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MONITORING 2005

IMPLEMENTATION OF INDIRECT RESEARCH ACTIVITIES OF THE SIXTH FRAMEWORK PROGRAMMES OF THE EUROPEAN COMMUNITY (EC) AND OF THE EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM)

INDEX TABLE

MONITORING 2005 - IMPLEMENTATION OF INDIRECT RESEARCH ACTIVITIES OF THE SIXTH FRAMEWORK PROGRAMMES OF THE EUROPEAN COMMUNITY (EC) AND OF THE EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM)

Part A: Report of the 2005 External Expert Panel.....3

Part B: Response of the Programme Management to the External Monitoring report.....51

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PART A: REPORT OF THE 2005 EXTERNAL EXPERT PANEL

OCTOBER 2006

TABLE OF CONTENTS

PANEL MEMBERS.....	6
COMMISSION REPRESENTATIVES	6
1 EXECUTIVE SUMMARY	7
2 PANEL METHODOLOGY	11
3 INTRODUCTION.....	12
4 MONITORING OF THE IMPLEMENTATION IN 2005 – ANALYSIS AND FINDINGS	13
4.1 <i>Follow-up of 2004 monitoring recommendations</i>	13
4.2 <i>Attainment of objectives in terms of implementation and progress achieved.</i>	13
4.2.1 Marie Curie.....	15
4.2.2 International cooperation.....	16
4.2.3 SMEs	18
4.2.4 Alternative approaches to implementation	20
4.2.4.1 Space.....	20
4.2.4.2 EURATOM.....	20
4.3 <i>Follow-up of the Action Plan on rationalisation and acceleration (FP6)</i>	22
4.4 <i>Effectiveness of the project review process</i>	25
4.5 <i>Integration of Socio-Economic Dimension and of the Science and Society aspects</i>	27
4.6 <i>Dissemination and exploitation of results</i>	29
5 CONCLUSIONS AND RECOMMENDATIONS.....	32
5.1 <i>Majors trends, strengths and weaknesses encountered</i>	32
5.2 <i>Recommendations</i>	33
5.3 <i>Lessons learned towards FP7</i>	36
6 ANNEXES	38
6.1 <i>Mandate</i>	38
6.2 <i>Glossary</i>	40
6.3 <i>Information provided to the experts by the programme management</i>	42
6.4 <i>List of interviews</i>	47
6.5 <i>Statistics</i>	48

The Monitoring 2005 Panel

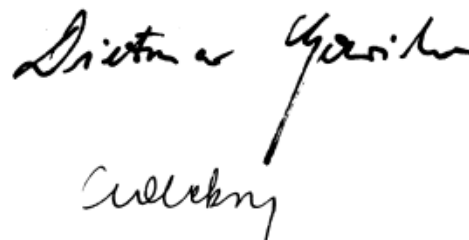
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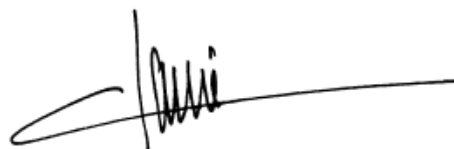


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1 EXECUTIVE SUMMARY

According to its mandate, the 2005 Monitoring Panel focused on the implementation and progress achieved with respect to the work programmes established for the specific programmes and their thematic priorities, the follow-up of the action plan on rationalisation and acceleration, the effectiveness of the project review process, the integration of Socio-Economic Dimension and of the Science and Society aspects, and dissemination and exploitation of results of projects and programmes. The main conclusions drawn by the Panel and its recommendations are presented in this report.

By looking at some figures related to the implementation of FP6 in 2005, that is, 15,210 proposals evaluated, 2,761 proposals retained for funding and EC financial contribution to contracts of about 4,577 MEuro, the Panel believes that the implementation of FP6 was performed according to its objectives and no major problems were encountered. In 2005, the Commission devoted a significant effort to the successful ITER negotiations, and the adoption of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. In parallel, the Commission services were deeply involved in the preparation of the FP7 proposal (issued in April 2005) and to the related bilateral and multilateral negotiations.

The Panel welcomes the Commission's effort in following up the recommendations presented in the 2004 Monitoring Report. Some of the issues were completely solved, whereas others need further attention in the context of FP7 implementation.

Implementation and progress

The Panel believes that the Commission has dedicated significant effort towards the implementation of the new FP6 instruments. The difficulties initially encountered in the definition and implementation of NoEs have been reduced, even though it is too early to assess their actual effectiveness. Moreover, the Panel is concerned about oversubscription and low success rate, especially for SMEs and some of the Marie Curie actions.

The Panel welcomes the simplification of the rules of Marie Curie actions, the reduction of the Time To Contract, and the increased use of the two-stage submission and evaluation. To ensure a faster and more efficient evaluation process and to further reduce the Time To Contract, the Panel believes that there is room for improvement of the current IT tools. To assess the efficiency and effectiveness of the new Marie Curie actions, detailed statistics should be collected at the end of FP6.

The lack of a separate budget for international cooperation within each thematic priority has produced some difficulties. In the first half of 2005 only 15% of the pre-allocated budget was used by the thematic priorities. The Panel believes that the specific call launched at the end of 2005 to overcome this problem was more oriented to spending the pre-allocated

budget rather than as a result of a coherent plan to increase the political commitment. The Panel recommends the Commission adopts a more pro-active role in promoting international cooperation both at the project and regional levels with a pre-defined strategy in close cooperation with other EU policies.

Although in 2005 the participation of SMEs to projects has increased with respect to 2004, it is still below the target of 15% of the budget grants within the thematic priorities (13.6% of main-listed proposals for calls closed and evaluated from the beginning of FP6 until May 2005). There is a big difference in SME participation across thematic priorities and instruments. The Panel is concerned about the effectiveness of the funding in terms of the role played by SMEs in consortia. The Panel believes that the new instruments are too big and far too complex for SMEs and more effort and budget should be devoted to small-scale projects and specific instruments for SMEs.

Finally, the Panel analysed two specific areas, Space and EURATOM, because of their different implementation requirements. In the Space thematic priority, the interaction with other organisations, mainly ESA, and with other thematic priorities for what concerns the application of satellite data, requires additional effort from and a pro-active role for the Commission services. 2005 was very important for nuclear research because of the new initiatives, such as, the new fission power plant to be built in Finland and, above all, the signature of the ITER agreement. In particular, there is the need for EURATOM to open the participation to a larger number of entities and to reinforce the international cooperation in coming years.

The Commission launched the “Action Plan on Rationalisation and Acceleration” to cover a longstanding political goal. The number of documents prepared for the implementation and follow-up of the Action Plan reflects a deep involvement of the Commission. The Panel suggests the Commission prepares a report on the results of the Action Plan with statistics about the reduction of time per instrument, priority and specific programmes with respect to the declared objectives and uses these results for similar objectives for FP7.

The Panel congratulates the Commission for the reduction in the number of audit certificates (up to 25%) which alleviated the financial costs incurred by project participants. Nevertheless, it is not clearly understood the ex-post use of these documents by the Commission. The experience gained of the new instruments, that is, IPs and NoEs, suggests that the internal procedures established by project coordinators in Consortium Agreements have included extra management work and administrative burden for the sake of potential risk management reduction strategies.

Evaluation procedures have reached a very good level of maturity. The Panel recommends extending the use of two-stage submission and evaluation procedures. The Panel believes that there is room for improvements in the Commission’s databases and recommends

the use of a common information structure to avoid participants having to submit the same information more than once.

Project review process

During 2005, a number of first year or second year reviews of the new instruments introduced in FP6, and mid-term and final reviews of the traditional instruments took place. The Panel recommends a systematic monitoring of the results of the project reviews to assess the effectiveness of the process and ensure the proper implementation of new instruments in line with the work programmes. In particular, the Commission should define and make transparent quantitative indicators about the follow-up of each project and foresee an impact study of the projects launched under FP6.

Socio-Economic Dimension and Science and Society

The Panel recognises the efforts of the Commission to raise awareness of the Socio-Economic Dimension and Science and Society, and to integrate them into FP6. The Mid-term Synthesis Report on the integration of Socio-Economic and foresight Dimension in FP6 found that no progress with respect to integrating SED in the project evaluation could be found. The Panel believes that SED and S&S dimensions should receive more visibility at both the EU and national levels. To accomplish this goal, the horizontal issues stemming from SED and S&S should be included in the work programmes, and should be addressed in the evaluation and review processes in the same rigorous way as the other dimensions.

To achieve the goal of gender mainstreaming, the Commission designed two tools: “Gender Action Plan” and “Gender Issues”. The Panel believes that GAPs should be given more visibility in evaluation and contract negotiation processes.

The Panel acknowledges the effort in improving the communication media (e.g., Web sites, brochures and videos). Nevertheless, the Panel recommends a study of impact of these media and recommends focusing on the content. The actual message delivered sometimes fails to address adequately the general public.

The Commission devotes considerable effort to ensure the EU does not support research contrary to fundamental ethical principles. During 2005 ethical reviews were undertaken by necessarily multidisciplinary Panels drawn from very diverse professional backgrounds. The Panel recommends that guidance and training are provided for researchers, evaluators and Project Officers so that the full range of ethical issues relating to Science and Society is explicitly addressed throughout the project life cycle.

Dissemination and exploitation of results

The main responsibility for the exploitation of results lies with the partners of the projects. The Commission cannot interfere in their internal agreements, except when plans or commitments are explicitly included in the contracts. In this sense, as recognised in the 2003 Monitoring Report, the introduction in the contract model of a requirement for contractors to

engage with actors beyond the research community and to take measures to ensure suitable publicity was a major step forward. Nevertheless, as contractual obligations finish with the project, there is no formal way to trace or evaluate the dissemination and exploitation activities carried out after the end of the project. This fact prevents an effective control of the commitments of the consortia as it relies on voluntary delivery of information. The Commission should undertake some actions to overcome this problem.

The Panel was positively surprised by the relevant effort in the dissemination of results carried out by the Commission services. The number of documents, brochures, fact sheets on projects, press releases, and information available on the Web is very impressive. Nevertheless, the Panel believes that this activity should be enlarged and other policy DGs should be involved to show the benefits on other European policies.

Towards FP7

The Panel suggests that the Commission analyses the impact of the FP7 activities on the management and implementation of FP6, by ensuring the allocation of sufficient resources. Even though there is a natural tendency to pay more attention to the future than to the past and indeed the present, the implementation of FP6 is not over yet.

The compulsory internal mobility of Commission officers involved in sensitive jobs has to be addressed very seriously in that it can endanger the continuity of operations in key services involved in FP6 management. The potential loss of expertise could represent a serious obstacle in the transition towards FP7. In this context, the definition of sensitive jobs in services managing research should be reconsidered by the Commission.

2 PANEL METHODOLOGY

The 2005 Monitoring Panel consists of seven high level independent experts, coming from different Member States, from a range of fields in science, technology and the social sciences. The Panel was appointed by the European Commission to analyse and review the implementation of the indirect research activities carried out in the year 2005 under the EC and EURATOM Framework Programmes (FP6) and the corresponding specific programmes.

The Panel carried out its monitoring exercise between mid June and the end of September 2006. During this period, the Panel met four times in Brussels to discuss its tasks and the major issues to be addressed in its report. Besides reviewing the sheer amount of documents provided by the Commission services, the exercise was based on a set of interviews of members of the Commission staff. Moreover, to get opinions on the implementation of the Framework Programmes as perceived by actors coming from outside the Commission, the Panel decided to interview representatives of the Informal Group of RTD Liaison Offices in Brussels for EU R&D (IGLO) and SMEs representatives. The Panel held all the interviews in Brussels in July and early September 2006.

Annex 6.3 contains the list of documents used by the Panel for its monitoring exercise, whereas the list of interviews is presented in Annex 6.4.

According to its mandate (see Annex 6.1), the Panel then decided to focus its report on the following topics:

- implementation and progress achieved with respect to the work programmes established for the specific programmes and their thematic priorities. In this context, particular emphasis was given to Marie Curie actions, international cooperation, the role and participation of SMEs, and Space and EURATOM activities due to their peculiarities in evaluation and implementation;
- follow-up of the action plan for rationalisation and acceleration;
- effectiveness of the project review process;
- integration of the Socio-Economic Dimension (SED) and of the Science and Society (S&S) aspects with particular emphasis on gender, communication and ethics; and
- dissemination and exploitation of results of projects and programmes.

Even though the main focus of the monitoring exercise was FP6, the Panel analysed the issues covered in its mandate with emphasis on the preparation activities of the next Framework Programmes (FP7) for which the Commission presented proposals in 2005.

3 INTRODUCTION

In the year 2005 the Commission has smoothly progressed towards the implementation of the activities under the EC and EURATOM Framework Programmes and the corresponding specific programmes (FP6) and has made major steps forward towards the preparation of the next Framework Programmes (FP7)¹.

The evaluation, monitoring and implementation of the calls for proposals issued in 2005 are among the many activities carried out by the Commission. In particular, 15,210 proposals were evaluated, among which 2,761 were retained for funding. The EC financial contribution to contracts signed in 2005 was about 4,577 MEuro. In terms of EC contribution, 48.8% was dedicated to new instruments, that is, Integrated Projects (IPs) and Networks of Excellence (NoEs) and 13.6% to main-listed proposals submitted by SMEs (from the beginning of FP6 until May 2005). The Commission, assisted by external experts at least for the new instruments, carried out the periodic reviews of the first projects launched in FP6. There was strong involvement of a range of multidisciplinary experts in the ethical review of proposals.

