

COOPERATION WORK PROGRAMME 2010

(European Commission C(2009) 5893 of 29 July 2009)

¹ In accordance with Articles 163 to 173 of the EC Treaty, and in particular Article 166(1) as contextualised in the following decisions: Decision 1982/2006/CE of the European Parliament and of the Council of 18/12/2006 concerning the 7th Framework Programme of the European Community for Research, Technological Development and Demonstration (2007 – 2013) and the Council Decision 971/2006/CE of 19/12/2006 adopting a Specific Programme for Research, Technological Development and Demonstration: 'Cooperation' (2007 – 2013).

TABLE OF CONTENTS

- i. General Introduction**
- 1 Health**
- 2 Food, Agriculture and Fisheries, and Biotechnology**
- 3 Information and Communication Technologies**
- 4 Nanosciences, Nanotechnologies, Materials and new Production Technologies**
- 5 Energy**
- 6 Environment (including Climate Change)**
- 7 Transport (including Aeronautics)**
- 8 Socioeconomic Sciences and the Humanities**
- 9 Space**
- 10 Security**
- Annex 1: International Cooperation Partner Countries**
- Annex 2: Eligibility and Evaluation Criteria for Proposals**
- Annex 3: Forms of Grant and Maximum Reimbursement Rates for Projects Funded Through the Cooperation Work Programme**
- Annex 4: General Activities**
- Annex 5: Recovery Package : Public-Private Partnership Initiatives**

i. General Introduction

This is the work programme for 2010 for the Cooperation Specific Programme of the 7th Framework Programme for Research, Technological Development and Demonstration Activities.

The work programme was adopted by the Commission, with the assistance of the Programme Committee.

This work programme provides additional detail of the implementation of the Specific Programme, setting out information on the priorities, objectives and policy relevance of the research topics which will be implemented through calls for proposals in the latter half of 2009 and in 2010.

The Cooperation work programme is structured around 10 chapters, which set out the implementation of the research Themes. A range of issues of relevance to the Cooperation work programme as a whole are set out in Annexes 1-5. In general, each chapter is self-standing; however, applicants are advised to read this general introduction and the Annexes, in addition to the chapter(s) containing the research Theme(s) of interest. The 2010 work programme contains a new fifth annex, which sets out a series of research topics in three key cross-thematic research initiatives: the European Green Cars Initiative; the European Energy Efficient Buildings Initiative; and the Factories of the Future Initiative. These three research initiatives will be implemented as public private partnerships in collaboration with key European industrial partners².

In preparing this work programme, the Commission has relied on advice from a wide range of consultations, including from the European Technology Platforms³ and from specific advice of a series of advisory groups⁴. The European Technology Platforms provide a framework for stakeholders, led by industry, to define research and development priorities, timeframes and action plans on a number of strategically important issues where achieving Europe's future growth, competitiveness and sustainability objectives is dependent upon major research and technological advances in the medium to long term. The advisory groups are groups of independent, high-level, experts which have been set up by the Commission to advise on the implementation of Community research policy in each of the ten research Themes contained in this work programme. The experts were chosen based on their knowledge, skills and significant experience in the field of research and aligned issues covered by the Themes. More information on the members, and the work, of the advisory groups as well as the European Technology Platforms can be found on the Europa and CORDIS websites.

In the implementation of the Cooperation Specific Programme, attention is also paid to the working conditions, transparency of recruitment processes, and career development as regards the researchers recruited on projects and programmes funded, for which the Commission Recommendation of 11 March 2005 on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers⁵ offers a reference framework, while respecting its voluntary nature.

² As set out in the Communication 'A European Economic Recovery Plan'; COM(2008)800 of 26 November 2008.

³ http://cordis.europa.eu/technology-platforms/home_en.html

⁴ http://ec.europa.eu/research/fp7/advisory_en.html

⁵ <http://ec.europa.eu/eracareers/europeancharter>

This work programme contributes to meeting the overarching objective for European research policy of developing an open, competitive and excellent European Research Area (ERA). The main premise for ERA is to overcome deficiencies and inefficiencies arising from fragmentation, sub-criticality and duplication in R&D activities, and from a lack of policy coherence and coordination at and between regional, national and European level. The realisation of ERA depends upon the extent to which the Ljubljana Process⁶ succeeds in matching high-level political/ ministerial commitment and steering with commensurate concerted action and strong and sustainable partnerships between the Member States and the European Commission. Concrete actions taken are inspired by the common vision for ERA in 2020⁷ and are clearly orientated towards realising the fifth freedom of circulation of researchers, knowledge and technology within a European internal market for research.

