



Aree di ricerca legate al tema SALUTE in altri piani di lavoro (Dic.2007 – Apr. 2008)



Abbiamo elaborato questo documento per i soci APRE, raccogliendo in un unico testo i topic di ricerca di altri Piani di Lavoro che riguardano il tema SALUTE.

Nell'ambito del tema COOPERATION tre sono i Piani di Lavoro che attualmente presentano topic relativi a questa tematica. Per quanto riguarda CAPACITIES sono stati identificati topic all'interno del tema INFRASTRUCTURES.

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AMBIENTE

Identifier: FP7-ENV-2008-1

Publication date: 30 November 2007

Budget: € 212 000 000

Deadline: 25 February 2008 at 17:00:00 (Brussels local time)

Sub-activity 6.1.2. Environment and Health

Indicative available budget: EUR 20 million

Rationale for 2008 work programme

The topics proposed for the second call will support multi-disciplinary research to improve the understanding of the link between environmental stressors and health, needed for improved policy making and to integrate public health concerns and disease characterisation related to emerging environmental risks. The topics proposed will focus on stressors of high priority (noise, EMF, climate change) and health impacts of relevance, especially those occurring some time after exposure, being therefore more difficult to discern.

The proposed research topics are based on research needs identified during recent workshops (noise, biomarkers etc), by the Commission's Scientific Committee on Emerging and Newly Identified Health Risks, in the WHO Research Agenda, or in the Earth Systems Science Partnership (ESSP) report on Global Environmental Change and Human Health, among others. They will contribute to the goals of a number of EU policies, including those of the Environment and Health Action Plan (2004-2010) and its recent mid-term review. The research to be undertaken will address important policy-relevant issues such as possible adverse health outcomes resulting from exposure to chemicals (in support of EU sustainable development policies), electromagnetic fields (in support of the Programme of Community Action in the Field of Public Health), noise (in support of the EU noise policy), and climate change (supporting the European Climate Change Programme-II). Consideration has also been given to support environment and health research needs related to the International



Polar Year such as the impact of climate change on Arctic populations.

Area 6.1.2.1. Health effects of exposure to environmental stressors

ENV.2008.1.2.1.1. Health impacts of exposure to radiofrequency fields in childhood and adolescence

The aim is to investigate whether prolonged exposure to radiofrequency fields (RF EMF) and pulsed low frequency magnetic fields via mobile phone use increases the risk of potential adverse effects in the central nervous system (e.g. brain cancer) in childhood and adolescence. The project should also address the need for improved exposure assessment in these populations. International collaboration is encouraged. **(Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *The project will improve risk assessment of potential adverse health effects of exposure to EMF in children to support developing Community public health measures and policies.*

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ENV.2008.1.2.1.2. Comparison of health risks in populations in the Arctic and selected areas in Europe due to the spreading of contaminants resulting from climate change

The aim will be to explore the changing routes and mechanisms by which air pollutants and chemical persistent pollutants, are delivered to, interact with, and spread in the Arctic and the possible role of climate variability and global climate change in this process. Studies should include the estimation of direct and indirect health effects on Arctic populations and relevant comparisons with exposed local populations in the EU. International collaboration is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Research shows that especially Arctic regions and populations are vulnerable to long-term range pollution coming from other areas of the globe. The project will establish geographical and temporal trends in distribution of pollutants and health impacts in the Arctic and selected areas in Europe due to global change, in support of relevant EU policies related to health impacts of global change, including adaptation policies.*



ENV.2008.1.2.1.3. European research network on noise and health

The aim of this network will be to bring together research organisations working on noise and related health effects from across Europe in order to gain a critical mass of resources, allowing the development of new strategies for noise research. The network should exchange information on recent developments on noise research, including novel methods of exposure assessment and development of innovative methods of measurement of moderating factors and outcomes. Risks for health affecting e.g. the cardiovascular system, sleep, neurocognitive and immune functions should be considered, as well as impact of co-stressors (e.g. air pollution), settings (e.g. transport), and novel types of exposure. Links will be established with other networks whose main focus is primarily on transport-related stressors. Data emanating from previous and ongoing studies should be taken advantage of, analysed for policy purposes, and made available.