Among the main achievements reached by the Commission in the year 2005, it is worth mentioning its support in creating 28 European Technology Platforms, the selection of 68 ERA-NET projects, the signed agreement on the realisation of the International Thermonuclear Experimental Reactor (ITER), and the recommendations to Member States on the European Charter for Researchers and on the Code of Conduct for the Recruitment of Researchers. Moreover, to increase the innovation and competitiveness of European businesses and industry and to provide greater benefits for all European citizens, the Commission has launched various actions, such as, the development of strategies for various research domains. Information communication and information dissemination actions oriented towards the various stakeholders, including the general public, have been extensively pursued. Annex 6.5 presents some statistics that summarise the outcomes of FP6 in 2005.

In parallel to the implementation of FP6, in the year 2005 the Commission devoted substantial effort to the preparation of the next Framework Programmes for 2007-2013 (FP7). All Commission services with responsibilities in thematic or horizontal priorities and in inter-institutional relations were involved. The FP7 proposal was issued on the 6th of April 2005, allowing enough time for widespread discussion and its final approval before the end of FP6. Since then (and even before), multiple formal and informal meetings and interactions with the Member States, the European Parliament, the Council, and various committees and bodies were organised by the Commission to reach a final agreement.

In summary, the objectives set for the year 2005 were met and the budget was fully

¹ The report addresses the indirect research activities of the Framework Programmes. The Monitoring of the direct research is carried out by the Joint Research Centre's Board of Governors.

committed. The Panel believes that the implementation of the FP6 activities has reached a very good level of maturity and wishes to congratulate the Commission for its notable achievements. Nevertheless, the Panel has identified some areas for possible improvement. The rest of this report will therefore focus on the analysis, findings and recommendations of the Panel to further improve the implementation of the final activities of FP6 and for the preparation of new activities within FP7.

4 MONITORING OF THE IMPLEMENTATION IN 2005 – ANALYSIS AND FINDINGS

4.1 Follow-up of 2004 monitoring recommendations

The 2004 Monitoring Report included a set of recommendations and comments that have been formally addressed by the Commission services (Part B: Response of the Programme Management to the External Monitoring Report). Additionally, the Commission prepared a specific follow-up document for each of the actions undertaken in response to these recommendations (Responses by Commission Services to the 2004 Monitoring Report and Follow-up of Recommendations).

The Panel acknowledges the strong commitment of the Commission in addressing and solving the weaknesses identified during the 2004 monitoring exercise. Nevertheless, the Panel believes that some of the issues addressed in the 2004 monitoring exercise need some further attention by the Commission also in the context of FP7. This is particularly true for European Technology Platforms, IT tools, SMEs, and international cooperation. Some of these issues are addressed in this report.

4.2 Attainment of objectives in terms of implementation and progress achieved

The mandate required the Panel to analyse and supplement the self-assessments performed by the Commission services on FP6 implementation in the year 2005 with the objective of outlining its strengths, weaknesses, opportunities and threats. Particular emphasis was placed on the analysis of the progress achieved in FP6 within the implementation of the work programmes established for the specific programmes and their thematic priorities.

Following the conclusions of previous Monitoring Reports, the Panel analysed the implementation issues of all areas and thematic priorities of FP6 according to two dimensions

(see Annex 6.3 and Annex 6.4). The first dimension is the implementation in terms of management efficiency (mainly checked through the statistical information presented in the annual activity reports prepared by the Commission services). The second dimension is the implementation in terms of strategic effectiveness. For this dimension, the Panel decided to focus on some specific programmes and activities, namely, Marie Curie actions, international cooperation, SMEs, Space and EURATOM activities².

As already outlined, the Panel fully acknowledges the successful implementation of the activities carried out by the Commission, in terms of budget execution, number of proposals evaluated and number of contracts signed during the year 2005. It is worth mentioning that about 41% of the proposals addressed the specific programme “Structuring the European Research Area”, whereas 42% refer to thematic priorities, even though these proportions do not reflect the corresponding budgets.

From a quantitative perspective, the success rate of the proposals submitted and evaluated in 2005 varies across thematic priorities, from a minimum of 15% for “Food, quality and safety” up to 26% for “Sustainable development, global change and ecosystems”. Moreover, the percentage of proposals submitted in the year 2005 for new instruments compared to traditional instruments is relatively small (6.8%). However, in thematic priorities, such as, IST and Nanotechnologies, the success rate of new instruments is higher (that is, 33% and 27%, respectively) than the success rate of traditional instruments (that is, 15.5% and 15.2%, respectively). These statistics should be monitored annually by the Commission to ascertain the adaptation of the European scientific communities to the various instruments and to the different thematic priorities. Indeed, it is acknowledged that the scientific communities are very different and may need different support from the EU.

The Panel recognises that NoEs represent an important and relevant instrument to strengthen the scientific and technological excellence of European research. However, it is too early to assess their actual effectiveness. Similarly, it is rather early to assess European Technology Platforms (ETP) and ERA-NET projects. Nevertheless, the Panel recommends an in-depth evaluation of the adequacy of these instruments for European research in order to instigate any appropriate reorientation in FP7.

The Commission should be aware that a one year analysis, such as the case of the mandate of this Panel, limits the scope of the exercise and does not provide the whole picture and the overall dynamics of the implementation process. Multi-annual ex-post assessment exercises should complement annual monitoring.

The Panel believes that the Commission should establish a clearer policy on how the services are steered in the creation of work programmes to ensure there is consistency of

² Marie Curie as part of the specific programme “Structuring the European Research Area (2002–2006)”; International cooperation and SMEs as part of the specific programme “Integrating and Strengthening the European Research Area”; EURATOM as part of the specific programme “EURATOM” for research and training on nuclear energy; Space thematic priority due to its close coordination with ESA and the role played by governmental actors as key users of data produced by space research.

approach in addressing the horizontal issues, whilst taking into account the differences across research areas and thematic priorities. It appears current practice has led to unplanned differences between services.

4.2.1 Marie Curie

Marie Curie actions include a full range of important activities aimed at structuring the European Research Area (ERA) by developing its human resources. In this framework, mobility is not perceived as an objective, it is rather a means to shape the ERA and achieve better research careers in industry and academia.

Significant achievements were realised in 2005 in the context of developing the careers of researchers and improving their mobility. All these initiatives received a very high level of appreciation.

In March 2005 the Commission formally adopted the European Charter for Researchers and the Code on Conduct for the Recruitment of Researchers. Both instruments are critical to the development of an attractive, open and sustainable European labour market for researchers and the achievement of the Lisbon objective of Europe becoming the most competitive and dynamic knowledge economy in the world by 2010. An immediate uptake of these instruments occurred after their adoption and many organisations, including Rectors' Conferences of many countries, undersigned them.

In June 2005 the Commission launched the "Researchers in Europe" initiative, in order to increase and promote the awareness of the general public to scientific careers. More than 50 events were organised across Europe as part of this initiative, including the first European "Researchers Night", where events were held simultaneously across Europe for both the general public and young audiences.

Significant progress was made in 2005 by the Commission to overcome the administrative, cultural and linguistic obstacles to mobility. The European Network of Mobility Centres (ERA-MORE), launched in 2004, is now, in 2006, involving about 200 centres located in 32 countries. The centres have been well received by the research community and have already assisted thousands of "mobile" researchers with matters relating to their professional and daily lives. Another important instrument is the European Researcher's Mobility Portal, an on-line market for both researchers and research bodies, intended to help researchers identify training and job opportunities throughout Europe.

The Panel is aware that the dedicated "People" programme in the FP7 proposal, where researchers and their careers are seen as key elements to make Europe more attractive to researchers worldwide, will continue the successful Marie Curie actions within FP6. An impact study specifically oriented to the new Marie Curie actions launched under FP6 should

be considered by the Commission. This study should include Research Training Networks as they were not addressed in the study related to FP4 and FP5.

The operation of Marie Curie actions is complex due to the large number of different schemes and their broad scope. It was reported to the Panel that some rules were too complicated for participants. Some minimal changes were made. However, changes in the rules are not always perceived as a simplification because of the need to restart the often demanding learning process.

The Commission recognises that Time To Contract (TTC) is still an issue within Marie Curie actions but in 2005 there were improvements. For example, the TTC for Research Training Networks has been reduced to 12 months, despite the large number of proposals received and their two-stage evaluation. It is worth noting that the implementation of the two-stage evaluation has reduced the high oversubscription of most Marie Curie actions.

To meet proposer expectations, the Commission should provide clearer and timely information about the various steps leading to the contract signature, including an estimate of the TTC.

Marie Curie initiatives are massive users of IT tools because of the large number of proposals submitted and contracts signed after each call. Some difficulties in FP6 have been reported to the Panel. Current tools do not always cope with the requirements of an evaluation process involving a large number of proposals with large number of participants each. In-house tools have been developed to check the conflict of interests in the choice of evaluators and to administer the evaluation process and the consensus meetings. This practice should be avoided in that it leads to inefficiencies and a waste of resources that could be used more profitably.

The Panel recognises the significant strategic potential of Marie Curie actions and recommends they are properly resourced in terms of IT support to ensure a fast and efficient evaluation process and further reduce the TTC. The transfer of tacit and explicit knowledge to the future executive agency for FP7 “People” programme is a crucial aspect to be carefully addressed by the Commission.

4.2.2 International cooperation

FP6 has dedicated a specific budget of 658 MEuro to increase the worldwide role of European research. As a consequence, apart from the international agreements with Associated Countries, whose participation in the Framework Programmes does not differ from the participation of Member States, FP6 foresees the participation and funding of third countries.

International cooperation is addressed in FP6 under two different schemes, namely, a specific programme for international cooperation (the traditional INCO approach) to boost the

socio-economic development through projects oriented to some specific research domains and countries, and the participation of third countries in the thematic priorities to enhance RTD mutual benefit.

This approach towards international cooperation has made more problematic the achievement of the intended objectives. The lack of a specific budget for international cooperation within each thematic priority has produced as a side effect: “*nothing happens, if participation is lower than expected*”. As a consequence, in the first half of 2005 only 15% of the pre-allocated budget was used by the thematic priorities because of either the lack of good proposals with relevant participation of partners from third countries or the lack of information in many countries about FP6 rules and instruments, and their implementation and management.

In the realm of specific activities for international cooperation, the effect of FP6 is rather limited due to the prioritisation of S&T domains covered, and the relatively small budget (312 MEuro). Hence, the “regional dimension” is completely lost and the visibility of the EU research is poor. This is the case, for example, for a set of countries related to Europe by geographical, cultural or economic links, such as, the Mediterranean third parties, or Latin America, or Sub-Saharan Africa, or more advanced areas, such as, Western Balkans, or South Asia, or larger countries, such as, China or India. A comprehensive approach to international cooperation across DGs should be reinforced by combining different programmes.

The Panel is aware of the actions carried out by the Commission to improve the international cooperation in the thematic priorities. However, these actions have been seen more as individual actions taken at the management level of each priority to spend the pre-allocated budget, rather than as the result of a coherent plan to address the problem with sufficient resources and political commitment. Therefore, there is a risk of diluting the international perspective in FP6 activities. The specific call for proposals targeted at existing consortia to include third country partners launched at the end of 2005 was conceived as a problem-solving management action, with a limited effect on overall policy.

EURATOM has a different but intense experience in international cooperation. It seems that the participation of third countries in funded activities of EURATOM is rather limited due to the responsibilities delegated to EURATOM associates. During 2005 the Commission devoted considerable effort to lead the ITER negotiation process with other international partners (USA, Japan, China, India, Russia, and Korea). In addition, the Commission promoted international cooperation through bilateral and multi-lateral agreements in the area of nuclear research. By promoting the creation of mixed working groups, the Commission should ensure international cooperation in nuclear activities receives the same level of attention as the EC Framework Programme.

The Panel recommends for the FP6 and, above all, for FP7, the adoption of a more pro-active role in promoting international cooperation both at the project and regional levels with a pre-defined strategy, by maintaining in every priority and specific programmes of FP7

a dedicated budget and by increasing the presence and contacts of Commission representatives with key stakeholders in the countries where the cooperation is strategic for the EU. The Commission should allow the participation of partners from third countries in ongoing projects through specific open calls with additional budget. It should increase the resources for “international SSAs” to improve the awareness and contacts at national and regional levels, and help the setup of potential consortia and the exploitation of results. Moreover, regional strategies supported by specific calls should be developed to address research needs in selected countries in close cooperation with other EU policies (i.e., education, health, environment, agro-food, information society) and DGs.

4.2.3 SMEs

A more effective involvement of SMEs in the Framework Programmes is essential for Europe to raise R&D investment and reach the objective of 3% of GDP stated by the Barcelona objective, and become the globally most competitive knowledge-based economy, as stated in the Lisbon Agenda.

