WORK PROGRAMME 2012

CAPACITIES

PART 5

SCIENCE IN SOCIETY

(European Commission C(2011)5023 of 19 July 2011)

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Objective

In the terms of the Seventh Framework Programme, activities in the field of Science in Society aim to "*stimulate, with a view to building an open, effective and democratic European knowledge-based society, the harmonious integration of scientific and technological endeavour, and associated research policies in the European social web, by encouraging pan-European reflection and debate on science and technology and their relationship with the whole spectrum of society and culture*".

I- CONTEXT

Innovation Union aspects of the 'Capacities' work programme

The Innovation Union initiative underlines that research and innovation are key drivers of competitiveness, jobs, sustainable growth and social progress. The work programme 2012 has been designed to support the implementation of the Innovation Union Initiative and in particular to bring together research and innovation to address major challenges.

The work programme can contribute to the innovation objective in two ways, and constitutes a significant change to the approach in earlier work programmes:

1/ By supporting more topics aimed at generating knowledge to deliver new and more innovative products, processes and services. This will include pilot, demonstration and validation activities.

The focus on innovation will be reflected in the description of the objectives and scope of the specific topics, as well as in the expected impact statements. The innovation dimension of the proposals will be evaluated under the evaluation criterion 'Impact'.

2/ By identifying and addressing exploitation issues, like capabilities for innovation and dissemination, and by enhancing the use of the generated knowledge (protection of intellectual property rights like patenting, preparing standards, etc).

Information on the Risk-Sharing Finance Facility (RSFF), an innovative financial instrument under FP7, is available on line[1]. The Commission will respond to further needs of potential beneficiaries for information on the RSFF (by, e.g., awareness-raising activities in conjunction with the European Investment Bank, participation to thematic events).

Approach for 2012

The 2020 Vision for the European Research Area adopted by the Council in 2008 underlined that the ERA *"is firmly rooted in society and responsive to its needs and ambitions in pursuit of sustainable development"*. The impacts of science and technology are increasingly felt in the daily life of ordinary citizens, yet policy makers have a hard time to cope effectively with the fast developments in science and technology.

[1] http://www.eib.org/products/loans/special/rsff/?lang=en and http://ec.europa.eu/invest-in-research/funding/funding02_en.htm

The Europe 2020 societal challenges can only be tackled effectively if society is fully engaged in science, technology and innovation but given the growing sensitivity of society regarding science and technology issues, this cannot be without a trusted shared and well understood responsibility, extending the notion from ethical to environmental, economic and cultural issues. As shown in the 2010 Eurobarometer on Life Sciences and Biotechnology[2], Europeans are in favour of Responsible Research and Innovation (RRI), with appropriate regulation to balance the market. People expect safe food and a safe environment. People wish also to be involved in decisions regarding new technologies when cultural, social and ethical values are at stake. Furthermore, an innovative society must involve in the innovation processes all its potential innovators and notably women and the rising generation.

In light of this context, SiS activities will focus on enabling RRI in the European Research Area. To attain this goal, SiS will privilege the following axes: Shaping governance for RRI by developing guidance for innovators fully involving considerations of efficiency, safety, ethics and fundamental rights; Engaging all along the innovation process research organisations, industry, civil society and policy makers on societal challenges by promoting problem-oriented, interdisciplinary and participatory approaches; Fostering open research by encouraging researchers and research and innovation policy makers to ensure more transparency in their activities, make research outputs (publications and data) more widely accessible; Achieving gender equity in research and innovation by encouraging a more gender -aware management in research and innovation; and bringing innovation to the classroom through new Inquiry-Based Science Education techniques.

- Dissemination actions

Open Access in FP7: Beneficiaries funded partially or entirely by the Science in Society Programme under the Capacities Part 5 are required to deposit peer-reviewed articles resulting from projects to an institutional or subject-based repository, and to make their best efforts to ensure open access to these articles within 12 months.

- Overall expected impact

The overall expected impact of the SiS 2012 Work Programme is to make research and innovation more attractive for developing careers (for men and women indifferently), and enable citizens (and all other stakeholders as well) to be better informed, to better understand and to participate more comprehensively and efficiently in the research and innovation processes.

- International Cooperation

All topics in the work programme are open to international cooperation on the condition that is justified**.** There is provision for the participation of research partners from the International Cooperation Partner Countries (ICPC) from the FP7 budget. A list of the ICPC countries is given in Annex 1.

[2] 2010 Eurobarometer on Life Sciences and Biotechnology (nr.73.1)

- Specific information

➢ Socio-economic dimension of research

Where relevant, account should be taken of socio-economic impacts of research, including its intended and unintended consequences and the inherent risks and opportunities. A sound understanding of this issue should be demonstrated both at the level of research design and research management. In this context, where appropriate, the projects should ensure engagement of relevant stakeholders (e.g., user groups, civil society organisations, policy-makers) as well as cultivate a multi-disciplinary approach (including, where relevant researchers from social sciences and humanities). Projects raising ethical or security concerns are also encouraged to pay attention to wider public outreach.

➢ Gender dimension

The pursuit of scientific knowledge and its technical application towards society requires the talent, perspectives and insight that can only be assured by increasing diversity in the research workforce. Therefore, all projects are encouraged to have a balanced participation of women and men in their research activities and to raise awareness on combating gender prejudices and stereotypes. When human beings are involved as users, gender differences may exist. These will be addressed as an integral part of the research to ensure the highest level of scientific quality. In addition, specific actions to promote gender equality in research can be financed as part of the proposal, as specified in Appendix 7 of the Negotiation Guidance Notes[3].

[3] ftp://ftp.cordis.europa.eu/pub/fp7/docs/negotiation_en.pdf

II- CONTENT OF CALLS

Action Line 1: A more dynamic governance of the science and society relationship

Activity 5.1.1. Better understanding of the place of science and technology (S&T) in society

Area 5.1.1.1 Relationships between science, democracy and law

SiS.2012.1.1.1-1: Governance frameworks for Responsible Research and Innovation (RRI)

Topic description: Responsible Research and Innovation (RRI) is a transparent, interactive process in which societal actors and innovators become mutually responsive to each other with a view on the ethical acceptability, sustainability and societal desirability of the innovation process and its marketable products. The first activity (5.1.1/Area 5.1.1.1. of this Work Programme) concerns a research activity which focuses on the development of a normative model for the governance of RRI. The second activity (5.1.2/Area 5.1.2.1. of this Work Programme) is to ensure the presence of European partners in international networks on the subject matter (coordination action). Ideally, a European model for RRI to be developed within the SiS research context could be advocated at the international level by a coordination action.

Innovation used to be thought of linear process being centrally orchestrated and focussed on single particular technologies. Recent research findings indicate that the innovation process is more complex, and that successful innovations often are dependent on the cooperation among various actors in society: e.g. academia, business operators, civil society organisations, governmental bodies etc.

Knowledge produced, used and disseminated by all those actors eventually shapes a socially robust and shared knowledge basis. This knowledge base enables innovations in comprehensive societal systems, such as the health or the agricultural system. Societal actors are involved throughout the whole innovation process. It assumes the existence of research collectives, consisting of, for example, public research institutes, pharmaceutical companies and patient organisations. Another example of more user-centred, open innovation is demonstrated by the introduction of open source software.

RRI can only materialise in governance frameworks which take into account ethical, health, safety, environmental and human rights considerations in a transparent way.