Funding scheme: coordination and support actions (coordinating type)

***Expected impact:** New insights into the effects and mechanisms of the contribution of noise and confounding factors to human health. Prioritisation and standardisation of the state of the art methods for measurement of exposures and outcomes across Europe and broadening the scope of noise research to include other environmental stressors in order to contribute to further development of EU noise policy, e.g., in the framework of the EU Environmental Noise Directive and further development of EU air policy.*

ENV.2008.1.2.1.4. New, improved and validated biomarkers to investigate long-term health impacts of exposure to environmental pollutants

The aim will be to take advantage of advances in emerging technologies such as 'omics' to identify and validate biomarkers of exposure via different exposure routes, disease susceptibility and effect, including biomarkers for disease progression and long latency effects. Focus should be on exposure to (emerging) contaminants such as neurotoxic, FP 7 Cooperation Work Programme 2008: Environment (including climate change) carcinogenic, endocrine-disrupting, immunotoxic or allergenic substances including mixtures. The project can contain epidemiological and toxicological studies including the use of in vitro and in vivo (ecotoxicological) models. International collaboration will be encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)



Expected impact: Risk assessment procedures undertaken by regulatory authorities in

the EU require precise knowledge of the state of population exposures and possible related health effects. This project will identify and validate biomarkers to predict environmental health/disease outcomes due to exposure to environmental contaminants that can be used in regulatory settings such as assessment of cancer risk, risk of allergy development and in biomonitoring.

ENV.2008.1.2.1.5. Quantification of changing surface UV radiation levels and its impact on human health

The overall aim is to better characterise changing UV exposure in relation to important leisure (skiing, beach) and working activities in Europe and to assess its impact on human health (e.g. immune response) including risk/ benefit estimations. Furthermore, improved measurement techniques and radiative transfer models should be developed to better represent radiation in climate models and for prediction of future UV levels. Spectral radiance distribution at ground level under changing climate and atmospheric composition condition should be quantified, taking into account e.g. the role and interference of clouds and atmospheric pollution at ground level.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Quantification of UV exposure taking into account high surface albedo effects under both clear skies and cloudy conditions and related human health risks. Definition of critical exposure levels/doses for various health outcomes ranging from eye diseases to the impact on the immune system. Improved assessment of health risks associated with changing UV exposure to support relevant EU policies related to health impacts of global change.

ENV.2008.1.2.1.6. Databases based on European cohort studies and their exploitation for advancement of knowledge of environment-health relationships

The aim is to advance our knowledge on specific environment and health causal relationships by providing support to exploitation of the wealth of data generated by past or ongoing studies

funded by the EC and national programmes. The grant can support activities such as inventories of cohorts, options for sample storage and analysis, database building, and



assurance of quality and interoperability, data access, analysis and validation, recommendations for data collection in the future to improve environment-health linkages, and dissemination.

Funding scheme: coordination and support actions (coordinating type)

Expected impact: *The structuring and consolidation of often fragmented data from various studies undertaken throughout Europe will improve the knowledge base for FP 7 Cooperation Work Programme 2008: Environment (including climate change)*



FOOD

Identifier: **FP7-KBBE-2008-2B**

Publication date: **30 November 2007**

Budget: **€ 96 850 000**

Deadline: **26 February 2008 at 17:00:00 (Brussels local time)**

Activity 2.2: Fork to farm: Food (including seafood), health and well being

Area 2.2.1 Consumers

Understanding consumer behaviour and consumer preferences as a major factor in the competitiveness of the food industry and the impact of food on the health, and well-being of the European citizen. The focus will be on consumer perception and attitudes towards food including traditional food, understanding societal and cultural trends, and identifying determinants of food choice and consumer access to food. The research will include the development of data bases on food and nutrition research.

KBBE-2008-2-1-01: Measures aimed at promoting healthy eating habits

Call: FP7-KBBE-2008-2B

The aim should be the assessment of efficacy, cost effectiveness, best practices on previous or ongoing measures aimed at promoting healthy and sustainable eating habits. Based on this assessment, methods for wider applicability and design of potentially more effective measures should be developed. The short and long term impact on consumer behaviour (purchasing patterns, consumption, changing attitudes to food groups, etc) resulting from actions taken by public authorities to influence food consumption patterns and to promote health (specific food related initiatives and food as part of wider health promotion actions)



would be analysed. Consideration should also be given to the extent to which experience from the private sector in product launch/brand placing activities might make public sector

actions more effective. The result should allow identifying best practices on public health nutrition actions that could be translated into other regional and national contexts.