The target of 15% of the budget grants within thematic priorities for SMEs is a strong element of encouragement towards their participation to European projects. However, from the figures on the SME share of EC funding for main-listed proposals from the beginning of FP6 until May 2005, it appears that, even though SME participation has increased with respect to 2004, it is still below its target at 13.6%. There is a big difference in SME participation across thematic priorities and instruments. In terms of funding, the SME share is 13.4% for IPs, whereas it reaches 16.4% for STREPs and 27.8% for SSAs. Very few SMEs (that is, 5%) participate to NoEs.

The Panel is concerned about the effectiveness of funding in terms of the role played by SMEs in consortia, especially related to new instruments.

From the SME perspective, it seems that FP6 tends to address mainly technology pioneers (which represent only 3% of the SMEs), even though most industrial innovation takes place and is used by technology adopting users (20%) and leading technology users (10%).

Moreover, the participation of SMEs in FP6 projects has become more difficult because of the characteristics of the new instruments, as follows:

- large-scale budget, starting at several millions Euro;
- high-tech areas often more oriented to fundamental research than to innovation;
- large number of participants;
- duration; and
- financial and administrative rules.

These conclusions concur with the Marimón report. The new instruments are too big and far too complex for SMEs. More effort should be directed towards small-scale projects.

The Panel believes that the 15% target for SMEs participation in the various thematic priorities should be based on their relevance and not on some artificial pressure on the consortia to include SMEs in their proposals.

Cooperative Research and Collective Research represent two specific instruments for SMEs having the capacity to innovate but with limited research capacity. Their implementation has been a complementary and effective way to encourage SME participation in FP6. From an SME perspective, these programmes fit perfectly their outsourcing needs because of their “medium” budget (typically ranging from several hundreds thousands to several millions Euro), their innovative bottom-up approach (foreseen RTD results can be used in the near future), smaller consortia and shorter duration. Nevertheless, Cooperative Research and Collective Research have been a source of big frustration and waste of money for SMEs, due to the very high oversubscription. The success rate was equal to 12%.

The Panel recommends that the budget allocated to SMEs in FP7 should be further invested in dedicated programmes. The instruments should address the different categories of SMEs. For example, Cooperative Research should address medium-tech SMEs with European and global growth potential, whereas Collective Research should address medium and low-tech SMEs facing both a growing international competition and increasing European regulatory burdens. Only hi-tech SMEs, with European and global growth potential, should apply for other instruments, such as, STREPs, already embedded in thematic priorities.

SME funding should be provided more on the grounds of the quality of innovation and exploitation potential of the ideas than on the scientific excellence of the proposed research. Dissemination and demonstration should be an integral part of the funding regime to maximise the potential for research results to be quickly, easily and widely integrated into products and services for world markets.

These funding changes for SMEs are especially needed by the new Member States and Candidate Countries, where fewer high-tech firms might be able to participate in leading-edge research through NoEs, IPs and STREPs. The greatest potential of these countries lies in their relatively large number of medium-tech SMEs, which need help to find a competitive role in the enlarged European market.

To further reduce the consequences of oversubscription, the Commission should have some flexibility to shift the funding between instruments within each specific call. The Commission could allow for a more flexible use of the SME budget for subcontractors (e.g., auditors, project managers and administrators) to help them speed up and simplify the administrative process.

4.2.4 Alternative approaches to implementation

Two areas where the Commission has addressed the implementation differently are the Space thematic priority and EURATOM.

4.2.4.1 Space

The Space thematic priority is mainly subdivided into two strategic objectives: Global Monitoring for Environment and Security (GMES) and Satellite Communication (SatCom). Through GMES the state of the environment and its short, medium and long-term evolution is monitored to inform policy decisions or investments. GMES can then be seen as a set of services for European citizens to improve the quality of their life regarding the environment and security. GMES will be the main European contribution to Global Earth Observation System of Systems (GEOSS).

In terms of budget, GMES is three times larger than SatCom. In the three calls launched since the beginning of FP6 for the Space priority, GMES received 109 MEuro (32.5 MEuro in 2005), whereas SatCom 35 MEuro (12.5 MEuro in 2005).

There is a large participation of SMEs in the Space priority. In the third call, their participation reached the 49% for STREPs, whereas the participation to IPs was 39% for SatCom and 16% for GMES.

The Panel notes that the EU does not have its own satellites for these initiatives. The satellites as well as most of the tools used by the projects are rented. The current activity is the establishment of the GMES Bureau with the objective of coordinating all the activities within the Commission and ESA.

The Space priority has multiple potential interactions with other thematic priorities of FP6 concerning the application of satellite data. The Commission should facilitate the exchange of information and results not only between RTD projects in the area of Space, but also with other relevant projects mainly in IST and “Sustainable development, global change and ecosystems” thematic priorities. SSAs or CAs could support these activities.

4.2.4.2 EURATOM

Research and development activities in the EURATOM programme include the thematic priorities: “Fusion Energy Research”, “Management of Radioactive Waste”, “Radiation Protection”, and “Other Activities in the Field of Nuclear Technologies and Safety”. The last three themes constitute EURATOM research in nuclear fission and radiation protection and are implemented as one programme.

The implementation of the Fusion, Fission and Radiation Protection priorities differs to a large extent. The “Fusion Energy Research” is implemented by specific mechanisms

developed to reflect the particular nature of research in this area. The activities within this priority are mainly carried out by the European laboratories associated with EURATOM and by the European Fusion Development Agreement (EFDA) Close Support Units, in collaboration with university teams, and by industry.

The Fission and Radiation Protection thematic priorities are mainly implemented through calls for proposals. The new instruments, that is, IPs and NoEs, are recognised as being the key to attain the objectives of critical mass, integration of the research capacities, management simplification and European added value.

Fusion and Fission programmes have been addressing very separate issues during the last years and did not have many interactions. Fission research on new nuclear systems has suffered from the lack of political support in some Member States and new initiatives for many years. The only Western Europe nuclear power plant in the last 15 years is under construction in Finland. The stagnation of the sector in recent years and the ageing of the R&D workforce have led to the loss of fission experts.

In terms of budget, the Fusion programme received about 822 MEuro, that is, more than 60% of the overall budget of EURATOM, whereas 209 MEuro were dedicated to the Fission programme and about 318 MEuro to the JRC nuclear activities, which concerns exclusively fission issues related with safety, security (nuclear safeguards), waste management and decommissioning.

2005 has been very important for nuclear research because of the new initiatives, such as, the new fission power plant to be built in Finland and, above all, the ITER agreement.

In the EURATOM Research and Training Programme on Nuclear Energy (2002-2006) there is a paragraph claiming: “*A further revision of the fusion parts of the Work Programme may be required when a decision is taken on the joint implementation of ITER and the consequent establishment of the European legal entity/Joint Undertaking*”³. During this period, this actually happened. In 2005 it was finally decided, after a long negotiation process, to locate ITER to Cadarache.

EURATOM has a long tradition in international cooperation and exchange of researchers and its thematic priorities are the “most international” priorities of FP6. This is due to a very well organised system. On May 24th 2005, the seven ITER parties came to an agreement on the world’s largest international scientific partnership. However, the international cooperation and the large number of parties involved have delayed the ITER construction for several years.

It is worth mentioning that building ITER is different than doing research. ITER will be the most advanced experimental reactor in the world and will require a totally different

³ The Competitiveness Council at its meeting on the 26th of November 2004 approved unanimously the modification of the ITER mandate and specified that the objective was to conclude the agreement to construct ITER in Cadarache (France) in time to begin the construction before the end of 2005.

organisation and personnel, including, apart from scientists, professional engineers. This fact should be taken into account in budget estimations.

The Panel believes that this kind of project is high risk work that requires the best international resources and targeted actions. No single country or company is ready to invest this amount of resources into such a long term project.

The Panel acknowledges that the fusion community has been active in promotions and presentations. Nevertheless, it should be even more visible and proactive.

4.3 Follow-up of the Action Plan on rationalisation and acceleration (FP6)

The rationalisation and acceleration of management procedures have been ongoing objectives since the beginning of the Framework Programmes. In FP6 rationalisation and acceleration became a political objective after the criticisms received by the Commission from participants during the implementation of FP5. The change of instruments was both a challenge and an opportunity to review the existing procedures.

To address this problem, the Commission launched in 2004 an internal Task Force with representatives of all the services involved in the implementation of the FP6, aimed at identifying measures for improving the implementation with respect to FP5. After consulting Member States, different stakeholders, and Commission officers, the Task Force conclusions led to the approval of an “Action Plan on Rationalisation and Acceleration”. This Action Plan, which finished in March 2006, includes two types of actions:

- actions to simplify and accelerate, including roadmaps with deadlines for each instrument and main steps up to the contract signature; and
- actions to improve quality and effectiveness, focusing on evaluations and budget allocation.

In many cases, simplification also addresses coordination issues across different services to ensure a uniform implementation and understanding of the agreed measures. Hence, many of the measures included in the Action Plan affect Commission procedures but they are not necessarily visible outside the Commission.

The Panel is aware of the significant effort of the Commission services with respect to the Action Plan and believes that, despite the legal constraints, the adoption of more radical simplification measures has been seriously addressed by the Commission.

The number of documents prepared for the implementation and follow-up of the Action Plan reflects a deep involvement of the Commission.

The Commission has continued the improvement and update of the documents made available in information packages concerning contracts, IPR provision, and other issues. Criteria and earlier misunderstandings have been clarified. It is worth mentioning that, even

though in 2005 a large proportion of FP6 budget was already allocated to ongoing projects, the Commission made ex-post updates to the documents. This situation reflects the high degree of complexity for participants and calls for corrections in view of FP7, where detailed and clear information packages should be made available before launching the first calls for proposals. Consistency of interpretation of text by, for example, auditors, the Commission and contractors, should be improved.

The Panel wishes to congratulate the Commission for the reduction in the number of audit certificates (up to 25%) which alleviated the financial costs incurred by project participants. Nevertheless, it is not clearly understood the ex-post use of these documents by the Commission and their usefulness in case audits by the Commission (or even by the Court of Auditors). The use of Clause 39 should be widely extended to ongoing projects to eliminate or reduce the number of audit certificates.

Operating the administrative and technical aspects in parallel during contract negotiations has been perceived as a very positive approach to improve the overall negotiation process and reduce the TTC. To further improve the effectiveness of this approach, a clearer coordination structure should be set up to address the cross-cutting issues.

One concern of the Panel is about the degree of responsibility and autonomy entrusted to consortia (the same objective is included in FP7). The Panel suggests the Commission obtains statistically relevant feedback from consortia to assess the actual degree of simplification experienced by ongoing projects.

The experience gained of the new instruments, that is, IPs and NoEs, suggests that the internal procedures established by project coordinators in Consortium Agreements have included extra management work and administrative burden for the sake of potential risk management reduction strategies. Furthermore, as one specific entity can participate in many projects with different coordinators, an additional level of complexity is added by preparing different information for each approved project.

The Panel does not view these problems as simply the internal business of consortia. Information on the time used by funded projects to sign up Consortium Agreements could be used as an indicator to check their complexity. This information and analysis were not available at the time of this monitoring exercise.

The Panel suggests the Commission prepares a final report on the results of the Action Plan with statistics per instrument, priority and specific programmes with respect to the declared objectives. This information should be a good basis for assessing the success of the Plan.

The use of two-stage submission and evaluation has been extended to different calls for proposals as a mechanism to reduce oversubscription. The Commission should clarify the type of information to be submitted in proposals at each stage. There is no clear consensus about the need to include further information in the outline proposals, even though additional

information could be useful to select the proposals to be invited to submit a full proposal. For larger projects (like IPs) the use of hearings seems very beneficial and should be continued.

The Commission has devoted considerable effort to analyse the benefits of the two-stage approach. Specifically, the risk of extending the evaluation time (and the TTC) was considered in the Action Plan. Nevertheless, the Panel did not receive any detailed information on this issue.

The Panel recommends the Commission retains and further increases the two-stage submission under FP7, to include an outline proposal submission stage, particularly in the case of calls addressed to SMEs, to encourage the participation of “new comers”. Efforts to ensure the TTC is appropriate should continue.

A better use of IT tools could facilitate some of the processes addressed in this section. The general application of RIVET, extra functionality for SESAM, increased use of videoconferencing systems and multimedia databases could improve the efficiency and effectiveness of the overall implementation.

The Panel believes that there is room for improvements in the Commission’s databases and recommends the use of a common information structure to avoid participants having to submit the same information more than once. Moreover, the Panel believes that appropriate information should be made available in a flexible manner to satisfy the varying needs of, for example, experts assisting the Commission, national and regional authorities.

The compulsory internal mobility of Commission officers involved in sensitive jobs has to be addressed very seriously in that it can endanger the continuity of operations in key services involved in FP6 management. The potential loss of expertise could represent a serious obstacle in the transition towards FP7. In this context, the definition of sensitive jobs in services managing research should be reconsidered by the Commission.

The experience of FP6 simplification was used in 2005 by an inter-service working group established by the Commission to prepare a document (SEC (2005) 431) with specific goals for FP7. The decision to publish this document simultaneously with the FP7 proposal gave a clear message of strong intent to solve some of the current problems.