RRI thus refers to the "product" dimension on the innovation process, e.g. the type and quality of the products, and to the process side of the innovation process in terms of, among other, stakeholder involvement, transparency and accountability to citizens.

Under this topic, research should focus on models for RRI as well as on a comparative analysis of existing frameworks for responsible innovation at national, European and international levels. How should a governance framework for RRI at the European level look like? Research should take into account the role of various actors, such as legislative, standard setting and certification bodies, regulatory bodies, civil society organisations, research

institutions and business operators. Research should investigate what forms of public engagement can be taken into account under national, European and international regulatory frameworks for innovation and what are the common and distinct features of those frameworks. It should also address what are the particular constraints for citizen participation at national, European and international levels.

In addition, the consortium will continue the work Monitoring Research and Policy Activities of Science in Society (MASIS)[4] to monitor trends and developments in RRI at national and European levels in order (1) to inform relevant policy-makers and all other stakeholders, (2) to increase the visibility of such activities in different parts of the Union and (3) to increase their impact in European policy and society. The project will include the continuation of the on-line system that was developed by the first service contract MASIS, the update of the national reports and the publication of an annual report on the main trends of SiS activities but in particular RRI activities.

Expected impact: A comprehensive governance model for Responsible Research and Innovation does not yet exist at the European Level. The availability of such a model and information on the practical role of public engagement can make it possible for policymakers to start working on its implementation, thereby allowing stakeholders and interested citizens to participant and co-design an innovation process for which they can share responsibility. Such an implementation could have important impacts such as elimination of the basis for a negative social perception and the encouragement of social learning, but also make constructive societal intervention in the innovation process a reality, whereas up to date societal intervention has been predominantly at the market stage of the introduction of new products.

SiS.2012.1.1.1-2: Expert Group on the State of Art in Europe on Responsible Research and Innovation

See Section IV Other Actions (not implemented through calls for proposals)

[4] http://www.masis.eu/english/home/

Activity 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues

SiS.2012.1.2-1: Mobilisation and Mutual Learning (MML) Action Plans: mainstreaming SiS actions in research

Topic description

Context: The European Research Area is targeting efforts in research and innovation on the current challenges faced by society. They are complex, multidimensional and require the engagement of different actors alongside researchers.

Objective: The Mobilisation and Mutual Learning Action Plan (MMLAP) creates mechanisms for effectively tackling research and innovation related challenges by proactively forging partnerships between different actors (policy makers, industry, civil society, etc.) with complementary knowledge and experiences. The MMLAP therefore develops forms of dialogue and cooperation between science and society at different stages of the research and innovation process. The MMLAP will contribute to further incorporating Science in Society issues into the systems of research (public engagement, ethics, gender perspectives, young people's participation, two-way communication). The partners pool experiences and knowledge and better focus their respective efforts to shape research in emerging science, technology and innovation in response to the views and needs of society.

Societal challenges and related research: The MMLAP proposed under this topic must address one of the following Specific Challenges that are relevant to the Europe 2020 Strategy and where a more structured dialogue and cooperation between research organisations and other stakeholders is sought. The proposal must state clearly which Specific Challenge it addresses:

- Specific Challenge 1: Responsible Research and Innovation (RRI) in Synthetic Biology

Synthetic biology, broadly understood, is the engineering of biological components and systems that do not exist in nature and the re-engineering of existing biological elements. It holds significant promise for new vaccines, drugs and biofuels, as well as for designing novel organisms with completely new functions. Notwithstanding its great potential, currently there are no synthetic biology products on the market and the public is not yet much aware of this field.

An essential challenge for Synthetic Biology is to establish and maintain open dialogue between the different stakeholders: scientists, industry, Civil Society Organisations (CSOs), policy makers, and also the general public. It is equally important to ensure co-creation of this innovative field, as well as collaborative shaping of regulatory frameworks, aligned with societal needs and expectations.

Regulatory challenges include for example new risk assessment needs, biosecurity and dual use monitoring, intellectual property rights and promoting responsible conduct in research and innovation. As synthetic biology research and its impacts occur globally, the MML should also include perspectives from outside Europe, in particular from dominant players in this field.

- Specific Challenge 2: Responsible Research and Innovation (RRI) for engineering the brain and body: human enhancement

The cognitive sciences are making more and more inroads into the human psyche, behaviour and morality. Using the insights coming from the cognitive sciences, as well as from robotics, the life sciences and ICT, human enhancement technologies are being developed to not only enhance the physical abilities of humans, but also their cognitive and emotional abilities and performance. Creating "better than well" options within our healthcare will pose societal and ethical challenges regarding, among others, what it means to be 'healthy', blurring the distinction between enhancement and therapy, and in terms of creating disparities between those who would opt in or would opt out of enhancement. On a deeper level, better knowledge about the human brain and body and means to model and intervene in it, affect our understanding of personal responsibility and behaviour.

What expectations and research agendas drive these developments in Europe? To what extent is society ready and prepared to accommodate the transformative impacts that the envisaged developments may have? The MML should elaborate on a European research agenda and explore policy issues that will need to be addressed in order to ensure that this field develops in accordance with fundamental values such as human dignity, equality, individual freedom and solidarity.

- Specific Challenge 3: Healthy and active ageing

The Europe 2020 Strategy identifies ageing as a long-term societal challenge. Action under EU 2020 core priorities for smart, sustainable and inclusive growth requires promoting a healthy and active ageing population to allow for social cohesion and higher productivity. By 2025, more than 20% of Europeans will be 65 or over and the number of citizens over 80 will increase particularly rapidly. This major demographic trend will affect all Member States in many policy areas, from pensions' reform to disease prevention and social care. At the same time, the ageing population has to be seen as a productive section of society and as an active and demanding consumer force. Hence, the prevailing deficit model of old age must give way to a more holistic approach focusing on active and dignified wellbeing. Mostly, at the European level this new approach requires to deepen the knowledge on the demographic dynamics of ageing (health, life expectancy, family) especially as determinants of activity and well-being at older age. Even more importantly, it requires the coordination and coherence of efforts among various actors and across many areas in order to facilitate social innovation and maximize the impact of the efforts undertaken.

The proposed MML invites stakeholders from at least 10 countries, from various sectors (i.e. researchers of different disciplines, older people organisations, national, regional and local authorities, health managers, industry) to set up frameworks of collaboration that combine technological and social approaches. These frameworks will have a strong multiplier effect, function as incubators of responsible social innovation and explore new market opportunities for the development of products, models and services in response to the needs of older people. In particular, this MML should include actions that:

- Raise awareness of the value of active ageing and of the useful contribution older people make to society and economy;
- Connect local actions and networks of reference, creating a European social innovation incubator network;
- Identify and disseminate good practices;

- Identify the scale and scope of opportunities for social innovation that mobilize the potential of older people to participate in developing their own solutions;

- Develop, where appropriate, inclusive innovative design processes for smart products and services that are usable by all population categories without the need for age-specific design

- Address the physical and mental health related challenges of the ageing population in a transparent and ethical manner by e.g. age and gender specific clinical trials and the inclusion of older people's associations and other relevant Civil Society Organisations (CSOs) in the health care decisions[5]

Expected impact: In the MMLAP, the governance of research and technological development will be adapted to facilitate sustainable and inclusive solutions to key challenges facing European society. The MMLAP will contribute to further incorporating Science in Society issues into the systems of research (public engagement, ethics, gender perspectives, young people's participation, two-way communication). They will also contribute to an improved transnational cooperation.

