



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels,
COM(2009)

**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE
EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**On the Response to the Reports of the Expert Groups on the Ex Post Evaluation of the
Sixth Framework Programmes**

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1. OVERALL CONTEXT

The Decisions on the 7th Research Framework Programmes¹ (EC and Euratom) stipulate that they should be evaluated within two years of their completion. The ex post evaluation of FP6 (2002-2006) was carried out by a 13 member Expert Group, led by Professor Ernst Rietschel, President of the Leibniz Association. The evaluation was designed to assess the rationale, implementation and achievements of FP6 and based on an array of evidence². The findings and recommendations of the specific evaluations on the JRC's direct actions and IST research were reported back to the Expert Group.

Both FPs include so-called direct actions which are R&D activities carried out by the European Commission's Joint Research Centre (JRC). The JRC and its Board of Governors set up a Panel of experts, chaired by Sir David King³, which delivered its report in September 2008. Although the Commission services already reacted⁴ to the findings in this report, broadly supporting the recommendations made, the Commission finds it useful in the context of the general assessment of the whole FP6 to draw the attention to this dedicated evaluation report on the JRC, which the Commission considers to be the reference evaluation of the JRC (see annex).

The ex-post evaluation of the IST Thematic Priority under FP6 was carried out by an Expert Group chaired by Mr Esko Aho. The Commission welcomed the report and set out its initial reactions to the recommendations made in a Communication⁵ to Institutional Stakeholders in September 2008. It proposed to make them the subject of a broad debate on European policy on innovation in ICT⁶.

¹ Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013); 2006/970/Euratom: Council Decision of 18 December 2006 Concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)

² Further details on the evidence and the method used by the FP6 evaluation Expert Group are available in the evaluation report at http://ec.europa.eu/research/reports/2009/pdf/fp6_evaluation_final_report_en.pdf

³ Ex-post Evaluation, Joint Research Centre Direct Actions in the 6th Framework Programmes (2002-2006), Final Report September 2008

⁴ Ex-post evaluation of the Direct Actions under the Sixth Framework Programmes for Research Technology Development and Demonstration carried out by the Joint Research Centre, SEC(2008)3015 COM (2008) 533 - <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0533:FIN:EN:PDF>

⁶ COM (2009) 116; "A Strategy for ICT R&D and Innovation in Europe: Raising the Game" (http://ec.europa.eu/information_society/tl/research/documents/ict-rdi-strategy.pdf)

2. INTRODUCTION

The major objectives of the 6th Research Framework Programmes (2002-2006) and their Specific Programmes were to integrate strengthen and structure the European Research Area. With a budget of €19.235 billion these were some of the world's most comprehensive public research programmes and to evaluate them is a demanding task.

The Commission has recently received the report of the Expert Group, which has set a benchmark in terms of the range and quality of evidence used and the level of detail provided.

The findings, conclusions recommendations and the vision on the future of the FPs presented in this report provide valuable input for future policy development and follow-on evaluation, in particular the FP7 interim evaluation and the design of FP8, to start in 2014.

The aim of this Communication is to respond to the issues raised in the ex-post evaluation in an open and transparent manner, outlining which actions the Commission intends to take or has already taken to alleviate the problem, but also discussing issues where no obvious or immediate solution exists.

It is obvious that a number of the issues raised in the evaluation report, in particular regarding the design and content of the FPs and financial rules which given their implementation cannot be addressed by the Commission alone, but will need the engagement of a wider group of actors including the Member States, the Council and the European Parliament working together.

3. RESPONSE TO RECOMMENDATIONS

1. Prior to proposing plans for FP8, the Commission should analyse and more clearly document the current and future rationale of the FP at both aggregate and micro levels. The number of goals set for a FP should be commensurate with the Commission's and other actors' capacity to manage towards these goals. The Commission should document and make more transparent the consultation processes involved in designing a FP at both the aggregate and the Work Programme level.

The Commission agrees with the overall intent of the recommendation.

The preparation and design of the FP8 proposal will be preceded by extensive, open and transparent consultation with stakeholders. A detailed analysis of its rationale will be set out in the Impact Assessment accompanying the FP8 proposal.

The 'realisation of the ERA' has been the overarching objective of EU R&D policy and the FPs since 2003 and will likely remain so.