Due to the similarity of instruments, the experience of FP6 should be a good starting point. Nevertheless, to accelerate and improve the overall implementation process, the Commission should address very seriously the current situation of IT tools where there is the co-existence of central tools and tools locally developed by individual services. This situation is very critical in that it might easily lead to inefficiencies and inconsistencies in the data due to poor synchronisation among tools. Moreover, it can negatively affect the capabilities to monitor activities and to access reliable information and statistics.

The use of clear criteria for audit certificates, e.g., guidance and frequency, and two-stage evaluation should be set up from the beginning of FP7.

The Panel understands that the Commission during 2005 had to find a subtle balance between delivering many documents to inform the European scientific and technological

community about its proposals for FP7 and, simultaneously, continuing the discussion on the evolving FP7 contents. Considerable effort was spent by the Commission staff on this activity.

4.4 Effectiveness of the project review process

During 2005, a number of first year or second year reviews of new instruments introduced in FP6, that is, IPs and NoEs, and mid-term and final reviews of traditional instruments took place.

The aim of the periodic reviews of a project is to assess its performance and its progress towards its contractually stated objectives. The level of assessment varies in accordance with the type of instrument, the complexity of the project and its stage of progression. New instruments are both technically and financially complex to manage, implement and monitor. These projects, typically having a lifetime of several years, are characterised by ambitious objectives, involve large consortia of multiple private and public partners located in different countries, even outside Europe, and attract large sums of co-financing by the Commission.

For the review of the new instruments and, whenever necessary, of other indirect actions, the Commission is assisted by external experts chosen from the scientific community and only occasionally those with expertise in horizontal issues, such as, ethics and gender issues.

Independent reviewers give external advice to the Commission on various issues related to the achievements reached by the project and make recommendations on its continuation. Project reviews are usually perceived as very beneficial by both project participants and Project Officers. The group of external experts, often seen as an “advisory group” for the project, can be very helpful for any fine tuning and reorientation of the project.

The number of experts assisting the Commission in the review of IPs and NoEs varies across services, from a minimum of one up to five. The Panel recognises that each project is characterised by its own peculiarities, needs and requirements, however, a more uniform approach towards the number of experts to be involved in the reviews should be adopted. More than one evaluator should be involved in the review of a project, including at least one reviewer with expertise in horizontal issues.

Because of the high degree of collaboration within and across IPs and NoEs and their large number of partners, the Commission is facing the problem of finding highly qualified and fully independent experts. It has been reported to the Panel that the employment of experts from third countries was not always successful and often more complex because of their lack of familiarity with EC contracts and procedures. Despite these difficulties, the Panel recommends inviting experts from outside Europe whenever deemed appropriate.

It appears that the procedure available for project review has been interpreted differently across services. A few services introduced additional criteria to the “standard” review template. Moreover, not all services use the on-line reporting tool SESAM for the on-line submission of the project review report, mostly because they find it not very user-friendly.

The Panel acknowledges the delay of the Commission in finalising the procedure for project review and understands that this delay might have prevented the realisation of an optimal degree of harmonisation across services. Nevertheless, the Commission should ensure that the current differences in the approach are by design rather than by accident. On-line review submission should be encouraged. Moreover, key issues that have been raised and recommended during scientific and ethical review of the proposals should be monitored and evaluated during the life of the project. The Commission should consider the possibility of involving in the review of a project one of the experts involved in the proposal evaluation.

A serious concern about the volume of documentation submitted by the consortia for the periodic review has been reported to the Panel. The amount of paper work involved in the review of IPs was deemed excessive. The Commission should pre-select at contract negotiation stage the documents requested for the review and give guidelines on the number of pages of the annual reports.

Remote and face-to-face, individual and cluster reviews were carried out in 2005. Most of the reviews took place in Brussels, even though on-site reviews were foreseen when demonstration activities by project participants were involved. The cluster reviews group projects with common or related objectives. The Panel welcomes cluster reviews and recommends their adoption, whenever feasible, as a very effective means to increase the possibility for interactions and synergies among projects and stakeholders in specific domains. The Panel recommends the Commission improve internal communication of good practice in this review approach. The Panel also welcomes the organisation of the periodic reviews as side events of other major events, such as, workshops, concertation meetings and media events, as they could be used as an additional vehicle to disseminate the results of the projects and stimulate interest towards European research.

The Project Quality Indicators (PQI) are quantitative indicators used to summarise the outcomes of the review process and to assess the performance of IPs, NoEs, STREPs and IMSs. After each review, Project Officers complete the PQI using a template available within the tool SESAM. More generalised use of these indicators should be considered by the Commission.

The Panel recommends a systematic monitoring of the results of the project reviews to assess the effectiveness of the process and ensure the proper implementation of new instruments in line with the work programmes. In particular, the Commission should define quantitative indicators about the follow-up of each project and foresee an impact study of the projects launched under FP6.

4.5 Integration of Socio-Economic Dimension and of the Science and Society aspects

The FP6 Socio-Economic and Science and Society objectives focus on the creation of the European Research Area and support of the Lisbon Agenda. Collaborative research activities have the potential to address both creatively and innovatively major technological and societal problems by involving people from different disciplines and different Member States. The integration of these horizontal issues into research funded under FP6 and the future FP7 is a key to the realisation of the knowledge society and the European knowledge economy. The Panel recognises the efforts of the Commission to raise awareness of the Socio-Economic Dimension and Science and Society, and to integrate them into FP6. The Panel also acknowledges the attention of the Commission to a fuller inclusion of the humanities, especially in anticipation of FP7.

The Mid-term Synthesis Report on the integration of Socio-Economic and foresight Dimension in FP6 reported that the Socio-Economic Dimension was referred to in rather general or vague terms. This led to confusion and to the Socio-Economic Dimension being perceived as an additional “burden” by researchers and Project Officers. Input to this monitoring exercise concurred with this finding. Indeed, it was reported to the Panel that researchers often used “standard” SED and S&S paragraphs to include in their proposals.

The report found that no progress with respect to integrating the Socio-Economic Dimension in the project evaluation could be found. The report explained that the role of SED has been drastically reduced yet reporting SED is mandatory in FP6. The Panel found similar evidence.

Based on these findings, the Panel concludes that the implementation of the Lisbon strategy largely depends on intensified involvement of SED and S&S dimensions in shaping policies, support in decision making and participation in monitoring and assessment. Moreover, the Panel stresses that SED and S&S dimensions should receive more visibility at both the EU and national levels. To accomplish this goal, the horizontal issues stemming from SED and S&S should be included in the work programmes, and should be addressed in the evaluation and review processes in the same rigorous way as the other dimensions.

Acting on a conviction that gender equality in science is a mandatory condition for the achievement of scientific excellence and European Research Area, the Commission developed a gender equality policy based on actively enhancing participation of women scientists in FP activities and making sure that gender dimension is adequately addressed in EU funded research. To achieve the goal of gender mainstreaming, the Commission designed two tools: “Gender Action Plan” (GAP), which is mandatory for IPs and NoEs and “Gender Issues” for other instruments. The latter is one of the horizontal issues addressed above.

Despite various problems experienced in specific projects, GAPs constitute a very important tool for fostering awareness of gender issues in European research. However, their

long-term usefulness depends on the active support and monitoring of the Commission. The measures to achieve this objective should include transparent information on the aims that GAPS have to achieve and an adjustment of GAPS to projects diversified institutional basis (including legal and financial basis). Moreover, GAPS should be given larger visibility in evaluation and contract negotiations processes. In particular, briefings to evaluators should be given in an “accessible” language. GAPS should be implemented in all projects, regardless of instruments.

In 2005, progress in the implementation of the Science and Society Action Plan included several issues in communication and more generally science *IN* society actions such as:

- improving the delivery of scientific support to policy makers: the SINAPSE e-Network was launched during the Science and Society forum in Brussels (March 2005), to offer a web-based communication channel between the scientific/expert community and public authorities and decision-makers;
- improving the Web site: the research Web site on EUROPA (<http://europa.eu.int/comm/research>) was the main communication channel for science, with 19.3 million pages viewed in 2005 compared to 10.2 million in 2003. In addition, 50 media briefings and 135 press releases were issued and 8 RTD info magazines produced, with about 85,000 printed copies each. AthenaWeb, an innovative professional portal for the localisation, exchange and distribution of scientific audiovisual material in Europe, was launched during the first European Research and Innovation Exhibition; and
- stimulating researchers to better communicate the results of the projects funded by the Commission: a Science and Communication event was organised in November 2005 with practical workshops bringing together communication professionals and scientists.

The Panel acknowledges the effort in improving the communication media (e.g., Web sites, brochures and videos). Nevertheless, the Panel recommends a study of impact of these media and recommends focusing on the content. As mentioned in the “Guide to successful communications”, strategic work has to be performed to define the appropriate message and target audience. The actual message delivered sometimes fails to address adequately the general public and is not effective enough to attract young people to scientific careers. Therefore, the Panel recommends a more proper and extensive use of communication media.

The Action Plan for Science and Society demands that responsible science be at the heart of policy making. Consideration of the ethical dimension of science and the new technologies is highlighted as a central theme of the action plan and consequently forms part of the ongoing project processes. Much emphasis is rightly placed on reviewing research proposals to ensure the EU does not support research that is contrary to fundamental ethical principles.

In order to ensure a common understanding of the ethical issues in research within FP6, the Commission's Project Officers and the evaluators are guided during the scientific evaluation by a questionnaire (EIR, Ethical Individual Report) that needs to be filled in for each proposal. These EIRs, which are specific for each project, constitute the basis for the Commission's decision whether to proceed to an ethical review. Ethical reviews are undertaken by multidisciplinary Panels drawn from very diverse professional backgrounds. It is recognised that the diversity of skills required by an ethical review needs to be broader than a specific scientific evaluation. During 2005, 188 proposals were evaluated involving 223 experts. There was a marked increase in IST proposals requiring ethical review. It is forecast that this increase will continue into FP7 given the advance and convergence of new technologies as well as an increase in hybrid projects which link IST to one or more other scientific areas.

The Commission has proposed that complementary remote evaluations are introduced for ethical review. Face-to-face should continue and the Panel recognises the thoroughness of this approach.

Input to the 2005 monitoring exercise suggests Project Officers are keen to have access to the latest information concerning ethics in science and technology research. Furthermore, it has been suggested that some researchers submitting proposals do not always feel fully qualified to identify and consider the ethical perspective. It is important that ethical issues beyond the obvious are addressed and this requires those involved to have confidence in their knowledge of this important perspective. Beyond proposal evaluation there seems to be some inconsistency in the procedures to monitor, evaluate and review the ethical dimension of projects during their lifetime.

4.6 Dissemination and exploitation of results

Framework Programmes, and specifically funded RTD projects, represent an important element to boost innovation whenever their results are converted into new products, processes or services, and the generated S&T knowledge is dissipated throughout society. To evaluate the long-term impact and societal benefits of the implementation of FP6 in 2005, the Panel, following its mandate, has monitored how projects addressed the dissemination and exploitation of their results, and how these issues are addressed by the Commission in the project review.

The concepts of “dissemination” and “exploitation” of results correspond to two different processes. Dissemination of results refers to the explicit will to release part of the generated knowledge by using a wide range of mechanisms, such as, workshops, scientific papers, training activities, books and media news. The generated knowledge might benefit any individual or organisation and is not addressed to any pre-defined entity.

Exploitation refers to the activities that project partners carry out to take advantage of their investment. Usually, exploitation should be done after the end of the project, in accordance with the provisions set in the Commission contract and in the Consortium Agreement.

The main responsibility for the exploitation of results lies with the partners of the projects. The Commission cannot interfere in their internal agreements, except when plans or commitments are explicitly included in the project tasks and their costs are claimed in periodic cost statements. In this sense, as recognised in the 2003 Monitoring Report, the introduction in the contract model of a requirement for contractors to engage with actors beyond the research community and to take measures to ensure suitable publicity was a major step forward.

Nevertheless, as contractual obligations finish with the project, there is no formal way to trace or evaluate the dissemination and exploitation activities carried out by individual partners or by the consortium after the end of the project. This fact prevents an effective control of the commitments made by consortia and relies on voluntary delivery of information and the production of statistics based on this information. This perspective differs from the global impact assessment (from the environmental, economic and social perspectives) periodically prepared by Commission services. Statistics and econometric models cannot go further than the good work performed by Commission services (for example, the document accompanying the FP7 proposal issued in April 2006 to justify the need to double the budget).

Dissemination and exploitation are important issues for new instruments. NoEs were created with the objective to speed up knowledge generation by integrating the research agenda of multiple institutions (mainly universities or public research centres). The setting up of good mechanisms to ensure the “open dissemination” of research results becomes a crucial factor in the assessment of this instrument. Consortium Agreements should facilitate this in specific clauses. The Panel believes that NoEs, as a new European instrument to be continued in FP7, should be also evaluated in this context once the difficulties initially encountered in their “definition” and implementation have been reduced. Detailed statistics and comparison analysis based on these premises are needed.

The questionnaire used for the project review process specifically addresses dissemination. However, there is no quantification of the effort devoted by consortia, nor evidence of the use by the Commission of this information at the thematic priority or specific programme levels.