Implementation and management

Content of the MML Action Plan: The partners implement the proposed MMLAP in an integrated, systemic and transdisciplinary way to address the questions raised under the selected Specific Challenge. The MMLAP activities may take place at different stages of the research cycle (defining research agendas, during the course of research, or exploiting research results)6. They encompass public engagement in research (PER), such as participatory processes involving citizens and CSO's. The MMLAP activities may also include ethical issues, the development of expertise in support of policy-making, gender issues in science and/or young people's participation in science. The forms of dialogue and cooperation between the partners should be based on a participatory and mutual learning approach. Particular attention should be given to making accessible to the MMLAP participants the various types of knowledge concerned (capacity-building, training, etc.). The MMLAP communication strategy and activities (including exhibitions and audio-visual materials) should carefully take into account the different targeted audiences and actively involve the various partners.

The MMLAP activities are implemented at local and/or regional and/or national level and should include transnational networking and exchange of best practice. The MMLAP consortium should include relevant expertise / experience to implement the planned actions and efficiently manage the whole Plan. The proposal should include and describe a methodology for impartially assessing the actions implemented, throughout the duration of the project, in relation to their objectives and expected impacts.

Examples of activities include:

- Joint production of common communication and education materials;

[5] This is a potential area of strong cooperation with Directorate RTD/F 'Health'

[6] Please note that since this topic uses the funding scheme *Coordination and Support Actions (supporting action)*, the cost of performing research as such cannot be covered by the grant.

- Sustainable forms of cooperation, consultation and dialogue between the different MMLAP's actors with a view to addressing societal concerns or policy-making;- Identifying and discussing topics and opportunities for future cooperative (multi-actor) research;

- Assessment of potential impacts of research activities on citizens and civil society; participatory technology assessment;

- Capacity-building through training.

Participants: The project partners should include research organisations, industry / businesses and Civil Society Organisations7 as well as other types of actors from different perspectives as relevant for the selected Specific Challenge such as:
- Cities and local / regional or national authorities;
- National or regional parliamentary advisory offices for science and technology;
- Research funding agencies;
- Private organisations conducting and/or supporting research;
- Education establishments;
- Science academies;
- Museums, science centres and science festivals;
- Media organisations;
- Professional organisations;
- Science shops or similar intermediaries between CSO's and research.

The proposed consortium may comprise a more ambitious range of partners, for example, organisations which deal with scientific knowledge, businesses or organisations which fund research.

Since the MMLAP must address SiS issues, the partnership must include relevant expertise in these fields

Other essential components: Ensuring a balanced distribution of roles and responsibilities between the different types of participants will be evaluated under criterion 2. The budget should reflect this distribution and include financial means to allow the appropriate participation of all participants. 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 evaluation of its activities and dissemination plans. A targeted opening to international cooperation may be foreseen (beyond EU Member States and the Associated Countries), but the reasons for this and the added value to the proposal should be clearly justified.

[7] A CSO means a legal entity which is non governmental, non profit, not representing commercial interests and pursuing a common purpose in the public interest.

Area 5.1.2.1 Broader engagement on science related questions

SiS.2012.1.2.1-1: International Coordination in the field of Responsible Research and Innovation (RRI)

Topic description: Responsible Research and Innovation (RRI) is a transparent, interactive process in which societal actors and innovators become mutual responsive to each other with a view on the ethical acceptability, sustainability and societal desirability of the innovation process and its marketable products. The first activity (5.1.1/Area 5.1.1.1. this Work Programme) concerns a research activity which focuses on the development of a normative model for the governance of RRI. The second activity (5.1.2/Area 5.1.2.1 of this Work Programme) is to ensure the presence of European partners in international networks on the subject matter. The latter concerns coordination actions. Ideally, a European model for RRI to be developed within the SiS research context could be advocated at the international level by a coordination action.

Innovation is taking place in an international context, whereas policies for supporting innovations process are mainly national. This leads to a variety of approaches. Currently, only a few initiatives in the world exist to create a network of interested parties to foster a process of responsible development in new fields of research and innovation such as synthetic biology, nanotechnology and security and Information and Communication Technologies. Coordination projects on RRI should link up to existing international networks of RRI with a view to articulate and communicate a European model for RRI and propose approaches for fostering RRI at the global level. It is an asset if the consortium would consist of international partners from the US and/or the Asian region

Expected impact: The enlarged international network on RRI will help Europe advocate its normative model for RRI and will foster convergence of regional innovation systems at global level.

Area 5.1.2.2 Conditions for an informed debate on ethics and science

SiS.2012.1.2.2-1: Expert group Socio-Economic Sciences and Humanities (SSH) and ethics

See Section IV Other Actions (not implemented through calls for proposals)

Activity 5.1.3 Strengthening and improving the European science system

Area 5.1.3.3 Encouraging the debate on information dissemination, including access to scientific results and the future of scientific publications, taking also into account measures to improve access by the public.

SiS.2012.1.3.3-1: Scientific data: open access, dissemination, preservation and use

Topic description: As an environment designed to be conducive to technological, economic and societal progress, the European Research Area must support seamless and transparent access to, use and re-use of, and trust in scientific[8] data. In order to favour the development of this type of environment, policies addressing the complex area of scientific data are required. Based on the approach that *"publicly funded research data should in principle be accessible to all"*[9] and that *"access to and dissemination of scientific information […] are crucial for the development of the European Research Area"*[10], the present topic calls for co-ordination and support actions that move forward policy development in the area of scientific data. Proposals should address open access[11] to and dissemination of scientific data, and ideally preservation and curation of scientific data and/or use and re-use of scientific data (including intellectual property issues).

This topic calls for proposals bringing together actors concerned with the broader area of "open data". It aims to enable the exploration and analysis of the relevant scientific ecosystems and legal/ethical contexts with a view to developing an international, comprehensive framework for a collaborative data infrastructure. Proposed actions should aim at co-ordinating policy, research and/or dissemination activities. For example, they may include the exchange and dissemination of good practices, or the definition, organisation and management of joint or common policy activities.

The following actions are particularly welcome:

- actions using a comparative approach (e.g. cross-national, cross-disciplinary);
- actions aiming at creating networks of one type of not-for-profit actor or structure (e.g. funding bodies, libraries, repositories, universities) from different EU Member States, Associated Countries or other third countries that are interested in exchanging good practices and exploring common policy development;

[8] The term "scientific" refers to all fields of basic and applied research, including social sciences and the humanities.
[9] Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on "scientific information in the digital age: access, dissemination and preservation" of 14 February 2007, COM(56) 2007.
[10] Council Conclusions, 2832nd Competitiveness, 22 and 23 November 2007.
[11] For this topic, the term "Open access" means free of charge access over the internet.

- actions proposed by consortia representing different stakeholders (e.g. national research funding bodies, libraries, repositories, universities, publishers, industry users of publications).

Where appropriate, financial aspects of continuation of activities or structures after expiration of the grant agreement must be addressed.

Expected impact: Support to the Commission's policies on open access to scientific data; network-building among concerned stakeholders at the European and international levels with a view to supporting the development of joint or common policy agendas and activities in the area of scientific data.

Action Line 2: Strengthening potential, broadening horizons

Activity 5.2.1. Gender and research

Area 5.2.1.1 Strengthening the role of women in scientific research and in scientific decision-making bodies

SiS.2012.2.1.1-1: Ensuring equal opportunities for women and men by encouraging a more gender-aware management in research and scientific decision-making bodies

Topic description: "*Structural change*" initiatives aim at encouraging institutional changes and transforming institutional practices and culture in research and scientific decision-making bodies, to better support gender diversity and equal opportunities between women and men.

