

**European Union 7<sup>th</sup> Framework Programme:  
Opportunities for Researchers from the  
Socio-economic Sciences and Humanities**

**Analysis of SSH Relevant Topics in Areas other than  
Theme 8 Socio-economic Sciences and Humanities**

**Work Programmes 2010**

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**Date: August 2009**

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NET4SOCIETY is an FP7 project funded by the EUROPEAN COMMISSION

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## Introduction

“Opportunities” is a document compiled within task 2.3, “Networking the networks” in the frame of the EU-financed project [“NET4SOCIETY – Trans-national co-operation among National Contact Points for Social-economic sciences and the Humanities”](#). It wants to make researchers from the socio-economic sciences and humanities who are familiar with Theme 8 “Socio-economic Sciences and Humanities” aware that there are indeed opportunities for socio-economic research and humanities research in all the other areas of the 7<sup>th</sup> European Research Framework Programme (FP7).

Find here topics extracted from the four specific programmes of FP7: Cooperation, Ideas, People and Capacities which researchers from socio-economic sciences and humanities might find of interest. Not all topics that mention SSH related subjects or themes are included, but only those that contain SSH related themes *with strong relevance* (compared with *marginal relevance*) to the SSH community. This is not an ‘all inclusive’ but a ‘targeted’ approach. This document includes the SSH relevant topics in FP7 calls opened in the period of July 2009.

Since, in line with the relevance criterion mentioned above, this document does not list all SSH relevant topics in the FP7 specific programmes, researchers are strongly advised to screen the Work Programmes themselves in order not to lose out on research opportunities offered to their specific interest. Also, the Work Programmes need to be read in more detail to be aware about the overall approach of the Theme, the context of the topics, rules of participation and other specific requirements. **Of special importance are budget thresholds and funding schemes.** These and any other relevant information can be found in the specific Work Programme and in the Guide for Applicants. On [CORDIS](#) all the relevant documents can be downloaded on [the page dedicated to open calls](#).

This analysis of SSH relevant topics in other thematic areas of FP7 will be updated following the publications of new calls in the specific programmes of FP7.

## SSH Relevant Topics in FP7 Areas other than Theme 8 Socio-economic Sciences and Humanities

### I. Cooperation Specific Programme

#### 1. SSH Relevant Topics in the Health<sup>1</sup> Work Programme

##### Work Programme 2010 (Open Call)

Call identifier: FP7-HEALTH-2010-single-stage
Date of publication: 30 July 2009
Proposal submission and evaluation: Single-stage procedure
Deadline: 19 November 2009 at 17:00:00 (Brussels local time)
Indicative budget: EUR 333.5 Million

##### ***HEALTH.2010.3.2-1: Financing systems' effect on quality of healthcare***

Research should aim to develop models that take into account the needs of different patient groups in relation to how healthcare is financed in different settings of the health systems in Europe. The incentive mechanisms effect on quality of care need to be explored. Issues such as cost control, equity and efficiency should also be addressed.

##### ***HEALTH.2010.3.2-2: Risk adjustment algorithms for better health insurance coverage***

Research should aim to develop risk adjustment models to better share risks between providers of social health insurance and reduction of the asymmetric information in health insurance. Also the relationship between patients and insurers, insurers and providers, and patients and providers should be investigated. This research should build up the evidence base for setting up mechanisms to ensure efficiency in the financing of social insurance based healthcare in both new and old Member States. Active participation of SMEs could lead to an increased impact of the research proposed and this will be considered in the evaluation of the proposal.

##### ***HEALTH.2010.3.4-5: Assessment of migrants' health, disease patterns and impact on health systems***

Coordination in this field is expected to look at the full migration cycle, including effects in the countries of origin, the host countries, and re-migration. Aspects to be covered should include accessibility and appropriateness of health services, health status and health differentials compared to the resident populations, health effects of migration on resident populations, and health events as a potential cause for migration or re-migration. Further aspects may include policy analysis and effects of migration of health workers. Several International Cooperation Partner Countries as well as European countries should be studied

<sup>1</sup> For more information please see the [Health](#) webpage.

for comparison purposes.

***HEALTH.2010.3.4-6: Impact and cost-effectiveness of existing major health programmes***

Research should aim to develop and validate an appropriate methodology and apply it to one or more existing major health programmes or models of service provision addressing priority health issues, such as child health, reproductive health, mental health, patient safety, and/or specific disease control programmes. The methodology should aim at producing relevant comparable outcome parameters, including possible unintended positive or negative health side-effects on individuals and health systems beyond the immediate target condition. The methodology should also be adaptable to a wider range of health programmes. Involvement of stakeholders and dissemination of results to policy makers, civil society and the scientific community should be incorporated. While methodologies for assessing specific single interventions are well established, the assessment of the impact of large scale health programmes, being rolled out on regional, national, or even international level, is more complex.

***HEALTH.2010.3.4-7: Financing models for accessible health care***

Research should develop and assess equitable health care financing models that aim at universal coverage and sustainability of quality healthcare in low and middle-income countries. These models could incorporate a mix of financing mechanisms and should take national contexts and existing financing systems into account. Such research should serve to prevent catastrophic expenditures for users of health services, be appropriate for use in low and middle-income countries and implementation at the national level. Incentive mechanisms to deliver health services to the poor must be taken into account.

***HEALTH.2010.4.2-5: Methodology and tools to evaluate and monitor implementation and performance of EU funded interventions in developing countries***

Research should aim to develop a sound methodological model for use by EC services and low and middle income countries, accompanied by evaluation and monitoring tools (indicators), to best assess the health impact and wider policy implementation and performance of EU-funded project interventions in developing countries. Models and experiences from other donors and agencies should also be taken into account. Case studies should illustrate possible scenarios. International cooperation partner countries' participation is required.

Call identifier: FP7-HEALTH-2010-two-stage

Date of publication: 30 July 2009

Proposal submission and evaluation: two-stage procedure

Deadline: 29 October 2009 at 17:00 Brussels local time

Indicative budget: EUR 205 Million

**HEALTH.2010.3.1-1: Better understanding of dissemination and implementation strategies**

Research should aim to bridge the know-do gap between clinical research and everyday clinical practice by building a knowledge base on how health information, interventions and new clinical practices are translated into health service provision in specific settings. Such research could address the processes (development and testing of theoretical models for dissemination and implementation processes), methodologies and measures for investigating such processes, the capacity of specific settings to incorporate dissemination and implementation processes within the current organisational arrangement, and the sustainability of effective dissemination and implementation processes. This research could either address the dissemination process, i.e. the targeted distribution of information and intervention materials to a specific clinical practice audience with the intent to spread knowledge and the associated evidence-based interventions. This will require the identification of mechanisms and approaches to effectively package and convey the evidence-based information to the identified target groups.

The research could also address the implementation process, i.e. how to adopt and integrate evidence-based health interventions and change health service delivery patterns in specific settings. This research should help to assess how interventions are transferred into everyday clinical practice and whether the eventual implementation remained faithful to the original conceptualisation and intent of the intervention.

Call identifier: FP7-AFRICA-2010

Date of publication: 30 July 2009

Deadline: 14 January 2010 at 17.00 Brussels local time

Indicative budget: EUR 63 Million

**HEALTH.2010.3.4-1: Develop and assess key interventions and policies to address the human resource crisis in the health sector**

Research should aim to assess the scope of the deficit in human resources for health and identify and analyse the main causes as well as the effects of related interventions and policies. Aspects to be considered may include – among others - training capacity, inappropriate task allocations, brain drain, maldistribution and working conditions. Based on this situation analyses, improved or new interventions and/or policies should be developed and tested in terms of effectiveness, costs, feasibility and potential acceptance by policy makers in close cooperation with stakeholders. The aim is to achieve a balanced level of participation for African countries in collaboration with their European partners and it will be considered in the evaluation.

**Funding scheme:** Specific International Cooperation Action (**SICA**) Collaborative Project (Small or medium-scale focused research project) Target Region: International cooperation partner countries (ICPC) from African ACP and the following Mediterranean Partner countries (African MPC), Algeria, Egypt, Libya, Morocco and Tunisia

**HEALTH.2010.3.4-3: Building sustainable capacity for research for health in Africa**

The Coordination Action should develop and implement a concept for the sustainable development of capacity for health research in Africa in close collaboration with African

research institutions and a substantial element of South-South cooperation. Topical areas to be covered should be identified through a training needs assessment with all stakeholders as part of the project and may include – among others – epidemiology and demography, health economics, environmental health, evaluation sciences, medical anthropology, and community-based health care. Interdisciplinary courses may also be considered. The format of the training interventions should be adjusted to the needs of the African partner countries; in case of formal training programmes, joint degrees or degrees from the African partner institutions should be preferred. Emphasis should be given to establishing and supporting excellent academic teaching and research networks. Active participation of young African researchers in regional and international fora as well as exchange within African research institutions and between European and African institutions could be considered. The aim is to achieve a balanced level of participation for African countries in collaboration with their European partners and it will be considered in the evaluation.

***HEALTH.2010.3.4-4: Assessment of migrants' health, disease patterns and impact on health systems***

Coordination in this field is expected to look at the full migration cycle, including effects in the countries of origin, the host countries, and re-migration. Aspects to be covered should include accessibility and appropriateness of health services, health status and health differentials compared to the resident populations, health effects of migration on resident populations, and health events as a potential cause for migration or re-migration. Further aspects may include policy analysis and effects of migration of health workers. Several International Cooperation Partner Countries as well as European countries should be studied for comparison purposes. The aim is to achieve a balanced level of participation for African countries in collaboration with their European partners and it will be considered in the evaluation.

## 2. SSH Relevant Topics in the KBBE<sup>2</sup> Work Programme

Call identifier: FP7-KBBE-2010-4
Date of publication: 30 July 2009
Deadline: 14 January 2010 at 17.00 Brussels local time
Indicative budget: EUR 190,01 Million

### ***KBBE.2010.1.2-03: Sustainable water resources management (WRM) and Soil fertility conservation for food production in Africa - SICA (Africa) Call: FP7-AFRICA-2010***

Inappropriate management of irrigation water contributes to erosion of top soil, loss of organic matter, salinisation, decrease of soil fertility and pollution of ground and surface fresh waters. Research efforts are necessary to allow a more sustainable exploitation of water and soils by African farmers, and support the increasing demand for locally produced food. More sustainable food production strategies and techniques for irrigated farms need to be studied, developed and implemented, which can revitalise the natural regenerative capacities of agricultural soils, reduce fresh water pollution and ensure healthy and resilient environments. Methodologies, devices and indicators, adapted to specific African situations, will be developed for monitoring and assess risk factors for soil health and fertility, as well as for safe fresh water resources, in irrigated areas. Adapted innovative techniques to improve WRM and keep soil fertility at farm level need to be investigated and field-tested. The prevailing technical/scientific part of the project should be complemented by a true participatory approach by involving local stakeholders at different levels, such as farmers, local NGOs, relevant governmental organisations, as to make better and suitable use of existing potentialities and local knowledge, as well as to facilitate an easier implementation/adoption of the project's selected strategies. Studies on social processes and farmers' rationales for implementing, adapting, innovating or rejecting the proposed strategies, should also be part of the project activities, as to ensure their acceptability by the end users (farmers and policy-makers) and thus producing the expected impact.

With the aim of increasing research capacities in the participating African countries, the project should include tailored training activities, such as the organisation of training programmes in loco and exchanges of researchers.

### ***KBBE-2010-1-4-02: Integrating the Sustainable Management of Rural Public Goods into the Common Agricultural Policy***

The 2003 CAP reform decoupled farm payments from production. The 2008 CAP "Health Check" confirmed this policy change. Agricultural producers are free to react to market signals, while the income support through the single farm payment provides a safety net for certain risks like fluctuating prices. In a longer term perspective the concepts needs to develop further to focus on essential market failures, to convert support into incentives and to allocate public money according to returns in social value and services. Research is needed to develop options along the lines of differentiation and targeting, proportionality, consistency and simplicity and stability

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<sup>2</sup> For more information please see the [Food, Agriculture and Fisheries, Biotechnology](#) webpage.

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***KBBE.2010.1.4-03: Assessment of transition pathways to sustainable agriculture and social and technological innovation needs***

European agriculture is facing new challenges in terms of social, environmental and economic sustainability. There is a need to sustain competitiveness in increasingly globalised and concentrated food supply chains, while simultaneously meeting societal and policy demands for providing public goods and new services, and guaranteeing higher standards of food safety, quality and transparency. The need for agriculture to provide multiple functions beyond the production of food, fibres and biomass implies that EU farming increasingly has to be attuned to diverse social, cultural and ecological contexts. In addition, agriculture needs to be increasingly (re-) embedded in society at large, implying a growing role for producer-consumer co-operation, changing rural-urban relations and public-private partnership. Ageing of farming is a problem in some European regions. Against this background the project will explore different future transition pathways for EU agriculture (e.g. organic farming, integrated farming, etc.) and possibilities for farm households in different regional contexts across Europe to adequately respond to changing market, policy and societal environments. Mechanisms to provide viable models for young farmers are of specific importance.

The project will build up on the promising and well-documented range of initiatives at farm and regional level (organics, social functions of farming, quality food systems, landscape management, "green" public procurement etc.) existing across Europe. It will clarify what are the social, institutional and technological innovation needs involved in a further scaling up and dissemination of such promising farm development models. The project will also assess how possible institutional arrangements, support measures and required socio-technical networks amongst actors within the farming community, policy, technology and wider society allow the transition of European farming to meeting a broad range of sustainability aims and it will provide evidence-based policy recommendations at different levels (EU, national, regional, farming systems).

***KBBE.2010.1.4-04: Knowledge systems for farming in the context of sustainable rural development***

In the past all three actors in the innovation system (research – education – advice) were publicly funded with mainly linear relationships. The mission was clear, production oriented and addressing family farms. Today the situation is network like, with many more opportunities of communication (internet) and many opportunities to access innovation relevant knowledge. In this new context, there is often a need for actors to re-define their role. The diversity of the farming community increased: small/large, conventional/organic, old/young, full-time/part-time, businesses with gender preferences, run by women or by men and so on. New opportunities lead to the combination of farming with other activities like tourism, on-farm processing of food, direct marketing, non-food and energy farming. New structures beyond farms may open new opportunities for lively rural areas. The problems to solve are diverse. New tasks need a wide repertory of tools and a professional approach based on specialised training of advisers. The concept of "Good Agricultural Practice" requires acting in line with the European environmental, food safety and animal welfare legislation. Scientific advice and knowledge to pursue these public goals is coming from different science areas and sources, normally not linked to agricultural knowledge chains and often under unsustainable financial arrangements. Innovation could be generated through interaction of research and grassroots innovation. This may produce the necessary diversity to make the system more resilient and provide alternatives in case of crisis. Gender perspectives should be taken into account. Agricultural innovation at the farm level traditionally has been non-proprietary and has been publicly shared within the farming community which is a good basis for an innovation culture. Research is needed to analyse

the effectiveness and cost efficiency of different instruments to increase the efficiency of agricultural knowledge systems along questions like: How to delineate the needs for public support vs. pure private entrepreneurship initiatives? How to accommodate the agricultural knowledge systems perspective at the interface between different policies (agricultural/rural/social/energy/regional for example)? How to assure the quality of professional advisers in Europe?

***KBBE-2010-2-3-02: Strategies for personalised nutrition***

Nutrigenomics offers significant opportunities to improve public health via tailoring diet on the basis of genotype and phenotype. The aim is to integrate scientific, technical, IT, sensory and socio-economic aspects to develop possible principles of personalised nutrition, with consumer benefit being the main driver. The project should develop and test several models and concepts for development, production and distribution logistics of personalised foods. All levels of personalisation should be discussed, from the self choice in shops, over foods for target groups (from healthy consumers to patients), until customised production and delivery systems. Besides the scientific and technical issues, a broad Europe-wide stakeholder discussion of risks and benefits should be organised, involving scientists, industry, retailers, consumer and patient representatives, health professionals, health insurance companies, public health authorities, and others, and also assuring media coverage. Topics for this discussion should be Europe-wide success and failure factors of personalised nutrition such as scientific evidence, ethical and legal issues, communication, economic issues, consumer acceptance, benefits in terms of public health. It should be emphasised that this topic definitely goes beyond the following issues: genome and biomarker analysis; specific nutrients; dietary supplements; dietary advice; development of a specific food product. Where appropriate, gender issues should be considered.

***KBBE-2010-2-3-03: Health-value-added food products for population groups at risk of poverty***

The objective is to develop food products accessible to targeted social groups, especially low-income population groups. The products will be adapted to the preferences, acceptance and needs of persons of lower socioeconomic status. In particular, attention will be paid to lower production costs, high accessibility, convenience, sensory quality, nutritional quality, shelf-life, and safety. Besides food technology, research will include input from social science, consumer science and nutrition.