Funding scheme: Small collaborative project

Expected impact: Development of methods and measures to understand consumer behaviour. This would make public sector actions more effective, thereby contributing to the implementation of the Consumer Policy Strategy and to the Action Plan on Food and Nutrition Policy.

Area 2.2.2 Nutrition

Understanding beneficial and harmful dietary factors as well as the specific needs and habits of population groups as a major controllable factor in the development and reduction of occurrence of diet-related diseases and disorders including obesity and allergies. This will involve the investigation of new dietary strategies, the development and application of nutrigenomics and systems biology, and the study of the interactions between nutrition, physiological and psychological functions. It could lead to reformulation of processed foods, and development of novel foods and ingredients, dietetic foods and foods with nutritional and health claims. The investigation of traditional, local, and seasonal foods and diets will also be important to highlight the impact of certain foods and diets on health, and to develop integrated food guidance.

KBBE-2008-2-2-01: Optimal human cell function and nutrition

Call: FP7-KBBE-2008-2B

New research opportunities in the nutrition area are arising through the use of cutting-edge technologies for *in vivo* molecular probing of cellular compartments as well as for the targeted delivery of molecules at the (sub-) cellular level. The overall objective of this topic is to increase the bioavailability of essential nutrients at their (sub-) cellular sites of biological action in order to improve cell functionality and, thus, the whole organism vitality. Research shall combine knowledge in the following areas: nutrition; cell biology; and enabling technologies for targeted delivery into (sub-) cellular compartments and molecular probing of (sub-) cellular compartments. The application of this knowledge shall ultimately lead to innovative food formulations, nutrient delivery systems, and food ingredients.

Funding scheme: Small collaborative project



Expected impact: The targeted delivery of nutrients to their cellular and/or sub-cellular site of biological action will contribute to the formulation of health-promoting food delivery tools.

Novel research tools might be developed to study (sub-) cellular nutrition mechanisms such as nutrient receptor interactions.

KBBE-2008-2-2-02: Bioactive compounds in traditional food products - SICA (Black Sea Region) Call: FP7-KBBE-2008-2B

The aim of the topic is to identify and characterise bioactive compounds in traditional food products that can be beneficial for human health and are typical for the diet of EU neighbouring regions. Scientific data on the risks and benefits linked to these products or compounds will be produced and evaluated. It will include the study of the role and the mechanisms (absorption and activity) of bioactive compounds and also the factors influencing their functional properties (e.g. processing).

Funding Scheme: Small collaborative project

Additional information: SICA – Minimum Number of Participants: 2 from different Member States or Associated Countries and 2 from different ICPC from the Black sea region (Georgia, Moldova, Ukraine, Russia, Armenia, and Azerbaijan).

Expected impact: To increase knowledge of nutrients, food components and/or bioactive compounds effects on human health, to provide sound scientific data and to help in substantiating health and nutritional claims. Enhance the cooperation between scientific disciplines and stakeholders (nutrition, practitioners, local food companies, etc.). This should help the EU food industry to increase its innovation potential and competitiveness, in particular regarding traditional foods and SMEs.

KBBE-2008-2-2-03: Obesity prevention in the Mediterranean area - SICA (Mediterranean Partner Countries) Call: FP7-KBBE-2008-2B

The increasing prevalence of diet-related chronic diseases and disorders needs better understanding. Particularly obesity is a serious issue in the Mediterranean area. Research should focus on the adaptation of standardised methodologies for the collection of data on the relation between food intake and human health/disease conditions in that area as well as



propose intervention measures to promote healthy eating habits with a particular focus on children. The involvement of Mediterranean Partner Countries in European epidemiological studies should be explored.

Funding scheme: Small collaborative project

Additional information: SICA – Minimum Number of Participants: 2 from different Member States or Associated Countries and 2 from different ICPC with a special focus on Mediterranean partner countries (see the list of Mediterranean partner countries in Annex 1).

Expected impact: Development of methodologies and tools in Mediterranean partner countries to be involved in epidemiological studies on the impact of diet on obesity, the results of which should feed into the work of the EU Platform on Diet, Physical Activity and Health.