In 2012, to address the continuous underrepresentation of women in science, the EU will support common actions by research organisations[12], including universities, as to identify the best systemic organisational approaches to increase the participation and career advancement of women researchers. The ultimate objective will be to create a sound management approach providing effective and transparent mechanisms to abolish gender imbalances and to contribute to the improvement of the working conditions of women and men.

The focus will be on partnerships between research organisations and universities that have already implemented effective actions on gender-aware management and others that are seeking to gain experience in this area.

Proposals should contain a self tailored *Gender Equality Plan* per each participating institution aiming at implementing the necessary structural changes on the basis of each specific situation and challenges. Action plans will be accompanied by an implementation roadmap containing a clear description of: (1) the challenges existing in achieving gender equality among the organisations concerned and the scientific leadership bodies; (2) innovative strategies to address barriers to recruitment, retention and advancement of women careers, beyond the lifetime of the grant. The *Gender Equality Plans* will serve as a management tool to help achieving the objectives of the call. They could address among others:

- Recruitment, promotion, retention policies;
- Leadership development;
- Work/ life balance, including at particularly difficult life transitions;
- Supporting policies for dual career couples;
- Enhancing networking opportunities;
- Returning schemes after career breaks;
- Drafting guidelines for other interested institutions and disseminating best practices to the broader academic community at regional, national and/or international level;
- Influencing the content of curricula and research;

[12] A research organisation means a legal entity established as a non-profit organisation which carries out research or technological development as one of its main objectives (Art. 2, FP7 Rules for Participation, Reg.(EC) n°1906/2006)

In addition, key points to tackle include:

- Assessment standards of research excellence;
- Accountability of evaluation policies.

Consideration should be given to the involvement of local or national social partners (trade unions and/or employers' associations), wherever appropriate.

The proposal should include a methodology for impartially monitoring and assessing – throughout the duration of the project – the effectiveness and the anticipated impact of the actions proposed, as well as the institutional progress gradually achieved.

In the course of the evaluation process, the following elements will be considered, among others: (1) Innovative nature and sustainability of the actions; (2) Learning process/ expertise exchange among the organisation involved, including during the designing of the Gender Equality Plans and the Implementation Roadmaps; (3) Activities to disseminate broadly the accomplishments of the project; (4) Evidence that the Plans can and will continue to be implemented in the medium/ long term and thus that the activities have the full support of the highest management structures of the institutions concerned.

Expected Impact: The implementation of the project should bring about tangible and measurable results in terms of attracting, recruiting, and advancing women in research at all levels of seniority among project participants. It shall also enhance understanding of the benefits to create a work/life responsive workplace and of improving the culture and organisational structures of research organisations and universities.
The action shall have significant impact across Europe and contribute to generating public debate and raising awareness on the institutional issues hindering the advancement of women; it shall also create a methodology for structural change for the potential benefit of both peer institutions and all institution types.

SiS.2012.2.1.1-2: Creating a transnational community of practitioners (Internet Portal)

Topic description: Over the last 10 years, the European Commission and Member States have invested millions of Euros in scientific research to present state-of-the-art data on women in science and gender in research, putting European research into a world-leading position.

A *"benchmarking national policies on women and science"* study makes an update of the 2002 National Policies report and Enwise report. Progress made in increasing the participation of women in scientific research in the EU Member States is set out in the Commission Working Document *"Women and Science: Excellence and Innovation – Gender Equality in Science"*[13]. It shows the increasing importance given to gender equality in science at national level and provides a first indication of the types of policies currently implemented to achieve this objective. In 2007, the EC commissioned a study "Meta-analysis of gender and science research" with the purpose to collect and analyse research on horizontal and vertical segregation in research careers, as well as the underlying causes and effects of these two processes. The study provides an exhaustive overview and analysis of research on gender and science carried out at European, national, and regional levels and makes the study results

[13] SEC(2005) 370 of 11 March 2005: http://ec.europa.eu/research/science-society/document_library/pdf_06/stocktaking-10-years-of-women-in-science-book_en.pdf

accessible to researchers and policy-makers via an informed bibliography (online database14) and a set of reports. The EC document on the "Stocktaking of Women in Science policy" compiles describes and analyses the history of the first 10 years of activities in this field. It is now necessary to build on the significant achievements of this study to bring the success stories of Europe's gender in research and innovation work and findings to policy makers and the scientific community.
A dedicated internet portal will coordinate the efficient and effective communication of results, networking and knowledge between existing national and European projects in the field and their users to promote worldwide collaboration and awareness.

The internet portal will support regular briefings aimed at policy makers in order to disseminate key policy reports and issues underpinning gender in research and innovation, seeking to expand the audience for these reports to new areas of work and regions (US, Canada, Australia, India, etc); Activities to coordinate recent and current relevant national and European projects should be foreseen such as annual concertation meetings. Sustainability plans for the future portal and community of practitioners' maintenance should be detailed and worked over from the beginning of the project.

Expected impact: The portal will increase visibility and ease coordination by making available all research data and statistics, scientific literature, human resources and organisational development toolboxes, best practices in gender equality and gender in research, etc. coming from Europe and beyond.

[14] http://www.genderandscience.org/

Activity 5.2.2 Young people and science

For the purpose of each topic under this activity, 'science' includes: physical sciences, life sciences, computer science, technology and mathematics.

The definition of Inquiry Based Science Education (IBSE) is given in "*'Science Education Now; A Renewed Pedagogy for the Future of Europe'*.[15] The reading of this report is recommended under the first topic.

For information, the Commission would like to draw the attention of the potential proposers that the ICT WP 2011-2012 under the Specific Programme "Cooperation" encompasses some aspects linked to science education, under a different perspective[16]

Area 5.2.2.1 Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means

SiS.2012.2.2.1-1: Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe

Topic description: Promoting excellence in education and skills development is one of the key elements within the "Innovation Union" Flagship Initiative under Europe 2020. The 'Innovation Union Communication recognizes that weaknesses remain with science teaching. The skills for future responsible innovators/researchers as well as of "science-active" citizens have to be built starting from early age (scientific reasoning, as well as transversal competences such as critical thinking, problem solving, creativity, teamwork and communication skills). An appropriate science teaching methodology such as the Inquiry Based Science Education (IBSE) can strongly contribute to the development of these skills.

This topic will support actions to promote the more widespread use of problem and inquiry-based science teaching techniques in primary and/or secondary schools as well as actions to bridge the gap between the science education research community, science teachers and local actors (including providers of informal science education) 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 (pre-service and in-service) and the promotion of European teachers' networks. The actions proposed should 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/transdisciplinary approaches, considering 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 should be realistic and feasible in

[15] 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

[16] ICT - Information and Communication Technologies - Work Programme 2011-12 Objective ICT-2011.8.1 Technology-enhanced learning ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/ict-wp-2011-12_en.pdf

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. The corresponding impact on the grant support requested should be identified.

While each EU Member State is responsible for the organisation and content of its education systems, there are advantages at EU level on common issues related to science education. The challenges faced in this field are common and urgent in all the European countries: traditional schooling has been mainly about teaching and testing, producing knowledge and skills for a model of industrial society which is now quickly declining. EU Member States share the urgency of addressing the young people's lack of interest for science and technology, the need to attract more young people to science and technology careers and the need to equip all young people with the skills and knowledge needed to future responsible innovators/researchers and "science-active" citizens. The EU level and support allows better sharing of research results, good practices, teaching material and the building of a real community of stakeholders.