IPs emphasise the “closed exploitation” of research results by the consortium partners by using the scientific and technological knowledge generated during the project. The role and type of the partners might limit the capabilities for exploitation. Industrial partners usually have access to other internal know-how to transform the results in new products, processes or services. Academic partners are more interested in closing the gaps within NoEs through patents, educational material or publications. Strictly speaking in terms of ownership

of results, many of the partners with a low effort in resources have a small impact on exploitation. Moreover, the number of partners in IPs is very large to be able control the exploitation of results in the same way that is done in STREPs.

The case of SMEs is particularly important. In spite of the effort of the Commission to promote the participation of SMEs in IPs, it seems they prefer to participate in more specific initiatives or even in STREPs. This could be due to the lack of control within a large IP, typically dominated by large companies, and the perception of future difficulties to exploit the results. IPR provisions are addressed in the contracts and CAs at a level that can only be dealt by legal departments. The practical consequences for small entities, like SMEs, during the life of the project are difficult to understand. The consequence could be a wrong interpretation by technical people and potential problems for the exploitation of results. This situation calls for a deeper analysis of the role played by SMEs in dissemination and exploitation of FP6 projects.

The case of academic partners of IPs is different because their objective is to publish the results in scientific papers and protect by patents and possibly licence for industrial exploitation the knowledge generated during the project. It is worth mentioning that the contribution to technology generation by academic partners has been historically a very important asset for European universities and public research centres. IPs are a valid mechanism for this.

By reading some Consortium Agreements, it seems that the dissemination of results at the end of the project (up to two years) is up to individual partners. The clauses about “dissemination of its own knowledge” create additional barriers to disseminate results jointly produced by several partners.

As a consequence of this different design approach of FP6 instruments, knowledge dissemination seems more appropriate for NoEs, whereas knowledge exploitation for IPs. In both cases, the Commission should trace the corresponding activities. Unfortunately, it is not common to find in IPs, STREPs and even in NoEs effort devoted to open dissemination of research results to non-experts. Dissemination is usually perceived as “peer-dissemination” (to experts in the field) and a consistent effort to promote open dissemination should be considered in the future.

In parallel, the Commission has created many instruments to facilitate the open dissemination of results. The number of documents, brochures, fact sheets on projects, press releases, Web information (both in EUROPA and CORDIS web sites) or in some cases video or TV programs is very impressive. All of them demonstrate the interest of the Commission in this issue. Information is published in several EU languages to reach more easily the general public. Additionally, a number of workshops to present results and best practices are organised. Science weeks is another example in this domain. The Panel was positively surprised by the large effort in this domain carried out by the Commission services. Specific

media analysis should be performed to customise the information to the target audiences. Specific material for secondary school students and young people requires further attention.

Project participants contribute to the dissemination performed by the Commission by preparing summaries or detailed information. Nevertheless, there is a lack of evidence about the commitments at the project level and the way this effort is considered by Project Officers and review teams (there is only one question in the project review questionnaire).

In summary, the Panel acknowledges the increased effort of the Commission in disseminating results to the general public in technical but not too specialised terms. This is especially important as public accountability is becoming more important. The Panel believes that this activity should be enlarged to the entire Commission and other policy DGs should be involved to show the benefits on other European policies.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Majors trends, strengths and weaknesses encountered

The Panel believes that the implementation of the FP6 activities has reached a very good level of maturity and wishes to congratulate the Commission for its notable achievements. The objectives set for 2005 were globally met and the budget was fully committed. Moreover, in 2005, the Commission has made major steps forward towards the preparation of the next Framework Programmes (FP7).

The Commission has dedicated significant effort in the acceleration and rationalisation of the overall implementation process of FP6. The increased use of two-stage submission and evaluation has helped reduce the oversubscription for most the instruments, without significantly affecting the TTC. Operating the administrative and technical aspects in parallel during contract negotiations has improved the overall negotiation process. Moreover, the reduction of the number of audit certificates to be submitted by project participants has alleviated their administrative burdens and costs.

The Panel has identified some areas for possible improvements. In particular, to meet the objective set for FP6, the role and participation of SMEs need some further attention. The Commission should assess the effectiveness of the project review process by analysing the current round of reviews. With respect to the Socio-Economic Dimension and Science and Society, the Commission should refine the current procedures. The follow-up of exploitation and dissemination of the results should be improved.

The detailed recommendations of the Panel are presented in the next section.

5.2 Recommendations

The Panel recognises the strategic role played by Marie Curie actions in shaping the European Research Area and developing its human resources. It congratulates the Commission for the significant achievements reached in 2005.

- An impact study of the new actions launched under FP6 should be undertaken by the Commission, in view of any potential reorientation of the dedicated “People” programme foreseen by FP7.
- The role of the future executive agency should be carefully addressed by the Commission.

The Panel is aware of the actions carried out by the Commission to improve the international cooperation in the thematic priorities. However, the Panel believes that these actions have not been seen as the result of a coherent plan to address the problem with sufficient resources and political commitment.

- The Commission should adopt a more pro-active role in promoting international cooperation both at the project and regional levels with a pre-defined strategy and a dedicate budget for each thematic priority and specific programme.

The Panel recognises that in 2005 the participation of SMEs to FP6 projects has increased with respect to 2004. Nevertheless, the Panel is concerned about the role played by SMEs in consortia.

- The Commission should address the effectiveness of the roles played by SMEs in FP6.

The Panel acknowledges the important activities carried out by the Commission in the framework of nuclear research in 2005. However, fusion research is mainly carried out by the European laboratories associated with EURATOM and by the European Fusion Development Agreement Close Support Units.

- The Commission should encourage the involvement of more laboratories in Fusion area and open the participation to a larger number of industrial and university laboratories.

The Panel acknowledges and compliments the Commission for its significant effort in the acceleration and rationalisation of the overall implementation process of FP6. Nevertheless, some issues need further attention.

- The Commission should prepare a report on the results of the Action Plan with statistics about its efficiency and effectiveness especially regarding the new instruments.
- The Commission should obtain statistically relevant feedback from consortia to assess the actual degree of simplification experienced by ongoing projects.
- The Commission should provide clearer and timely information about the various steps leading to the contract signature, including an estimate of the Time to Contract.

The Panel is concerned about the current situation of IT tools, where there is co-existence of central tools and tools locally developed by individual services the Commission.

- The Commission should analyse the impact of the current situation with respect to IT tools and should plan timely corrective actions.
- The Commission should improve its databases by implementing a common information structure as to avoid participants having to submit the same information more than once.

The Panel understands that the implementation of compulsory mobility of Commission Officers involved in sensitive jobs could represent a serious obstacle towards the transition to FP7.

- The definition of compulsory mobility of Commission staff should be reconsidered by the Commission in light of its impact on the continuity of operations and loss of strategic expertise.

Project reviews are perceived as very beneficial by both project participants and Project Officers. The group of external experts assisting the Commission is very helpful for any fine tuning and reorientation of the projects.

- The Panel recommends the Commission undertakes a systematic monitoring of the results of the project review process to assess its effectiveness and ensure the proper implementation of new instruments in line with the work programme.
- Cluster reviews should be adopted by the Commission, whenever feasible, as a means of increasing synergies and collaborations among stakeholders in a specific domain and to promote European research.
- The Panel recommends the Commission invites experts from outside Europe, whenever deemed necessary, and includes in the review team at least one reviewer with expertise in horizontal issues.
- The procedures of review during the life of the project and at the end of the project should be overhauled to ensure there is an explicit audit trail against which the ethical dimension can be reviewed throughout.
- The Commission should extend the use of Project Quality Indicators (PQI) to all project reviews.

The Panel recognises the efforts of the Commission to raise awareness of the Socio-Economic Dimension and Science and Society, and to integrate them into FP6. Nevertheless, some issues need further attention by the Commission.

- There should be an on-line self study facility developed for researchers, evaluators and Project Officers which covers aspects of the Socio-Economic Dimension and Science and Society.
- The Commission should ensure horizontal issues are treated seriously throughout the project life cycle from proposal to project completion.
- The Panel recommends that the SED and S&S dimensions receive more visibility at both the EU and national levels. The Commission should address these dimensions in the work programmes and in the evaluation and review processes in the same rigorous way as the other dimensions.
- Proposers should explicitly address ethical concerns in their proposals both in terms of the substance of their research and their research conduct, and describe their ongoing

approach to identifying and addressing associated ethical issues culminating in an ethical and social impact review as part of the end of project report.

- It is recommended that guidance and training are provided for researchers, evaluators and Project Officers so that the full range of ethical issues relating to Science and Society is explicitly addressed.

The Panel recognises the effort carried out by the Commission to consider the issue of dissemination and exploitation of results as an important element in proposal evaluation and project review. Nevertheless, several aspects should be addressed to improve the present implementation and follow-up in the dissemination and exploitation of results.

- The Commission should prepare detailed analysis of the impact of dissemination and exploitation of results and provide statistics on the intensity, scope (sectorial or geographical), timing, percentage of budget, of dissemination activities devoted by projects, thematic priorities, and instruments.
- IPs, STREPs and NoEs should deliver off-line and on-line material oriented to non-experts as a part of their contribution to knowledge dissemination.
- The Commission should favour cross-dissemination of the results achieved within the projects.
- The Commission should prepare guidelines and informative notes on IPR provisions for non-expert participants.
- The Commission should update the check list for Consortium Agreement as to emphasise co-authoring of patents and papers.

5.3 Lessons learned towards FP7

Although the recommendations presented in Section 5.2 have been prepared as a part of the monitoring of FP6, the Panel is aware that many of these recommendations can be considered by the Commission in the preparation of FP7. Specifically, the experience gained on several aspects related to FP6 instruments is very important due to their continuity in FP7. Nevertheless, other aspects are new or different. Additional remarks should be taken into account:

- dissemination and exploitation of results should also be relevant to ERC projects. In this case, as the Consortium Agreement could be useless to fix the mechanisms (a single partner) all provisions on this issue should be incorporated in the contract/grant structure;
- decisions concerning the Action Plan on Acceleration and Rationalisation should be finalised before publishing the FP7 calls, especially, on cost reporting and IPR issues;
- the Commission should make available all necessary documents (e.g., information packages and contract models) before the launching the first call of FP7; and
- the Commission should look at innovative national and regional initiatives in order to stimulate cooperation models for SMEs and possibly embed them into new instruments.

Finally, the Panel suggests that the Commission analyses the impact of the FP7 activities on the management and implementation of FP6, by ensuring the allocation of sufficient resources. Even though there is a natural tendency to pay more attention to the future than to the past and indeed the present, the implementation of FP6 is not over yet.

6 ANNEXES

6.1 Mandate

Mandate of the independent experts to assist the Commission in continuous, systematic monitoring of implementation in 2005 of the sixth research framework programmes (2002-2006) and corresponding specific programmes of the European Community (EC) and of the European Atomic Energy Community (EURATOM).

Context:

The launch of new research actions under the sixth Framework Programmes (2002-2006) is progressively coming to an end. Following successive monitoring exercises concerning mainly the launch and initial implementation of the programmes, the last but one monitoring of the current framework programmes will be dedicated above all to an overall examination of their implementation and to an analysis of their first outputs.

In accordance with the Financial Regulation⁴ and following the positive experience gained from the simplified set up implemented for the 2003 and 2004 Monitoring linked to the ABM/SPP cycle and milestones, the 2005 exercise is conducted by the Commission in two phases: first, self assessments produced by the services, taking into account the follow-up of the Annual Management Plans and other management tools of the Directorates-General implementing the specific programmes under the framework programmes; and second, the analysis and supplementary comments by external experts assisting the Commission, with generalist profiles of research managers or policy or evaluation analysts.

