numbers of people of all ages, but especially children, who suffer from food allergies. Allergies to foods such as cereals, eggs, dairy products, nuts and fish cause symptoms ranging from mild shortness of breath to life-threatening anaphylactic shock. Yet the underlying reasons for the apparent growth in the prevalence of the condition are not really understood, nor do we know why some people develop allergies and others do not. We do not even have reliable figures about the incidence and growth of allergies." Below the text is a link that says "See the video >".

<http://ec.europa.eu/research/allergy/index.htm>

The screenshot shows the "Scientific Support to Policies" page on the European Commission Research website. The header includes "RESEARCH" and "European Commission - Research - FP6 - SSP". The main heading is "Scientific Support to Policies". A sub-heading reads "Policy decisions - especially at the European level - are never easy. What policy-makers decide will potentially affect the lives of millions of people for many years. This makes reaching informed decisions crucial, and scientific research can help illuminate their policy choices. Recognising the power of science to serve the decision-making process, the European Commission has launched its 'Scientific support to policies' (SSP) initiative under the Sixth Framework Programme (FP6) for Research." Below this, there are sections for "Why?", "How it works?", and "SSP priorities?". The "Why?" section lists three bullet points: "To improve the quality of policy decisions and to speed up the decision-making process", "To provide rapid responses mechanisms to urgent political needs", and "To promote the participation of researchers in the policy arena". The "How it works?" section states: "SSP serves the decision-making process through targeted research which must respond to the specific needs identified by policy-makers." The "SSP priorities?" section lists three main priority areas: "The sustainable management of Europe's natural resources", "Improving the health, security and opportunities enjoyed by EU citizens", and "Enhancing the economic potential and cohesion of an enlarging Europe". On the right side, there are two links: ">> Select the projects by theme" and ">> Select a project by acronym".

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

The screenshot shows the CORDIS Search website. The header includes the CORDIS logo and "CORDIS Search". The main heading is "Home". Below it, a search bar is present. The text reads: "Search This service allows you to search all CORDIS content. The following options are available: :: a simple search to access CORDIS content fast and easily :: advanced and professional searches :: e-mail alert services informing users automatically when new content is added. Please see the Help section for more information on how to use the searches." Below this, there is a "Simple search" section with a dropdown menu for "Select your type of information:" set to "All CORDIS". There is a text input field for "Enter search term(s):" with a help link "Help with 'WITHIN' Operator". Below the input field, there are options for "Display:" (10 results per page), "Format:" (Standard selected, Detailed), and "Sort order:" (Date, Relevance selected). At the bottom of the search section are "Search" and "Clear" buttons. A "Top" link is visible at the bottom left of the page.

<http://cordis.europa.eu/search/index.cfm>





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Seventh Framework Programme of Research (2006-2013)





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Specific programmes

Collaborative research: research activities carried out in trans-national cooperation in 10 thematic areas - budget €32.4 bn

Frontier research: “investigator-driven” research carried out across all fields (bottom-up approach) by individual teams in competition at the European level - €7.51 bn

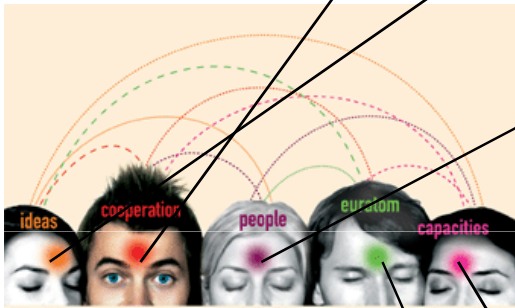
Human potential: Strengthening the human potential in research and technology in Europe - budget €4.75 bn

Research capacity: research infrastructures; regional research driven clusters; unleashing the full research potential in the EU’s “Convergence” regions; research for and by SMEs; “Science in Society” issues; “horizontal” activities of international co-operation - budget €4.10 bn

Euratom

Joint Research Centre (S/T support to EU policies): €1.75 bn

Joint Research Centre (nuclear)





Cooperation programme: 10 themes

	THEME	INDOOR AIR RESEACH?	FP7 BUDGET (€ bn)	BUDGET 1st CALL (€M)	BUDGET 2nd CALL (€M)
1	HEALTH	Enhanced health promotion and disease prevention sub-activity	6.10	637	549
2	FOOD, AGRICULTURE AND FISHERIES, AND BIOTECHNOLOGY		1.94	192	110
3	INFORMATION AND COMMUNICATION TECHNOLOGIES	Personalised exposure measurement devices; ICT for environment	9.05	1 019	477
4	NANOSCIENCES, NANOTECHNOLOGIES, MATERIALS AND NEW PRODUCTION TECHNOLOGIES		3.48	396	221
5	ENERGY		2.35	109	70
6	ENVIRONMENT (INCLUDING CLIMATE CHANGE)	'Environment and Health' sub-activity	1.89	200	222
7	TRANSPORT (INCLUDING AERONAUTICS)		4.16	442	283
8	SOCIO-ECONOMIC SCIENCES AND THE HUMANITIES		0.62	59	N.A.
9	SECURITY		1.40	120	N.A.
10	SPACE		1.43	35	N.A.
	TOTAL		32.4	3 209	N.A.