Projects are expected to have a broad coverage of EU Member States and Associated Countries - in order to generate a European impact (see in the Call Fiche in section III). In addition to this during contract negotiation links will be established between financed projects and SCIENTIX - The Community for Science Education in Europe (www.scientix.eu)17)[18]

The proposal should include and describe a methodology for impartially assessing the actions implemented, throughout the duration of the project in relation to their objectives and expected impacts.

Expected Impact: The action will increase teachers' skills, and consequently young Europeans knowledge and interest for S&T and attract more of them to S&T careers. Young Europeans will be better equipped with the skills and knowledge needed to future innovators and "science active" citizens.

[17] Scientix is the new web-based community for Science Education targeted at teachers and researchers. It will manage a user-friendly information platform to facilitate regular dissemination and sharing of progress, know-how, and best practices in science education across the EU Member States and Associated Countries.

[18] The following special clause 40 will therefore 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".

SiS.2012.2.2.1-2: SiS.2012.2.2.1-2: Scientix - Building a Science Education Community in Europe by promoting Inquiry-Based Science Education at national level

See Section IV Other Actions (not implemented through calls for proposals)

Area 5.2.2.3 Research and Coordination Actions on new methods in science education

SiS.2012.2.2.3-1: Research on the use and development of formative and summative assessment methodologies in mathematics, science and technology in primary and secondary education.

Topic description: "There is a growing awareness of the impacts of assessment in teaching and learning. If too narrowly focussed on only knowledge and recall of facts, assessment can have a negative impact on the development of relevant skills and positive attitudes on learning. Research proves that formative assessment can play a strong role for effective teaching and better autonomous learning.

Since the publication in 2007 of the report "Science education now: a renewed pedagogy for the future of Europe" FP7 projects have focused on the large uptake in Europe of a specific science teaching methodology (Inquiry Based Science Education - IBSE).
However, the uptake of Inquiry Based Science Education techniques can become a reality only if appropriate pupils assessment can support it.

The project should be based on available research results on assessment methods that could be appropriate for IBSE methodologies.

The research should address summative/formative assessments (and the related alignment) on knowledge, competences and attitudes related to the key competence (European Commission 2009) on mathematics, science and technology as well as the "transversal competences" that can be associated to Mathematic, Science and Technology. Summative assessment should refer to marks, grades, profiles and records of achievement.

The research should focus on the main challenges related to the real, large scale uptake of formative assessment in the daily practices in primary and secondary schools (ISCED 1, 2 and 3) in several different European educational systems and on the effective combination of formative assessment with summative assessment methodologies.

The research should address several educational systems in Europe, in order to produce results that may be relevant for other countries with similar characteristics. The choice of the countries should be based on appropriate variables that the research proposal will identify (such as centralization/decentralization, teachers autonomy in assessment vs standardized tests).

The research should be "use-inspired" and lead to identification of the factors (including cultural) that undermine the effective uptake of formative assessment appropriately combined

with summative assessment in different contexts, as well as the design of appropriate countermeasures.

The research should take into account ICT available tools for assessment. The actions should include policy recommendations and appropriate dissemination activities.

Expected impact: Understanding how assessment strategies influence the science and mathematics teaching in terms of actual learning outcomes should lead to better curricula design and teacher training. In this regard the project will provide policy makers with data and guidelines for an informed decision making. The project will develop guidelines on formative assessment methods, combined with summative methods appropriate to support the up-take of IBSE methodologies in different European contexts and on possible measures to facilitate the "cultural" change by the involved stakeholders.

Action Line 3: Science and Society Communicate

Area 5.3.0.3: Encouraging EU dimension at science event targeting the public

SiS.2012.3.0.3-1: The Euroscience Open Forum (ESOF) 2012

See Section IV Other Actions (not implemented through calls for proposals)

Area 5.3.0.5 Promoting excellent trans-national research and science communication by the means of popular prizes

SiS.2012.3.0.5-1: European Union Contest for Young Scientists (EUCYS) 2012

See Section IV Other Actions (not implemented through calls for proposals)

Area 5.3.0.6: Research aimed at enhancing inter-communication concerning science, both in its methods and its products, to raise mutual understanding between the scientific world, and the wider audience of policy-makers, the media and the general public

SiS.2012.3.0.6-1: Developing science through science and society interaction (Danish presidency)

See Section IV Other Actions (not implemented through calls for proposals)

III. IMPLEMENTATION OF CALLS

For description of the topics of the calls, please refer to section II 'Content of calls'

CALL FICHE 1 – SCIENCE IN SOCIETY 2012

- Call identifier: FP7-SCIENCE-IN-SOCIETY-2012-1
- Date of publication[19]: 20 July 2011
- Deadline[20]: 22 February 2012 at 17.00, Brussels local time.
- Indicative budget: EUR 37.4 million[21] from the 2012 budget

  The budget for this call is indicative. The final budget awarded to actions implemented through calls for proposals may vary:

  - The final budget of the call may vary by up to 10% of the total value of the indicated budget for each call; and
  - Any repartition of the call budget may also vary by up to 10% of the total value of the indicated budget for the call.

- Topics called

Activity/ Area	Topics Called	Funding Schemes and additional eligibility criteria
ACTION LINE 1: A more dynamic governance of the science and society relationship		
ACTIVITY 5.1.1 Better understanding of the place of science and technology (S & T) in society (Indicative budget: EUR 3.5 million)		
Area 5.1.1.1 Relationships between science, democracy and law	*Topic SiS.2012.1.1.1-1: Governance frameworks for Responsible Research and Innovation (RRI)* *Up to 2 proposals are expected to be funded*	*Collaborative Projects (Small or medium-scale focused research project)* *The requested European Union contribution shall not exceed EUR 3.5 million.*
ACTIVITY 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues (Indicative budget: EUR 14.5 million)		
SiS.2012.1.2-1: Mobilisation and Mutual Learning (MML) Action Plans: mainstreaming SiS actions in research *It is expected to fund three proposals. It is expected to fund at least one proposal from each Specific Challenge*		*Coordination and Support Actions (Supporting Actions)* *The requested European Union contribution shall not*

[19] The Director-General responsible for the call may publish it up to one month prior to or after the envisaged date of publication.
[20] The Director-General responsible may delay this deadline by up to two months.
[21] Under the condition that the draft budget for 2012 is adopted without modification by the budgetary authority.