Tasks:

Considering the stage of implementation reached by the sixth framework programmes, seven independent experts will assist the Commission with the monitoring of programme implementation in 2005 through the following tasks:

- examine the follow-up by Commission services of the recommendations and observations from the 2004 Monitoring experts;
- analyse and supplement self assessments by services of the implementation of the sixth framework programmes and the completion of previous framework programmes focusing on the strengths, weaknesses, opportunities and threats. Particular emphasis should be placed on:

⁴ Council regulation (EC, EURATOM) N° 1605/2002 of 25 June 2002; OJ L 248, 16.9.2002, p.1

- *attainment of objectives set in terms of implementation and progress achieved with respect to the work programmes established for the specific programmes and their thematic priorities;*
- *follow-up of the Action Plan aiming at simplifying the implementation of FP6;*
- *effectiveness of the project review process (including use of reporting guidelines for FP6), of the tracking of first outputs of FP6 research projects (prototypes, processes, products; networking, integration of research; training, development and mobility of researchers; publications, patents...) and of the use of the data collected;*
- *integration of Socio-Economic Dimension in the implementation of the programmes and the process by which embedding of 'Science in Society' aspects is implemented, notably for gender, communication and ethics; and*
- *procedure for the follow-up, dissemination and exploitation of results of concluded projects and programmes.*

6.2 Glossary

ABM: Activity-Based Management
CA: Coordinated Action
CORDIS: Community Research & Development Information Service
DG: Directorate-General
EC: European Community
EFDA: European Fusion Development Agreement
EIR: Ethical Individual Report
ERA: European Research Area
ERA-MORE: European Network of Mobility Centres
ERA-NET: Networking the European Research Area
ERC: European Research Council
ESA: European Space Agency
ETP: European Technology Platform
EU: European Union
EURATOM: European Atomic Energy Community
FP: Framework Programme
GAP: Gender Action Plan
GDP: Gross Domestic Product
GEOSS: Global Earth Observation System of Systems
GMES: Global Monitoring for Environment and Security
IGLO: Informal Group of RTD Liaison Offices in Brussels for EU R&D
IMS: Intelligent Manufacturing Initiative
INCO: International Cooperation
IP: Integrated Project
IPR: Intellectual Property Rights
IST: Information Society Technologies
IT: Information Technology
ITER: International Thermonuclear Experimental Reactor
JRC: Joint Research Centre
NoE: Networks of Excellence
PQI: Project Quality Indicators
R&D: Research and Development
RIVET: Remote Proposal Evaluation Tool
RTD: Research and Technological Development
S&S: Science and Society
S&T: Science and Technology

SatCom: Satellite Communication
SED: Socio-Economic and foresight Dimension
SESAM: On-line Submission Tool
SINAPSE: Scientific Information for Policy Support in Europe
SME: Small and Medium-sized Enterprise
SPP: Strategic Planning & Programming
SSA: Specific Support Action
STREP: Specific Targeted Research Projects
TTC: Time To Contract

6.3 Information provided to the experts by the programme management

GENERAL REFERENCE DOCUMENTS ON FRAMEWORK PROGRAMMES
General Information on FP6 and its Specific Programmes (SPs)
Sixth Framework Programmes (FPs)
Decision No 1513/2002/EC of the European Parliament and Council concerning the FP6 EC (2002 to 2006)
Council decision concerning the FP6 of the Euratom (2002 to 2006)
Specific programmes of the Sixth Framework Programmes (SPs)
Specific Programme under Framework Programme 6 (SP6) "Integrating and strengthening the ERA"
SP6 - "Structuring the European Research Area"
SP6 - Joint Research Centre (JRC)
SP6 - Nuclear Energy
SP6 - JRC Euratom
Rules for participation
Rules for participation of the FP6 EC (2002 to 2006)
Rules for participation of the Euratom (2002 to 2006)
MONITORING EXERCICES
Monitoring 2003
Monitoring 2003: Implementation of activities under the EC and Euratom framework and corresponding specific programmes (SPs)
Responses by the Commission services to the 2003 Monitoring report and follow-up of recommendations
Monitoring 2004
Report and recommendations
Monitoring 2005
Commission Decision adopting the mandate and the list of independent experts for Monitoring exercise 2005
PLANNING AND PROGRAMMING
Workprogrammes
Work programme 2005 - Life sciences, genomics and biotechnology for health
Workprogramme 2005 - Nanotechnology
Workprogramme 2005 - Aeronautics and space
Workprogramme 2005 - Food quality and safety
Workprogramme 2005 - Sustainable Development, Global Change and Ecosystems - Sustainable Energy Systems
Workprogramme 2005 - Sustainable Development, Global Change and Ecosystems - Sustainable Surface Transport
Workprogramme 2005 - Global Change and Ecosystems
Workprogramme 2005 - Citizens and governance in a knowledge-based society
Work programme 2005 - Support for the coordination of national, regional and European activities in the field of research and innovation (including ERA-NET)
Workprogramme 2005 - New and emerging science and technologies (NEST)
Workprogramme 2005 - Horizontal Research Activities involving SMEs
Workprogramme 2005 - International cooperation
Workprogramme 2005 - Research and Innovation
Workprogramme 2005 - Human resources and mobility: Marie-Curie
Workprogramme 2005 - Research infrastructures

Workprogramme 2005 - Science and Society
Workprogramme 2005 - Nuclear energy
Workprogrammes 2005 - Fisheries and Maritime Affairs DG (FISH)
Workprogramme 2005 - Information Society and Media DG (INFISO)
Workprogramme 2005 - Energy and Transport DG (TREN) - Sustainable Energy Systems
Annual Management Plans (AMP)
Annual Management Plan 2005 Enterprise and Industry DG (ENTR) - excerpts
Annual Management Plan 2005 FISH - excerpts
Annual Management Plan 2006 FISH - excerpts
Annual Management Plan 2005 INFISO - excerpts
Annual Management Plan 2006 INFISO - excerpts
Annual Report - JRC
Annual Management Plan 2005 Research DG (RTD)
Annual Management Plan 2006 RTD
Annual Management Plan 2005 TREN - excerpts
Annual Management Plan 2006 TREN - excerpts
IMPLEMENTATION
Attainment of Implementation Objectives
Self assessments / Progress review
INFISO - Self assessment
JRC - Observations from the Board of Governors to the Annual Report
RTD - Follow up of the Annual Management Plan 2005: Progress review
Annual Activity Reports (AAR)
Annual Activity Reports ENTR
Annual Activity Reports INFISO
Annual Activity Report JRC
Annual Activity Reports RTD
Annual Activity Reports TREN
Analyses and reviews
Implementation and Management of the Framework Programmes, Karen Siune, 2005
Data / Statistics
Implementation of the 6th Framework Programme
DG RTD Time to Contract in FP6: July 2005 update
Statistical tables on the Implementation of the 6th Framework Programme for the year 2005
FP6: Marie Curie-Research Training Networks (MC-RTN) - Some Facts and Figures
Calls and selection of proposals
Guidelines
Guidelines on proposal evaluation and selection procedures
Specific FP6 documents and guidance
Guidance notes for evaluators: Participating in evaluation of proposals for the Research Infrastructures Action Call a.2
Guide for proposers, research infrastructures action: Structuring the European Research Area Programme, Call a.2: Integrating Activities implemented as Integrated Infrastructure Initiatives
Guide for proposers, research infrastructures action: Structuring the European Research Area Programme, Call a.2: Accompanying Measures implemented as Specific Support Actions
Guide for proposers, research infrastructures action: Structuring the European Research Area Programme, Call a.2: Integrating Activities implemented as Coordination Actions
Guide for proposers, research infrastructures action: Structuring the European Research Area Programme, Call a.2: Transnational Access implemented as Specific Support Actions
7th Framework Programme participation rules
Draft Regulation of the European Parliament and the Council laying down the rules for participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-2013)

Calls for proposals
Text of call: Life Sciences, Genomics and Biotechnology for Health
Text of call: Nanotechnology; joint call Nanotechnology with IST
Text of calls: Food Quality and Safety
Text of call: Support for the coordination of activities - ERA NET
Text of Calls New and Emerging Science and Technology (NEST)
Text of calls: International Co-operation (INCO)
Text of calls: Research and Innovation
Text of calls: Marie Curie
Text of call: Research Infrastructures
Text of calls: Science and Society
Text of call: FISH
Text of calls: INFSO
Text of call TREN: Aero & Space; Sustainable Development
Evaluation Reports of calls for proposals
Evaluation Report: Nanotechnology
Evaluation Report: Nanotechnology - Stage 1 Evaluation of Integrated Project Proposals, 2005
Evaluation Report: Nanotechnology - Stage 2 evaluation of New Instruments (IPs), 3rd Call
Evaluation Report: Nanotechnology - Evaluation of Traditional Instruments
Evaluation Report: Nanotechnology - Stage 1 evaluation of Integrated Project for SME Proposals, 2005
Evaluation Report: Nanotechnology - Stage 2 evaluation of Integrated projects for SMEs, Third call 2005
Evaluation Report: Nanotechnology - 2nd Joint call of IST and NMP
Evaluation Report: Food quality and safety
Evaluation Report: Food quality and safety (4A): New instruments (IP and NOE)
Evaluation Report: Food quality and safety (4B): Specific targeted research projects (STREP) and Coordination actions (CA)
Evaluation Report: Food quality and safety (4C): Specific Support Actions (SSA)
Evaluation Report: Citizens and Governance in a knowledge based society
Evaluation Report - New and Emerging Science and Technology (NEST)
Evaluation Report - New and Emerging Science and Technology (NEST): Full STREP proposals
Evaluation Report - New and Emerging Science and Technology (NEST): Outline STREP, SSA
Evaluation Report - New and Emerging Science and Technology (NEST): PATH
Evaluation Report: Horizontal Research activities involving SMEs
Evaluation Report: Horizontal Research activities involving SMEs - Collective Research
Evaluation Report: Horizontal Research Activities Involving SMEs - Co-operative Research
Evaluation Report: INCO - Associated Candidate Countries - Specific Support Actions
Evaluation Report: INCO - Associated Candidate Countries - Specific Support Actions
Evaluation Report: INCO - Mediterranean Partner Countries (INCO-MPC) - Specific Support Actions (SSA), March 2005
Evaluation Report: INCO - Mediterranean Partner Countries (INCO-MPC) - Specific Support Actions (SSA), September 2005
Evaluation Report: INCO - Russia and the other NIS (INCO-RUSSIA+NIS) - Specific Support Actions (SSA)
Evaluation Report: INCO - Developing Countries - Specific Support Actions, March 2005
Evaluation Report: INCO - Developing Countries - Specific Support Actions, September 2005
Evaluation Report: INCO - Western Balkan Countries (INCO-WBC)-Specific Support Actions (SSA)
Evaluation Report: INCO - Multilateral co-ordination of national RTD policies and activities (INCO-CoMultilatRTD) - Specific Support Actions (SSA), March 2005
Evaluation Report: INCO - Multilateral co-ordination of national RTD policies and activities (INCO-CoMultilatRTD) - (SSA), September 2005
Evaluation Report: INCO - Russia and the other NIS (INCO-RUSSIA+NIS) - Specific Support Actions (SSA)
Evaluation Report: INCO - Specific Support Actions (SSA) for Promotion of Cooperation with Targeted Countries

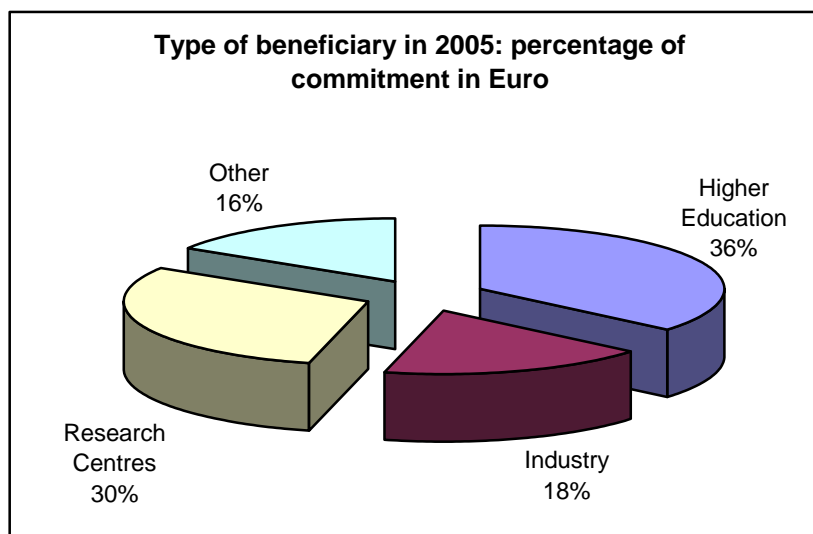
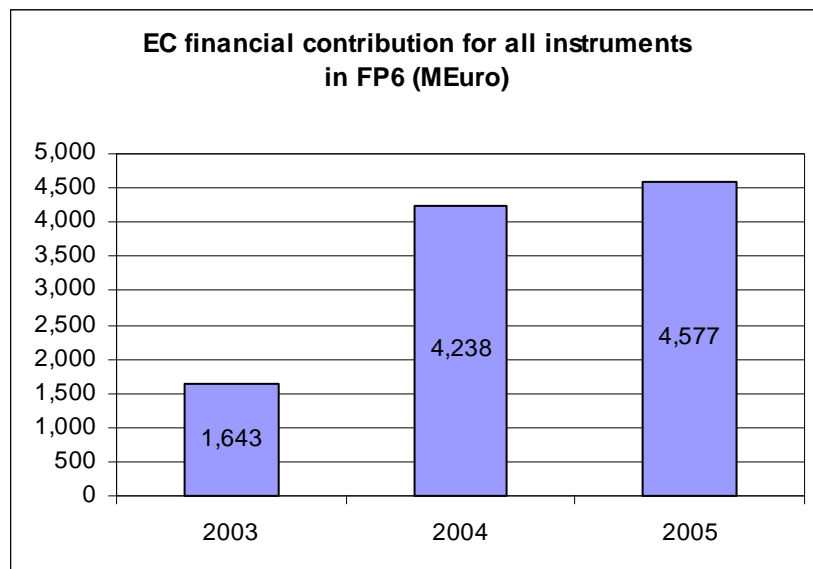
Evaluation Report: INCO - Specific Targeted Research Projects (STREP) and Coordination Actions (CA) for Mediterranean Partner Countries (MPC)
Evaluation Report: INCO - Specific Targeted Research Projects (STREP) and Coordination Actions for Developing Countries
Evaluation Report - Support for the coordination of national, regional and European activities in the field of research and innovation ERANET
Evaluation Report - Research and Innovation
Evaluation Report - Research and Innovation, Stepping Up Economic and Technological intelligence, INNOV 5
Evaluation Report: Research and Innovation, Structuring the European Research Area, INNOV 6
Evaluation Report - Identification of new methods of promoting and encouraging Trans-national Technology Transfer, INNOV 7
Evaluation Report: Research and Innovation, Structuring the European Research Area, INNOV 8
Evaluation Report Marie Curie
Evaluation Report Marie Curie - Research Training Networks 1
Evaluation Report Marie Curie - Early Stage Research Training 2
Evaluation Report Marie Curie - Marie Curie Fellowships for the Transfer of Knowledge 3
Evaluation Report Marie Curie - Human Resources and Mobility 4
Evaluation Report Marie Curie - Marie Curie Intra-European Fellowships 5
Evaluation Report Marie Curie - Marie Curie Outgoing International Fellowships 6
Evaluation Report Marie Curie - Marie Curie Incoming International Fellowships 7
Evaluation Report Marie Curie - Excellence promotion and recognition actions 8 and 10
Evaluation Report Marie Curie - Excellence promotion and recognition actions 9
Evaluation Report Marie Curie - European Reintegration Grants 11
Evaluation Report Marie Curie - International Reintegration Grants 12
Evaluation Report Research Infrastructures
Evaluation Report Science and Society
Evaluation Report Science and Society, Science and society-11
Evaluation Report Science and Society, Science and society-12
Evaluation Report Science and Society, Science and society-13
Evaluation Report FISH - Modernisation and sustainability of fisheries
Evaluation Report TREN - Sustainable Energy Systems
Evaluation Report TREN - Sustainable Surface Transport
Evaluation Report TREN - Aeronautics and space
Independent Observer's report
Observer's report: Life Sciences, Genomics and Biotechnology for Health
Observer's report: Nanotechnology
Observer's report: Food quality and safety.
Observer's report: Citizens and Governance
Observer's report - ERA-NET
Observer's report: NEST-Pathfinder
Observer's report: INCO Associated Candidate Countries
Observer's report: INCO STREP CA
Observer's report: Marie Curie
Observer's report: Research Infrastructures
Observer's report: Science and Society
Observer's report: INFSO 4th-5th Call FP6 IST Thematic Priority
Observer's report: TREN - Aeronautics and Space, Sustainable Energy Systems and Sustainable Surface Transport
FP6 Action Plan on Rationalisation and Acceleration
Implementation of the FP6 Action Plan on Rationalisation and Acceleration, April 2006
Simplification of FP7 (COM(2005)119 final)
Acceleration and simplification: specific plan of action DG TREN
Project Review process
Procedures of DG RTD for the selection of reviewers
Procedures of DG RTD for the implementation of reviews; Project management follow-up flowchart
Template for FP6 Project reviews