COOPERATION

*Selection of some projects still ongoing





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1st call outcome (Published 22 December 2006)





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Under negotiation:
indoor air quality and health

TOPIC TITLE IN THE CALL	ACRONYM	TITLE	EC CONTRIBUTION
Indoor air pollution in Europe: an emerging environmental health issue	HITEA	<i>Health effects of indoor pollutants: integrating microbial, toxicological and epidemiological approaches</i>	€2.8M
Performance indicators for health, comfort and safety of the indoor built environment	PERFECTION	<i>Performance indicators for health, comfort and safety of the indoor environment</i>	€1.5M





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**Under negotiation:
ambient air pollution and health**

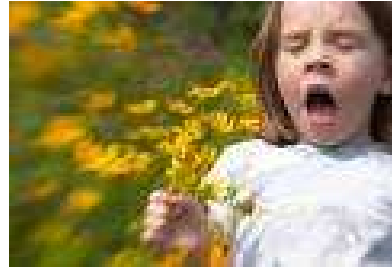
TOPIC TITLE IN THE CALL	ACRONYM	TITLE	EC CONTRIBUTION
European cohort on air pollution	ESCAPE	<i>European study of cohorts for air pollution effects</i>	€6.9M
Geographical information systems in support for environment and health research	HEREPLUS	<i>Health risk from environmental pollution levels in urban systems</i>	€1.4M
Megacities and regional hot-spots air quality and climate	MEGAPOLI	<i>Megacities: emissions, urban, regional and global atmospheric pollution and climate effects, and integrated tools for assessment and mitigation</i>	€3.4M
	CITYZEN	<i>Megacity - zoom for the environment</i>	€2.9M





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Under negotiation:
allergy

TOPIC TITLE IN THE CALL	ACRONYM	TITLE	EC CONTRI BUTION
Impact of exogenous factors in the development of allergy	EFRAIM	<i>Mechanisms of early protective exposures on allergy development</i>	€3M



COOPERATION



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**Under negotiation:
networking and coordination of research activities**

TOPIC TITLE IN THE CALL	ACRONYM	TITLE	EC CONTRIBUTION
ERA-NET for environment and health	ERA- ENVHEALTH	<i>Coordination of national environment and health research programmes - Environment and Health ERA-NET</i>	€2M



COOPERATION



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Next calls

Environment
(including Climate change)

- 2nd call recently closed: applications to be evaluated in April (a few address indoor air and health issues)
- 3rd call: topics under preparation - to be published in June/July?
- 4th call: To be published in January 2009





Community research

Second Programme of Community Action in the Field of Health (2008-13)

- Launched in November 2007**
- Funding: €322M (around €50-60M per annum)**
- Calls for proposals and tenders are managed by the Public Health Executive Agency (PHEA) of DG SANCO**
- It co-finances projects**
- Funds are available in a separate budget for organising conferences**
- Call published two days ago, deadline 23 May 07**
- Topics on IAQ!**

More info:http://ec.europa.eu/health/ph_programme/howtoapply/call_for_propal_en.htm





Calls for proposals:
http://cordis.europa.eu/fp7/home_en.html

CORDIS: FP7 Homepage - Microsoft Internet Explorer provided by European Commission

Address: http://cordis.europa.eu/fp7/home_en.html

Seventh Research Framework Programme (FP7)

English (en) | 2007 - 2013

About | What's New? | Sitemap | Quick Links

Europa > CORDIS: FP7 Home

- FP7 Home
- FP7 newsroom
- Understand FP7
- Participate in FP7
- Find a call**
- Electronic proposal submission system (EPSS)
- Get support
- Find project partners
- Find a document

Cooperation | **Ideas** | **People** | **Capacities** | **Euratom** | **JRC**

What type of user are you?
The Seventh Framework Programme (FP7) is designed to support a wide range of participants... [read more](#)

- Private company
- Public organisation
- Individual researchers
- Outside the EU

In the spotlight
The CORDIS FP7 Service is now available in 6 languages! To view FP7 information in [German](#), [Spanish](#), [French](#), [Italian](#) or [Polish](#), instead of [English](#), select the language you want from the menu box at top right of the page.

Latest News
The CORDIS FP7 Service goes multilingual!
[Date: 2007-06-01]
Key pages of the CORDIS FP7 Service, the official access point to funding from the Seventh Framework Programme for research (FP7), are now available in six languages ... [read more](#)

Forthcoming Events

- FP7 - ICT event** Budapest, Hungary [Event Date: 2007-07-05]
- EuroNanoForum 2007** Düsseldorf, Germany [Event Date: 2007-06-19/21]

What's next

- The new thematic service for **Coordination between research programmes** expected to be published next

Register as independent experts for FP7: Evaluation, monitoring and other assistance

Last updated on: 2007-06-05

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Done | start | CORDIS: FP7 Ho... | HEVNINET - Micro... | HEVNINET: Inform... | Project meetings | Microsoft PowerP... | Internet | FR | 11:10

Calls

Database of experts





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Thank you for your attention