Area 2.2.3 Food processing

Optimising innovation in the European food industry through the integration of advanced technologies into traditional food production including fermented food, tailored process technologies to enhance the functionality, quality and nutritional value of food including organoleptic aspects in food production including new foodstuffs. Development and demonstration of high-tech, eco-efficient processing and packaging systems, smart control applications and more efficient valorisation and management of by-products, wastes, water and energy. New research will also develop sustainable and novel technologies for animal feed, including safe feed processing formulations and for feed quality control.



NMP

Identifier: FP7-NMP-2008-CSA-2

Publication date: 30 November 2007

Budget: € 15 000 000

Deadline: 24 April 2008 at 17:00:00 (Brussels local time)

NMP-2008-1.1-1 Converging sciences and technologies

Technical content/scope: Convergence between nano-, bio-, information and/or cognitive sciences and technologies is extremely promising for substantial innovation in novel beneficial products/services and to give impetus to the competitiveness and profitability of a wide range of European industrial activities. Such interdisciplinary approach presents, however, a great challenge in many respects. The expected projects should enhance understanding and advance as much as FP7 Cooperation Work Programme: NMP possible in the design and construction of new components, devices, systems or products/services with expected benefits such as improving quality of life, safety, security, industrial processes, and/or the machine /operator interface. Projects should address interaction and convergence between physics, chemistry and/or biology, and cognitive, nano-, bio- and/or information sciences and technologies. The expected projects can include modelling, where appropriate. A non binding or limiting example is the development of knowledge leading to, the creation of new types of nanotransducers, nanobiosensors including isolated sensors, robotics developed at nanometre level or bio-NEMS, technologies for compensating or alleviating the effect of human disabilities including e.g. contactless brain-machine interfaces. Nano-dynamic systems can also be addressed by the proposed projects such as molecular motors or machines.

Funding scheme: Small or medium-scale focused research projects.

Special features: None



Expected impact: (i) Innovative scientific and technical research going well beyond the state of the art; (ii) development of new knowledge with a high prospect for potential

applications; (iii) contribution to substantial innovations in the European industry; (iv) priority will be given to proposals having appropriate industrial partnership in order to achieve the targeted objectives.

NMP-2008-1.1-3 Examining capacity building in nanobiotechnology

Technical content/scope: The field of nanobiotechnology is an extremely rapidly growing research area. Challenges are big, in particular since nanobiotechnology greatly benefits from an interdisciplinary ("converging") approach, including (i) various scientific and technical disciplines, (ii) entrepreneurship for transforming new knowledge into value-added technologies (often with the creation of new SMEs), and (iii) societal, ethical and regulatory considerations in order to correctly FP7 Cooperation Work Programme: NMP cope with European people's expectations and concerns. Ancillary aspects can also play a critical role to achieve or fail to achieve success at European level, such as nomenclature, specific metrology, harmonisation work for potential standards, (certified) reference materials, intellectual property rights as well as dedicated education and training, and the service to industry and particularly to high-tech SMEs. Therefore, the involvement of actors with expertise in many aspects is needed in order to develop nanobiotechnology successfully and timely, and this requires a Europe-wide effort. The support action should explore the definition, establishment and further development of a European scale infrastructure on nanobiotechnology, and the establishment of a realistic roadmap. It will also address the identification of top-class activities carried out in Europe, assessing their positioning with respect to the international scene.

Funding scheme: Coordination and support actions aiming at supporting research activities.

Specific features: Maximum duration: 12 months.

Expected impact: (i) Capacity building in Europe in nanobiotechnology; (ii) support for the development of new nanobiotechnology-based products and industrial processes, for their reliability, safety and future commercialisation on the global market; (iii) implementation of the European Commission's Action Plan for Nanotechnology; (iv) elements relevant to establishing the creation of one (or more) leading pole(s) of excellence that will be able to support industrial activities, in particular benefiting high-tech SMEs.



4.1.3 Health, Safety and Environmental Impacts

The main objective is to support the scientific assessment of the potential health, safety and environmental risks associated with nanotechnology-based materials and products at the earliest possible stage. This involves the generation of quantitative data on toxicology and ecotoxicology and methodologies for generating data. Test methods, exposure assessment and risk assessment methods may need to be developed or modified to be applicable to nanomaterials, as well as methodologies for life cycle analysis. In addition, analytical methods might not be fully suitable and therefore also the development of suitable devices and instruments for measurement are addressed. Research activities will thus contribute to closing the knowledge gap, providing the basis for meeting regulatory requirements and, if need be, developing new requirements, conducive to a safe, responsible and sustainable development.