The FP will increasingly need to take into account the partnership approach with Member States as set out in the Ljubljana process⁷ and the commonly agreed ERA vision for 2020⁸:

⁷ The Competitiveness Council of 30 May 2008 launched the Ljubljana Process of enhanced political steering and governance of ERA. At present five partnerships are being built between the Commission and the Member States: career aspects and mobility for researchers; management of intellectual property in knowledge transfer; joint programming between the Member States; pan-European research infrastructures; international science and technology cooperation.

creating a European internal market for science, knowledge and technology, more coordination of research activities and policies and more focus on programmes and policies to address major societal challenges—such as energy, environment, climate, health, ageing and sustainable development. This may lead to challenging issues such as finding new ways to leverage resources through partnership. It will also aim to support and reinforce the implementation of the 5 ERA initiatives launched in 2008, in particular the researchers partnership, the strategy for international research cooperation and the joint programming approach.

2. *An FP, however, needs to be more than a reflection of what competing beneficiary or stakeholder communities want of it at the outset. It needs the flexibility to evolve and change. The FP should not develop into a substitute for the RTD policies of Member States or for other local problems, but should be better synchronised with national research efforts in order to strengthen and structure the ERA. It should also consciously avoid monopoly. At present, the Commission and the FP have a hand in almost all European RTD cooperations, risking a monotony of thinking and ideas and precluding the benefits of diversity in the European research system.*

The Commission is in broad agreement with the recommendation and the need to better align and coordinate Community and national research efforts in order to strengthen and structure the ERA.

The ambition for better synchronisation, at policy and programme level, is to a large extent the rationale behind the need for strong and durable ERA partnerships between the Commission and the Member States within the Ljubljana process. On the policy level, this is done via the Open Method of Coordination and through the implementation of the Community ERA initiatives launched in 2008⁹. At programme level, and building on the experience of ERA-NETs and Art. 169 initiatives, the Commission has proposed a Joint Programming approach.

The FP is indeed not a substitute for national funding but has to provide European added value independent of the size and scope of the project and the instrument being used.

The suggestion of a monopoly by the Commission and the Framework Programme in European research is not borne out by the evidence. Institutions and activities such as CERN, EUREKA, the ESF and COST are just a number of the Europe-wide and multilateral bodies which today support the European research system.

3. *The ‘Third country’ terminology must be abandoned as it stands in the way for strategic thinking. It should be replaced by three strategies: one for EU FP collaboration with the developing countries; one for collaboration with growth economies; and one for collaboration with industrialised countries outside the EU. The budget for cooperation with the major existing (such as US and Japan) and emerging economies (including India, China and Brazil) should be increased dramatically and strategies tailored to reinforce mobility with these countries and to engage them as partners in the mainstream of the FP, thereby strengthening both the quality and purpose of ERA. FP activities for collaborating with developing countries should concentrate on topics and technologies of relevance for development and where EU scientists are globally in the lead.*

⁸ The 'ERA Vision 2020' was adopted by the Competitiveness Council on 2 December 2008

⁹ http://ec.europa.eu/research/era/specific-era-initiatives_en.html

The term 'third country' covers those countries which are not full members of the Framework Programme, including non-EU and non Associated Countries.

The Commission acknowledges even though the term might have some disadvantages it has not been an obstacle to more targeted and nuanced thinking on strategic research partnerships with the three types of country specified¹⁰. To replace the term using further classification would not necessarily be in the interests of clarity or simplification. The Commission would also emphasise the importance of maintaining the focus on excellence in international cooperation through the FPs, whilst paying attention to the particular research needs identified by partner countries and also encouraging support for capacity building for research through other funding sources.

The Commission agrees with the need to provide a clearer focus to research collaboration with 'third countries', as was stated in the recent Communication on a Strategic European Framework for International Science and Technology Cooperation.¹¹

The Commission is very supportive of the need to see an increase in the level of funding going to research partnerships with developed countries thus strengthening the link with the best global science. Practical hurdles need to be overcome before this will be achieved.

Several developments in FP7 point the way forward:

- the Specific International Cooperation Actions have proven effective in supporting partnership on shared challenges, particularly with growth economies and developing countries – for example coordinated calls with strategic partners such as Russia and India have been launched
- building a strategic partnership with the Member States, notably 'Fostering strategic cooperation with key third countries through geographic and thematic targeting' - to this end, a new Strategic Forum for International S&T Cooperation has been established
- mutual opening of programmes, such as in the area of 'health' between the EU and US

4. A new bottom-up format (inspired by NEST in FP6) should be introduced to test research directions and original ways of achieving collaboration. The format's characteristics should be swift and risk-taking, 'scientific excellence' being the only criterion for selection.