By funding excellent state-of-the-art research in key priority areas and pooling research resources, this work programme boosts R&D investments in Europe, fosters better integration of European R&D, and raises research excellence.

More specifically, the essence of the Cooperation programme is that it supports all types of research activities carried out by different research bodies in transnational cooperation. It aims at gaining or consolidating leadership in key scientific and technology areas through collaborative research, the coordination of national research programmes and the establishment of Joint Technology Initiatives building where relevant on coordinated and common strategies such as those of the European Technology Platforms. Through joint actions among academia, industry, research centres and public authorities and the establishment of excellent research projects and networks, it is instrumental in fostering better integration of European R&D and national and regional research programmes, thus helping to establish ERA. Also by tackling major societal concerns which transcend national borders such as energy efficiency, climate change, health and ageing, and sustainable development, it underpins in the longer term Europe's competitiveness and brings about decisive progress in the transition towards a knowledge economy.

Scope of Work Programme

The scope of this work programme corresponds to that defined in the Cooperation Specific Programme. The calls for proposals planned within this work programme are those which are scheduled to be launched in the second half of 2009 and in 2010.

Cross-Cutting Issues

There are several issues that are of importance to all Themes of the Cooperation Programme. These are addressed here and, as appropriate, elaborated further in the Themes and/or in the Annexes. The Cooperation Programme will contribute towards promoting growth, sustainable development and environmental protection, including addressing the problem of climate change.

⁶ Following the 2007 ERA Green Paper, the Ljubljana Process was launched by the Competitiveness Council of 30 May 2008.

⁷ The ERA Vision 2020 was adopted by the Competitiveness Council on 2 December 2008, see doc. 16767/08.

Pluri-disciplinary and Cross-Thematic Research, Including Calls jointly implemented

Cross-Thematic and pluri-disciplinary research areas are included in this work programme, paying particular attention to key scientific areas such as energy efficiency and marine sciences and technologies. Such cross-Thematic research areas are considered at the topic level, either by a centre of gravity approach with close cooperation of the Themes involved and with the topic presented in the most relevant Theme, or by consideration of the specific topic by both Themes. In certain fields of research, where it is clear that proposals will always contain a high proportion of interest for one of more Themes, there is the potential for calls for proposals jointly implemented or coordinated by one or more Themes to allow for a more focussed approach to such cross-Thematic or pluri-disciplinary research areas. The 2010 work programme includes a call on the Ocean of tomorrow: joining research forces to meet challenges in ocean management, which cuts across the Food, Agriculture and Fisheries, and Biotechnology, Energy, Transport, Environment, and the Socioeconomic Sciences and the Humanities Themes for an overall amount of EUR 34 million. In addition, as part of the initiatives linked to the Recovery Package is a call on Sustainable automotive electrochemical storage for an overall amount of EUR 25 million where the following themes are involved: Nanosciences, nanotechnologies, materials and new production technologies (NMP), Energy, Environment (including Climate Change) and Transport (including Aeronautics).

A novel feature of the 2010 Cooperation work programme is also a call on research of interest to Africa coordinated by three Themes. This call is in two parts: the first is focused on water and food security (run jointly by Themes Food, Agriculture and Fisheries, and Biotechnology and Environment); the second part of the call focuses on health research (run by the Health Theme). The overall call budget is some EUR 63 million.

Adaptation to Evolving Needs and Opportunities

The Cooperation Programme has been designed to be responsive to the changing and evolving research needs of European industry and policy makers. Each Theme includes a range of different research topics, including those relevant to industrial needs, such as those identified in the strategic research agenda for the Technology Platforms, and topics relevant to the formulation, implementation and assessment of EU policies and regulations. In addition, 'emerging' research needs are incorporated through more 'bottom-up' research topics. There is also provision for the inclusion of research topics related to 'unforeseen policy needs' which may require a quick reaction, as relevant.

Dissemination, Knowledge Transfer Broader Engagement and Gender

FP7 is working to develop a better relationship between scientists and European citizens. With this aim in mind, the work programme will encourage activities to promote greater public engagement and dialogue in order to involve citizens and civil society organisations in research and science policy.

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 8 of the Negotiation Guidance Notes.⁸

With the aim of encouraging young people's interest in science and science studies, account will be taken of the possible relevance of research results for the purposes of science education. Where appropriate, communication and dissemination strategies will address the wider audience of policy-makers, the media and the general public (including young people), in order to promote increased understanding between the scientific world and society at large.