***KBBE-2010-2-5-02: Eco-challenges in the food chain of the Latin American region – SICA (Latin America)***

The research should focus on eco-challenges in the Latin American countries food production and supply chain by developing new knowledge and the means to transfer it to end users. This will address the socio-economic and environmental dimension of sustainable development including market access for small scale food producers and transformers. The project will offer new perspectives for assessing and exploiting the value added food chains. Appropriate activities include improvement of existing methodologies and processes, and/or development of novel methodologies and improved handling procedures, traceability and hazard based controls. Emphasis should be on dissemination and education strategies. The project will deliver development and implementation of methods for value chain analysis of entire food chains, explicitly incorporating sustainability assessment. The principle of mutual

interest and shared benefits will underpin this international cooperation with third countries.

***KBBE-2010-3-5-04: Microbial diversity and metagenomic mining for biotechnological innovation***

The environment is the source of biological wealth which is used in biotechnology processes for driving forward the bioeconomy. This wealth is based by far on the microbial diversity. Metagenomics is an emerging field which unravels the microbial diversity by overcoming the twin problems of unculturability and genomic diversity of most microbes. The power of genomic analysis is applied to entire communities of microorganisms (viruses, bacteria, fungi, yeast, etc.), bypassing the need to isolate and to culture them.

The aim of this topic is the identification of novel genes or enzymatic functionalities of potential biotechnological applications from a selected ecosystem using the tool of metagenomics. This approach applied to a proposed ecosystem should lead to a better understanding and managing its microbial biodiversity in order to explore the gene reservoir and its related enzymatic reactions.

The final goal is to enrich biotechnological processes with new genes and enzymes and to improve metagenomic screening, library formation and bioinformatic relevant techniques. Proposals must be multidisciplinary covering not only the technical aspects but also the economic and social implication anticipated.

### 3. SSH Relevant Topics in the Information & Communication technologies<sup>3</sup> Work Programme

Call identifier: FP7-ICT-2009-5
Date of publication: 31 July 2009
Deadline: 3 November 2009 at 17.00 Brussels local time
Indicative Budget: EUR 722 Million

#### **Objective ICT-2009.4.2: Technology-Enhanced Learning**

Target outcomes

- a) Learning in the 21st Century: large-scale pilots for the design of the future classroom (exploring both technology and teaching practices, for teachers and students, their orchestration for specific, justified age groupings or subjects), supporting individualisation, collaborations, creativity and expressiveness in more active, reflective and independent learning activities. Research should address innovation in learning and teaching, the underlining change processes, relevant new summative and formative assessment methods and novel solutions supporting the active participation of a wider community of stakeholders contributing to a student's growth.
- b) Reinforce the links between individual and organisational learning, and creativity: innovative solutions embedding learning experiences in organisational processes and practices, through systems embracing talent, knowledge, workflow, collaborative innovation and competency management. Solutions should cover effectiveness of learning content, new forms of collective intelligence and entail deeper understanding of the role of ICT for creativity, informal learning and collaborations (IP). Research should also address new ways of combining creative, cognitive and computational processes (STREP).
- c) Innovative adaptive and intuitive systems for learning featuring affective and emotional approaches, including related new forms of assessing learning outcomes as well as feedback/guidance mechanisms (innovative diagnostic techniques) to the learner and the teacher. Work may relate to serious games and immersive environments and include advances in the combination of simulation, story telling, and collaborative learning. The chosen field should be well justified in terms of learning efficacy.
- d) Revolutionary learning appliances (including toys) and advanced cognitive tutors, able to promote specific cognitive processing or abilities. Proposals should address: specific social and learning problems; science, technology and maths; or specific tasks that impose high cognitive demands.
- e) Focused interdisciplinary networks on specific emerging trends (e.g. serious games/mobility and learning), linking a limited set of established excellences and learning labs, and including appropriate mechanisms for cross-fertilisation between disciplines. These networks should leverage national research activities and achieve demonstrable visibility at international level.

<sup>3</sup> For more information please see the [Information & communication technologies](#) webpage.

f) Awareness building and knowledge management on the results of EU RTD projects in the field; exploratory/roadmapping activities for fundamentally new forms of learning; identification of Grand Challenges; socio-economic evaluations (including transfer and scalability mechanisms, in education and for SMEs); establishment of a pan-European network of living schools for validations, demonstrations and showcases.

**Objective ICT-2009.4.3: Intelligent Information Management**

Target outcomes

a) Capturing tractable information: robust and performant technologies to acquire, analyse and categorise extremely large, rapidly evolving and potentially conflicting and incomplete amounts of information. These technologies will extract, correlate and integrate data from diverse sources and formats (multimedia and 3D content; heterogeneous databases; data streams from sensors and scientific equipment; social interactions and networked appliances; information from business processes and software services) while tracing provenance, evaluating trust level and assessing reliability. The scalability, flexibility and performance of such methods and techniques will be demonstrated by rigorous empirical testing over large-scale testbeds.

b) Delivering pertinent information: usable and customisable systems to improve the efficiency of the information lifecycle, starting from proactive diagnoses of information gaps and triggering goal-dependent search, acquisition, structuring and aggregation of relevant local, remote and streaming resources. Managing this information and making it actionable requires large-scale reasoning resulting in effective ranking, profiling and interpretation as well as versioning for time-dependent compliance and justification. Such systems will support the navigation, manipulation and consumption of digital information by means of adaptive user-information interactions based on the state of the art in the psychology of human perception and attention. The effectiveness of such systems will be validated with appropriately-sized groups or communities of representative users.

c) Collaboration and decision support: efficient and dependable problem solving and decision support systems for critical, information-bound domains in which our ability to share and exploit information is outstripped by the rate of its growth in size and complexity. Intended beneficiaries include organisations with complex business processes and access control policies; scientific communities collaborating on challenging projects and building very large datasets; teams of professional creators working on complex designs or multimedia materials; and web communities with sophisticated cooperation needs. The effectiveness of such solutions will be tested against the requirements of the respective groups or communities.

d) Personal sphere: intuitive systems that help individuals secure, manage, visualise and interpret their personal information, attention trail and social history so as to enable the provision of personalised and context-dependent information from multiple sources and services. A specific requirement and design principle is that such systems preserve privacy and implement auditable information disclosure policies that are under user control and whose application can be verified at all times. Their usability and rate of uptake will be monitored by means of verifiable quantitative indicators.

e) Impact and S&T leadership: networks and other initiatives designed to link technology suppliers, integrators and leading user organisations. These actions will help develop a common understanding, including vis-à-vis neighbouring disciplines, and ensure proactive

cross-fertilisation between EU projects and other relevant industrial and national activities. They will address barriers hindering a wider deployment of research results, work towards establishing or advancing widely recognised standards, reference architectures and benchmarks, and increase awareness of the potential of the technologies at stake within broader audiences.

**Objective ICT-2009.8.10: Identifying new research topics, Assessing emerging global S&T trends in ICT for future FET Proactive initiatives (CALL: 5&6)**

Target Outcome

a) Short duration actions (typically 6-12 months) to organise consultations of multi-disciplinary communities to formulate novel and widely supported FET research topics, initiatives and modalities in support of foundational research that could open up radically new avenues for future ICT. Proposals should concentrate on new emerging areas of research complementing the ICT FET Proactive portfolio. They may consolidate, revisit, or widen topics elicited in earlier calls and previous consultations on the work programme, or bridge with emerging new communities established through FET Open projects. The main objective should be to identify and motivate one or more new research avenues from a global perspective, the associated fundamental challenges, and to analyse the expected impact on science, technology and society.

b) Actions that perform in-depth analyses of emerging global trends in multidisciplinary science and technology fields contributing to future ICT, in terms of assessment, measurement, risk analysis, critical mass and necessary resources.

Topics for FET Proactive Initiatives for 2011 and later calls will develop over the period and could be inspired by those highlighted in the introduction to FET Proactive under the heading 'Candidate topics for calls in 2011 and beyond'.

Call identifier: FP7-ICT-2009-6
Date of publication: 24 November 2009
Deadline: 13 April 2010 at 17.00 Brussels local time
Indicative budget: EUR 286 Million

**Objective ICT-2009.4.1: Digital Libraries and Digital Preservation**

Target outcomes

a) Scalable systems and services for preserving digital content: handling the whole workflow for different types of digital resources, guaranteeing their long term integrity and authenticity. Research should demonstrate the feasibility of systems and services proposed and assess their use by organisations in large scale testbeds (e.g. science, business and financial records, public records, multimedia/audiovisual and performing arts).

b) Advanced preservation scenarios: methods, models and tools for managing digital memory, focusing on challenging preservation problems which cannot be adequately

handled by current models. These should result in:

-b1/ Methods and tools for preserving complex objects, addressing the life-cycle of composite digital information instances (e.g. multiple embedded structures, actionable objects, distributed and interlinked resources and ontologies, transient information and ephemeral data).

-b2/ Intelligent digital curation and preservation systems able to learn, reason and act autonomously, integrating tools and methods to support the complex decision making processes for appraisal, selection and management of diverse collections of digital resources. The system should ensure that the representation of the objects and their embedded semantic knowledge in order to support their future re-use. Appropriate verification scenarios should be an integral component of the work.

c) Innovative solutions for assembling multimedia digital libraries for collaborative use in specific contexts and communities, enhancing scholarly understanding and experiences of digital cultural heritage. This includes work on the dynamic aggregation of cross-media resources across existing institutional digital libraries and repositories. Research should address scalability, interoperability and distributed architectures, aggregation and semantic search tools. Validation should address researchers and cultural heritage professionals but be open to wider audiences.

d) Adaptive cultural experiences exploring the potential of ICT for creating personalised views of various forms of cultural expression, reflecting individual narrative tendencies (i.e. adapt to the background and cognitive context of the user) and offering meaningful guidance about the interpretation of cultural works.

e) Interdisciplinary research networks bridging technological domains (e.g. computing models, knowledge representation, visualisation and graphics), information and archival sciences, and social and cognitive sciences to advance the state-of-the-art in well identified and focused application areas (e.g. digital preservation).

f) Promoting the uptake of EC-funded research enabling the deployment of new ICT-based cultural and memory preservation services, leveraging the impact of associated national initiatives; roadmapping and identification of future 'Grand Challenges'; establishment of a pan-European network of 'living memory centres' for validations, demonstrations and showcases.

### ***Objective ICT-2009.6.2: ICT for Mobility of the Future***

Target outcomes

a) Field Operational Tests for Integrated Safety Systems and Co-operative Systems to assess improvements in the efficiency of the transport system, in the safety of all road users and in making individual mobility more comfortable. This includes large-scale test programmes aiming at a comprehensive assessment of the efficiency, quality, robustness and user-friendliness of close-to market systems, before their full-scale deployment in Europe. Where needed, performance validation of safety-related co-operative systems can be envisaged in controlled proving ground environments emulating realistic levels of complexity.

Projects need to collect statistically significant data allowing analysis of user acceptance, performance and benefits for road safety and efficiency of both autonomous on-board and cooperative systems, and to assess especially the impact of integration of in-vehicle safety systems with the co-operative systems including naturalistic driving tests, where possible building on initiatives promoted by Member States and/or Associated Countries.

The objective is to support at least two IPs to be funded under a).

b) ICT-based systems and services for Smart Urban Mobility and new Mobility Concepts to address the environmental footprint and safety of mobility, while fostering economic growth. This includes innovative new tools, services and methods for demand management, moving from restrictive to permissive systems; ICT tools and services for logistics optimised for urban environments; use of ICT for replacing mobility (virtual mobility, telepresence); and new, multi-modal urban mobility concepts.

c) Coordination and support actions

In the framework of the Intelligent Car initiative: research agendas, dissemination of results (user awareness campaigns), assessments of socio-economic impact and training.

d) International cooperation

In accordance with the specific cooperation agreements with Japan and the USA, active exchange of information will be fostered through the creation of bilateral task force(s) and regular workshops which will establish a mechanism for mutual validation and exploitation of programme results, e.g. methodologies, draft specifications and standards, and for accessing Field Operational Tests datasets.

#### **Objective ICT-2009.9.1 : International cooperation**

In addition to international cooperation activities addressed in the relevant objectives within the 7 Challenges and FET, horizontal international cooperation actions will be supported under this objective.

Target outcome:

a) Support to Information Society policy dialogues and strengthening of international cooperation

The objective is to strengthen the international dimension of the EU ICT research programme by supporting the research dimension of Information Society policy dialogues jointly established between the European Commission and a number of third countries and regional organisations<sup>28</sup>. This includes in particular:

- the organisation of events synchronised with policy dialogue meetings, providing input for example, on common R&D priorities, opportunities and challenges,
- the identification and analysis of ICT policy and research priorities, including long term perspectives, in third countries which are aligned with the priorities of the EU and the provision of recommendations for future co-operation initiatives, including the identification of matching counterpart funding,
- the development of synergies with international dialogues and activities launched under the Capacities and People Specific Programmes, notably the INCO-NET schemes, and related activities by EU Member States and Associated States.

Target countries/regions:

- 1) Asia (notably ASEAN countries and India), Latin America and Africa;
- 2) Industrialised Countries, in particular but not exclusive to USA, Canada, Japan, Australia, New Zealand, Korea, Singapore.

b) Support to the uptake of European ICT research results in developing economies

The objective is to facilitate the widest diffusion and local exploitation of European ICT research results, through the piloting and testing of solutions adapted to local infrastructures, service needs, users, culture, and business and social structures. This could include the

provisioning of public services (e.g. e-government, e-health, e-education, water supply) as well as business-related applications (e.g. e-commerce, mobile banking) or solutions supporting sustainable development objectives, notably for the environment. Activities will:

- analyse and test the application of relevant technology as well as business models with a particular focus on socio-economic impacts and aspects such as affordability, deployment and local exploitation opportunities,
- facilitate transformation of research results into local innovation, through the networking of relevant technology developers with local academia, incubators, 28 African Union, ASEAN, Latin America, Mediterranean Partner Countries, Brazil, China, India, Japan, Russia South Africa, and USA

SMEs, representatives from civil society as well as local authorities, notably for the provision of public services,

- promote transfer of know-how, best practices and technology through the establishment of self-sustainable partnerships and collaborative initiatives.

Activities should contribute, if applicable, to the implementation of established European research and innovation roadmaps.

Target countries/regions:

ACP and Mediterranean Partner Countries; other Developing Countries

c) Support the competitiveness of EU industry by identifying strategic partners and by developing international policy objectives and market development priorities

The aim of this action is to extend the constituency developing European technology and innovation roadmaps to key partners in third countries, particularly in the fields of Future Internet and ICT components and systems.

This can include activities such as the identification and assessment of relevant centres of competence in relevant countries or regions, the organisation of workshops and the exchange of best practices. This can also include the undertaking of comparative studies contributing to the assessment of the international positioning of European technology strategies and the formulation of policy objectives.

Impacts on future architectures, standards and access to future markets and services are particularly relevant. These support actions will strengthen the internationalisation of existing roadmaps through the creation of new partnerships and the search for higher levels of synergy.

Target countries/regions:

Emerging economies, notably Latin America

Activities covered under all of the above objectives (a), b) and c) should be covered in balanced partnership with well recognised third country organisations. In addition to leading technology developers, consortia are strongly encouraged to include experienced market research organisations, relevant industry representation and third country organisations/multipliers (e.g. national research authorities/agencies), recognised scientific experts in the field as well as communication specialists.

Call identifier: FP7-ICT-2009 (FET Open)
Date of publication: N/A
Deadline: Open: January 2009 – 31 December 2010 at 17.00 Brussels local time
Indicative budget: EUR 61 Million

***Objective ICT-2009.8.0 FET-Open: Challenging Current Thinking***

Target Outcome

FET-Open targets foundational breakthroughs that open the way towards radically new forms and uses of information and information technologies. It flexibly accommodates the exploration of new and alternative ideas, concepts or paradigms that, because of their radical, fragile or high-risk nature, may not be supported elsewhere in the ICT Workprogramme. Research under FET-Open is aimed at achieving a first proof-of-concept and at developing its supporting scientific foundation. The novelty of this research comes from new ideas rather than from the refinement of current ICT approaches.

In addition, FET-Open targets support and coordination activities for high-risk and high-impact visionary research. These activities can be either thematically oriented (for example, stimulating the emergence of a new research community), or they may focus on horizontal issues in FET-type of research (for example, catalysing new visions and ideas, promoting new research modalities, attitudes and practices; or exploring new ways for achieving visibility and impact of the research). They aim at a broad and open participation from within Europe and, where relevant, beyond.