NMP-2008-1.3-2 Impact of engineered nanoparticles on health and the environment

Technical content / scope: Continuing and expanding the activities launched with the first FP7 NMP call for proposals, research financing is made available for an understanding of the safety, environmental and human health implications of nanotechnology-based materials and products; this is important worldwide. Reinforced cooperation has been initiated on this matter with several USA federal agencies. It is advantageous to share and harmonize the research effort to increase efficiency and prevent any duplication of effort, also since it addresses pre-competitive questions. This research will create a reliable and sound foundation for the assessment of the safety of nanotechnology-based products and encourage nanotechnological advances that can address the needs of citizens and contribute to sustainable development objectives. The expected projects should be related to engineered nanoparticles and should address one or more topics in the following areas: (a) potential impact on health; (b) potential impact on the environment. The expected projects may address one or more of the following issues: hazard characterisation, occupational, human and environmental exposure throughout the life cycle of nanomaterials, toxicology, main endpoints of and health effects of engineered nanoparticles; methodologies for testing; monitoring/detection of engineered nanoparticles in the various environments (excluding the development of equipment); environmental and biological fate, transport, and transformation of nanoparticles in various compartments such as air, water, soil and biological fluids. The interdisciplinary research should contribute to better understanding of toxicokinetics, cellular and molecular mechanisms, behaviour and fate, bio-persistence,



biokinetics, to understand fundamentally the exposure, behaviour, mechanisms, consequences and potential effects to various endpoints of nanoparticle-biological entities interactions. In their analysis of the state of the art, the expected proposals should demonstrate clear novelty and not duplicate running or carried out research, except in duly justified cases.

Funding scheme: Small or medium-scale focused research projects.

Specific features: This topic is well suited for cooperation with research teams from non-EU countries, such as with the USA, Canada, Japan, Korea, Australia and New Zealand, and with ICPC. EU funding is foreseen within the present call only for ICPC, such as Brazil, China, India, Mexico, Russia or South-Africa. Gender issues should be considered, where appropriate.

Expected impact: (i) Better in vitro or in vivo methodologies for the regulatory demands for the safety assessment of nanotechnology products, (ii) better understanding of the impact of the nanoparticles on health, safety and the environment; (iii) future definition of appropriate measures, where needed; (iv) safe and cost-effective minimisation of the exposure of workers; (iv) sustainable and responsible development; (v) support to research and regulation; (vi) implementation of the European Commission's Action Plan for Nanotechnology; (vii) reinforcement of the international dimension of European research within the 7th Framework Programme.

Activity 4.2 Materials

NMP-2008-2.1-1 Nanostructured membrane materials

Technical content / scope: Tailor-made nanostructured membrane materials show great potential in the area of waste gas or fluid separation having very significant environmental implications. The control of nano-level phenomena is very important in order to enhance the performance of porous materials for selective gas or fluid separation. Research is needed for the development of radically new nanostructured membrane materials, organic and inorganic, as well as on their characterisation and processing methods. The design of novel copolymers for the creation of defined membrane structures by self assembly of block-copolymers and the development of new high free volume polymers with pores in the nanometre range are also very promising fields. Nanostructured membranes that are thermally stable and very selective at high temperatures are important, for example, for gas separation in power generation plants. The projects should aim at radical innovations in the design and development of new nanostructured membranes and in their processing techniques, for



example by controlling parameters (such as temperature, pressure, chemical dosage, pH and deposition sequencing) that will enable the fabrication of problemspecific, permeability selective, nanostructured membrane materials. Modelling of transport through the nanostructured membranes under study should provide a better understanding of separation processes, leading to porous structures with high fluxes and high selectivity.

Funding scheme: Small or medium scale focused collaborative projects.

Special features: In order to ensure industrial relevance and impact of the research effort, the active participation of industrial partners represents an added value to the activities and this will be reflected in the evaluation.

Expected impact: Gas and fluid separation for environmental technologies, e.g. CO₂ separation in power stations, particularly in the light of commitments under the Kyoto Protocol. Development of membranes with improved selectivity towards higher hydrocarbons and with a commercial level of throughput.