In order to strengthen the diffusion and use of the output of EU research, the dissemination of knowledge and transfer of results, including to policy makers, including the managing authorities of the Cohesion Policy funds⁹, will be supported in the Themes. In addition, the CORDIS website (<http://cordis.europa.eu>) also provides applicants with full details of the calls for proposals open under this work programme, together with all of the documentation necessary to make an application. Further information on CORDIS is given in Annex 4 of this work programme.

Objectives related to gender, communication and dissemination will be addressed during the contract negotiation.

SME Participation

The participation of Small and Medium-Sized Enterprises (SMEs) is of particular importance in this work programme. A special emphasis has been placed on the participation of SMEs; indeed the aim will be to enable at least 15% of the funding of the Cooperation programme to go to SME participants. Specific research topics of particular interest for SMEs, or specifically targeted to SMEs are highlighted in each Theme, where relevant.

Ethical Aspects

All research carried out under this work programme must respect fundamental ethical principles, and the requirements set out in the text of the Cooperation Specific Programme. More information on the procedures for the peer review of submitted proposals is given in the 'Rules for Submission of Proposals, and the Related Evaluation, Selection and Award Procedures'.

The Commission is fully committed to the principles set out in the declaration on the use of human embryonic stem cells, as set out in the annex to the Commission Communication COM(2006)548 of 26 September 2006. This states that the Commission will maintain the practice of the 6th Framework Programme. Accordingly, the Commission will not fund projects which include research activities which destroy human embryos, including for the procurement

⁸ Available from http://cordis.europa.eu/fp7/find-doc_en.html

⁹ http://ec.europa.eu/regional_policy/atlas2007/fiche_index_en.htm

of stem cells. The exclusion of funding of this step of research will not prevent Community funding of subsequent steps involving human embryonic stem cells.

Collaborative Research

This specific programme will support a range of research actions involving the active collaboration of research teams from all sectors, including industry, SMEs, universities and other higher education institutions, research institutes and centres, international European interest organisations, civil society organisations, and any other legal entities. These actions will be implemented through the funding schemes: Collaborative Projects; Networks of Excellence, Research for the Benefit of Specific Groups (in particular SMEs) and Coordination and Support Actions.

Collaborative Projects can range from small or medium-scale focused research actions, to large-scale integrating projects. When a distinction is made between these two types of projects, it will be based – unless specifically otherwise stated – on the size of the Community contribution requested. The related thresholds may vary for each Theme, and will be specified in the relevant parts of this work programme. It is important to note that these thresholds will constitute eligibility criteria. Additional qualitative aspects may also be given in the relevant parts of this work programme.

Researchers based in Associated countries may take part in the Cooperation programme on the same basis and with the same rights and obligations as those based in Member States.

Joint Technology Initiatives

Joint Technology Initiatives (JTIs) address fields of major European public interest, focussed on well-defined areas of strategic importance for the competitiveness of European industry. These have been identified in the areas of Innovative Medicines (IMI), 'Clean Sky', Embedded Computing Systems (ARTEMIS), Nanoelectronics (ENIAC) and Fuel Cells and Hydrogen (FCH). JTIs will strengthen links between the research community and industry, thus facilitating the commercialisation of research results and reducing time-to-market. After the Council adopted the Regulations for the JTIs they started their operations. Further information on the JTIs can be found at: <http://cordis.europa.eu/fp7/jtis/>

Coordination of non-Community Research Programmes

The coordination of non-Community research programmes is an important and integral part of the development of the European Research Area. This programme builds on the success of activities carried out in the Sixth Framework Programme. Actions foreseen in the Cooperation work programme will make use of two specific approaches – the ERA-NET scheme and the participation of the Community in jointly implemented national research programmes (through Article 169 of the Treaty).

Two different types of ERA-NET actions are foreseen in the Cooperation work programme. Where the actions are invited for topics falling within the scope of one of the Themes, the prescribed topics will be referred to under the Theme concerned and subsequent evaluations

carried out under the theme's responsibility. Where, however, ERA-NET actions remain of a horizontal nature, or not directly linked to a Cooperation Theme, these will be evaluated and supported jointly across all of the Themes in as far as they have a sufficient European added value. In 2010, only Theme specific ERA-NET actions are included in the Cooperation work programme. These will be the subject of a coordinated call for proposals, as set out in Annex 4 of the work programme. Information on these Thematic ERA-NET activities is given in the appropriate chapters and summarised in Annex 4.