## 4. SSH Relevant Topics in the Nanosciences, nanotechnologies, materials & new production technologies<sup>4</sup> Work Programme

Call identifier: FP7-NMP-2010-CSA-4
Date of publication: 30 July 2009
Deadline: 2 February 2010 at 17.00 Brussels local time
Indicative budget: EUR 6.6 million

### ***NMP-FP7-2010-1.1-1 Support to dialogue and engagement for responsible social acceptance of nanotechnology – coordination***

**Technical content/scope:** Providing European citizens with appropriate communication on nanotechnology to prepare the dialogue of stakeholders on the social challenges of nanotechnology has been the focus of CSA projects negotiated in 2008, with a specific focus on young people. Major studies and scholars underline that communication should enjoy continuity to build-on results in order to build on responsible social support of nanotechnology: in this light, promoting initiatives for engagement is the second step of this process, as involving key stakeholders on dialogue about the social challenges of nanotechnology is part of the European Commission's Action Plan. The proposed CSA should aim at engaging stakeholders (eg. researchers, scientists, industry, social partners, funding bodies, regulatory agencies, standardisation bodies, insurers, NGOs, opinion-makers, influencers, information gate-keepers, educators, nano-consumers, lay public) on debate and dialogue on key societal issues associated with nanotechnology, designing and implementing the most appropriate tools to attain consensus on both issues and their urgency.

Pedagogy in nanoscience could be of importance. Nanotechnology and related societal issues should be addressed in a balanced way, so as to: (i) provoke a sound, science-based dialogue via appropriate media-based public engagement tools, eg. television, radio, web, blogging, citizen conferences, dedicated public events; (ii) provide the EC services with insights and recommendations to improve governance by building on awareness and responsible social acceptance of nanotechnology; (iii) providing inputs for both design and implement the EC Action Plans on nanotechnology. A focus on one or more nanotechnology social issues or applications which are most relevant for the stakeholders is possible. Tools dedicated specifically to engage industry, NGOs, nano-consumers and media with the objective of building consensus on nanotechnology issues relevant for consumers would also be eligible. A maximum of one coordination action will be financed with a recommended duration of 18 months years and a maximum EC contribution of 0.8 million Euros. Proposals with a higher request for EC contribution will be judged as ineligible.

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<sup>4</sup> For more information please see the [Nanosciences, nanotechnologies, materials & new production technologies](#) webpage.

## 5. SSH Relevant Topics in the Energy<sup>5</sup> Work Programme

Call identifier: FP7-ENERGY-2010-2
Date of publication: 30 July 2009
Deadline: 4 March 2010 at 17.00 Brussels local time
Indicative budget: EUR 54 Million

### **Topic ENERGY.2010.8.1.2 Energy Efficiency in Buildings**

Content/scope: Demonstrate in the building sector, high energy efficient innovative retrofitting technologies and measures for low performing buildings with a high heat demand, the typology of which is representative for large geographical areas in Europe (so that successful projects will lead towards large scale replication in the short term).

Funding scheme: Collaborative projects with a predominant demonstration component (the guidelines for demonstration projects as described in the guide for proposers apply)

Expected impact:

- Large scale market deployment in retrofitting of buildings before 2020.
- Accelerate the retrofitting uptake of low efficient building stock in EU.
- Offer cost effective highly energy efficient retrofitting practices.
- Accelerate the market uptake of the most innovative ICT tools for efficient buildings anagement.
- Create best practice examples for the construction sector based on innovation and competitiveness, with benefits for the citizens and the environment.
- Contribute to raise the performance standards and regulations on European, national and local level, in the construction industry and building sector, through the best practice examples.

Other information:

- The project(s) shall use innovation in technology, design, planning, operation or systems integration.
- Strong preference for residential buildings.
- The project(s) could contain a single building or a number of buildings, located in one or more countries.
- Effort and budget should be balanced amongst participants from at least three Member States/Associated States.
- Retrofitting should be as cost effective as possible and in any case it should not cost more than one third of the average new construction of similar buildings in the country of its location.
- Strong industrial participation or leadership is expected.
- Detailed information should be provided on the building(s) existing envelope and its current energy consumption.
- The energy efficiency measures to be applied should be described in great details.
- The gross floor area of the building(s) should be specified (m<sup>2</sup>) together with the targeted annual energy consumption per m<sup>2</sup>, (broken down by space heating, cooling, water

<sup>5</sup> For more information please see the [Energy](#) webpage.

heating lighting, etc)

**In addition to the technical measures to be undertaken, additional accompanying measures affecting the future operation of the building (e.g. socio-economic issues, behavioural changes, etc) should also be clearly addressed.**

- The energy consumption should achieve at least the national limit values for new buildings according to the applicable legislation based on the Energy Performance of Buildings Directive (for 2010).
- The space heating consumption (kWh/m<sup>2</sup>/year) should be reduced by at least 75%.
- The project(s) should have a high potential of replication contributing to large scale market deployment before 2020; a dissemination and market deployment programme should be included to the proposal.
- The evaluation of the proposals will also take into account the degree of excellence and innovation of the technology used and the most cost effective practices (Euros/efficiency gain; euros/CO<sub>2</sub> reduction, kWh/m<sup>2</sup>/year saved). For this reason, the above figures should be indicated in the proposal.
- The detailed metering/monitoring programme should last at least for one year. However, longer term commitment and programmes of the building operators (e.g. in continuous monitoring and/or guarantees of performance to the tenants) would give an added value to the proposal.
- Successful proposals will be asked to follow a common monitoring data structure, using a common methodology, in order to feed the relevant Commission data bases (e.g. CONCERTO data base)

## 6. SSH Relevant Topics in the Environment Work Programme<sup>6</sup>

Call identifier: FP7-ENV-2010

Date of publication: 30 July 2009

Deadline: 5 January 2010 at 17.00 Brussels local time

Indicative budget: EUR 175 Million

### ***ENV.2010.1.1.6.1 Climate change mitigation options linked to deforestation and agriculture in the context of a post-2012 international agreement on climate change***

There is a clear need for better understanding of the complex climate change mitigation options involved in agriculture and land use, land use change and forestry (LULUCF), particularly within the context of a post-2012 agreement on climate change. The project should address methodological issues regarding monitoring, accounting and verification, taking into account the complexity of natural and anthropogenic processes and the uncertainties in the CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O measurements. The aim is to support the harmonisation of the accounting approach across countries and identify and assess what type of policies are appropriate for climate change mitigation in terms of reduced deforestation (REDD) and LULUCF in general. Research should also address the costs of such policies and how they relate to the carbon market as well as their interaction with increased demand for biomass. Finally the impact of such policies on agricultural needs and biodiversity should also be assessed. International cooperation is encouraged.

### ***ENV.2010.1.1.6.2 Explore climate policy scenarios for developing countries and/or emerging economies***

The international community is striving to set a global post-2012 agreement to be concluded under the United Nations Framework Convention on Climate Change. The implementation of the expected agreement should be ensured on a sound scientific knowledge base. This action should (1) evaluate the available data and information in the light of effective decisions on adaptation and mitigation policies and measures and (2) identify research needs and gaps that need to be addressed in view of establishing country-specific scenarios for socially, economically and environmentally justifiable mix of adaptation, mitigation and development options with regard to a post-2012 agreement. International cooperation is encouraged especially with developing countries and/or emerging economies.

### ***ENV.2010.1.1.6.3 Quantifying the costs of mitigating climate change by means of activities involving joint climate and economic modelling***

Policy making on mitigation strategies needs more robust cost figures. Existing models

<sup>6</sup> For more information please see the [Environment \(including Climate Change\)](#) webpage.

propose many different mitigation costs scenarios and such a situation results in excessively large uncertainties for policy makers. The objective of this activity is to improve knowledge on climate change mitigation costs by better integrating climate and economic models and in particular by systematically comparing the economic components of these models. The project should establish a common platform dedicated to climate-economics modelling research activities in Europe, so as to permit to reduce the uncertainties in the quantification of climate change mitigation costs. Model development, validation, performance assessments and inter-comparisons should all be taken in consideration. Special emphasis should be given to activities involving joint economic and climate modelling and showing promise of leading to a common understanding of model results as they are brought about by the relevant disciplines at play in the climate modelling community (from climate geophysics to climate economics). In that spirit, the proposal should provide operational information on the interpretation of the model outputs and uncertainties.

#### ***ENV.2010.1.3.2.1. Building a culture of risk prevention in Europe***

The notion of prevention can often cover broad and different approaches in Europe. Research should therefore clarify and contribute, on the basis of well chosen and justified cases related to key hazards affecting Europe, to evaluate and demonstrate the economic and social benefits of disaster prevention and risk transfer strategies. The project should demonstrate to which extent it can represent a more efficient approach and investment than measures focusing on post-disaster impacts such as disaster mitigation, recovery and assistance. Research will need to initiate and develop methodological studies using up-to-date knowledge and relevant data sets in the field of risk, impact and damage cost assessment and consider possible driving factors such as inappropriate land-use practices, spatial planning and climate change impacts. Research should help stakeholders to better consider prevention measures in their risk management options. Active dialogue with and between public and private (e.g. insurance sector) stakeholders is strongly encouraged within this project.

#### ***ENV.2010.1.3.4.2. Social science research, natural hazards and decision making process***

In order to enable better governance, improve the resilience capacity in societies, and to enable a more effective use of scientific information into public policies and decision making it is important to build a robust, integrative and interdisciplinary frame where social science and natural sciences will collaborate around hazard-vulnerability and risks. The project should work towards the development of research agenda that will: -assess the barriers (as political, cultural, historical, social, institutional/legal, economic) and possible improvement to enable a better use of science into quality decision-making process and practice. -better consider the uncertainties and data/information issues related to risk communication. -evaluate the role and interaction of relevant actors (e.g. public sectors, citizen, private sector) -produce clear recommendations of key research needs and gaps in social science related issues. Work should be based on past experiences and foresee emerging situation (e.g. megacities), launch key studies that will produce synthetic assessments, organise prospective meetings with relevant actors and take into account ongoing effort in disaster reduction in Europe and at international level as the ISDR Hyogo plan for action or the ICSU science plan for integrated research on disaster risk.

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***ENV.2010.2.1.1.1 Integrated management of water and other natural resources in Africa***

Integrated management of natural resources is a way to maintain ecosystems capacity to produce a broad range of goods and services considering African socio-economic conditions and institutional frames. The project should focus on building long-term lasting human and social capacity for integrated natural resource management. In this perspective the project is for developing new or adapting existent, concepts and operational framework for integrated and sustainable resources management in Africa, taking into account long-lasting changes, in particular climate changes. It should address biodiversity, water, soil, forest, landscapes and ecosystems integrity. Environmental externalities, as well as human use of the environment through settlements, agriculture and other uses, and consequent livelihoods have to be taken into account. These resource management tools should be applicable in a broad range of African environments in different geographical areas, landscapes or river basins. To this end, case studies for inter-comparisons among different situations should be made. The comparison entails the identification, exchange and transfer of information, local best expertise and practices, experience and technologies and innovative approaches, between African situations and between Africa and Europe where applicable. The local traditions, cultural norms and specific acceptance structures have to be fully taken into consideration. The work should complement and possibly build upon related activities carried out by actors with experience in Africa and it should also have a potential for application outside Africa. Any imported technology/practice should carefully be assessed for its environmental and micro-economic impacts and its potential for sustainable use by the local African communities. The project should also identify obstacles to local development modes based on local best practices and local resources also taking into account the African socio-economic and political context. It should also make some recommendations on how these obstacles could be removed. This requires a solid dissemination strategy. The aim is to achieve a fair level of participation for African countries in collaboration with their European partners. This will be considered in the evaluation.

***ENV.2010.2.1.1.2 Integrated resource management based on land and land-use management***

There is a need for a better understanding of natural resources management systems for sustainable development in the context of European land systems change and of mechanisms responsible for feedbacks, synergies and cascades of change in European land systems. New knowledge in this field would allow to understand crucial linkages between different policy fields (agriculture, forestry, energy, spatial planning and environment), which in their individual capacity impact on land use prioritization and development and hence impact on ecosystem and biodiversity services. Recent advancements in land systems science and policy attention on the ecosystem approach stress the need to improve the understanding of complex human-environment interactions, which can enable and constrain sustainable land use transitions and also offer a tool for integrated resource management. The dynamics of land systems in a changing environment appear to be non-linear, uncertain and prone to sudden, unexpected changes. This poses challenges to management and policy. Hence, it indicates a need to develop capacity to detect, cope with and intervene into land systems change in a sustainable way.

The research will develop and as far as possible, test in real world situations, novel approaches aimed at understanding, assessing and forecasting socio-economic and ecological interdependencies and feedbacks within coupled human-environment systems. The project calls for critical pathways and hot spots of land transformation to be identified in

a variety of environmental conditions and management regimes representative of Europe (and associated countries). It requires understanding of the policy context and decision making processes, including public participation at the relevant scales. Understanding effective pathways and critical feedbacks, and decision-making processes are essential to reconstruct, analyse and predict land system dynamics over longer time periods (decades to centuries) and for integrating natural resource management into spatial planning. Connections between local, regional and global dynamics are to be elucidated in different temporal scales. Approaches can include: Cross-sectoral analysis of natural resources policies and management systems in the frame of the sustainability paradigm, development of integrative models of human and environmental systems; development of a conceptual platform pointing to sustainable pathways of land system change that can assist to synthesize existing knowledge and extrapolate to multiple spatial and temporal levels of inquiry; as well as advancements in measuring and assessing human use of terrestrial ecosystems and the corresponding ecosystem and biodiversity services, including biodiversity conservation.

***ENV.2010.2.1.2.1 Evaluation of effectiveness of economic instruments in integrated water policy***

In the context of the integrated water policy, it is essential to evaluate the effectiveness of economic instruments that could enable the objectives of water policy (water quality and quantity management, flood risk management etc.) to be met in a cost effective way. The purpose of the project is to assess the effectiveness and the efficiency of economic instruments (or combination of instruments) including instruments such as incentive water pricing policies, permit trading, and other fiscal, financial or market-based instruments. Research will support the current and future EU water legislation. This project should also consider the water accounting methodology as developed by the Environmental Accounts (e.g. in the statistical standards SEEAW endorsed by the UN statistical Committee in 2008).

***ENV.2010.2.1.4.3 Developing a European scientific biodiversity Network to inform policy-making and economic actors***

The task is to establish a prototype network of knowledge on biodiversity and ecosystem services. The network will be a flexible grouping of organisations from a wide range of relevant disciplines and perspectives whose principal function is to provide knowledge about biodiversity and ecosystem services to reinforce the biodiversity science-policy interface. It will provide a pathway of communication, consultation and cooperation between scientists and policy makers. The "knowledge providers" that constitute the network should belong to a wide range of scientific disciplines and should also include relevant actors from the policy domain and from the science-policy interface as well as stakeholders or civil society organisations, or to combine these characteristics in various proportions. The network will provide a channel through which clients - public or private decision-makers and other stakeholders whose decisions affect European, and in some cases, regional or national biodiversity governance and management - can pose questions and request assessments. It will also provide a structure in which knowledge providers can work with one another to gather information from where it resides and derive integrated answers from existing knowledge, or construct analyses of emerging issues, synthesise the results of assessments, and formulate and disseminate reports for easy use by the clients. It is crucial that this network is open and transparent, equally accessible to all knowledge holders, and provides an independent, scientifically robust evaluation of evidence. It should benefit from experience gained by EPBRS. This project should take into account topic ENV.2010.2.1.4.2. and avoid

any duplication with this topic.

***ENV.2010.2.1.4.4 Increasing the understanding of the role of soil biodiversity in ecosystem functioning***

In its Communication on the Soil Thematic Strategy (COM(2006)231), the Commission states that not enough is known about soil biodiversity and calls for gaining a better understanding of the function that it plays as an environmental service. Soil functions depend largely on soil biodiversity, thus an adequate understanding of soil biodiversity plays a key role in ensuring a sustainable use of soil. The objective of this project is therefore to deepen the understanding of soil biodiversity and of its interactions and links with the soil functions (as defined in the proposal for a Soil Framework Directive (COM(2006)232). The project will entail the development of comparable, compatible and, to the extent possible, standardised methods for the characterisation of soil biodiversity, both in terms of variety and structure. The project will also require establishing policy-relevant and cost-effective indicator(s) for biological diversity and activity in soil trophic nets (micro, meso and macro net). On the basis of the knowledge developed, the project will then explore soil biodiversity interaction with and contribution to soil functions as well as quantify the economic value of the ecosystem services provided. The project will need to bring together the relevant specialised scientific communities (including economists) and harness their knowledge and expertise, so that the relationship among different soil biodiversity (trophic) levels, below and above ground biodiversity, soil functions, and economic value of the ecosystem services provided can be better understood and quantified.