		exceed EUR 4 million per proposal. *The proposal must clearly indicate which one of the three specific challenges is addressed.* *The proposed project must have a minimum duration of 3 years.* *The consortium must consist of at least 10 independent legal entities established in at least 10 different EU Member States or Associated*
Area 5.1.2.1 Broader engagement on science related questions	*Topic SiS.2012.1.2.1-1: International Coordination in the field of Responsible Research and Innovation(RRI)* *Up to 2 proposals are expected to be funded*	*Coordination and Support Actions (Supporting Actions)* *The requested European Union contribution shall not exceed EUR 2.5 million.*
ACTIVITY 5.1.3 Strengthening and improving the European science system (Indicative budget EUR 1.5 million)		
Area 5.1.3.3 Encouraging the debate on information dissemination, including access to scientific results and the future of scientific publications, taking also into account measures to improve access by the public.	*Topic SiS.2012.1.3.3-1: Scientific data: open access, dissemination, preservation and use* *Up to 2 proposals are expected to be funded*	*Co-ordination and Support actions (coordinating action).* *The requested European Union contribution shall not exceed EUR 1.5 million.*
ACTION LINE 2: Strengthening potential, broadening horizons		
ACTIVITY 5.2.1 Gender and research (indicative budget: EUR 5.9 million)		
Area 5.2.1.1. Strengthening the role of women in scientific research and in scientific decision-making bodies	*Topic SiS.2012.2.1.1-1: Ensuring equal opportunities for women and men by encouraging a more gender-aware management in research and scientific decision-making bodies.* *Up to 2 proposals are expected to be funded*	*Coordination and Support Actions (Supporting Actions)* *The requested European Union contribution shall not exceed EUR 4.4 million.* *The duration of the project must be between 3 and 5 years.* *The minimum participating condition for the Coordination and Support Action is three independent legal entities from three different European Union*

		Member States or Associated Countries. *The proposals will be assessed against the background of the gender equality plan.* *Rate of co-financing: The EU contribution will not exceed 70% of total eligible costs.*
Area 5.2.1.1. Strengthening the role of women in scientific research and in scientific decision-making bodies	*Topic SiS.2012.2.1.1-2: Creating a transnational community of practitioners (Internet Portal)* *1 proposal is expected to be funded*	*Coordination and Support Action (Supporting Action)* *The requested European Union contribution shall not exceed EUR 1.5 million.* *The minimum participating condition for this action is three independent legal entities from three different European Union Member States or Associated Countries.* *The duration of the project must be a minimum of 3 years*
ACTIVITY 5.2.2 Young people and science (indicative budget: EUR 12 million)		
Area 5.2.2.1 Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means.	*Topic SiS.2012.2.2.1-1: Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe.* *Up to 3 proposals are expected to be funded.*	*Coordination and Support Actions (Supporting Action).* *The requested European Union contribution shall not exceed EUR 8 million.* *The minimum participation condition for the Co-ordination and support action (supporting) is at least 10 independent legal entities, established in at least 10 different European Union Member States or Associated Countries.* *Each proposal must have a minimum requested EU contribution of EUR 2 million* *The duration of the project must be a minimum of 3 years*
Area 5.2.2.3 Research and coordination actions on new methods in science education	*Topic SiS.2012.2.2.3-1:* *Research on the use and development of formative and summative assessment*	*Collaborative Projects (Small or medium-scale focused research project)*

	methodologies in mathematics, science and technology in primary and secondary education *1 proposal is expected to be funded*	*The requested European Union contribution shall not exceed EUR 4 million.*
TOTAL : **EUR 37.4 million**		

- **Eligibility criteria**

  – The general eligibility criteria are set out in Annex 2 of this work programme and in the guide for applicants. Please note that the completeness criterion also includes that part B of the proposal shall be readable, accessible and printable.

Funding scheme	**Minimum conditions**
– Collaborative Projects	At least 3 independent legal entities, each of which is established in a MS or AC, and no 2 of which are established in the same MS or AC.
– Coordination and Support Actions (coordinating action)	At least 3 independent legal entities, each of which is established in a MS or AC, and no 2 of which are established in the same MS or AC.
– Coordination and Support Actions (supporting action)	At least 1 independent legal entity.

  – Only information provided in part A of the proposal will be used to determine whether the proposal is eligible with respect to budget thresholds and/or minimum number of eligible participants.

- **Evaluation procedure**:

  – The evaluation criteria and scoring scheme are set out in Annex 2 of the work programme.

For Collaborative Projects (Small or Medium Scale focused research projects) under topics:

- SiS.2012.1.1.1-1 Governance framework for Responsible Innovation
- SiS.2012.2.2.3-1 Research on formative and summative assessment methodologies in mathematics, science and technology in primary and secondary education;

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

  – Proposal page limits: Applicants must ensure that proposals conform to the page limits and layout given in the Guide for Applicants, and in the proposal part B template available through the EPSS.

The Commission will instruct the experts to disregard any pages exceeding these limits.

The minimum font size is 11. All margins (top, bottom, left, right) should be at least 15 mm (not including any footers or headers).

- Experts will carry out the individual evaluation of proposals remotely.

- The procedure for prioritising proposals with equal scores is described below

- The number of proposals that can be funded per topic is limited as indicated above.

1. A separate ranking list, based on evaluation scores, will be established for each of the indicative budgets as indicated in the table above. Proposals will be selected within each ranking list according to their ranked order, and provided that the proposal has a score above threshold, until the available budget is committed.

2. Activity 5.1.2 *Broader engagement to anticipate and clarify political, societal and ethical issues* contains two topics. A separate ranking list will be produced for each of these two topics.

In Activity 5.1.2, topic SiS.2012.1.2-1 *Mobilisation and Mutual Learning (MML) Action Plans: mainstreaming SiS actions in research*: the first three places on this list shall be given to the proposal with the highest score from each of the three Specific Challenges, provided that the proposal in question is scored above the threshold.

3. Activity 5.2.1 *Gender and research* contains two topics. A separate ranking list will be produced for each of these two topics.

3. Activity 5.2.2 *Young people and Science*, contains two topics, a single ranking list will be produced for the two topics. The two first places on this list shall be given to the proposal with the highest score from each of the two topics within Activity 5.2.2 (provided that the proposal in question has scored above the threshold). It is envisaged that only one proposal will be financed under Topic SiS 2012.2.2.3-1 *Research on the use and development of formative and summative assessment methodologies in mathematics, science and technology in primary and secondary*. The third and the fourth places on the single ranking list will be given to the two next highest-scoring proposals under *topic SiS.2012. 2.2.1-1 Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe.*

4. In cases of equal score, the procedure described in Annex 2 will be followed. In cases of completely identical evaluation scores in all criteria, priority will be given to the proposal from the topic with the higher number of proposals submitted and evaluated above threshold.

5. A reserve list will also be established for each Activity ranking list: proposals with evaluation scores above threshold and for which budget is not immediately available (those ranked below the selection list) will be put in this reserve list. Within each reserve list proposals will also be ranked in strict order of score.

6. If funding is disponible after the selection of proposals for financing from each ranking list, further proposals will be selected across the different reserve lists on the basis of evaluation score obtained. In cases of equal score priority will be given to any proposal which obtained the highest score for that topic but which has not been financed because enough money did not remain under that topic. Following this, the procedure described in Annex 2 will be followed. In cases of completely identical evaluation scores in all criteria, priority will be

given to the proposal from the topic with the higher number of proposals submitted and evaluated above threshold. The application of this process as regards the reserve list may mean that the number of financed proposals envisaged for a particular topic may be exceeded in certain cases

- **Indicative timetable:** Evaluations are expected to be completed in the month of May 2012. It is expected that the grant agreement negotiations for the shortlisted proposals will be open in June 2012.

- **Consortia agreements:** Participants are required to conclude a consortium agreement prior to grant agreement.

- **Large consortia:** Experience has shown that as the number of partners (beneficiaries indicated in part A of the proposal) in a proposal increases, often exceeding 20, the organisational aspects of the proposed work and strong management capabilities from the coordinating entity become critical factors in the likely success of the project. This aspect will be taken into account in particular under the second evaluation criteria "Quality and efficiency of the implementation and management". This applies especially to the following topics of the present Work Programme:

  - SiS.2012.1.2-1: Mobilisation and Mutual Learning (MML) Action Plans: mainstreaming SiS actions in research;

  - SiS.2012.2.2.1-1: Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe.