Initiatives for the participation of the Community in the joint implementation of national research programmes are foreseen under the Cooperation work programme. In particular, two legislative proposals for Article 169 initiative foreseen under the Cooperation Specific Programme were presented, one in 2007 and one in 2008. The first initiative is aimed at enhancing the quality of life of older people through the use of new ICT technologies ('Ambient Assisted Living')¹⁰ and is fully operational since beginning of 2009. The second is designed at supporting scientific development and innovation in the field of Metrology ('European Metrology Research Programme') and is expected to be fully operational in beginning of 2010. A further initiative is expected to be proposed as foreseen in the Cooperation Specific Programme, namely in the fields of Baltic Sea research. In the expectation that this could be put forward by the Commission, a bridging measure is ongoing to maintain momentum. Further information on Article 169 activities is given either in the appropriate chapters of the work programme, where relevant, or, for Article 169 initiatives of a horizontal nature or not directly linked to Cooperation Themes, in Annex 4 of this work programme.

In addition, the Cooperation programme will also provide support to actions aiming at enhancing the complementarity and synergy between FP7 and ongoing cooperation initiatives (e.g. COST and EUREKA), other activities of intergovernmental research organisations, and networks and associations active at EU level. Further information on these activities is given in Annex 4 to this work programme.

International Cooperation

International cooperation represents an important dimension of all research activities carried out in the Cooperation programme. International cooperation in the research actions in the Cooperation Programme is implemented in the following two ways:

- Through the opening up of research activities to participation by legal entities from third countries. This concerns both International Cooperation Partner Countries (ICPC, full list provided in Annex I) and other third countries, including the associated countries. Organisations from associated and ICPC countries are eligible for funding in all cases. Organisations from other third countries are eligible for funding under the conditions laid down in Art 29 (2) of the Rules for Participation. Some topics in the work programme, in areas of mutual interest and benefit, may target the participation of specific third countries. This participation may also be implemented in the form of coordinated calls or topics. For instance, the 2010 work programme includes in the Nanosciences, Nanotechnologies, Materials and new Production Technologies Theme coordinated calls with Mexico and the US and in the Energy Theme is included a coordinated call with India.

¹⁰ Another legislative proposal for an Article 169 initiative foreseen under the Capacities Specific Programme was also presented in 2007. This initiative is aimed at supporting research and development performing SMEs ('Eurostars').

- Through specific international cooperation actions (SICA) in each Theme, which are dedicated to third countries in specific topics of mutual interest. Such SICA topics are clearly identified in each Theme. It should be noted that specific participation criteria apply to Collaborative Projects for such topics (participation of a minimum of two Member States or Associated countries plus two targeted countries). Unless specifically stated, there are no such specific participation criteria for Coordination and Support Actions targeted at ICPC countries. However, depending on the nature and the expected impact of these actions, the participation of third countries in the projects could be considered essential. Further information on these criteria is given in each Theme and also in the relevant Guide for Applicants. A list of the International Cooperation Partner Countries is given in Annex 1.

Risk-Sharing Finance Facility

Improving access to loans for RTD actions requires public support to overcome market deficiencies for the financing of riskier European RTD actions, which often involve a high level of risk. In accordance with Annex III of the Cooperation Specific Programme, the Community has provided a contribution to the European Investment Bank (EIB) for a Risk Sharing Finance Facility (RSFF), with a view to foster primarily private sector investment in research, technological development and demonstration (RTD) as well as innovation¹¹. This new financing instrument has been designed by the European Investment Bank with the support of the EC.

In compliance with the Cooperation Specific Programme "Joint Technology Initiatives, Collaborative Projects, Networks of Excellence and Research for the benefit of SMEs funded by the Community shall be automatically eligible to the RSFF provided their objectives fall within the scope of the contributing themes of this Specific Programme. Legal entities established in third countries other than Associated Countries are also eligible if they participate in the above mentioned FP7 indirect actions and their costs are eligible for Community funding".

The Community contribution to the RSFF from the Cooperation programme is funded by proportional contributions of all Themes, with the exception of Socio-Economic Sciences and the Humanities. The Commitment Appropriations to RSFF from the Cooperation Programme for 2010 is expected to be EUR 50 million, reflecting the increase of 2009 Commitment and Payment Appropriations by a frontloading of EUR 70 million in response to the financial and economic crises, as foreseen by the European Economic Recovery Plan.

Further information on the Risk-Sharing Finance Facility is given in Annex 4 to this work programme.