***ENV.2010.2.1.5.1 Assessing vulnerability of urban systems, populations and goods in relation to natural and man-made disasters in Africa***

The project shall conduct prospective studies to forecast risks and vulnerabilities of different major urban areas (including the urban-rural interface) and their respective populations, infrastructures, assets, goods and services, with the overall aim to develop innovative approaches to enhance the resilience of cities against climate-change-induced risks under locally adapted IPCC scenarios of climate-change, and also considering possible changes in urban population as a result of climate-change induced environmental refugees. It will focus on assessing the environmental, social and economic impacts and of climate induced risks likely to affect urban areas at various time frames, including floods, sea-level rise and storm surges, droughts, urban heat waves, desertification, storms and fires, using a fully integrated multi-risk assessment approach compatible with the UN-ISDR framework. It will propose innovative land use and spatial planning that address the environmental and social problems and, at the same time, seek synergies between the adaptation to climate change and need to solve social problems. This might include the use of urban green spaces, the rehabilitation of ecological services, and the protection of urban biodiversity. The project will assess the current role of land use and related policies and governance in coping with climate-induced risks in urban areas, and will demonstrate the degree to which disaster reduction is integrated in existing urban planning and related policies in Africa. It will provide a method to adapt the six IPCC scenarios to local urban (and urban-rural) areas and simulate likely hypothetical climate impacts and hazard occurrences, upon which to perform vulnerability and disaster risk assessments, with the overall aim to propose innovative climate change mitigation and adaptation strategies to render cities more resistant to possible future climate-induced hazards and risks. The project should draw upon and be linked to the activities of UN-HABITAT. It will focus on Africa, and should ensure a well-balanced representation of EU and African partners, with relevant case studies geographically distributed throughout

continents to ensure a representative coverage of urban environments at risk of climate change induced risks.

***ENV.2010.3.1.1.3 Decentralised water supply and sanitation technologies and systems for small communities and peri-urban areas***

The objective of this topic is to assess the potential of decentralised low cost drinking water, wastewater treatment, water reuse, recycling and conservation technologies (including natural systems, like constructed wetlands, soil aquifer treatment, bank filtration, etc.) for a wide range of African countries that are technically simple and cheaper to operate and maintain. Emphasis should be given to the development of innovative decentralised water supply and sanitation systems that may allow reducing the risk of wastewater reuse for irrigation purposes and foster the multiple use of water. This action should also comprise the assessment of various technical and socio-economic constraints which prevent sustainable water and sanitation services and should ensure, through a transdisciplinary approach, the involvement of local participants in order to understand the various cultural differences and underlying attitudes towards water and sanitation. This topic is relevant for micro-enterprises and SMEs.

***ENV.2010.3.1.5.2 Environmental technologies for brownfield regeneration***

Brownfield regeneration is a key to tackling urban sprawl and in ensuring a more sustainable built environment. Each brownfield has a unique set of characteristics in terms of land use, environment, biodiversity, historical and social context and the cost and time for redeveloping such sites remains too high especially with respect to greenfield developments. Innovative and widely applicable strategies, technologies and solutions are needed to develop more integrated, cost effective and rational processes and decision making tools that consider environmental (especially energy saving, risks, soil, and subsurface use as well as remediation efficiency monitoring), economic and social (including health) costs and benefits in a holistic context, while taking into account stakeholders' and neighbouring communities interests. Strong preference must be given to on-site and in situ soil remediation technologies and solutions – where soil contamination is a significant issue – and strategies that consider innovative reuse of existing structures and bulk materials. Proposals should ensure the effective participation of problem owners, public authorities and industrial construction companies, and should include concrete business/ industrialization plans for the up-take of the technology and strategies developed including, in the short term, the demonstration of their efficiency through pilot projects or case studies. The topic is relevant for SMEs.

***ENV.2010.4.2.2.1 Development of integrated economic and environmental accounts***

Concepts and methods in environmental-economic accounting need to be further harmonized. Additional research could focus on key accounts, such as water, waste, and forest accounts. Regarding water, the main issues to be dealt with are water classification and valuation and water quality accounts. In terms of waste, issues that could be further researched include: harmonization of the terminology and classification of waste and waste products across countries. Standardized waste tables could also be developed, taking into account already existing research. A link between waste accounts and Material Flows Accounts (MFA) could be created. Also, some forest values have been incorporated in environmental accounts, but much of this work has not yet been systematically incorporated

in the integrated economic and environmental accounts. Finally, the link between integrated economic and environmental accounts and Kyoto protocol inventories and other climate change policy relevant concepts could also be investigated.

***ENV.2010.4.2.3.1 Foresight to enhance behavioural and societal changes enabling the transition towards sustainable paths in Europe***

The topic is calling for bottom-up approaches addressing the question of how to overcome the gap between awareness of the issues at stake and the concrete engagement in sustainability-driven action, as individuals and as a society. As a first step, the project shall conduct an analysis of barriers and drivers for engaging on a sustainable, low-carbon paths, individually (taking into account the diversity of lifestyles), on the level of individual organisations, and collectively (organisation of the society and the economy). Attention should be paid to the interaction between structural factors, such as social institutions, and agent-based factors, such as incentives and vested interests. In particular, the roles of actors on different levels shall be analysed (policy-makers, opinion-makers, business, civil society), with an emphasis on linking initiatives, and finding potential agents for change. The results of the analysis shall then be used as a background for scenario development and a back-casting exercise in order to identify potential paths to engaging on an integrated effort to support the transition to a sustainable Europe. The exercise shall address issues such as how to engage individuals and collectives on sustainable paths; what is needed in order to address the barriers and make the most of the drivers for sustainable development in terms of a) new policy-mixes and b) new and innovative mechanisms for cooperation and partnerships between actors in public, private sector and the civil society.

***ENV.2010.4.2.3.3 Brokerage activities to promote sustainable consumption and production patterns***

The aim of this activity is to experiment and develop new integrative modalities of linking research results to policy-making through 'secondary exploitation' of existing research. The topic calls for applying "knowledge brokerage" between scientists and policy makers on policy issues related to sustainable consumption and production, such as promoting sustainable consumption patterns, developing sustainable tourism, managing potential economic, political and social contradictions between economic growth re-launch and sustainable consumption. This policy issue should be clearly and convincingly presented in the proposal. The chosen issue should be one for which there is a significant body of research, which could be exploited in novel and innovative ways in cooperation between researchers, potentially including those of CSOs, and policy makers. This "research reservoir" shall be made explicit in the proposal. To ensure the uptake of project results, the consortium shall necessarily include policy makers and/or the work plan shall be designed so as to guarantee their active involvement, ideally on an equal basis with the researchers. Due to the experimental nature of the project, and the importance of the learning process, the design should also include an in-built evaluation process that documents and critically analyses successes and difficulties with the chosen approach.

## 7. SSH Relevant Topics in the Transport Work Programme<sup>7</sup>

Call identifier: FP7-AAT-2010-RTD-1

Date of publication: 30 July 2009

Deadline: 14 January 2010 at 17.00 Brussels local time

Indicative budget: EUR 101.29 million

Call identifier: FP7-TRANSPORT-2010-TREN-1

Date of publication: 30 July 2009

Deadline: 14 January 2010 at 17.00 Brussels local time

Indicative budget: EUR 35 Million

### **AAT.2010.4.3.4. Human factors**

Advanced concepts and techniques, including training, to support the acquisition and retention of skills and knowledge of personnel across the whole air transport system (design, production, maintenance and airport operation), with particular focus on organisational processes for managing change in an integrated way. Where issues related to ATM are addressed, the proposals under this topic should demonstrate their complementarity and coordination with the SESAR Programme.

### **AAT.2010.7.17. Socio-economic incentives and barriers to innovation in air transport**

#### **Expected impact**

Proposals should analyse the incentives and barriers to innovation and technologies uptake in the area of air transport. The proposals should analyse the current situation and propose improvements in terms of law-making mechanisms, financial mechanisms, and relations between education, industry and access to finance. Proposals should study and demonstrate how the best practices for innovation promotion can be implemented and wide-spread over Europe and propose concrete implementation plans at national and European levels.

#### **Scope**

The objectives of the socio-economic project on incentives and barriers to in the air transport are to exploit current strategies for innovation and for technologies uptake by all relevant air-transport stakeholders (airlines, Air Navigation Service Providers, National Supervisory Authorities, certification and standardisation bodies, airports, military users). The project should contain the analysis of national and international administrative procedures which are necessary for technologies uptake, certification and

<sup>7</sup> For more information please see [Transport \(including aeronautics\)](#) webpage

commercialisation of new products and services and propose tailored solutions and case-studies to remove or simplify these administrative burdens and procedures. The project should aim at analysing how the emergence of the joint undertakings financed through the Seventh Framework Programme for RD such as SESAR or Clean Sky could contribute to the successful deployment of innovative technologies by simplifying consultation procedures and contributing to the development of international standards specifications (such as Implementing Rules or Community Specifications). The project is expected to provide an analysis of existing financial possibilities at national and international levels, which would facilitate air-transport stakeholders' access to finance and to explore and research for the new innovative methods and sources of financing of projects of European interest allowing to share financial intrinsic risks between private and public sectors. The project should also analyse the relations between universities, private sector companies involved in the air-transport business and the national banking systems of different European countries in order to understand the best legal and financial arrangements and educational incentives leading to promoting innovation and creation of (inter) national technologies clusters. Security requirements in the air transport, and the relation to innovation promotion should be properly covered.

Given the scope of the project, the proposals should contain appropriate arrangements for the cooperation and inputs from the joint undertakings and the European Investment Bank. The applicants should demonstrate their knowledge in micro-finance given the importance of the innovative financial component of this project. An implementation roadmap for promoting innovation in air transport is expected to be presented.

Call identifier: FP7-SST-2010-RTD-1
Date of publication: 30 July 2009
Deadline: 14 January 2010 at 17.00 Brussels local time
Indicative budget: EUR 93,79 Million

### **SST.2010.1.3.1. Transport modelling for policy impact assessments**

#### *Research into developing the European transport network model TRANSTOOLS*

The European transport network model, TRANSTOOLS, was developed for DG TREN under FP6 with the purpose of providing policy makers with a tool for assessing and developing better transport policies.

A new and improved version of TRANSTOOLS should be developed and calibrated based on year 2010 data. The new model should update the modules of the previous versions of TRANSTOOLS and incorporate improved data, networks and modelling techniques of other projects related to TRANSTOOLS (iTREN2030, ETIS plus, LOGMAN, etc.).

The level of detail of the rail, maritime and air transport modules should furthermore be increased in order to better analyse issues of cost, capacity and externalities of transport.

**SST.2010.1.3.2. Social and economic impacts of transport policy**  
**Research into social and economic impacts of transport policy**

Passenger and freight transport are essential for undertaking social and economic activities. However, transport is at the same time causing a range of negative impacts affecting people and companies in the EU. Moreover, some market failures hamper the competitiveness of transport.

With a view to developing and assessing sustainable transport policy measures - striking the right balance between positive and negative impacts of transport - it is required to carefully analyse and quantify social and economic impacts of policy measures. These impacts should be quantified at European, national and regional levels.

A methodology/tool, possibly building on research completed in earlier FP-calls, and building on empirical results of transport policy implementations, should be developed to assist the Commission and other policy makers in assessing and comparing transport policy measures.

**SST.2010.7.7. Raising awareness of potential job opportunities related to the electrification of road transport**

This Coordination Action aims at raising awareness of job creation opportunities and future prospects for young people deriving from the emergence of electrification as an important research and development trend in the automotive sector, which adds a new dimension to the traditional skills taught to automotive engineers and technicians.

The following activities might be included:

- Encourage young people to seek for high skilled jobs in sectors related to road transport electrification with special focus on science, research and innovation.
- Evaluate and demonstrate the potential of research outputs, outcomes and impacts to create and maintain jobs giving special consideration to opportunities for young people and gender balance.
- Extensive and broad communication and stimulation campaigns targeting young people of different ages (from high school to university). These could be: travelling workshops, competitions, animations and broad media actions directed to a young target, etc.

Proposals will focus on all major research priority lines defined for electrification research activities and might involve all major research stakeholders from industry, academia and society.

Call identifier: FP7-TPT-2010-RTD-1
Date of publication: 30 July 2009
Deadline: 14 January 2010 at 17.00 Brussels local time
Indicative budget: EUR 6 Million

**TPT.2010-1. Global challenges in a long term perspective: 2030-2050  
Scope and expected results**

A forward-looking activity has to be developed aiming at identifying and anticipating the key drivers of change and the related socio-economic impacts in the Transport theme. This forward-looking activity should help to identify future research and innovation priorities contributing to build a strong European Research Area in the specific Transport theme. It will also provide strategic intelligence useful for the preparation of the future Framework Programme.

Research activities funded under this topic would liaise and co-ordinate as appropriate with relevant activities of related Technology Platforms (TPs), e.g. ACARE (see topic AAT.2010.7-15), ERRAC, ERTRAC, WATERBORNE and HFP, as well as with the "Future of Transport initiative"<sup>8</sup>, in order to create synergy and avoid duplication.

Proposals could combine the scope of this topic with that of TPT.2010-2, particularly on addressing new clean technologies for transport systems and market drivers.

**TPT.2010.2. Prospects on upcoming global competition for the European transport industry on clean transport systems**

**Scope**

Study/actions would allow for:

- Assessing the present situation of European transport research per mode regarding the impact of European environmental policy on the global competitiveness of the EU transport industry (manufacturers and related services).
- Appraising existing options and possible innovative solutions for clean transport, services and logistics long before mass application.
- Evaluating the impact of these transport innovations on the global competitiveness of major EU industrial sectors, including a preliminary evaluation of the actual impact of travel costs and performance on the global competitiveness of those industrial sectors.
- Analysing the demand and market drivers for new services or products related to the transport sector.
- Developing identified scenarios at successive time horizon 2020 and beyond.
- Deriving and supporting roadmaps of strategic options for European transport research policy.

Research activities funded under this topic would liaise and co-ordinate as appropriate with relevant activities of related TPs (e.g. ACARE, ERRAC, ERTRAC, WATERBORNE and HFP), including the 'European Green Cars Initiative'.

Proposals could combine the scope of this topic with that of TPT.2010-1, particularly on addressing key drivers of change and related socio-economic impacts.

**TPT.2010.5. Demand/supply management and logistics for transport of passengers through increased co-modality and understanding of social behavior**

**Scope**

Study/actions would allow for:

<sup>8</sup> [http://ec.europa.eu/transport/strategies/2009\\_future\\_of\\_transport\\_en.htm](http://ec.europa.eu/transport/strategies/2009_future_of_transport_en.htm)

- Improving transport demand management (with focus on soft measures) and personalisation/customisation of transport services (e.g. real-time travel information to the public and accessibility, ICT common solutions to purchase of tickets and the tracking of luggage, etc.) to improving passenger time efficiency and comfort.
- Improving transport supply management, which would involve a higher transparency of the supply chain, collaborative processes and new business models.
- Innovative methods for increasing capacity and efficiency of existing road/urban space, airports and railway systems.
- Analysing differences in traveller behaviour across European countries and regions.
- Developing medium (10 years) and long-term (30 years) scenarios in modelling, forecasting and analysing factors influencing transport and travel behaviour: transport demand, social trends and demographics and the drivers of travel behaviour in different social groups, including older and disabled people and socially excluded groups.

Proposals could combine the scope of this topic with that of TPT.2010-4 and may take into account the priorities (which are relevant to this topic) of the 'Socio-Economic Sciences and the Humanities' theme of the FP7 'Cooperation' specific programme. International cooperation could also be taken into account.

#### ***TPT.2010.9. Market uptake of transport research and role of actors and regions***

##### **Scope**

Study/ actions would allow for:

- Mapping the EU-27 landscape and trends in industrial research in the transport sector (identifying also links globally), with the aim of describing the role, weight and profile(s) of innovative actors and regions in Europe (e.g. knowledge and innovation clusters, poles of attraction for research and innovation).
- Assessing research-funding instruments available to research actors and identifying innovative economic and financial instruments.
- Identifying weaker players and possible ways to encouraging their involvement in RTD programmes.

The above analyses should be made in the light of a dynamic (current and prospective) analysis of barriers and drivers to market uptake of transport research results and opportunity costs for innovative actors in Europe<sup>9</sup>.

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<sup>9</sup> The analyses could take into account the experience of Aero-PMEs, set up within GIFAS (French Aerospace Industries Association) in June 1996, as well as other possible ones related to other Transport sectors and players (<https://www.gifas.asso.fr/en/pages.php?tab=gifas&sub=9>).

## 8. SSH Relevant Topics in the Space Work Programme<sup>10</sup>

Call identifier: FP7-SPACE-2010-1
Date of publication: 30 July 2009
Deadline: 12 November 2009 at 17.00 Brussels local time
Indicative budget: EUR 114 million

*There is no related topic in this call.*

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<sup>10</sup> For more information please see [Space](#) webpage

## 9. SSH Relevant Topics in the Security Work Programme<sup>11</sup>

Call identifier: FP7-SEC-2010-1
Date of publication: 30 July 2009
Deadline: 26 November 2009 at 17.00 Brussels local time
Indicative budget: Total call budget EUR 210.59 million

### ***SEC-2010.1.3-1 Innovative tools to combat organized crime and terrorism financing and money laundering***

#### **Description of topic:**

Disrupting, deterring and dismantling criminal financing networks is a key element of the fight against terrorist activities, as is detecting and preventing money laundering for the fight against organised crime. International standards and cooperation frameworks (such as Financial Action Task Force (FATF) and the United Nations) should be taken into account. The objective is to develop innovative tools to help the detection and the prevention of money laundering and terrorist financing activities and more specifically to facilitate and improve its reporting mechanisms as well as the identification of money that has been stolen or robbed. European Strategy on Terrorist Financing sets banks and other financial institutions obligations of reporting suspicious financial activities to Financial Intelligence Units (FIU).