- **The forms of grants and maximum reimbursement rates** which will be offered are specified in Annex 3 to the Capacities work programme.

  The actions proposed under the following topics of this work programme:

  - SiS.2012.1.2-1: Mobilisation and Mutual Learning (MML) Action Plans: mainstreaming SiS actions in research;

  - SiS.2012.2.2.1-1: Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe;

  - SiS.2012.2.2.1.1-1: Ensuring equal opportunities for women and men by encouraging a more gender-aware management in research and scientific decision-making bodies

  may bring together different stakeholder organisations as partners in a proposal with the objective of exploiting their networking capacities and facilities, such as European networks, groupings, partnerships, etc.

  These stakeholder organisations may wish to involve some of their members directly in the planed activities in order to build on the existing cooperation structures and networks and in so doing these members will incur project related costs.

  In order to facilitate the participation of such members who are seeking grant support only for their participation in certain project activities, the related expenses could be reimbursed in the form of a lump sum. Therefore, such reimbursements do not require the justification of real costs.

  This reimbursement is limited in this work programme to a maximum of EUR 25 000 per member, per grant agreement. The maximum amount to be reimbursed in the form of a lump sum shall not exceed 15% per grant.

It shall cover all eligible expenses mentioned in the description of work related to European networking activities, such as travel and accommodation related to the attendance to certain project activities and/or exchange of good practices, and/or to activities foreseen in the project at national/local level (i.e promotional activities, awareness campaign, dissemination activities, etc.).

The lump sum is reimbursed according to the upper funding limits described in Article II.16 of the grant agreement. The reimbursement rates apply also to lump sums.

Members of participating stakeholder organisations seeking to avail themselves of this option must be identified in part B of the submitted proposal. During the negotiation, such members will be specified in the grant agreement and its description of work, as well as in the tables of estimated budget breakdowns of the project.

Such members using this lump sum cannot receive any other form of grant support under the project. Funds will be paid proportionally on the basis of the approval of the periodic reports (including the final reports) and deliverables as foreseen in the grant agreement as well as on the basis of the performance of the specific members concerned.

- **Flat rates to cover subsistence costs:** In accordance with Annex 3 of this work programme, this call provides for the possibility to use flat rates to cover subsistence costs incurred by beneficiaries during travel carried out within grants for indirect actions. For further information, see the relevant Guides for Applicants for this call. The applicable flat rates are available at the following website: http://cordis.europa.eu/fp7/find-doc_en.html under 'Guidance documents/Flat rates for daily allowances'.

- **Dissemination:** Grant agreements of projects financed under this call for proposals will include the special clause 39 on the "Open Access Pilot in FP7". Under this clause, beneficiaries are required to make their best efforts to ensure free access to peer-reviewed articles resulting from projects via an institutional or subject-based repository.

  In addition, the following special clause 40 will be included in the grant agreement of each project selected for funding under topic SiS.2012.2.2.1-1 (Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe) and topic SiS.2012.2.2.3-1 (Research on the use and development of formative and summative assessment methodologies in mathematics, science and technology in primary and secondary education): "The Commiss*ion* 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".

IV OTHER ACTIONS (not implemented through calls for proposals)

1 Coordination and Support Actions: Grants to Identified Beneficiaries[22]

SiS.2012.2.2.1-2: Scientix - Building a Science Education Community in Europe by promoting Inquiry-Based Science Education at national level (See Area 5.2.2.1)

Legal entity: EUN Partnership AISBL, 61B, rue de Trêves, 1040 Brussels, Belgium

Topic description: This action is based on the first and fifth Recommendations of the report "'*Science Education Now; A Renewed Pedagogy for the Future of Europe*'[23] which requests a more active involvement of Member States in the renewal in science education as well as a better articulation between national activities and those handled at European level.

It is therefore intended to promote a strategy in each country for the uptake and dissemination of Inquiry-Based Science Education **(**IBSE) and an effective community building among science education stakeholders. To this end, the beneficiary is requested to cooperate with Ministries in charge of Education or the most appropriate entities likely to bring changes in science education in each country.

Moreover, the project should effectively address different geographical levels (local, national, European), as well as different stakeholders (policymakers, researchers, teachers, trainers, industries, academies, associations, local authorities, informal science education actors, parents, students ...).

Implementation and management:

The project will ensure the continuation/adaptation of the current Scientix activities and will contribute to the development of national strategies for a wide uptake and dissemination of IBSE.

1. Continuation and adaptation of the current Scientix activities will include:

- Technical maintenance and hosting of the Scientix Internet platform;

- Content search, adaptation, translation (including availability of at least two additional EU languages) and upload of all sections;

- Dissemination strategy: newsletters, presentations at events, workshops;

- Translation of teaching material for the widest dissemination of best practices;

- One major European conference to be held in Brussels;

- Publications (flyers, brochures etc.).

The adaptation of the current services should be based on an analysis of the Scientix outcomes (including feedback from users and experts).

[22] In compliance with Article 14(a) of the Rules of Participation.

[23] 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

2. Contribution to the development of national strategies:

- Assessment of the situation of science education in each Member State and monitoring of national strategies in cooperation with the relevant national stakeholders;

- Support to the development and implementation of national strategies for the uptake and dissemination of IBSE, the best use of Scientix resources and community building, in cooperation with Ministries in charge of education and/or the most appropriate entities likely to bring changes in science education in each country;

The duration of the project should be at least three years. The proposal will include a plan for the sustainability of the Scientix activities after the end of the grant.

An impartial assessment of the actions implemented should be ensured throughout the duration of the project in relation to its objectives and expected impacts.

Maximum EU contribution: EUR 6 million**.** The Maximum rate of reimbursement is fixed by Annex 3 "Forms of Grant and Maximum Reimbursement Rates for Projects Funded Through the Capacities Work Programme".

Expected Impact: To bring about a change in the way that science is taught in schools through European collaborative activities focusing on teacher training on the use of techniques that have been successfully piloted, adapting and applying them on a European scale. The action should have significant wider benefits across Europe beyond those accruing directly to project participants. The long-term impact looked for is a significant raise of the numbers of young people in Europe taking up scientific careers as well as a general increase of the skills and knowledge in science needed to become responsible researchers/innovators and scientifically active citizens.

SiS.2012.3.0.3-1: The Euroscience Open Forum (ESOF) 2012 (See Area 5.3.0.3)

Legal Entity: Forfás, Wilton Park House, Wilton Place, Dublin 2, Ireland.

Topic description: The Euroscience Open Forum (ESOF) is held bi-annually under the auspices of the researcher organisation Euroscience. . It is dedicated to scientific research and innovation and designed by Euroscience as a unique opportunity in Europe to:
1) Present and discuss the frontiers of scientific and technological advancement, the relationships between science and society, and the policies supporting research;

2) Provide career opportunities for graduate students and young researchers;

3) Promote communication between outstanding researchers and non-specialists;

4) Bring research themes closer to the general public.

A grant support will be offered to this inter/trans-disciplinary pan-European meeting to ensure that special emphasis will be put on the proactive engagement between the scientific community, policy makers, industries and civil society and a specific focus on Responsible Research and Innovation. It is intended that the event will be one of the key European Research Area communication activities in 2012 and will provide an inclusive and integrated combination of seminars, workshop, debates and round table discussion centred around key science related societal issues and reflecting the best of European research, innovation and entrepreneurship.