NMP-2008-2.3-1 Advanced implants and bioactive materials for critical organs

Technical content/scope: Medical therapies for human critical organs such as the heart, liver and pancreas are currently limited by the availability of adequate biomaterial implants, advanced devices and engineered tissues. The specific challenges for the different critical organs require diversified approaches in the case of cardiovascular, pancreatic and liver therapies. Research on heart implants and devices should focus on bioactive materials able to attract local cells to the site of injury and on new biomimetic materials for cardiac tissue and vascular replacement (e.g. myocardium, grafts, valves, stents). Biomaterials development is crucial for diabetes treatment and research is required on biomaterials for the delivery of bioengineered pancreatic cells and on strategies for artificial pancreas development. Research on biomaterials for liver diseases (e.g. cirrhosis, hepatitis) should focus on biomimetic materials for site specific cell therapy and on bioactive materials (e.g. membranes) for regeneration of hepatocytes.

Funding scheme: Small or medium scale focused collaborative projects.

Special features: In order to ensure industrial relevance and impact of the research effort, the active participation of industrial partners represents an added value to the activities and this will be reflected in the evaluation.

Expected impact: Advanced biomaterial implants could reduce the need for organ replacement, and could help accelerate the development of new therapies, eliminating the need for organ transplants and immunosuppressants altogether. Projects are expected to enhance the competitiveness of the biomaterials industry.



NMP-2008-4.0-1 Development of nanotechnology-based systems for diagnosis and/or therapy for diabetes, musculo-skeletal or inflammatory diseases (in coordination with Theme HEALTH)

Technical content /scope: Within the objective of reinforcing the competitiveness of European industry addressing healthcare, proposals are called for with the aim of developing nanotechnology-based systems for diagnosis and/or therapy for diabetes, musculo-skeletal or inflammatory diseases. Where meaningful, research should address the combination of diagnosis and therapy (theranostics) in multi purpose systems. They should demonstrate high specificity, efficacy and where appropriate biocompatibility. Linked animal testing should be kept to the minimum needed and should be replaced by in vitro testing wherever possible. This call addresses only human healthcare.

Funding scheme: Large-scale integrating collaborative projects.

Specific features: In order to ensure industrial relevance and impact of the research effort, the active participation of industrial partners represents an added value to the activities and this will be reflected in the evaluation. Activities other than research could be included as appropriate, such as FP7 Cooperation Work Programme: NMP specific education modules, pre- and co-normative activities, or the analysis of existing and required regulations. Gender issues should be considered, where appropriate.

Expected impact: (i) Better and more reliable diagnostics and/or therapy against present methods; (ii) delivery of improved health care to citizens and -where the case- also to livestock; (iii) increased competitiveness of European industry in this high value added and fast growing field.

NMP-2008-4.0-13 ERA-NET on nanomedicine

Technical content/scope: The ERANET on nanomedicine aims at stepping up the coordination of research programmes in this promising and fast growing field. A step towards this aim is identifying RTD priorities in view of implementing joint initiatives, including joint calls with a clear focus on the interdisciplinary nature of nanomedicine as well as on the added value deriving from the cooperation at EU level.



Funding scheme: Coordination and support actions.

Specific features: See Annex 4. Only ERANET eligible partners can participate. The minimum number of participants is set at three independent legal entities managing publicly funded national or regional programmes, each of which is established in a Member or Associated State and no two of which are established in the same Member or Associated State. Eligibility requirements are published in Annex 4.

Expected impact: (i) Improve coordination and reduce overlapping and fragmentation in the key fields of research of nanomedicine; (ii) achieve critical mass and ensure better use of limited resources in fields of mutual interests; (iii) share good practices in implementing research programmes; (iv) promote transnational collaborations and generate new knowledge.



INFRASTRUCTURES

Call 3: FP7-INFRASTRUCTURES-2008-1

Identifier: FP7-INFRASTRUCTURES-2008-1

Publication date: 30 November 2007

Budget: € 90 080 000

Deadline: 29 February 2008 at 17:00:00 (Brussels local time)

Integrating Activities are implemented through a targeted approach to respond to the strategic

research needs of the thematic priority areas of the Cooperation specific programme. They follow all the objectives and characteristics described under section II.1.1.1.

A consortium whose proposal falls under one of the priority topics listed below should apply under the targeted approach. All other topics are covered within the bottom-up approach.