Frontier research has much greater weight in FP7 and the 'bottom up' philosophy, pioneered by NEST is a key principle of the European Research Council (ERC), covering all areas of science and technology including social sciences and the humanities. The ERC's support for Principal Investigators and individual teams is a change in approach from the collaborative research promoted by NEST.

Because collaborative schemes can be efficient means of stimulating interdisciplinary frontier research via cross-European partnerships, as a complement to the ERC, NEST-style research

¹⁰ In fact the levels are: 'associated countries'; 'neighbourhood policy countries' (Mediterranean, and Eastern); and 'strategic countries', the later with thematic focus, including global challenges, development goals, etc.

¹¹ COM (2008) 558, 'A Strategic European Framework for International Science and Technology Cooperation' p.7

has been taken up as a component of each of the FP7 thematic priorities. Notable amongst these is the Future and Emerging Technologies (FET-Proactive) initiative under the ICT thematic priority which aims at focusing resources on visionary and challenging long-term goals with strong potential for future impact.

The Commission accepts that more attention may be necessary to ensure that the combination of instruments to promote frontier research, both by individual teams and cross-European partnerships, works effectively across the range of FP research. A reflection on strengthening NEST-style frontier research should not limit itself to targeted research within specific thematic objectives but also consider 'bottom-up', 'cross-thematic' interdisciplinary research.

5. SME participation in the thematic priorities is important and should be encouraged. However, the utility of an overall 15% target should be re-examined in favour of mechanisms which are more in line with the relevant industrial dynamics.

The Commission feels that the participation of SMEs in the Framework Programmes, including within the thematic priorities should be encouraged. The 15 % target is a reflection of the importance the co-legislators attached to the issue and was never intended to be an end in itself. Regional and national programmes and their partners are frequently better suited to the nature and the needs of SMEs.

Across many FPs there have been sustained efforts, including currently an Interservices Task Force, to monitor SME participation and establish specific provisions which fit their particular needs. A notable success includes the Eurostars Programme which is a joint initiative between EUREKA and FP7 to provide funding for market-oriented research and with the active participation of research performing SMEs.

Detailed study work is under way to explore the benefits which SMEs gain from FP participation, including the special measures in the Capacities Specific Programme. This work is also intended to provide a much improved understanding of the nature of SME research activities inside the FP, including the needs of high, medium and low-tech SMEs, with a view to streamlining SME support in future Framework Programmes.

6. The Expert Group recommends continuing the ESFRI process, including its roadmap and foresight activities, recognising that FP activities that support research infrastructures which serve multiple fields have proven highly effective.

The Commission will continue to support the activities in the European Strategy Forum on Research Infrastructures (ESFRI). ESFRI plays a key role in the development of strategy, in particular through its Roadmap for new European Research Infrastructures (ERIs). This should be complemented by development of national roadmaps by Member States, and by increased coordination of research infrastructures at the global level. This is in line with Community actions in this domain. In particular in FP7 a new action aimed to help develop the next generation of European research infrastructures (Construction - Preparatory Phase) are targeted to the ESFRI Roadmap.

The Commission is complementing this with a new legal framework for ERIs which will foster and speed up the decision process.

The Commission acknowledges the effectiveness of infrastructures which serve multiple fields, such as the ICT-based infrastructures. It will continue to provide strong support for

their further development in the future, taking into account their rapid technological evolution, their global dimension, as well as the advice provided by fora such as the eIRG¹².

7. Steps must be taken to substantially increase the participation of female researchers in FP projects, by means of much more pro-active approaches such as (re)introducing specific gender equality actions after quality criteria as a condition of funding in large instruments. Statistics must be systematically and continuously gathered, analysed and monitored and actions taken if progress towards equality is not being achieved.

The Commission supports the need for a better gender balance amongst European researchers. However, it is cautious with the direction proposed by the Expert Group. The FP should act as a best practice example and set standards. But the proportion of women in the FP is already higher than overall in national programmes and there are limits to what the FP can achieve on its own. The foundation for any future action must be based on a better collection and analysis of statistics on the gender of researchers. There is the need for more bottom-up approaches, in cooperation with the Member States and other policy fields that impact on gender equality, a good example being the Code of Best Practices for Women and ICT¹³ which is looking at creating the conditions, in co-operation with the European ICT industry to attract and retain women.