Typical users of this tool would be private actors (e.g. banks), FIU and other public authorities or law enforcement bodies. The action will also include work on the legal framework at international, European and national levels, as well as the exchange of good practices within the stakeholders.

### ***SEC-2010.4.3-1 Alert and communication, including role of media, towards the population in crises management***

#### **Description of the topic:**

The task is to develop innovative methodologies and technological solutions to manage alert and communication in crises management. This includes:

Evaluation and re-assessment of alert procedures and processes in order to cope with new, complex and recurrent crises.

Screening of the information structure (content, explaining...) between all kind of actors taking into account intercultural factors, communication toward the population and consistency with response and rescue of on-going operation, recurrent crisis communication management and the familiarisation of the public (false alert problematic). Analysis of the role of mass media (in particular new ones) during crises and the best practices in their use in order to ensure effective and ethical crisis management while respecting the freedom of the press.

<sup>11</sup> For more information please see [Security](#) webpage

Technological solutions, e.g. agent-based simulation platforms, to perform what-if analyses of the efficiency of communication plans, to prevent communication pitfalls and support better information exchange between authorities, crisis management stakeholders and citizens.

***SEC-2010.6.1-1 Signs of 'early warning' to detect trends and weak signals in social polarisation, radicalization development and segregation***

**Description of topic:**

The task is to obtain a deeper understanding of the signs of 'early warning' and weak signals of social trends that may lead to violent extremism and even terrorism (e.g. polarisation, radicalisation development and segregation at collective or individual level), in order to facilitate effective policies and counter-measures and increase the society resilience. The first goal should be to use these signs to build indicators allowing to curb, to stop and to prevent these social processes. The second goal should be to understand whether and how specific contextual and structural conditions (e.g. residential segregation, social exclusion, unemployment etc) may foster the adoption of extremist views resulting in violence/terrorism. Thirdly, technical and social environment (including Internet) should also be considered because they create norms and boundaries as well as possibilities for terrorist activities. The internet should be treated as a stand alone context insofar as it offers a unique venue for information sharing, indoctrination, recruitment and organisation of attacks.

A particular effort should be made at measuring and predicting the technological capabilities of groups that are likely to radicalise. An attempt should also be made at forecasting technological evolution which would lead into more dangerous forms of terrorism and defining early warning signs for such activities. This will enable monitoring of technical capabilities in addition to social driving forces. Main actors that are best positioned to provide early warnings should be identified and best practices and efficiency of existing action plans should be assessed. Alternative approaches and best practices tried out in different European cities, such as cooperation between police, schools and community activities should be looked into. The research should in addition, address the possible pitfalls or risks of developing early warning indicators. It should integrate in the process ethical and legal issues, including on national level and elucidate in the results the balance between the devised tools and privacy.

***SEC-2010.6.1-2 Develop models and tools to detect and evaluate risks of terrorism***

The task is to propose a methodology for risk assessment of terrorism taking into account the differences between home-grown and imported/exported terrorism. This methodology should address the threats to critical infrastructure, their vulnerability to the threats, and the consequences. The uncertainty of the estimation and the measuring of elements of risks should be balanced across multiple perspectives of terrorism risks. The methodology should then be applied to concrete examples.

***SEC-2010.6.1-3 Reduction of the cognitive biases in intelligence analysis***

**Description of topic:**

Intelligence analysts are involved in analytical processes to assess and react to certain

situations. Throughout that analytical process, they might be subject to cognitive biases that may have a negative impact on the quality of the final assessment. The purpose of this topic is: a) to have an exhaustive overview of cognitive biases (synthesis), b) to explore the extent to which cognitive biases can be described and modelled with the objective to reduce the risk for cognitive biases (feasibility) in analysis and c) to investigate the potential integration of these models into analysis tools in a service oriented open architecture.

***SEC-2010-6.3-1 Developing a reference framework for the European security culture: the perception of threats and the trust in public authorities and the police and the perception of security as a service***

**Description of the topic:**

The task is to make a cultural and behavioural analysis. As a first step various security cultures throughout Europe should be studied to build a reference framework for the European security culture and to define approaches towards a secure society where citizens perceive security as a service without trade-offs between security and freedom. The risk of surveillance escalation should be addressed and the proposed reference framework should respect privacy and be based on essential security measures, confidence and human respect. Civil society organisations should be represented in the proposed approach and the differences in views between women and men should be analysed.

***SEC-2010.6.3-2 Fore sighting the contribution of security research to meet the future EU roles***

**Description of the topic:**

New tasks are expected to strengthen the EU's role towards providing a comprehensive security approach to its citizens. The external dimension of security may become every more important. The security impact of global climate change needs to be addressed. Furthermore, a stronger common approach to civil protection and crisis management is needed. The task is to develop scenarios as how security research under FP7 and beyond can best contribute to this comprehensive approach while giving due consideration to the ethical and societal dimension.

***SEC-2010.6.3-3 Research on rigorous methodologies for assessment of security investments and trade-off between security and other societal objectives (e.g. privacy and social cohesion)***

**Description of the topic:**

The task is to develop foresight based methodologies for the rigorous assessment of investment alternatives, intended to prevent or mitigate insecurities with uncertain and potentially catastrophic ramifications. Both financial costs as well as the trade-off between security and other societal objectives, such as the right to privacy and social cohesion, should be addressed.

***SEC-2010.6.4-1 Cost-benefit analysis of the present and future security measures in Europe***

**Description of topic:**

The task is to provide a support tool for analysis of the costs and the benefits of security

measures in Europe taking into account the probabilities of these measures. It should be targeted to the policy-makers and should help them in their decision making processes. These could include the analysis of CCTV efficacy and of reliability of terrorist behavior surveillance, the costs of infrastructure protection, the price of the non-protection scenario, the impact of the security society on the economy. Also, the effects of the European economic stagnation should be taken into account.

***SEC-2010.6.5-1 Review existing codes of conduct, best practises, etc. as to the ethical use of security technologies and the corresponding legal requirements – make recommendations where shortfalls exist***

**Description of topic:**

Ethics challenges need particular attention because of the constant and rapid change of security practices and technologies causes their societal effects to be insufficiently understood. The task is to study existing codes of conduct, practises, etc related to the installation and the use of security technologies in the context of different countries having different ethical, religious, historical and philosophical backgrounds. The existing practises should also be analysed in light of the corresponding legal requirements. Shortfalls should be identified and current ethical framework revised.

***SEC-2010.6.5-2 Use of smart surveillance systems, data protection, integrity and sharing information within privacy rules***

**Description of topic:**

The generalisation of surveillance systems collecting massive data raises data protection and integrity issues. However, the scope of surveillance could in most of the situations be focused and targeted to critical parts. The task is to specify how and when smart surveillance should be used and its characteristics to be effective and scalable to rapidly adapt to changing situations. The criteria for data protection and integrity that could be used to verify that surveillance systems and sharing of information is respecting the privacy of the citizens should also be addressed.

## The Ocean of Tomorrow Call<sup>12</sup>: (Joint Call with themes KBBE, Transport , Energy, Environment and SSH)

Call identifier: FP7-OCEAN-2010
Date of publication: 30 July 2009
Deadline: 14 January at 17.00 Brussels local time
Indicative budget: EUR 34 million from the 2010 budget of which

Topic	Topic Title	Indicative Budget
OCEAN.2010-1	Quantification of climate change impacts on economic sectors in the Arctic	EUR 11 million
OCEAN.2010-2	Vectors of change in marine life, impact on economic sectors	EUR 12.5 million
OCEAN.2010-3	Sub-seabed carbon storage and the marine environment	EUR 10.5 million

### ***FP7-OCEAN-2010-1: Quantification of climate change impacts on economic sectors in the Arctic***

Changing climatic conditions in the Arctic have far reaching consequences both economically and environmentally, in particular considering the specificity and vulnerability of the region. On the one hand there may be opportunities due to enhanced accessibility; on the other hand changes in the future use of the Arctic region would involve potentially increased anthropogenic environmental pressures, such as: noise affecting marine mammals, fisheries, shipping, accident risk and consequence, soot, pollution etc. The research is to be seen in the context of policies, such as the Communication of the Commission 'The European Union and the Arctic Region' (COM(2008) 763 final) and relevant actions in the Communication should be noted.

The project will focus on assessing and quantifying Climate change impacts on both macro and meso-economic level for key sectors (maritime transport, fisheries, tourism and resource extraction) and on how these sectors could affect the Arctic environment, including climate feedbacks. Research concerning these sectors, in particular maritime transport and fisheries, should draw upon environmental and economic modelling and explore the potential scale, benefits and issues of these activities within the Arctic environment (e.g. exploitation of sensitive habitats, accident response, infrastructure, noise, ship types). The project should

<sup>12</sup> For more information please see FP7-OCEAN-2010  
([http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.CooperationDetailsCallPage&call\\_id=274](http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.CooperationDetailsCallPage&call_id=274))

also discuss policy and governance options including marine spatial planning, for sustainable development, whilst protecting and preserving the Arctic environment. Governance including geopolitical aspects in relation to these activities and climate change has also to be addressed, including foresight and assessment of economic impacts. A multi-disciplinary approach and a multi-sectoral partnership are considered essential to achieving the expected impacts.

***FP7-OCEAN-2010-2: Vectors of changes in ocean and seas marine life, impact on economic sectors (Call: FP7-2010-OCEAN) Joint Call with themes KBBE, Environment, Transport, Energy and SSH***

Marine environments are under major threats and subject to many changes. However, the mechanisms inducing these changes in particular changes on ocean biology and marine life are poorly understood and quantified. It is crucial to better understand and assess, in an integrated way, the interaction between changes in ocean marine life and in European marine and maritime economic sectors. Research shall contribute to formulating feasible adaptive management strategies for the EU.

The project will include consideration of human induced changes, including from transport, energy devices, exploitation of living resources, discharges, together with environmental changes (including climate changes). The focus will be on outbreaks of invasive or indigenous species, changes in distribution of fish population, vectors of change, and related economic sectors. Research should consider the present situation and future scenarios considering the introduction of new technologies and structures, such as new ballast water practices, ocean and off-shore wind energy devices, mitigation measures, new fishing strategies and policies needs.

The project will improve the understanding of the mechanisms causing outbreaks of indigenous species e.g. jellyfish; the presence of invasive species caused by transport or via other transfer vectors; changes in fish distribution and productivity (including exploited species) at population and community level, caused by environmental and human-induced changes. It will also quantify the impact of changes (environmental and human-induced), the trends on ecosystem structures (e.g. biodiversity) and function (e.g. food chain) and provide data and tools to relevant stakeholders within the environmental, policy and economic spheres e.g. for exploitation of offshore devices, transport and fisheries will be a key element of the project.

Moreover, the project will evaluate the social and economic consequences, market and non-market impacts including public perception and engagement, risk and vulnerability for related sectors (public health, tourism, transport, fisheries, ocean and off-shore wind energy devices, etc), when appropriate considering forthcoming strategies such as the IMO Convention on ballast water management. It will also investigate feasibility of additional measures if necessary to address changes in the marine environment. This should be achieved in cooperation with stakeholders, considering forthcoming requirements, policies and regulations such as the EU Maritime Policy, EU Marine Strategy, Common Fisheries Policy, IMO conventions. The project should maximise its impact by addressing several regional seas of major interest to the EU and when appropriate building upon existing work. A multi-disciplinary approach and a multi-sectoral partnership are considered essential to achieving the expected impacts.

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**FP7-OCEAN-2010-3:Sub-seabed carbon storage and the marine environment (Call: FP7-2010-OCEAN) Joint Call with themes KBBE, Transport, Environment, Energy and SSH**

The EU Climate-Energy package contains a directive on Geological Storage of Carbon Dioxide which allows sub-seabed storage of CO<sub>2</sub>. Moreover, in order to prepare for the large-scale use of Carbon Capture and Storage technology, the European Commission proposes to launch a European Industrial Initiative on CO<sub>2</sub> capture, transport and storage, to stimulate, coordinate and support a series of large-scale demonstration plants that should be operational by 2015. Several of these demonstration projects could rely on sub-seabed storage sites. Confidence in the technology will be further enhanced by increased knowledge and assessment ability, in particular with respect to the environmental impact of CO<sub>2</sub> on the marine seafloor. So far, few studies specifically address possible effects on marine ecosystems in case of CO<sub>2</sub> seepage from subseabed geological storage.

The project will address the potential impact of sub-seabed CO<sub>2</sub> storage on marine ecosystems: during the deployment of the CO<sub>2</sub> injection equipment, during the injection of CO<sub>2</sub> into the storage site, and after the end of the storage operations. It should identify and focus on those aspects likely to be novel as compared with related activities such as hydrocarbon extraction. The project should encompass modelling as well as field studies in at least one existing European offshore storage site. It should establish a framework of best environmental practices in the management of off-shore CO<sub>2</sub> injection and storage, tested in situ at least at small scale. This shall include procedures for establishing an environmental baseline for a prospective storage site (including a quantitative assessment of the vulnerability of surrounding ecosystems), and for assessment of the actual environmental impact of the sites. The development of innovative monitoring techniques able to detect episodic events and/or prolonged low-flux seepage is a key element of the project. Possible environmental impacts on long time scales (several decades to centuries), and associated risk management needs, will also need to be investigated.

The scope of the project should be ambitious but realistic; the investigations should be extended to water depths with expected relevance to CO<sub>2</sub> storage including the continental margins. Economic issues such as the cost of long term monitoring or the cost of intervention if leakage were to happen should be considered, taking account of general site characteristics such as storage type, water depth etc. Public perception of sub-seabed carbon storage should also be assessed. The project shall take account of knowledge accumulated in ongoing CO<sub>2</sub> storage experiments in Europe. A multi-disciplinary approach and a multi-sectoral partnership are considered essential to achieving the expected impacts.

## II. Ideas Specific Programme<sup>13</sup>

### 1) ERC Starting Independent Researcher Grant

Call identifier: ERC-2010-StG
Date of publication: 31 July 2009
Deadline: 9 December 2009 (for the SSH Panels)
Indicative budget: ca. 528 Million Euro

### 2) ERC Advanced Grant

Call identifier: ERC-2010-AdG
Date of publication: 29 October 2009
Deadline: 7 April 2010 (for the SSH Panels)
Indicative budget: ca. 590 Million Euro

## ERC Starting Independent Researcher Grant and ERC Advanced Investigators Grant

European Research Council provides two grants for investigator-driven 'frontier research'. SSH researchers can submit their projects in any topic provided that they are at or beyond the frontiers of knowledge, without regard for established disciplinary boundaries. ERC SSH panels are listed below:

### SH 1 Individuals, institutions and markets: economics, finance and management

- SH1\_1 Macroeconomics, growth, development, business cycles
- SH1\_2 Microeconomics, institutional economics
- SH1\_3 Econometrics, statistical methods
- SH1\_4 Financial markets, banking and corporate finance
- SH1\_5 Competitiveness, innovation, research and development
- SH1\_6 Consumer behaviour, marketing
- SH1\_7 Organization studies, strategy
- SH1\_8 Human resource management, employment and earnings
- SH1\_9 Public administration, public economics
- SH1\_10 Income distribution, poverty
- SH1\_11 International trade, economic geography

<sup>13</sup> For more information please see [http://cordis.europa.eu/fp7/ideas/home\\_en.html](http://cordis.europa.eu/fp7/ideas/home_en.html)

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**SH 2 Institutions, values, beliefs and behavior: sociology, social anthropology, political science, law, communication, social studies of science and technology**

- SH2\_1 Social structure, inequalities, social mobility
- SH2\_2 Ageing, work, social policies
- SH2\_3 Kinship, cultural dimensions of classification and cognition, individual and social identity, gender
- SH2\_4 Myth, ritual, symbolic representations, religious studies
- SH2\_5 Ethnography
- SH2\_6 Globalization, migration, interethnic relations
- SH2\_7 Transformation of societies, democratization, social movements
- SH2\_8 Political systems, legitimacy of governance
- SH2\_9 Legal systems, constitutions, foundations of law
- SH2\_10 Private, public and social law
- SH2\_11 Global and transnational governance, international law, human rights
- SH2\_12 Communication networks, media, information society
- SH2\_13 Social studies of science and technology, S&T policies, science and society
- SH2\_14 History of science and technology