¹¹ Costs related to Innovations activities may be considered as eligible EC RSFF Operations provided their compliance with the provisions set in the RSFF Co-operation Agreement between the European Community and the European Investment Bank (as stated in the article A4.6.2: Selection of Projects for Financing and the Eligibility Criteria below)

Submitting a Proposal

Proposals should be submitted in accordance with the terms set out in a call for proposals. In order to submit a proposal, applicants should consult the following documents:

- The text of the call for proposals, as announced in the Official Journal of the European Union, and published on the Internet (such as the CORDIS website);
- This work programme; and
- The relevant Guide for Applicants

There are also a number of other useful texts, which applicants could refer to, including the Specific Programme 'Cooperation', the Rules for Participation for FP7, the Guidelines on Proposal Evaluation and Project Selection Procedures, and the Commission Recommendation on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers. These documents, and other relevant background documents, are available on the CORDIS website.¹² Proposals should also be consistent with national legislation implementing Directive 95/45/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data¹³.

The forms of the grant which will be used and the maximum reimbursement rates for projects funded through the Cooperation work programme are set out in Annex 3 and are applicable to actions as a result of calls for proposals and grants to identified beneficiaries¹⁴, unless indicated otherwise in the Themes. For the first time, participants will have the possibility to use flat rates to cover subsistence costs incurred by beneficiaries during travel carried out within grants for indirect actions¹⁵.

Every Member State and Associated country has appointed a set of National Contact Points (NCPs) to assist potential and successful applicants. There is a NCP for each of the Themes of the Cooperation Programme. Applicants are encouraged to make contact with the relevant NCP from their country.

Evaluation Criteria and Related Issues

The 'Rules for Submission of Proposals and the Related Evaluation, Selection and Award Procedures' set out the basic procedures to be followed by all programmes under the 7th Framework Programme.

The set of eligibility and evaluation criteria for this work programme is given in Annex 2 and is applicable to actions as a result of calls for proposals and grants to identified beneficiaries¹⁴, unless indicated otherwise in the Themes. Any complementary criteria, which may apply, are clearly set out in the relevant chapter of this work programme and in the text of the calls for proposals.

¹² http://cordis.europa.eu/fp7/find-doc_en.html

¹³ OJ L 281 of 23.11.1995, p. 31

¹⁴ According to Article 13 and Article 14 (a) of Regulation No 1906/2006 of the European Parliament and of the Council of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013) OJ L391 of 30.12.2006.

¹⁵ Not available in the case of the ICT Theme.

All proposals which deal with ethical issues and all proposals for which ethical concerns have been identified during the evaluation process may be reviewed by a separate ethical evaluation panel, before they can be selected for funding. Further information on this ethical review and all aspects of the evaluation procedure are given in the 'Rules on Submission of Proposals and the Related Evaluation, Selection and Award Procedures'.

The work programmes, and consequently the calls for proposals, may specify and restrict the participation of legal entities, according to their activity and type, or according to the funding scheme used.

Calls for proposals may involve a two-stage submission and/or a two-step evaluation procedure. When such a procedure is employed, this is clearly stated in the text of the call for proposals and the Guides for Applicants. More information on two-stage submission and two-step evaluation is given in the 'Rules on Submission of Proposals and the Related Evaluation, Selection and Award Procedures'.

In carrying out the evaluations of proposals received, the Commission may choose to send the proposals to external experts, or to make the proposals available electronically, so that the experts may carry out their examination and review of the proposals at their home and/or their place of work.

Prior Information of Candidates, Tenderers and Grant Applicants

(Article 8 of Decision on the EWS and Article 13 of Regulation on the Central Exclusion Database)

The Commission uses an internal information tool (EWS), as well as a database available to public authorities implementing EU funds (CED) to flag identified risks related to beneficiaries of centrally managed contracts and grants with a view to protecting the EU's financial interests.

Candidates, tenderers, grant applicants and, if they are legal entities, persons who have powers of representation, decision-making or control over them, are informed that, should they be in one of the situations mentioned in:

- the Commission Decision of 16.12.2008 on the Early Warning System (EWS) for the use of authorising officers of the Commission and the executive agencies (OJ, L 344, 20.12.2008, p. 125), or
- the Commission Regulation of 17.12.2008 on the Central Exclusion Database – CED (OJ L 344, 20.12.2008, p. 12),

their personal details (name, given name if natural person, address, legal form and name and given name of the persons with powers of representation, decision-making or control, if legal person) may be registered in the EWS only or both in the EWS and CED, and communicated to the persons and entities listed in the above-mentioned Decision and Regulation, in relation to the award or the execution of a procurement contract or a grant agreement or decision.

More information on the EWS and CED can be found at the following address:

http://ec.europa.eu/budget/sound_fin_mgt/ews_en.htm

Budget Figures in This Work Programme

This work programme draws on financing from the 2010 budgetary year. All budgetary figures given in this work programme are indicative. Unless otherwise stated, 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.