Implementation project: general user manual - link to CORDIS
User Manual: On-Line Submission of Review Reports and PQI (Project Quality Indicators)
FP6 project management documents and guidance - link to Cordis
INFSO - Project review process
Research Infrastructures Action: Guidelines for reporting for Transnational Access implemented as Specific Support Action + Appendix, December 2004
Research Infrastructures Action: Guidelines for reporting for Integrating Activities implemented as Coordination Action + Appendix, January 2005
Research Infrastructures Action: Guidelines for reporting for Construction of New Infrastructure/Design Study implemented as Specific Support Action + Appendix, March 2006
Research Infrastructures Action: Guidelines for reporting for Integrating Activities implemented as Integrated Infrastructure Initiatives + Appendix, December 2004
Follow-up of EU-funded research projects - Synthesis
Socio-Economic dimension and Science and Society aspects
Socio-economic dimension
Mid-term Synthesis Report on the Integration of Socio-economic and Foresight Dimensions (SED) in FP6, Manfred Horvat
Evaluation of the Science and Society Action Plan (SASAP), May 2005
Gender issues
Monitoring progress towards gender equality in the 6th Framework Programme: Mobility Actions and INCO, September 2005
Women in Industrial Research - Speeding up changes in Europe, 2004
Site Information Desk Women and Science
Commission staff working document Women and Science: Excellence and Innovation, Gender Equality in Science, March 2005
Women and Science, Statistics and Indicators, She Figures 2006
Women in Science and Technology – The Business Perspective, 2006
Communication
Communication initiatives related to the launch of the Seventh Framework Programme for research
Communicating European Research, International Conference, 14-15 November 2005
Guide to successful communication (http://europa.eu.int/comm/research/science-society/science-communication/index_en.htm)
Ethics
Ethical Rules
INFSO - Ethical Reviews of IST RTD proposals in 2005
Ethics Review Activity Report – 2005
Dissemination of results
CORDIS research results data base (http://ica.cordis.lu/search/index.cfm?fuseaction=search.simple)
Standard requirement for a FP6 exploitation plan
Impact Study Marie Curie
The economical and technical evolution of the scientific publications markets in Europe
POLICY DOCUMENTS - GENERAL
Decision of the European Parliament and of the Council establishing a Competitiveness and Innovation Framework Programme, April 2005
Evaluation of the effectiveness of the New Instruments of Framework Programme 6, June 2004
Five Year Assessment report 1999-2003
Five Year assessment: Response & Conclusions
Creating an Innovative Europe, January 2006
Commission Decision creating a Bureau for Global Monitoring for Environment and Security (GMES), 8 March 2006
Communication from the Commission on GMES: "From concept to Reality", 2005
Communication from the Commission on GMES: Annexes "From concept to Reality", 2005
Impact assessment for improving SME specific schemes and measures to promote SME participation in the Framework Programme (FP6), August 2006

6.4 List of interviews

- Work programmes: presentation by the Commission.
- Inter-institutional dimension of Framework Programmes: presentation by the Commission.
- Participants perception of the implementation of the Framework Programmes:
 - (i) IGLO representatives (Informal Group of RTD Liaison Offices): presentations by J-M. Chassériaux, France; A. Crowfoot, United Kingdom; I. Reitmaa, Finland; D. Rod, Switzerland; and I. Sanc, Czech Republic.
 - (ii) SMEs participation: presentation by U. Schroöder, UEAPME (European Association of Craft, Small and Medium-sized Enterprises).
 - (iii) SMEs participation: presentation by M. Verfaillie, Coordinator of an SME Project.
- Follow-up of the Action Plan aiming at simplifying the implementation of FP6: presentation by the Commission.
- Marie Curie Activities: presentation by the Commission.
- EURATOM Activities – Fusion: presentation by the Commission.
- EURATOM Activities – Fission: presentation by the Commission.
- SMEs participation: presentation by the Commission.
- Women and Science: presentation by the Commission.
- Integration of the Socio-Economic Dimension: presentation by the Commission.
- Integration of the “Science in Society” aspects: presentation by the Commission.
- Project review process: presentation by the Commission.
- Project review process and dissemination and exploitation of results in Research Infrastructures: presentation by the Commission.
- Project review process, the coordination/interaction with DG RTD activities, and the dissemination and exploitation of results of the IST thematic priority initiatives: presentation by the Commission.
- Project review process, dissemination and exploitation of results in Space: presentation by the Commission.
- Communication, dissemination and exploitation of results in Life Sciences: presentation by the Commission.

6.5 Statistics



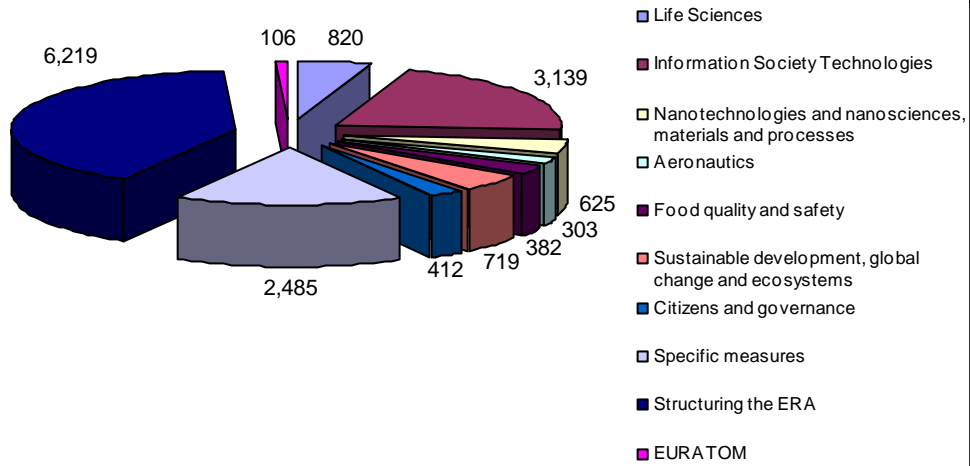
Categories used in the chart:

- Higher Education: organisations only or mainly established for higher education/training.
- Research Centres: organisations only or mainly established for carrying out research activities.
- Industry: industrial organisations private and public, both manufacturing and industrial services (such as, software, design, control, repair, maintenance).
- Other: Governmental commercial and non commercial organisations, private commercial and non-commercial organisations, JRC (Joint Research Centre), EEIG (European Economic Interest Group) and undefined organisation activity type.

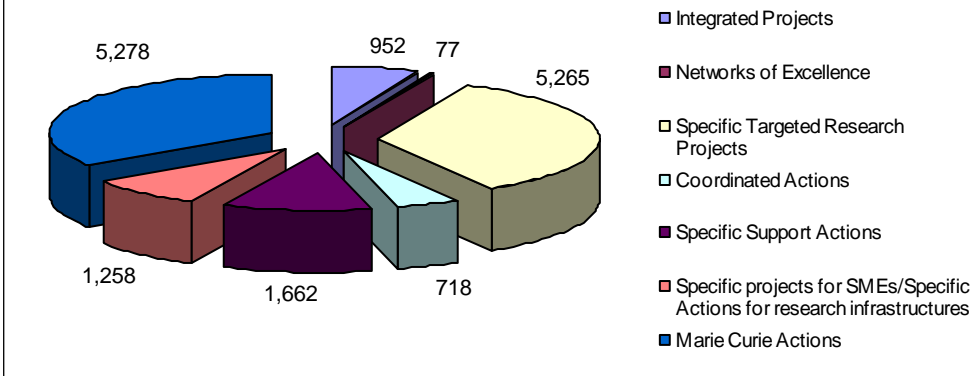
Note that SMEs are spread across the four categories.

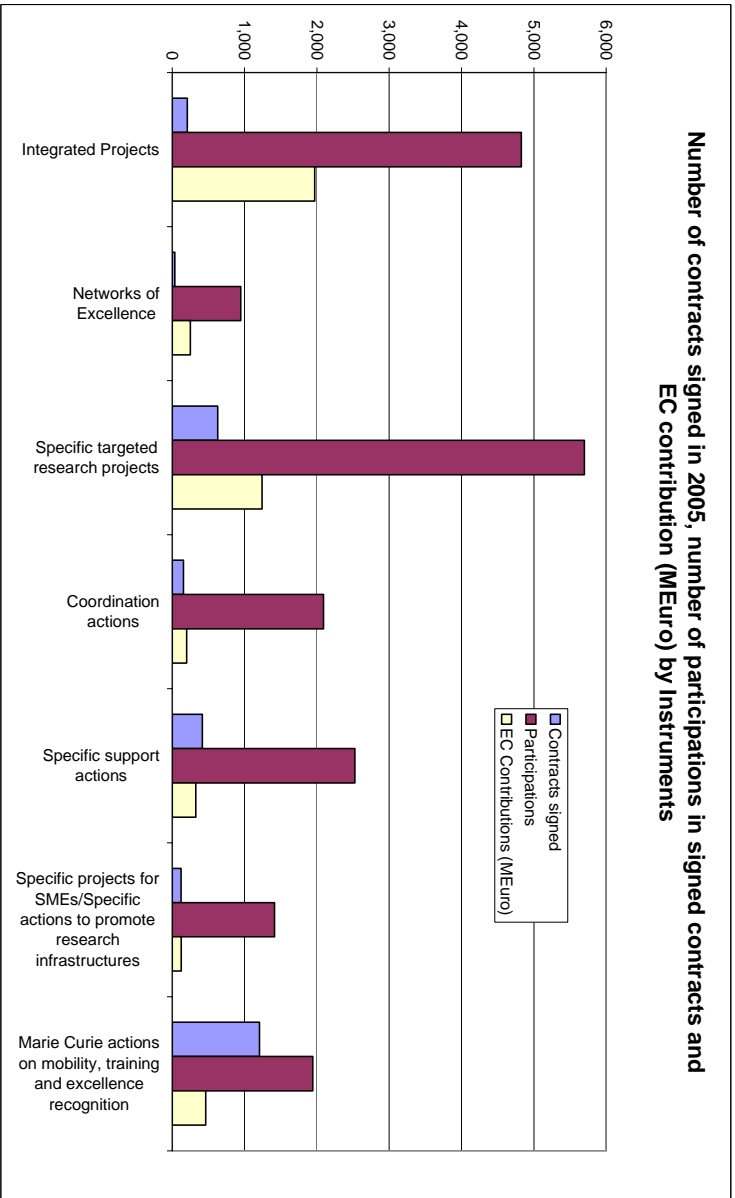
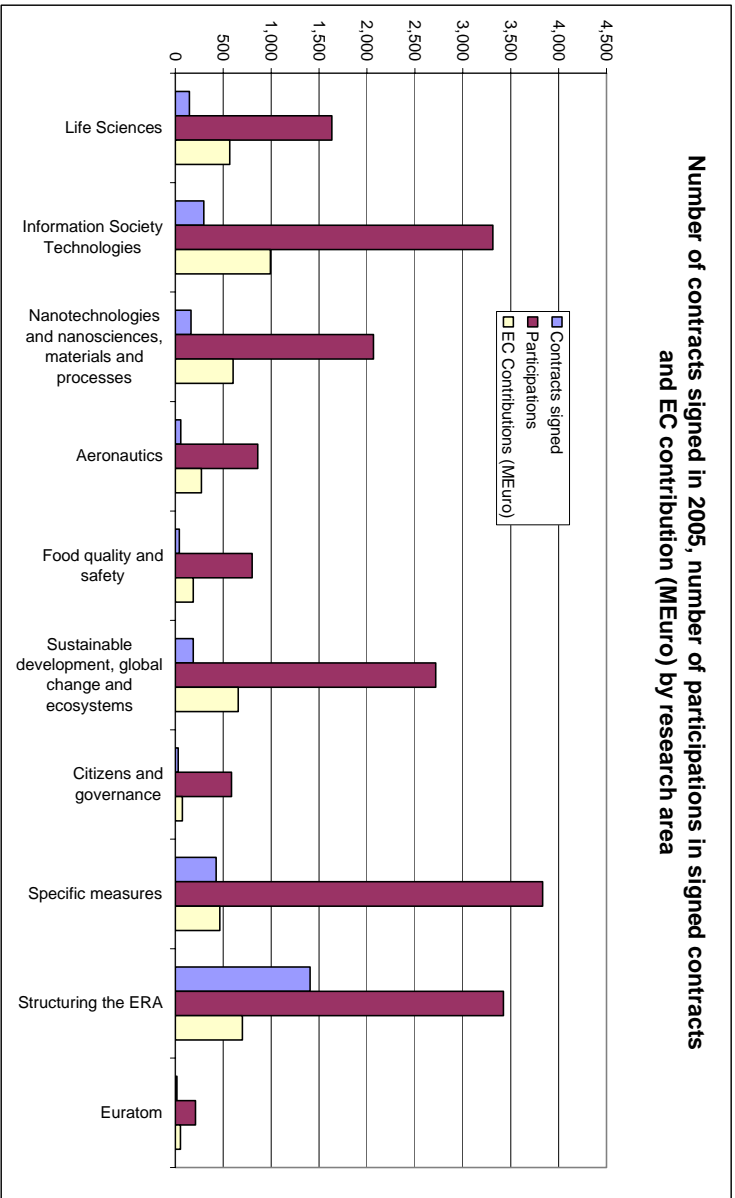
By using a different set of categories, a previous analysis concluded that private/commercial organisations represented at least 26% of FP6 commitments from its beginning until March 2005.