**SH 3 Environment and Society: environmental studies, demography, social geography, urban and regional studies**

- SH3\_1 Environment and sustainability
- SH3\_2 Environmental regulation and mediation
- SH3\_3 Social and industrial ecology
- SH3\_4 Geographical information systems, cartography
- SH3\_5 Human and social geography
- SH3\_6 Spatial and regional planning
- SH3\_7 Population dynamics
- SH3\_8 Urbanization and urban planning, cities
- SH3\_9 Mobility and transportation

**SH 4 The Human mind and its complexity: cognition, psychology, linguistics, philosophy and education**

- SH4\_1 Evolution of mind and cognitive functions, animal communication
- SH4\_2 Human life-span development
- SH4\_3 Neuropsychology and cognitive psychology
- SH4\_4 Clinical and experimental psychology,
- SH4\_5 Formal, cognitive, functional and computational linguistics
- SH4\_6 Typological, historical and comparative linguistics
- SH4\_7 Acquisition and knowledge of language: psycholinguistics, neurolinguistics
- SH4\_8 Use of language: pragmatics, sociolinguistics, discourse analysis
- SH4\_9 second language teaching and learning, language pathologies, lexicography, terminology
- SH4\_10 Philosophy, history of philosophy
- SH4\_11 Epistemology, logic, philosophy of science
- SH4\_12 Ethics and morality, bioethics
- SH4\_13 Education: principles, techniques, typologies

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**SH 5 Cultures and cultural production: literature, visual and performing arts, music, culture, and comparative studies**

- SH5\_1 Classics
- SH5\_2 History of literature
- SH5\_3 Literary theory and comparative literature, literary styles
- SH5\_4 Textual philology and palaeography
- SH5\_5 Visual arts
- SH5\_6 Performing arts
- SH5\_7 Museums and exhibitions
- SH5\_8 Numismatics, epigraphy
- SH5\_9 Music and musicology, history of music
- SH5\_10 History of art and architecture
- SH5\_11 Cultural studies, cultural diversity
- SH5\_12 Cultural memory, intangible cultural heritage

**SH 6 The Study of the human past: archaeology, history and memory**

- SH6\_1 Archaeology, archaeometry, landscape archaeology
- SH6\_2 Prehistory and protohistory
- SH6\_3 Ancient history, ancient cultures
- SH6\_4 Medieval history
- SH6\_5 Modern and contemporary history
- SH6\_6 Colonial history, entangled histories, global history
- SH6\_7 Military history
- SH6\_8 Historiography, theory and methods of history
- SH6\_9 History of ideas, intellectual history
- SH6\_10 Social, economic, cultural and political history
- SH6\_11 Collective memories, identities, lieux de mémoire, oral history
- SH6\_12 Cultural heritage

### III. People Specific Programme<sup>14</sup>

The aim of the People Programme is strengthening the human potential in research and technology in Europe. There are five actions in this programme addressing researchers from all disciplines and sectors and career stages. People actions that SSH researchers can also apply are as follows:

**Activity 1: Initial training of researchers to improve mostly young researchers** career perspectives in both public and private sectors, by broadening their scientific and generic skills, including those related to technology transfer and entrepreneurship.

**There is no open call for this activity. Next Call will be open in Work Programme 2010 (estimated deadline 22<sup>nd</sup> of December 2009)**

**Activity 2: Life-long training and career development** to support experienced researchers in complementing or acquiring new skills and competencies or in enhancing inter/multidisciplinarity and/or intersectoral mobility, in resuming a research career after a break and in (re)integrating into a longer term research position in Europe after a trans-national mobility experience.

#### MARIE CURIE INTRA-EUROPEAN FELLOWSHIPS FOR CAREER DEVELOPMENT

Call identifier: FP7-PEOPLE-2009-IEF
Date of publication: 18 March 2009
Deadline: 18 August 2009
Indicative budget: EUR 95 Million

#### MARIE CURIE RE-INTEGRATION GRANTS

Call identifier: FP7-PEOPLE-2009-RG
Date of publication: 9 October 2008
Deadline: Continuous submission with 'cut-off dates' for evaluation of proposals received until then on 2 April 2009 and 8 October 2009
Indicative budget: EUR 31 million

<sup>14</sup> For more information please see [http://cordis.europa.eu/fp7/people/home\\_en.html](http://cordis.europa.eu/fp7/people/home_en.html)

**Activity 3: Industry-academia partnerships and pathways** to stimulate intersectoral mobility and increase knowledge sharing through joint research partnerships in longer term co-operation programmes between organisations from academia and industry, in particular SMEs and including traditional manufacturing industries.

**There is no open call for this activity.**

**Activity 4: International dimension** to contribute to the life-long training and career development of EU-researchers, to attract research talent from outside Europe and to foster mutually beneficial research collaboration with research actors from outside Europe.

#### MARIE CURIE IOF INTERNATIONAL OUTGOING FELLOWSHIPS

Call identifier: FP7-PEOPLE-2009-IOF
Date of publication: 18 March 2009
Deadline: 18 August 2009
Indicative budget: EUR 28 Million

#### MARIE CURIE IIF INTERNATIONAL INCOMING FELLOWSHIPS

Call identifier: FP7-PEOPLE-2009-IIF
Date of publication: 18 March 2009
Deadline: 18 August 2009
Indicative budget: EUR 28 Million

#### INTERNATIONAL RESEARCH STAFF EXCHANGE SCHEME

The International Staff Exchange Scheme aims to strengthen research partnerships through staff exchanges and networking activities between European research organisations and selected third countries.

**There is no open call for this scheme. Next call will be open in Work Programme 2010 (estimated deadline 25<sup>th</sup> of March 2010).**

#### **Activity 5: Researchers' Night**

This action aims to bring the researchers closer to the public at large, so enhancing their role in the mainstream of society. The purpose is to tackle the existing stereotypes about researchers and the profession, and to have the public at large better understand the central role of scientists and the key benefits they bring to society. An additional impact should be to convince young people that scientific careers are fascinating and to stimulate them to embark on scientific careers with mobility.

**There is no open call for this scheme. Next call will be open in Work Programme 2010 (estimated deadline 13<sup>th</sup> of January 2010).**

## IV. Capacities Specific Programme<sup>15</sup>

### 1. SSH Relevant Topics in the Research Infrastructures Work Programme<sup>16</sup>

Call identifier: FP7-INFRASTRUCTURES-2010-1
Date of publication: July 30 2009 at 17.00 Brussels local time
Deadline: 3 December 2009
Indicative budget: EUR 216.94 Million

#### 1.1 Support to existing research infrastructures

##### 1.1.1 Integrating Activities

The aim of Integrating Activities is to bring together and integrate, on a European scale, key research infrastructures in a given class, in order to promote their coordinated use and development. This will ensure that European researchers may have a wider and more efficient access to the high performing research infrastructures they require to conduct their research, irrespective of the infrastructure location. The main characteristic of an Integrating Activity will be its capacity to mobilise a comprehensive consortium of several research infrastructures in a given class and other stakeholders (e.g. public authorities, technological partners, research institutions), from different Member States, Associated States and third countries when appropriate.

An Integrating Activity shall combine, in a closely co-ordinated manner, following the FP6 Integrated Infrastructures Initiatives (I3) model:

- (i) Networking activities, to foster a culture of co-operation between research infrastructures and scientific communities and help developing a more efficient and attractive European Research Area;
- (ii) Trans-national access and/or service activities, to support scientific communities in their access to the research infrastructures in the consortium;
- (iii) Joint research activities, to improve, in quality and/or quantity, the services provided by the infrastructures.

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 VI. Consortia should, whenever appropriate, give due attention to international related initiatives, foster the use and deployment of standards, carry out research on impacts (direct and

<sup>15</sup> For more information please see: [http://cordis.europa.eu/fp7/capacities/home\\_en.html](http://cordis.europa.eu/fp7/capacities/home_en.html)

<sup>16</sup> For more information please see: [http://cordis.europa.eu/fp7/capacity/research-infrastructures\\_en.html](http://cordis.europa.eu/fp7/capacity/research-infrastructures_en.html)

indirect, on social, environmental and economic levels) of the involved research infrastructures as well as of the project itself and build on e-Infrastructure services, when available.

Expected impact: Integrating Activities are expected to have a structuring impact on the European Research Area and on the way research infrastructures operate, evolve and interact with similar infrastructures and with their users. Operators of similar infrastructures will develop synergies and complementary capabilities in such a way as to offer an improved access to researchers. Likewise, a more co-ordinated approach between infrastructure operators, users and public authorities will enable to optimise the development and sustainable operation of the research infrastructures. In addition, a closer interaction between a large number of scientists active in and around a number of infrastructures will facilitate cross-disciplinary fertilisations and a wider sharing of knowledge and technologies across fields and between academia and industry.

### **Social Sciences and Humanities relevant topic in this call (call N°6)**

**INFRA-2010-1.1.1:** European Social Survey. A project under this topic would support the development of research infrastructures for research on European public opinion.

**INFRA-2010-1.1.2:** Survey of Health, Ageing and Retirement in Europe. A project under this topic would support the development of research infrastructures for research on population ageing and its implications to health, social and economic policies.

**INFRA-2010-1.1.3:** European Social Science Data Archives and remote access to Official Statistics. A project under this topic should aim at a further improvement of the consistency of a European system of Social Science Data Archives and of the researcher's access to official statistics. It could also address new technologies for data collection.

**INFRA-2010-1.1.4:** Archives for Historical research. A project under this topic should aim at integrating the key data collections and services in Europe for contemporary European History. Collaboration is expected with the Digital Research Infrastructure for the Arts and Humanities (DARIAH).

**INFRA-2010-1.1.5:** Towards a European Research Infrastructure for Modelling & Methodologies. A project under this topic should aim at integrating key datasets and at developing the provision of better research services and models for the comparison, analysis, and development of economic, social and other policies in Europe.

**INFRA-2010-1.1.6:** Research Infrastructures for the study of Europe and globalization. A project under this topic should aim at integrating the key existing datasets and research services regarding European area studies, for example with regards to the relations between Europe and Asia, Africa, Latin America and more generally other continents.

Consult the Work Programme for specific topics in other areas than Social Sciences and Humanities under this heading, that are opened in Call FP7-INFRASTRUCTURES-2010-2 (call N°6)

## **1.2 Support to new research infrastructures**

### **1.2.1 Design Studies**

The next call for proposals for 'Design Studies' is expected to be published at the end of 2010

### **1.2.2 Construction of new infrastructures (or major upgrades) -preparatory phase**

The purpose of this activity is to provide catalytic and leveraging support for the preparatory phase leading to the construction of new research infrastructures or major upgrades of existing ones. The preparatory phase aims at bringing the project to the level of legal and financial maturity required to implement the project. This preparatory phase may also include technical work. Project consortia should involve all the stakeholders necessary to make the project move forward, to take decision and to make financial commitments before construction can start (e.g. national/regional ministries/governments, research councils, funding agencies). Operators of research facilities, research centres, universities, and industry may also be involved whenever appropriate. During this preparatory phase the European Commission may act as a 'facilitator', in particular with respect to the financial engineering needed for the construction phase. This preparatory phase could include (non exhaustive list):

- Legal work, i.e. (1) for the setting-up, construction and operation of the research infrastructure; and (2) the draft agreement, in the form of a 'signature-ready' document for the setting-up and the actual construction.
- Governance and logistical work, i.e. (1) plans, in terms of decision-making, management structure, advisory body, IPRs, access rules for researchers, etc.; (2) planning (timing, resources) of staff recruitment to operate the new facility; (3) organisation of the logistic support for researchers, including informatics, etc.;
- Strategic work, i.e. (1) analysis of the socio-economic impact of the new infrastructure; (2) the plan to integrate harmoniously the new infrastructure in the European fabric of related facilities in accordance, whenever appropriate, with the Community objective of balanced territorial development; (3) to create or consolidate centres of excellence and/or "regional partner facilities"; (4) the identification of the best possible site to set up the new facility(-ies) and its next generations; (5) the planning of research services to be provided at international level;
- Financial work, i.e. (1) the financial arrangements for the construction, operation and decommission of the facility, using notably the complementarities between national and Community instruments (such as the Structural Funds or the European Investment Bank); (2) studying new mechanisms, e.g. pre-commercial procurement processes, by which public authorities may develop new approaches for financing innovative solutions;
- Technical work, i.e. (1) the draft engineering plans for the construction, as well as final prototypes for key enabling technologies and implementation plans for transfer of knowledge from existing prototypes to the new research infrastructure; (2) the technical work to ensure that the beneficiary scientific communities exploit the new facility from the start with the highest efficiency, including the introduction of new processes or software.

Consult the Work Programme for specific topics opened in Call FP7-INFRASTRUCTURES-2010-1 (call N°6)

### **1.3 Support for policy development and programme implementation, including support to emerging needs**

The aim is to support, in the context of building up the European Research Area, the co-ordination of national and/or regional policies and programmes in the field of research infrastructures, as well as the work of ESFRI and e-IRG (e-Infrastructure Reflection Group). This will help providing the necessary conditions for pooling talent, maximising resources, and ensuring the best outcome of rationalised research investments in Europe. While it is vital for Europe to strengthen and consolidate intra-European co-operation, it is also essential to do so with a global perspective in mind, so that European science can have an

impact on, and contribute to, world class scientific achievements.

Consult the Work Programme for specific topics opened in Call FP7-INFRASTRUCTURES-2010-1 (call N°6)

Call identifier: FP7-INFRASTRUCTURES-2010-2
Date of publication: 30 July 2009
Deadline: 24 November 2009 at 17.00 Brussels local time
Indicative budget: EUR 115.00 Million

### **1.1.2 ICT-based e-Infrastructures**

The e-Infrastructures activity supports a number of interrelated topics designed to foster the emergence of a new research environment in which 'virtual communities' of scientists and engineers are empowered to share and exploit the collective power of the European ecosystem of scientific and engineering facilities. Such topics in 2010 include the deployment of sustainable service provisioning schemes of core e-Science distributed computing infrastructures; further development, deployment and evolution of software and simulation infrastructures and services; and expansion of e-Infrastructures to address the specific needs of new scientific and engineering communities (including in the area of social sciences and humanities). Activities related to socio-economic impact assessment and evaluation should be also foreseen where appropriate. Projects must implement (i) Networking Activities, (ii) Service Activities and (iii) Joint Research Activities in a closely coordinated manner following the Integrated Infrastructures Initiative model (see section VI).

Consult the Work Programme for specific topics opened in Call FP7-INFRASTRUCTURES-2010-2 (call N°7)

## **1.2 Support to new research infrastructures**

### **1.2.3 Construction of new infrastructures -implementation phase**

Following the successful completion of the preparatory phase, the purpose of this activity is to support the actual implementation of new research infrastructures (or major upgrades of existing ones). The implementation phase should include all appropriate coordination activities as well as the relevant technical work. Project consortia should involve all the stakeholders necessary for this implementation phase (e.g. national/regional ministries/governments, research councils, funding agencies, operators of research facilities, research centres and universities, as well as industry whenever appropriate).

Consult the Work Programme for specific topics opened in Call FP7-INFRASTRUCTURES-2010-2 (call N°7)

### **1.3 Support for policy development and programme implementation, including support to emerging needs**

The aim is to support, in the context of building up the European Research Area, the co-ordination of national and/or regional policies and programmes in the field of research infrastructures, as well as the work of ESFRI and e-IRG (e-Infrastructure Reflection Group). This will help providing the necessary conditions for pooling talent, maximising resources,

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and ensuring the best outcome of rationalised research investments in Europe. While it is vital for Europe to strengthen and consolidate intra-European co-operation, it is also essential to do so with a global perspective in mind, so that European science can have an impact on, and contribute to, world class scientific achievements.

Consult the Work Programme for specific topics opened in Call FP7-INFRASTRUCTURES-2010-2 (call N°7)

## 2. SSH Relevant Topics in the Research for the benefit of SMEs<sup>17</sup> Work Programme

Call identifier: FP7-SME-2010-1
Date of publication: 30 July 2009
Deadline: 3 December 2009 at 17.00 Brussels local time
Indicative budget: EUR 136.84 Million
Topic: the call is open to all research fields

**This call is open to all research fields. Therefore there are no specific topics mentioned here. Please consult the Work Programme.**

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<sup>17</sup> For more information please see: [http://cordis.europa.eu/fp7/capacities/research-sme\\_en.html](http://cordis.europa.eu/fp7/capacities/research-sme_en.html)

### 3. SSH Relevant Topics in the Research Potential of Convergence Regions Work Programme<sup>18</sup>

Call identifier: FP7-REGPOT-2010-1

Date of publication: July 30 2009

Deadline: 17 December 2009 at 17.00  
Brussels local time

Indicative budget: EUR 31 Million

#### **4.1. Unlocking and developing the Research Potential of research entities established in the EU's Convergence Regions and Outermost regions**

This Activity will enable **highest quality** or **most promising research entities** of significant size (such as University Departments, Faculties, specialised Research Institutes or important size research laboratories with at least 10 permanent experienced researchers) in the eligible regions, qualified in any S&T field within the scope of Community research eligible under the EC FP7, to become actively integrated in the ERA. In the proposal, the applicant research entities have to **provide evidence of their excellence in research** and **of their leadership potential in the scientific fields of their competence**. They should include a clear description of their main research activities and demonstrate a promising track-record of achievements; self-assess their research accomplishments to demonstrate their potential and expertise; describe the organisation of their entity (who is doing what, short description of available research facilities in terms of staff and durable equipment); provide short CVs of the most important researchers of their entity, list of most recent and significant publications or patents, number of PhD's and/or post-PhD fellows hosted by the applicant entity, collaborations with other RTD entities in the country or elsewhere, possible participation in research programmes or activities funded by the EC, other national or international organisations or the private sector (SMEs, industry, end-users), etc.