Integrating Activities should be comprehensive on a European scale. Therefore, competing proposals are not expected under the same topic. However, there will be competition between the various priority topics. This list of topics will be revised before future calls in subsequent editions of this work programme.

Health-related specific 2008 objectives: to bring together existing research infrastructures to support the efficient provision of essential research services, including e-services:

- **INFRA-2008-1.1.2.1:** providing access to human genotyping facilities;
- **INFRA-2008-1.1.2.2:** providing access to hadron therapy facilities for particle therapy research;
- **INFRA-2008-1.1.2.3:** providing access to high performance imaging (PET, MRI, SPECT) applied to clinical research on human pathologies;



- **INFRA-2008-1.1.2.4:** providing advanced support for the development of new vaccines;
- **INFRA-2008-1.1.2.5:** for the production of mouse Knock-Out mutants;
- **INFRA-2008-1.1.2.6:** based on databases and resources on cellular differentiation / developmental gene expression in mammals in support of systems biology approaches.

Funding scheme: A combination of *Collaborative projects* and *Coordination and support actions*.

An Integrating Activity shall combine, in a closely co-ordinated manner, following the FP6 Integrated Infrastructures Initiatives (I3) model: (i) *Networking activities*, (ii) *Trans-national access and/or service activities* and (iii) *Joint research activities*. All three categories of activities are mandatory as synergistic effects are expected from these different components. Further details about the I3 model is provided in section V.



RESEARCH FOR THE BENEFIT OF SMES

Identifier: FP7-SME-2008-1

Publication date: 30 November 2007

Budget: € 92 720 000

Deadline: 11 April 2008 at 17:00:00 (Brussels local time)

Activity: 2.1 Research for SMEs

Technical content/ scope

Research for SMEs supports innovative SMEs to solve common or complementary technological problems. Projects must be centred on the innovation needs of the SMEs which outsource research to RTD performers and must demonstrate a clear exploitation potential for the SMEs concerned.

Topics

Research for SMEs is a bottom-up scheme: the projects may address any research topic across the entire field of science and technology².

Participants

Research for SMEs projects require participants from the following two categories of participants:

1. SME participants:

At least three independent SME participants, established in three different Member States (MS) or Associated countries (AC). They must be SMEs as defined by Recommendation 2003/361/EC

http://europa.eu/eurllex/pri/en/oj/dat/2003/l_124/l_12420030520en00360041.pdf



However, SMEs that are research centres, research institutes, contract research organisations or consultancy firms are not eligible as SME participants. SMEs are the direct beneficiaries of the scheme: they outsource part of their research need by investing in research activities carried out by the RTD performers. The grant will cover only part of this investment. The SME participants normally retain the full right of use and dissemination of any project results ("foreground"). Projects are centred around the economic interest of the SME participants who will take an active role by defining their specific technological needs and will ensure that the research performed complies with their requirements. No decision in the consortium shall be taken against the collective interest of the SME participants. They will provide input and will contribute to the research activities where appropriate and will be directly involved in the take-up and exploitation of the research results to their own best advantage.

2. RTD performers:

2 Research proposals within the scope of Annex I of the EURATOM Treaty, namely those directed towards nuclear energy applications, should be submitted to relevant calls under the EURATOM 7th Framework Programme.

At least two RTD performers independent from any other participant. RTD performers are legal entities carrying out research and technological development activities for the benefit of SME participants. Examples of RTD performers are universities, research organisations and industrial companies, including research performing SMEs. In addition, **other enterprises and end-users** may participate by making a particular contribution to the project and in solving specific problems or needs of the SME participants involved, though not in a dominant role. They must be independent from any other participant. Co-ordination tasks may not be subcontracted. The organisation acting as coordinator must have the necessary capacity and competence to ensure effectively the coordination tasks. Whilst the co-ordinator of a Research for SMEs project should normally be one of the SME participants or RTD performers, this role may be entrusted by the SMEs in duly justified cases to an organisation specialised in professional project management and participating to the project under the category "other enterprises and end-users" in support to the SMEs.