8. It is crucial for Europe's future scientific and technological vitality and competitiveness to ensure that research is seen by young people as an attractive career choice. Focusing the FP more strongly on addressing the major global needs and challenges could be one way of addressing this issue. Other elements would be to promote further the mobility of young European scientists and to allow more students and young researchers from scientifically emerging countries to study and work in Europe.

The Commission agrees with the need to attract young people to make a career in science and technology. The Rocard Report on Education Science¹⁴ clearly demonstrated the declining interest of young generations in science studies and amongst its conclusions noted the need to radically change science teaching models.

Solutions will need to be found at Member States and Community level, involving actions from different policy fields and including a wide range of stakeholders.

FP7 is already increasing its focus on major global needs and challenges, one example being renewable energy technologies within the strategic energy technology (SET) plan. Joint Technology Initiatives, the proposed joint programming approach and also building global partnership within the new international S&T strategy all focus on major global needs and challenges.

Another area where progress has been made is with the market place for researchers. The recent European Partnership for Researchers aims at national and European policy measures to make Europe overall a more attractive place in terms of researchers careers and mobility. Further work on the uptake at the level of research institutions of the principles of the European Charter for Researchers and Code of Conduct for their Recruitment will help create

¹² e-Infrastructures Reflection Group : <http://www.e-irg.eu>

¹³ http://ec.europa.eu/information_society/activities/itgirls/doc/code.pdf

¹⁴ http://ec.europa.eu/research/science-society/document_library/pdf_06/report-rocard-on-science-education_en.pdf

stronger research careers and real competition. The Commission also expects to see more awareness raising in secondary education where career junctions are set.

On the question of encouraging young scientists to study and work in Europe, the Commission points to the very real progress with innovations such as the 'scientific visa' which provides a specific residence permit for third country researchers. At the same time, it is important to avoid creating a scientific brain drain. The aim is to promote a true exchange including a return phase to the third country to allow building their national institutions up while at the same time creating links for mutual long term benefits.

9. Administration of the FP needs radical overhaul, not incremental tinkering. The Commission should engage external help to review its procedures – including its financial control procedures, with specific targets including reducing the 'headline' time-to-contract indicator by 50% and of moving from a cost basis in contracts to a price basis, so that cost no longer needs to be audited except perhaps for a small number of projects. In its support of scientific projects, the Commission should continue to change from a contract to a grant basis.

The Commission is aware of the importance of administration and simplification and in particular of the two concrete issues highlighted by the Expert Group. Simplification has been one of the main objectives of FP7, and achievements have been outlined in the recent progress report on FP7, for example with respect to the Participants Guarantee Fund which has permitted abolition of ex-ante financial viability checks for the majority of participants; one-off submission of legal documents via the unique registration facility; and new electronic tools to facilitate the negotiation of contracts.

As outlined in the Progress report, the Commission's ability to simplify is constrained by the given legal context. The radical overhaul suggested by the report could be based on external help to review procedures, but it will also require a joint effort with the legislator, the budgetary authority and the Court of Auditors to change the overall legal, financial and control framework. This should aim to achieve a better balance between simplicity and reduction of bureaucratic burden on the one hand, and sound financial management and accountability on the other.

A Commission Communication on simplification is planned for 2010, which would be the occasion for reflecting on these issues and for taking account of the ongoing dialogue with the Legislative Authority and the Court of Auditors in respect of the concept of the tolerable risk of error¹⁵.

10. The Commission should broaden its evaluation culture considerably, in order to measure and demonstrate the impacts of the FP. To date, evaluations of the FP have tended to focus on the planning and organisation of the most recent programme. There is a significant deficit in our understanding of the effects of the FP over time and on the wider context (including institutions; disciplines and technologies; industry; society at large; policy). While the programme-focused style of evaluation promoted by the Commission's internal regulations is of course important, it is hard to develop a good understanding of how the FP works and to improve it without also considering these other perspectives.

¹⁵ Following Communication (COM(2008)866 of 16.12.2008, "Towards a common understanding of the concept of tolerable risk of error".

The Commission recognises the need to undertake more research on the longer-term and structural impacts of the FP (on institutions, industry, Member States etc.) and has already taken steps to ensure such work is carried out.

Strong support from the Member States in understanding the longer-term impacts is crucial. The recent impact studies and conference to emerge from the EUFORDIA¹⁶ grouping have provided a timely lesson on what can be achieved through such ad hoc initiatives, to which the Commission will continue to give its strong support.