Maximum EU contribution: EUR 600.000. The Commission shall finance up to 60% of the total eligible costs for this action...

Expected Impact: The Euroscience Open Forum will raise awareness on the need for a proactive engagement between researchers, policy makers, industry and civil society and the need for better SiS structured activities.

SiS.2012.3.0.5-1: European Union Contest for Young Scientists (EUCYS) 2012 (See Area 5.3.0.5)

Legal Entity: The Young Scientists of Slovakia, Saratovska str. 26/A-218, 841 02 Bratislava, Slovak republic.

Topic description: The European Union Contest for Young Scientists brings together first prize winners of national contests for pre-university school science projects to compete for prizes and awards. The EU Contest takes place each year in a different location. The EU Contest provides additional stimulus to young people who have already demonstrated that they are applying science to solve problems. Many go on to become successful scientists. It attracts a considerable level of co-funding in the host country, and high levels of international media attention. International research organisations and similar bodies donate many of the non-monetary prizes.

Expected Impact: The contest will bring a greater awareness of and interest in science and research among school students.

Maximum EU contribution: EUR 600 000. The Commission shall finance up to 75% of the total eligible costs for this action;

SiS.2012.3.0.6-1: Developing science through science and society interaction - Danish presidency (See Area 5.3.0.6)

Legal Entity: Danish Agency for Science, Technology and Innovation, Bredgade 40, 1260 Copenhagen K, Denmark.

Topic description: During the EU Presidency in 2012, Denmark proposes to organise and host a conference on science and society interaction. The conference builds on an extensive Danish expertise within participatory processes and frameworks that enables and enhances the dialogue and interaction between academia and society. Among others, the proposed topics are:

- Framework and methods that can develop the dialogue and interaction between research and society further on both strategic and operational levels.
- Defining research and innovation agendas on the basis of societal needs and wishes.
- Public debates on the ethical dimension of research.

The conference aims to inspire and facilitate knowledge sharing between the participants. It will prioritize networking activities and offer an exhibition area which gives the participants an opportunity to exchange ideas and experiences. The conference will also present best

practice, both with regards to the lectures given and the exhibition area. It will actively seek to explore innovative formats by making use of different participatory processes and methods.

Maximum EU contribution: EUR 200 000. The Commission shall finance up to 75% of the total eligible costs for this action.

Expected Impact: The conference will raise awareness among policy makers, industry, research organisations and civil society representatives on the need for a structured European reflection on the science and society interface. It will give inputs to the ongoing structuring of the European Research Area framework, on the future European instrument for research funding as well as, more generally, on the necessary features of a Responsible Research and Innovation Governance framework.

2- Coordination and Support Actions: Expert Group Contracts

SiS.2012.1.1.1-2: Expert Group on the State of Art in Europe on Responsible Research and Innovation

Topic description: There is an increasing attention to Responsible Research and Innovation both in the private and public sector. Among other, Research Councils have introduced specific funding schemes on Responsible Research and Innovation, Governmental bodies and private companies are supporting the use of codes of conduct, in particular sensitive areas of research. Technology Assessment offices are contributing to Responsible Research and Innovation initiatives.

An Expert Group is to be established in the course of 2012 in order to write a report which reflects the state of the art of responsible innovation, both in terms of what is to be understood under responsible research and innovation and what type of actions are being conducted in Europe.

Expected impact: The availability of a report, which will be the first of it's kind in Europe, will provide European and national (research and innovation) policy makers with an oversight of the topic, allowing a reflection on possible targeted policy actions in the field of responsible research and innovation.

Maximum EU contribution: EUR 150 000

SiS.2012.1.2.2-1: Expert group Socio-Economic Sciences and Humanities (SSH) and ethics (See Area 5.1.2.2)

Topic description: Ethic issues form an important part of Science in Society and in particular as regards the social sciences and humanities (SSH) dimension. In addition Science in Society provides the necessary support for the Ethics Review process for all FP7 funded activities, including the two research Agencies. SSH issues are present in many proposals funded e.g. in ICT, in REA and the ERC. Therefore, this Expert Group will aim at producing a guidance document which will discuss the issues specific for SSH research in terms of ethics, what are the "lessons learned" from the ethical review of all social sciences and humanities projects, how does the regulatory framework in place suit the needs of these projects?

The matter of deception (how much information should be available to the research participants), the process of obtaining informed consent, privacy and confidentiality, and risk and harm, the complexities of SSH research methodology (experimental methods, observational studies, in-depth interviews, ethnographic methods, internet research etc.) may raise ethical issues, often not present in other areas of research.

Expected impact: The guidance will enable researchers, research funders and concerned citizens to address issues regarding the respect of fundamental ethical principles across the whole research process in the field of Socio-Economic Sciences and Humanities.

Maximum EU contribution: EUR 150 000.

3- Coordination and Support Actions: Public Procurement

N/A

4- Budget for other actions not implemented through calls for proposals

TABLE 1: Coordination and Support Actions: Grants to Identified Beneficiaries	
Topic	**Indicative EU funding[24] (EUR million)**
SiS.2012.2.2.1-2: SiS.2012.2.2.1-2: Scientix - Building a Science Education Community in Europe by promoting Inquiry-Based Science Education at national level	6.00
SiS.2012.3.0.5-1 European Union Contest for Young Scientists (EUCYS)	0.60
SiS.2012.3.0.3-1: The Euroscience Open Forum (ESOF) 2012	0.60
SiS.2012.3.0.6-1: Developing science through science and society interaction (Danish presidency)	0.20
SUBTOTAL	**7.40**

TABLE 2: Coordination and Support Actions: Expert Group Contracts		
Topic	**Indicative timing**	**Indicative EU funding[25] (EUR million)**
SiS.2012.1.2.2-1: Expert group SSH and ethics		0.15
SiS.2012.1.1.1-2: Expert Group on the State of Art in Europe on Responsible Research and Innovation		0.15
SUBTOTAL		**0.30**

TABLE 3: Coordination and Support Actions: Public Procurement		
Topic	**Indicative timing**	**Indicative EU funding (EUR million)**
TOTAL		**7.70**

[24] Under the condition that the draft budget for 2012 is adopted without modifications by the budgetary authority.
[25] Under the condition that the draft budget for 2012 is adopted without modifications by the budgetary authority.

V BUDGET

Part 5 – Indicative budget

Activities	**Budget 2012[26] EUR million**
• Call FP7-SCIENCE-IN-SOCIETY-2012-1	**37.4**
Other actions: • Evaluations	**0.59**
• Actions implemented through public procurements, expert groups and grants to identified beneficiaries	**7.70**
Estimated total budget	**45.69**

All budgetary figures given in this work programme are indicative. The final budgets may vary following the evaluation of proposals.

The final budget awarded to actions implemented through calls for proposals may vary:

- The total budget of the call may vary by up to 10% of the total value of the indicated budget for each call; and
- Any repartition of the call budget may also vary by up to 10% of the total value of the indicated budget for the call.

For actions not implemented through calls for proposals:

- The final budgets for evaluation, monitoring and review may vary by up to 20% of the indicated budgets for these actions;
- The final budget awarded for all other actions not implemented through calls for proposals may vary by up to 10% of the indicated budget for these actions.

[26] Under the condition that the draft budget for 2012 is adopted without modifications by the budget authority.