A complete **SWOT analysis** (Strengths, Weaknesses, Opportunities and Threats) of the applicant's research entity should be included in the proposal. On this basis, the applicant should propose in the proposal an **Action Plan** based on a coherent set of measures given below with the aim to further develop or strengthen their S&T research potential and capacity. It will be realised by supporting and mobilising their human and material resources; by developing strategic partnerships with other outstanding research 'partnering organisations' elsewhere in the Union and - wherever appropriate - with SMEs or industry; by disseminating scientific information as well as the results of their entity's research; by facilitating the communication between research entities having similar or complementary scientific interests and by improving their contribution to the socio-economic needs of the country.

The strategy presented in the Action Plan will be implemented in cooperation with the research 'partnering organisations'. A Steering Committee for research strategy might be foreseen with top class scientists (can be representatives of the 'partnering organisations'). Regional authorities, representatives of the national research bodies,

<sup>18</sup> For more information please see [http://cordis.europa.eu/fp7/capacities/convergence-regions\\_en.html](http://cordis.europa.eu/fp7/capacities/convergence-regions_en.html)

end-users (SMEs, industry, etc) will also participate if appropriate. The Steering Committee will target the sustainability of the Action Plan and the applicant's research agenda beyond the project's end. FP7 Capacities Work Programme: Research Potential Research and technological development joint projects are not eligible for funding under this call. The project's activities shall respect fundamental ethical principles 5. Applicants should indicate whether the proposed activities raise sensitive ethical questions. In this way, the activity supports capacity building for improving the selected research entities' participation in European research cooperation, in particular in the FP7.

**Topics:** Any research topic covered by the EC FP7

Call identifier: FP7-REGPOT-2010-5
Date of publication: July 30 2009
Deadline: 15 October 2009 at 17.00 Brussels local time
Indicative budget: EUR 8 Million

#### **4.2. Unlocking and developing the Research Potential of research entities established in the Western Balkan Countries' regions equivalent to convergence Regions**

This Activity will improve the Western Balkan Countries' (WBC) participation in the 7th Framework Programme, will favour brain-gain environments through trans-national two-way exchanges of research staff between research entities established in the WBC and elsewhere in EU and the Associated Countries, and will help them to reinforce their research infrastructure/equipment.

It will enable **highest quality** or **most promising research entities** of significant size (such as University Departments, Faculties, specialised Research Institutes or important size research laboratories with at least 10 permanent experienced researchers) in the regions equivalent to the convergence regions of the WBC, qualified in any S&T field within the scope of Community research eligible under the EC FP7, to become actively integrated in the ERA.

In the proposal, the applicant research entities have to **provide evidence of their excellence in research** and **of their leadership potential in the scientific fields of their competence**. They should include a clear description of their main research activities and demonstrate a promising track-record of achievements; self-assess their research accomplishments to demonstrate their potential and expertise; describe the organisation of their entity (who is doing what, short description of available research facilities in terms of staff and durable equipment); provide short CVs of the most important researchers of their entity, list of most recent and significant publications or patents, number of PhD's and/or post-PhD fellows hosted by the applicant entity, collaborations with other RTD entities in the country or elsewhere, possible participation in research programmes or activities funded by the EC, other national or international organisations or the private sector (SMEs, industry, end-users), etc.

A complete **SWOT analysis** (Strengths, Weaknesses, Opportunities and Threats) of the applicant's research entity should be included in the proposal. On this basis, the applicant should propose in the proposal an **Action Plan** based on a coherent set of

measures given below with the aim to further develop or strengthen their S&T research potential and capacity. It will be realised by supporting and mobilising their human and material resources; by developing strategic partnerships with other outstanding research 'partnering organisations' elsewhere in the Union and - wherever appropriate - with SMEs or industry; by disseminating scientific information as well as the results of their entity's research; by facilitating the communication between research entities having similar or complementary scientific interests and by improving their contribution to the socio-economic needs of the country.

The strategy presented in the **Action Plan** will be implemented in cooperation with the research 'partnering organisations'. A Steering Committee for research strategy might be foreseen with top class scientists (can be representatives of the 'partnering organisations'). Regional authorities, representatives of the national research bodies, end-users (SMEs, industry, etc) will also participate if appropriate. The Steering Committee will target the sustainability of the Action Plan and the applicant's research agenda beyond the project's end.

Research and technological development joint projects are not eligible for funding under this call. The project's activities shall respect fundamental ethical<sup>19</sup> principles. Applicants should indicate whether the proposed activities raise sensitive ethical questions.

The resulting cooperation will be based on a mutual benefit approach within the perspective of further integration of the Balkan region into the European Research Area (ERA) and therefore the European RTD activities and networks.

**Topics:** Any research topic covered by the EC FP7

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<sup>19</sup> The opinions of the European Group on Ethics in Science and New Technologies will be taken into account.

## 4. SSH Relevant Topics in the Regions of Knowledge<sup>20</sup> Work Programme

Call identifier: FP7-REGIONS-2010-1
Date of publication: 31 July 2009
Deadline: 14 January 2010 at 17.00 Brussels local time
Indicative budget: EUR 16.95 Million

***There is no SSH relevant topic in this call.***

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<sup>20</sup> For more information please see: [http://cordis.europa.eu/fp7/capacities/regions-knowledge\\_en.html](http://cordis.europa.eu/fp7/capacities/regions-knowledge_en.html)

## 5.SSH Relevant Topics in the Science in Society<sup>21</sup> Work Programme

Call identifier: FP7-SCIENCE-IN-SOCIETY-2010-1
Date of publication: Thursday 30 July 2009
Deadline:21 January 2010 at 17.00 Brussels local time
Indicative budget: EUR 39.75 Million

### ***SiS-2010 1.0-1 Mobilisation and Mutual Learning Actions***

**Indicative budget amount for calls for proposals:** EUR 16.50 million for topic SiS-2010 1.0-1

**Description of topic:** This topic will enable consortia comprising different actors to develop and implement multi-annual Mobilisation and Mutual Learning (MML) Action Plans aimed at promoting key Science in Society (SiS) objectives into research.

A first initiative was taken in the 2009 Science in Society Work Programme in the domain of *Structuring Public Engagement in Research* (topic 5.1.2-1-PER plans). The 2009 topic SiS-2009-3.0.3.1 *Platform of networks grouping science museums, organisers of science events and the cities* is also relevant in this area. The MML Action Plans have similar basic objectives and features, but can be broader in scope and participation and may combine various SiS activities.

Each MML Action Plan will bring together a consortium of actors from different fields to cooperate on the basis of a common set of specific Science in Society actions over a period of four years.

In order to ensure high European added value of the MML Action Plans, the proposals must include transnational exchange of best practice and mutual learning between the actors, consistent with the objectives of the MMLAP.

**Participants:** The consortium that will design and implement the MML Action Plans should include several types of actors from different disciplines and experiences, participating as active and engaged partners, for example:

- science academies
- research institutions
- universities
- national or regional ministries
- national and regional parliamentary offices for science and technology
- research funding agencies
- cities and local / regional authorities
- civil society organisations

<sup>21</sup> For more information please see: [http://cordis.europa.eu/fp7/isis/home\\_en.html](http://cordis.europa.eu/fp7/isis/home_en.html)

- museums, science centres and science festivals
- media organisations, etc.

An ambitious range of partners is preferred, as long as their involvement is integral to the MMLAP. For each proposal, the consortium should include partners<sup>22</sup> from at least three of the different types of actors/organisations listed above (proposals will be evaluated on this aspect). Particular attention should be paid to including in the proposal organisations who may be relative newcomers in dealing with Science in Society issues, as well as civil society organisations. The proposals must ensure a balanced distribution of roles and responsibilities between the different types of participants. The budget should reflect this distribution and include financial support to permit the appropriate participation on all participants.

**Scope / Content:** Proposals must define the type of Science in Society issues that will be addressed, as well as the research fields to which they will apply. The following SiS issues may be addressed or combined (non-exhaustive list):

- Public engagement in research (PER) (involvement of citizens and their organisations)
- Ethics in science (including in the social and economic sciences)
- Gender perception and stereotypes in science and technology
- Young people's participation in science and attitudes towards science
- Two-way communication between scientists and other stakeholders.
- Evidence-based policy-making / Policy making based on or using science and research

**Activities to be carried out under the MMLAPs:** The MMLAPs should include activities at local, regional and/or national level and must include transnational networking and comparisons. The MMLAP may combine the following activities, for example (non-exhaustive list):

- Capacity-building through training and exchange of best practices as well as development/upgrade of knowledge management tools such as databases and ICT tools related to SiS know-how;
- Mobilising and using scientific knowledge, including cross-fertilisation with other forms of knowledge for policy-making and to address societal concerns,
- Joint production of common communication materials making research findings available to civil society actors in forms which they can access and use;
- Sustainable forms of cooperation, consultation and dialogue between the different MMLAP actors;
- Establishment of specific services / structures/ mechanisms at the level of the partner organisations (universities, research organisations, CSOs, museums, local authorities etc) to promote engagement in SiS issues;
- Identifying and discussing topics and opportunities for future cooperative (multi-actor) research;
- Assessment of potential impact of research activities on citizens and civil society;
- Examination of barriers to the participation of civil society and its organisations in research and of possible means to overcome them;

A targeted opening to international cooperation may be foreseen, but the reasons for this and the added value to the project should be clearly justified.

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<sup>22</sup> Partners should be legal entities as provided for in Article 2, paragraph 1 of the FP7 Rules of Participation (Regulation N°1906/2006 of 18 December 2006)

Innovation is expected, but activities may, where relevant, also build on projects funded under previous Science in Society Work Programmes (6th or 7th Framework Programmes) or other themes of these Framework Programmes. Proposers are invited to consult relevant information produced by the *Science, Economy and Society* Directorate and accessible through its web site<sup>23</sup>, such as the reports of the *Goverscience* seminars<sup>24</sup>.

Particular attention must be paid to ensuring efficient management of the MMLAP, including appropriate experience and skills in the management team. The proposal must also include the means for in-depth independent monitoring and evaluation of its activities.

**Additional eligibility criterion:** for each proposal, the consortium must consist of at least 10 independent legal entities established in at least 10 different Member States or Associated countries.

#### ***SiS-2010-1.1.1-1 The role of Ethics under EU policy and law: the EU as a global actor.***

**Description of topic:** The internationalisation of the European Union's 7<sup>th</sup> Framework Programme for Research and the accompanying aims to address specific global aspects of the European Research Area, such as possible divergence or convergence of ethical standards among various regions in the world, pose a challenge for the global governance of science. The research must address the following issue:

- Scientific developments are associated with future economic prosperity. It is conceivable that certain countries could promote themselves either as advocates of high ethical standards or as 'ethics-free' zones, imposing as few regulatory demands as possible on scientific conduct. What type of dynamic can we expect and what does this imply for an effective global governance of science? How can the EU and its Member States promote greater convergence between themselves and act in a concerted way to influence the international debate?

The involvement of appropriate international partners in the consortium is encouraged. The number and quality of such partners, as well as their relevance to the objectives of the proposal, will be taken into account in evaluation.

#### ***SiS-2010-1.1.1-2 The role of Ethics under EU policy and law: EU policy in the making***

**Description of topic:** Ethical expertise has not become the authoritative source of supporting data and information for policy makers in normative matters of public policy. The relationship between normative issues, ethical expertise and policy is too complex and cannot be reduced to the view that ethical expertise could ever determine the policy process in a prescriptive way. EU policies often combine scientific insights with a normative framework not solely derived from ethical expertise. The research proposed must address the following issue:

- What type of ethical 'expertise' is needed for the development of public policies and how should this expertise be governed - by ethical committees or otherwise? For example, how far can we go with physical human enhancement whilst antidoping policies are also in place in the context of public policies on sports?

<sup>23</sup> <http://ec.europa.eu/research/science-society/>

<sup>24</sup> [http://ec.europa.eu/research/science-society/pdf/goverscience\\_final\\_report\\_en.pdf](http://ec.europa.eu/research/science-society/pdf/goverscience_final_report_en.pdf)

For this topic, the scientific and/or technological excellence evaluation criterion will include the following additional sub-criterion: "appropriate comparative perspective in relation to the proposed research".

***SIS-2010-1.3.3-1 Assessing how research outputs at individual researcher level are evaluated and measured***

**Description of topic:** The Lisbon agenda<sup>25</sup> places high expectations on the European science and research system to sustain and improve Europe's innovation potential. It must be efficient, competitive, and produce excellent research outputs, while at the same time safeguarding space for creativity and exploratory approaches. It is therefore essential to gain deeper insights into the elements and complex mechanisms of evaluating research results, especially in the light of the possibilities provided by the digital age. Indeed, the ever expanding World Wide Web is rapidly transforming traditional ways of communicating, working and doing business, and science and research are crucial parts of this transformation. The ways in which quality, success, excellence and impact of scientific production are measured and evaluated are intrinsically linked to the efficiency and success of the science system, and are currently being debated by researchers, research organisations, funding bodies, and the public-at-large.

Building on this discussion, this topic focuses on the way in which research outputs at the level of individual researchers are measured and evaluated. Publication in renowned journals and bibliometric indicators such as impact factor and numbers of citations are the traditional ways of measuring an individual researcher's quality. Other factors, such as relevance to citizens' concerns, global societal challenges, usefulness to policy decision making, science communication initiatives, contributing to science education, or developing patents are usually considered to a much lesser extent. Understanding and calling into question the ways in which researchers are evaluated by their peers and institutions is crucial for assessing how the science system can be improved and enhanced, thereby contributing to the ambitious goals of the Lisbon agenda. This topic aims to support research in areas such as:

- analysing the current peer review system and studying ways to improve or modify this quality and certification mechanism to allow for a more efficient, open and transparent system;
- studying and proposing alternative and broader ways of measuring the productivity and performance of individual researchers including new and improved bibliometric indicators and evaluation criteria for research careers, project evaluations, and scientific publications;
- conceptualising new incentive schemes for researchers to complement and improve the traditional incentive structure of career advancement based primarily on numbers of publications, publication in journals with high impact factors, and numbers of citations;
- a state of the art analysis of the gender dimension in relation to the system of career evaluation and performance measurement i.e. in what ways the current science system poses specific obstacles to women in research careers, and how such systemic weaknesses could be addressed.

For this topic, the scientific and/or technological excellence evaluation criterion will include the following additional sub-criterion: "appropriate comparative perspective in relation to the proposed research".

<sup>25</sup> [http://ec.europa.eu/growthandjobs/index\\_en.htm](http://ec.europa.eu/growthandjobs/index_en.htm).

### ***SiS-2010-1.4-2 The role of universities in the process towards a knowledge-based society***

This action will be aimed at coordinating and supporting the institutional activities of research universities their associations and networks, and where appropriate other entities, rather than to individual researchers or research groups, to advance in the implementation at university level of key issues of the modernisation agenda for universities, such as:

- strategic management of research,
- professionalisation of human resources to deal with today's challenges,
- strategies, policies and measures to improve quality in research,
- assessment of research performance in universities
- partnership with businesses and/or Civil Society Organisations,
- third stream and other outreach activities
- strategic alliances and networking among universities and other research entities to reach world-class excellence in selected research domains,
- financial sustainability of university-based research,

The overall goal is to promote and support networking and new forms of cooperation among universities and other knowledge-related agents, to strengthen the role of universities in the interaction with society and community engagement, making the European Research Area and the European Higher Education Area more visible and attractive to the world, by increasing the quality of the education, research and innovation activities and developing international cooperation with other third countries' higher education institutions.

### ***SiS-2010-2.1.1.1 Implementing structural change in research organisations/universities***

Actions on gender equality in recent years have been mainly small in scope, and focused exclusively on women scientists and how their role and image could be strengthened, through ambassadors' schemes, mentoring activities, networking efforts, etc. Some of these actions have been very visible at the political level and can be considered to have had a fair amount of impact on the decision making sphere. But this does not imply long lasting change. The overall objectives have always been to attract more women into science, engineering, technology, and mathematics and, once there, to retain them by improving their workplace experience and by addressing the factors that lead to frustration and the rejection of long term careers.