4. OUTLOOK

This response to the FP6 evaluation is part of a renewed and strengthened commitment made by the Commission to report on the implementation, progress and achievements of the Framework Programmes.

Together with the current work, the sequence of reporting and evaluation exercises includes the recently published FP7 Monitoring report¹⁷, the FP7 Progress report and in 2010 the interim evaluation of FP7.

The FP6 ex post evaluation report and the Commission response as well as the specific reports on the JRC's direct actions and IST research will be key elements feeding into the FP7 interim evaluation. This will help to ensure not only better continuity and a deeper understanding of the issues being examined but also a stronger engagement between evaluation and processes for policy and decision making. Ultimately this will help to adapt the current Framework Programme and the design of FPs to contribute to the realisation of the European Research Area: a European internal market for science, knowledge and technology which increases scientific and technological excellence through competition and at the same time provides a space for coordination of research activities, programmes and policies in Europe to address major societal challenges more effectively and efficiently.

¹⁶ European Forum on Research and Development Impact Assessment
¹⁷ http://ec.europa.eu/research/reports/2009/pdf/first_fp7_monitoring_en.pdf

Annex

An independent assessment of the Joint Research Centre's (JRC) direct actions in FP6

The ex post FP6 Evaluation of the JRC by a Panel chaired by Sir David King, deals with all direct actions in the Framework Programmes and reports on the results in the JRC Specific Programmes. It provides the Commission and the JRC with recommendations for a continued improvement of its science-based policy support.

Rather than assessing the performance of each of the seven JRC Institutes the Panel emphasised an integrated approach to the JRC and evaluated the organisation as an entity focussing on its main competence areas according to the structure of the Multi-Annual Work Programme (MAWP) for FP6. Thematic achievements have been assessed on the basis of site visits and parallel desk studies of the background material provided by the JRC. The Panel paid special attention to the quality of the research activities, as well as to the quality of implementation and management, and the achievement of the objectives set. In addition, it took evidence from JRC customer surveys carried out by an external survey company.

The overall assessment of the JRC's performance and achievements during FP6 is positive, coming to the conclusion that "the JRC has undergone a major transformation over the last 10 years, consolidating its position as an indispensable source of knowledge and expertise in support of the political agenda of the EU". The delivered science and policy support is qualified as "good, very good and sometimes excellent". The Panel observed a continued improvement of the customer orientation of the JRC from FP5 through to FP6 ever since the adoption of the new mission of the JRC in 1998. They acknowledge the JRC's strategic framework: a convincing mission statement, a value statement and regular internal evaluation. To complete the strategic framework and to lift the organisation to a higher level in serving the policy customer the Panel underline the need for the JRC to establish a longer-term vision and an overarching corporate strategy. In such a higher mode of operation the Panel is also of the opinion that the JRC has the right knowledge base and skills to intervene in a proactive way in relevant policy processes.

The positive assessment of the JRC's implementation of the direct actions in FP6 in terms of its customer orientation, its quality and its impact is well received. The Commission welcomes the findings and the high level of the analyses in the report, as well as the thrust of the recommendations. It acknowledges the role of the Board of Governors in the discussions of the early results and is pleased with the positive reactions from the scientific community¹⁸ which will help to further strengthen the position of the JRC, as the Commission's in-house provider of scientific support and advice.

Fully accepting the recommendations in the report, the Commission is committed to establishing an overarching corporate strategy of the JRC in time for the interim evaluation of FP7. The ultimate goal is an optimum exploitation of the knowledge base of the JRC in support of EU policies as well as a clear place for the JRC in the discussions on science, science policy and research in the EC and Euratom Framework Programmes. Within the JRC it will also lead to further integration and coordination across the institutes.

¹⁸ "Dismal no more: Europe's Joint Research Centre should be empowered to stimulate other EU institutions". In: *Nature* 457, 357-358 (22 January 2009)

In FP7 the JRC started taking a more proactive approach in its policy support with the publication of JRC reference reports. These JRC reports nurture the debate on important societal issues that are of major concern to the European policy makers and citizens alike, all in the spirit of the recommendations. Given its accumulated knowledge and experience, and its close contact with the scientific community, it is well placed to see problems coming. In this light the Commission supports the JRC in meeting the challenge by designing a corporate strategy that is also aimed at developing the desired, more proactive approach in supporting the policy making process.