Type of activities

Research and technological development activities form the core of the project and the RTD performers should perform the bulk of these. SMEs should focus on initial specifications, and on testing and validation of project results and the preparatory stages for further use. Knowledge management and IPR protection should support the SMEs in protecting and using the research results to their best advantage, leading to a clear economic impact. Demonstration activities are designed to prove the viability of new technologies that offer a potential economic advantage, but which cannot be commercialised directly (e.g. testing of product-like prototypes). Other activities to facilitate the take-up of results by the SMEs, in particular training and dissemination:



- ✚ Training activities are performed in general by the RTD performers and are aimed at technical and managerial staff from the participating SMEs. Training should focus on results/technologies generated by the projects. Training activities should normally not exceed 10% of the total eligible project costs.
- ✚ Dissemination activities may include conferences, publications, workshops or webbased initiatives.
- ✚ Management activities, over and above the technical management of individual work packages, provide an appropriate framework bringing together all project components and maintaining regular communications with the Commission.

Resources and duration

Indicative budget: EUR 92.72 million from the 2008 budget. The size of the consortium should typically be between 5 and 10 participants. The overall budget of the project should typically be between EUR 500 000 to EUR 1 500 000 and the duration of the project should normally be between 1 and 2 years.

Funding Scheme that applies:

'Research for the benefit of specific groups (in particular SMEs)'

The calculation of the Community contribution for projects is built upon the reimbursement, in whole or in part, of eligible costs (based on maximum rates of reimbursement specified in the grant agreement for different types of activities within the project) and shall not exceed the maximum Community contribution determined by the rules for participation. In addition, for actions under "Research for SMEs", the reimbursement of eligible costs is in line with the applicable reimbursement rates according to Article 33 of the Rules for participation. However the overall financial support will be limited to a maximum value not exceeding 110% of the total paid invoice to the SMEs for RTD and demonstration activities outsourced to the RTD performers. RTD performers will charge eligible costs only under 'management activities' and 'other activities' (including training and dissemination). Resources they use for 'research and technological development activities' and/or 'demonstration activities' will be invoiced to SMEs at an agreed price. The price and payment modalities agreed between RTD performers and SMEs should reflect the value of the intellectual property rights and knowledge acquired: the price of a licence should normally be lower than the price for ownership. SMEs and other enterprises or end-users will charge eligible costs under the various available activities to the project. The payment of RTD performers' invoices by SMEs will be considered as eligible costs for them and be reimbursed at the funding rate applicable for 'research and technological development activities' and/or 'demonstration activities'. The RTD performers offer a research service for which they must be remunerated by the SME participants and/or other enterprises and end-users. In return the SME participants receive rights to the "foreground" (including



intellectual property) generated in the project. All participants must agree on the appropriate conditions with respect to remuneration of the RTD-performers and rights relinquished to the SME-participants, and in the best interest of the SME-participants, before submitting the proposal.

By default, the preferred option is that the SME-participants retain the full ownership of the Foreground and the RTD-performers are remunerated accordingly. However, the SMEs may agree on other conditions with the RTD-performers. It is e.g. conceivable that the SMEs do not require property rights on "foreground" but that their economic interest is fully satisfied by a (non)-exclusive license. In such a situation, the RTD-performer could retain ownership of the IPR and certain use rights to valorise and get a return on its own investment. This in turn will affect the level of remuneration paid by the SMEs for the research services delivered.

Under the condition that the preliminary draft budget for 2008 is adopted without modifications by the budget authority.

Expected impact

Projects under 'Research for SMEs' aim at strengthening the competitiveness of SME participants and contribute at programme level to improving industrial competitiveness across the European Union. The proposed Science & Technology approach should take into account the state of the art in the technology domain and demonstrate the capability and commitment of the consortium to implement a tangible RTD work plan at a high quality level. The expected outcome post project includes new/improved products, processes or services with a distinct market potential: they should demonstrate a clear economic impact for the SME participants, improving their competitiveness by creating new or expanding existing markets. Collaboration and networking at EU level should enhance their access to markets and customers. The expected impact should be clearly described both at qualitative and quantitative level, providing where possible an indication of the economic impact, e.g. on turnover, employment or target markets as well as expected patent applications or licence agreements. A dedicated strategy for the use of the research results is expected to ensure optimal and rapid innovation impact. Projects follow basic ethical principles and include provisions for communication and dissemination of results. They should highlight any relevance to EU policies (i.e. environment, energy, health, etc), encourage gender equality initiatives (i.e. gender action plans according to the size of the project), foster dialogue beyond the research community, explore wider societal issues and address possible synergies with education.



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