In the 2008 Science in Society Work Programme a call was published to fund proposals which identified and analysed European best practices on gender management. The 2009 Science in Society Work Programme contained a topic aimed at encouraging a wide-ranging debate with all major actors invited to discuss and address these issues, especially involving human resources departments or personnel managers. The objective was - and still is - to raise awareness and directly involve the main actors, essentially private and public research and higher education institutions, in the promotion of better employment practices and workplace culture, to integrate equality and diversity. Analysis of factors that limit the participation of women in research, and guidelines on how to implement gender and diversity management, were requested as the final output of the expected proposals.

In 2010 the Commission intends to support actions to implement the change. A group of several research organisations/universities is expected to cooperate on common actions in order to implement the best systemic organizational approaches to increase the participation and career advancement of women researchers. The activities must address the fields of Science, Technology, Engineering and Mathematics (STEM), but other disciplines could also be included. Proposals must include research organisations/universities, which already have implemented proven and efficient actions on gender-aware management, as well as others who are seeking to gain experience of best practice in this area. The exchange of experiences which should derive from these activities will be considered in the evaluation process.

Each institution must provide a convincing self-tailored action plan in order to implement the necessary structural changes on the basis of its specific problems, followed by actual implementation. In this preparation, the less gender aware entities will profit from the experience of the others, while those with experience could improve their activities - by involving gender management experts, for instance.

Proposals will therefore consist of the identification and comparison of best instruments to tackle specific recognised problems, the development of tailored multi-annual action plans and their implementation.

These action plans should involve activities such as (non-exhaustive list):

- Recruitment, promotion, retention policies
- Updated management and research assessment standards
- Course content development
- Leadership development
- Supporting policies for dual career couples
- Returning schemes after career breaks.

Periodic and final assessment on the efficiency of the implemented plans must be part of the proposal, provided by an external independent evaluator. Final guidelines for other institutions interested in similar structural approaches will be prepared and disseminated. Dissemination activities at regional, national and/or international level must be included in the proposal.

The purpose of the action plans is to provide a management tool to help implement real change which will be of mutual benefit to the institutions concerned and to the career development of women researchers. In consequence, the proposal must also include sufficient evidence that the plans will be implemented in the medium to long term, and that, to this effect, the proposed activities have the full support of the management structures at the highest levels of these institutions. This aspect will be addressed during the evaluation process.

#### ***SiS-2010-2.1.3.1 Women in Science: Euro-Mediterranean Cooperation***

In the framework of international cooperation, the Commission is interested in enhancing research cooperation on women in science between the European Union and the Mediterranean Countries.

The 1995 Barcelona Declaration recognised "*the key role of women in development*" in the

Mediterranean region, and the need "to promote their active participation in economic and social life, and in the creation of employment".

During the 2006 Euro-Mediterranean Ministerial Conference on "*Strengthening the Role of Women in Society*", the Euro-Mediterranean Ministers stressed that equal participation of women and men in all spheres of life was a crucial element of democracy and confirmed that only by the inclusion of all people and determined action will the region's women be able to fulfil their ambitions and aspirations and, by extension, contribute towards the realisation of the underlying objectives of the Barcelona Declaration: the attainment of a common area of peace, stability and shared prosperity in the Mediterranean region.

In the field of external action of Science in Society, it is therefore important to better understand the situation of women in science in this area, taking into account cultural diversities and traditions, and analyse how the ICPC Mediterranean Partner Countries (MPCs) are addressing this issue. Annex 1, the List of International Co-operation Partner Countries (ICPC), contains the list of Mediterranean Partner Countries (MPC): Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Palestinian-administered areas, Syrian Arab Republic, Tunisia. All of these countries should be included in the scope of the research, unless the proposals demonstrate that no data is available.

The research will therefore provide state of the art description, data collection and relevant comparative analysis of the following topics in all MPCs:

- a) Presence of horizontal segregation in science careers. The research will include the issue of choice of scientific subjects by girls and occupational choices by women, the perception and attractiveness of Science Engineering and Technology (SET), the causes underlying these choices (e.g. stereotypes, cultural and social influences, etc.), the causes of success and failure at university level, etc.
- b) Presence of vertical segregation in science careers, including barriers for women to reach top scientific positions ('glass ceiling' or 'sticky floor'), mentoring / tutoring initiatives, etc.
- c) The underlying causes and effects of these two aspects, for instance work-life balance issues, pay gap, mobility-related obstacles, dual careers, evidence of discrimination, working culture, stereotypes, etc.
- d) National or regional policies, legislations, and positive actions, as well as the core stakeholders in the above mentioned fields, including government, funding agencies, academia, and civil society organisations.

The proposal must address the role of women in Science, Technology, Engineering, and Mathematics, but other disciplines could be included.

In order to facilitate future targeted comparison with available data from EU Member States and Associated Countries, it is recommended to use existing methodologies and models. For instance, the Meta-Analysis of gender and science research and the Gender Research Database<sup>26</sup> as well as the SHE Figures 2009 publication may be used as a basis for data collection.

A final synthesis report will present the main findings of the various reports on the specific topics and will provide recommendations for policy-makers. All results and reports should be publishable.

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<sup>26</sup> Gender Research Database: <http://www.genderandscience.org>

**SiS-2010-2.2.1.1. Supporting and coordinating actions on innovative methods in science education: teacher training on inquiry based teaching methods on a large scale in Europe**

Proposers are recommended to read the report '*Science Education Now; A Renewed Pedagogy for the Future of Europe*'<sup>27</sup>.

Falling interest in key science topics and mathematics has been linked to the way they are taught from the earliest age. Therefore, greater emphasis needs to be placed on the development of more effective forms of pedagogy; on the development of analytical skills; and, on techniques for stimulating intrinsic motivation for learning science, taking into account various pre-conditions and cultural differences.

This topic will support actions to promote the more widespread use of problem and inquiry-based science teaching techniques in primary and secondary schools as well as actions to bridge the gap between the science education research community, science teachers and local actors in order to facilitate the uptake of inquiry-based science teaching. The actions are intended to complement school science curricula and should particularly focus on teacher training activities and the promotion of European teachers' networks. The actions proposed must be open to the participation of entities seeking to gain experience in the area of problem- and inquiry based science education techniques.

The training of the teachers should include actions that contribute towards the following: securing basic knowledge, developing a task culture, learning from mistakes, cumulative learning, autonomous learning, experiencing subject boundaries and interdisciplinary approaches, differentiating between girls' and boys' interests and promoting pupils' cooperation. The actions aimed at here shall already have proven their efficiency and efficacy. Furthermore, training activities must be realistic and feasible in terms of the participation of teachers and the opportunities offered to them by their employers or education authorities. If the proposed training activities are to take place outside of normal school hours, measures to facilitate participation should be considered.

Projects are expected to have the broadest coverage of EU Member States and Associated Countries - in order to generate a European impact (see under 'Funding Scheme' below, as well as the Call fiche). In addition to this during contract negotiation links will be established between funded projects and an Internet based information platform on science education to ensure the widest possible dissemination of best practice, methods and tools. Such two-way transfer of know-how will be made on an open access non-commercial basis. Projects selected for funding must agree to these conditions, as described in the footnote below<sup>28</sup>.

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<sup>27</sup> Report of the high-level group on science education chaired by Michel Rocard, 2007.  
[http://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/report-rocard-on-science-education\\_en.pdf](http://ec.europa.eu/research/science-society/document_library/pdf_06/report-rocard-on-science-education_en.pdf)

<sup>28</sup> The following special clause will be included in the grant agreement of each project selected for funding: "The *Commission* shall be authorised to publish any *foreground disseminated* by the *consortium* in whatever form and on or by whatever medium, in particular via a European level information provider on its behalf. To enhance the accessibility of this *foreground* for third parties, it may adapt such *foreground* in any manner, including by making translations thereof. Any third party shall be allowed to utilise this published *foreground* for free for non-commercial *educational* purposes. To ensure the above, the *consortium*, acting through the *coordinator*, shall upon *dissemination* of any *foreground* provide the *Commission* with an electronic copy thereof and shall ensure that any necessary authorisations have been obtained and that it has not accepted legal obligations which could conflict with this clause.

This information platform will be operational in early 2010.

The actions must include an evaluation conducted by a person or persons or organisation which is independent of the consortium. It is envisaged that a maximum of six proposals will be funded.

***SiS-2010-2.2.2.1 Reinforcing links between science education and S&T careers in the private sector through reinforcing the partnership industry/education***

The perception of science and technology careers affects interest, motivation and subject choice at school and university. Surveys show that in general young people do not have a clear idea of what scientists do, and of the diversity of career options open to those with qualifications in science, technology and mathematics. Perceptions, where they exist, tend to place scientific careers in a traditional formal academic context attractive to only a small proportion of young people. Furthermore, stereotypical images of working in science can alienate girls in particular and young people (both girls and boys) from disadvantaged backgrounds and ethnic minority groups.

Industry, research organisations and other entities can play a crucial role in promoting better awareness of the diversity of careers and opportunities on offer to young people who have academic qualifications in science, maths and technology. These are already playing an increasing active role in attempting to bridge the gap between science education and working in science through joint activities and partnerships but effort is fragmented, and limited mostly to the local level with few opportunities for a more structured coordinated approach in order to maximise the effectiveness of the resources mobilised.

The activities proposed under this topic should be based on a description of the current state of play in terms of the sector(s) targeted (business, research, R&D, commercial, service etc) and propose an action plan of joint activities involving the relevant stakeholders. This action plan will be implemented as part of the project through pilot projects such as demonstration activities, face-to-face meetings (ambassador and mentorship schemes), out-reach activities, career showcasing, joint activities and partnership, and dissemination and awareness activities that take into account the diversity of young people and their aspirations and/or perceptions.

A proposal could set out to address a specific sector (for example the chemical industry) or be more generic (for example careers in research organisations) or combine elements of the two; the aim however, is not to promote generic corporate images (or equivalent) nor to compromise the integrity and independence of formal education but rather to convey useful information and direct experience to young people at key points in time when choices are made as regards study subjects.

The actions must include an evaluation conducted by a person or persons or organisation which is independent of the consortium.

The proposals should aim to involve the participation of a range of actors and stakeholders including, employers, teachers, parents, career advisory services and personnel, and of course the young people themselves, from at least 10 European Union and Associated Countries.

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***SiS-2010-2.2.3.1 Science curricula and their objectives: balancing the needs between training for future scientists and broader societal needs***

A frequently stated objective of school science and mathematics education is to address both the need to ensure that young people at school emerge as adults able to participate fully, without impediment in terms of core skills and knowledge, in our democratic societies on the one hand, as well as to provide a sound foundation allowing subsequent specialisation leading to careers in science, technology and research.

The activities to be carried out under this topic should compare and contrast the specific objectives that are actually being pursued in science and mathematics curricula across a representative number of European countries, and the countries associated to the 7<sup>th</sup> Framework Programme (the geographical coverage must be justified in terms of the research proposed), and whether the content and teaching practice are compatible with implicit or explicit objectives that have been set. Furthermore, the activities proposed should also take into account student perceptions of the objectives of science education and whether their views and aspirations are reflected in the curricula.

***SiS-2010-3.0.3.1 Science and the Arts: an experimental approach***

The relationship between science and the arts has many facets and there are many examples of co-development. The transmission of scientific themes through the arts (not just the visual arts but also exhibitions, literature, music, audio-visual and other media, and live performances) is more than just a communication activity but one that contributes also more generally to the cultural development of our societies.

The way that science is generally presented and learned in early life sometimes does not pay enough attention to the fact that it can sometimes be a creative process. Misleading perceptions that arise in young people persist into adult life. As a creative process, science shares the characteristics of other creative processes such as the arts insofar as it sometimes may not be a strictly linear process but, rather may develop through inspirational jumps, symbolic representation, learning from false starts, and through trial and error, from which a logical structure emerges. In fact, there are stronger links between the arts and science than those that are generally perceived by the public, with innovation in one area often stimulating new avenues of exploration in the other. Furthermore, while the contribution of the arts to cultural development is considered self-evident, a similar engagement of society via the sciences is not as explicit as it could be.

The aim of this topic, therefore, is to mobilise key actors in joint activities that link science and/or technology and/or mathematics with artistic expression in order to simultaneously highlight the creative aspects as well as the underlying scientific, mathematical or technological principles and the scientific advancements. Proposers must submit a plan of diverse interactive pilot activities that seek to engage the target public as participants (rather than simply as passive observers). Initiatives must demonstrate the specificities and commonalities of the creative processes within arts and science and the interactions between the two fields, leading to better understanding and exploration of science through the arts. Such activities could be for example: interactive visual representations, the use of drama and the performing arts, experimental design and innovation. The nature of the target population(s) must be clearly identified (e.g. young people at school, youth organisations, adults, parents etc) taking into account any gender and socio-cultural issues (including ethnic origins). Furthermore, the activities proposed must seek to be more than just entertaining but address educational aspects and perception of science: careful consideration must be given

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to the scientific accuracy/correctness of the underlying scientific, mathematical or technological concepts involved. This means that the proposed consortia must be multidisciplinary crossing boundaries between the arts and science.

As an indication, the consortia might comprise museums, arts and performing arts institutions, the popular media, cities and cultural development organisations, science events organisers, science communicators as well as expertise from the science base: scientists, technologists, mathematicians, science teachers and other science professionals.

Proposed activities must take place in at least 10 Member States or Associated Countries and the expected participation of the targeted population must be quantified. Proposed activities must also include an element of independent evaluation of learning outcomes and/or expected changes in perceptions.

## 6.SSH Relevant Topics in the International Cooperation (INCO)<sup>29</sup>

Call identifier: FP7-INCO-2010-6
Date of publication: 30/07/2009
Deadline:19/01/2010 at 17.00 Brussels local time
Indicative budget: EUR 7.50 Million

### **Activity 7.6 Integrating Europe's neighbours into the ERA: ERA-WIDE Activity (FP7-INCO-2010-6, ERA-WIDE)**

The reinforcement of the cooperation with Europe's neighbours in the context of the European Research Area (ERA) is an important part of the EC communication on the Strategic Framework for international S&T cooperation<sup>1</sup>. In order to promote closer scientific cooperation with the European Neighbourhood Policy (ENP) countries and to prepare their possible future association to the Framework Programmes, dedicated activities aimed at improving the cooperation capacity of these countries should be carried out under the Specific international cooperation activities of FP7. This should complement the Research and Innovation activities described in the National Indicative Programmes and covered by the European Neighbourhood and Partnership Instruments (ENPI).

#### **Technical content/scope**

The objective of this action is to reinforce the cooperation capacities of research centres located in the ENP countries, which are not associated to FP7<sup>2</sup>. The call will give these countries the possibility to improve the research activities of their highest quality and/or promising centres in the thematic priorities of FP7.

#### **Proposed activities**

The activities covered by the call are:

- Networking with research centres in Member States or Associated Countries in view of disseminating scientific information, identifying partners and setting up joint experiments;
- Developing training modules to build competency and facilitate the participation in FP7 of the centres located in the targeted third countries;
- Developing the research centres' strategy in order to increase their scope in particular their regional coverage and to improve their responses to the socio-economic needs of their countries and of the region.

The joint development of training modules to build competency and facilitate the participation of these centres in FP7 should build on already existing expertise or successful collaboration experience.

In the development of the research centres' strategies the involvement of internally well-established, independent researchers is recommended, and external peer review activities of

<sup>29</sup> For more information please see INCO web page ([http://cordis.europa.eu/fp7/capacities/international-cooperation\\_en.html](http://cordis.europa.eu/fp7/capacities/international-cooperation_en.html))

strategies should be foreseen. In some cases, the involvement of well-recognised international S&T policy experts might be of help. The activities proposed should form a coherent plan for improving the centre's capacities in a given research area and therefore they should be described in detail and justified. Preference should be given to activities with a regional impact.

### **Funding scheme(s)**

The funding scheme that applies is the Coordination and Support Action (supporting action). Community contribution for each project is expected to be about EUR 0.5 million. The typical duration of the project would be between 2 to 3 years.

### **Participants**

This call is addressed to research centres of proven high level S&T capacities, which are located in an ENP country not associated to FP7. The research centre is defined here as an existing working unit, either independent or functioning within a locally established research organisation of one of the countries concerned, having preferably distinct organisational and administrative boundaries. The centre should not be a subsidiary or branch of an organisation established in another country.

In order to be eligible, the proposal must target only one such centre, the consortium should however include additional participants, in particular from the Member States and/or Associated Countries so as to fulfil the objectives of the Activity.

The consortium must include the research centre that is targeted in the proposal.

The research centre targeted by the proposal should be the coordinator of the proposal.

The participation of organisations from Member States and/or Associated Countries in the proposals would be welcomed and this will be reflected in the evaluation.

The consortia should also ensure equitable representation and promote gender equality.

### **Areas open to this call:**

The call will be open to the fields of science addressed by the thematic priorities of FP7 and will target centres located in the following regions:

- Area 1: Eastern Europe and South Caucasus
- Area 2: Mediterranean Partner Countries