Number of proposals per thematic priority



Number of proposals per type of instrument





MONITORING 2005

IMPLEMENTATION OF INDIRECT RESEARCH ACTIVITIES OF THE SIXTH FRAMEWORK PROGRAMMES OF THE EUROPEAN COMMUNITY (EC) AND OF THE EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM)

PART B: RESPONSE OF THE PROGRAMME MANAGEMENT TO THE EXTERNAL MONITORING REPORT

MARCH 2007

Monitoring of the implementation of the Sixth Framework Programme in 2005

In the context of the Monitoring of the implementation of the Sixth Framework Programme in 2005, a Panel of independent experts was established to assist the Commission. The Panel made recommendations to which the Commission services provide the following response.

Commission services' response to the Expert Panel's recommendations

1. MARIE CURIE ACTIONS

Panel's recommendation:

The Panel recognises the strategic role played by Marie Curie Actions in shaping the European Research Area and developing its human resources and congratulates the Commission for the significant achievements reached in 2005.

An impact study of the new actions launched under the 6th Framework Programme should be undertaken by the Commission, in view of any potential reorientation of the dedicated "People" programme foreseen by the 7th Framework Programme.

The role of the future executive agency should be carefully addressed by the Commission.

Commission services' response:

The Commission services appreciate the positive comment of the Panel on the strategic role played by Marie Curie Actions in shaping the European Research Area and developing its human resources.

The Commission services agree with the recommendation of the Panel to study the impact of the actions launched under the 6th Framework Programme and have foreseen an impact study of the Marie Curie Actions under the 6th Framework Programme in the 2007 "People" Work Programme.

An executive agency is being set up under the 7th Framework Programme to carry out certain tasks required to implement the "Cooperation", "People" and "Capacities" Specific Programmes. Proposed improvements include among others, efficiency gains and consistency of implementation. The Executive Agency will manage the calls and the reception of proposals, adopt the instruments of budget implementation, award contracts and grants, deal with individual project level management and payments and gather, analyse and transmit to the Commission all the information needed to guide the implementation of the "People" programme.

2. INTERNATIONAL COOPERATION

Panel's recommendation:

The Panel is aware of the actions carried out by the Commission to improve the international cooperation in the thematic priorities. However, the Panel believes that these actions have not been seen as the result of a coherent plan to address the problem with sufficient resources and political commitment.

The Commission should adopt a more proactive role in promoting international cooperation both at the project and regional levels with a pre-defined strategy and a dedicated budget for each thematic priority and specific programme.

Commission services' response:

Under the 6th Framework Programme, activities involving third countries were carried out through the participation of third countries in projects within the seven priority thematic areas and through specific international co-operation activities (INCO) with selected groups of countries. In the thematic priorities, there were some action plans established through the International Steering Group to address the international dimension. INCO activities were organised around two dimensions, namely, geographical and sectoral.

The Commission services share the assessment of the Panel that to become more competitive and to play a leading role at world level, the European Community needs a strong and coherent international science and technology policy and actions. These issues will be raised as part of the forthcoming consultation paper on the future of the European Research Area (ERA) to be published early in 2007. The aim will be to come forward with proposals to strengthen international science and technology (S&T) activities within the ERA in a Communication, probably in the first half of 2008. On 12 January 2007, the Commission adopted a Staff Working Paper with the title "A new approach to international scientific and technological co-operation in the 7th Research Framework Programme (2007-2013) and the 7th Framework Programme of the European Atomic Energy Community (Euratom) (2007-2011)" to explain the new integrated way to implement International Cooperation in the 7th Framework Programme. The approach on international cooperation under the 7th Framework Programme is significantly different than under the 6th Framework Programme. It aims at integrating international research collaboration throughout the Framework Programme and includes both geographical and thematic targeting

The policy for an expanded cooperation with third countries, with dedicated topics at country and regional level in the different themes, is incorporated in the 7th Framework Programme. The Commission has adopted a proactive role in promoting the international cooperation activities through mainstreaming those in the "Cooperation", "Ideas" and "People" programmes and by defining different approaches according to the regions. The participation of third countries in the "Cooperation" programme is possible via two mechanisms. First, through the opening of all activities in the themes to researchers and research organisations from third countries – both for ICPC (International Co-operation Partner Country) and industrialised countries. And second, through SICA (Specific co-operation actions) in each theme dedicated to ICPC based on mutual interest and benefit. The theme-oriented international cooperation actions under the "Cooperation" programme are implemented in coordination with those under the "People" and the "Ideas" programme.

The “Capacities” programme supports horizontal activities aimed at identifying scientific and technological priorities with Third Countries, reinforcing the participation of these countries in all activities of the 7th Framework Programme and promoting a co-ordinated approach among Member States to scientific and technological international Cooperation.

3. SMEs

Panel’s recommendation:

The Panel recognizes that in 2005 the participation of SMEs in 6th Framework Programme projects has increased with respect to 2004. Nevertheless, the Panel is concerned about the role played by SMEs in consortia.

The Commission should address the effectiveness of the roles played by SMEs in the 6th Framework Programme.

Commission services’ response:

The Commission services agree with the Panel that the roles played by SMEs in consortia should be addressed in terms of effectiveness. The data in terms of budget allocated to SMEs are indeed a purely quantitative indicator that might not fully reflect their role or the added value for the project.

Learning from experience, Commission services noted that, especially for cooperative research projects, the benefits for SMEs - additional to the economic impacts and the strengthening of their competitiveness - are often also in the form of establishing contacts and collaborating in a trans-national environment. It is less significant whether or not the SMEs play the role of the coordinator in the project. Furthermore, the research and innovation activities SMEs perform and their access to knowledge generated by the projects should be proportional to their investment and capabilities and should come from a fair and well-balanced agreement with other actors.

In the 7th Framework Programme Cooperation programme, coordination and support measures will be launched to assess the impact of SMEs participation in research projects. The information generated by these studies will be instrumental in the development of the work programmes throughout the 7th Framework Programme.

Other improvements are envisaged in the 7th Framework Programme to better tackle the specific needs of SMEs. Emphasis will be put on the new features of the SMEs specific actions ("Research for the benefit of SMEs" under "Capacities" programme) as compared to the 6th Framework Programme. This includes a more flexible Intellectual Property Rights regime to better respond to the needs of the SME community. The SME-NCPs (National Contact Points) will receive proper training to ensure optimal information towards SMEs in Member States.

4. EURATOM

Panel's recommendation:

The Panel acknowledges the important activities carried out by the Commission in the framework of nuclear research in 2005. However, fusion research is mainly carried out by the European laboratories associated with EURATOM and by the European Fusion Development Agreement Close Support Units.

The Commission should encourage the involvement of more labs in the Fusion area and open the participation to a larger number of industrial and university labs.

Commission services' response:

Under the system of Contracts of Association, the Associates in the Member States provide the contact points for other laboratories to participate in the Fusion programme. Most Associates have strong links to research institutes and universities which are in some cases involved in the association research units. The association contract should also allow the further development of cooperation with third parties, including industry. However, this cooperation with third parties has been limited so far and will be encouraged by the Commission services.

5. ACTION PLAN ON ACCELERATION AND RATIONALISATION

Panel's recommendation:

The Panel acknowledges and compliments the Commission for its significant effort in the acceleration and rationalisation of the overall implementation process of the 6th Framework Programme. Nevertheless, some issues need further attention.

The Commission should prepare a report on the results of the Action Plan with statistics about its efficiency and effectiveness especially regarding the new instruments.

The Commission should obtain statistically relevant feedback from consortia to assess the actual degree of simplification experienced by ongoing projects.

The Commission should provide clearer and timely information about the various steps leading to the contract signature, including an estimate of the Time to Contract.

Commission services' response:

The Commission has prepared a final report on the benefits of the Action Plan. By compiling the various inputs of all services (e.g., on good practices), this report has served as a source of ideas to Commission Directorates and those aspects that have not been taken into account already shall be implemented. Taking into account other simplification actions which are being introduced, the isolated effect of the Action Plan is next to impossible to measure. The Commission is therefore not convinced that a further report on the results would be very informative.

The Commission is prepared to consider obtaining statistically relevant feedback from consortia to assess the actual degree of simplification experienced by ongoing projects. The Commission, however, would suggest that this be considered at a later stage when there is more information available and it would be more relevant to make a survey on an extended basis when a significantly large number of projects are either finalised or in an advanced phase.

Moreover, the objective of simplification means that the Commission should endeavour to minimise the administrative burden on participants, and this includes the burden of replying to surveys. It may be more cost-effective, therefore, for such a survey to be included in the ex-post evaluation of the 6th Framework Programme and its specific programmes.

The Commission services fully agree with the recommendation of the Panel to provide clearer and timely information about the various steps leading to the contract signature, including an estimate of the Time to Contract, and will include this issue in the broader context of further improvements of its communication towards the scientific community.

6. IT TOOLS

Panel's recommendation:

The Panel is concerned about the current situation of IT tools, where there is co-existence of central tools and tools locally developed by individual services of the Commission.

The Commission should analyse the impact of the current situation with respect to IT tools and should plan corrective actions in time.

The Commission should improve its databases by implementing a centralised information structure as to avoid participants having to submit the same information more than once.

Commission services' response:

The Commission has revised its IT (Information Technology) policy (Communication of the Commission from September 2004, SEC 2004 1267) and these principles are being applied in the research area. These include the goal to align overall planning and development of IT tools.

At the beginning of the 6th Framework Programme, some lack in the central IT Tools and the need to develop rapidly specific applications, led to some diversity of IT Tools. Being aware of this problem, the Commission has taken a proactive approach to ensure that every effort be made to use central IT tools that would be efficient for all users. Having analysed all central and local available IT tools used under the 6th Framework Programme, Commission services are now in the process of streamlining them.

A common Research data warehouse (CORDA) has also been launched in 2005 to centralise all reporting and statistical data in the research area since the 5th Framework Programme.

To facilitate the work of applicants in the research area under the 7th Framework Programme, a centralised database for all standard administrative information is being set up (Unique

Registration Facility). Information that is call - and project - specific is to be provided in coordination with the other project participants.

7. COMPULSORY MOBILITY OF COMMISSION OFFICERS

Panel's recommendation:

The Panel understands that the implementation of compulsory mobility of Commission Officers involved in sensitive jobs could represent a serious obstacle towards the transition to the 7th Framework Programme.

The definition of compulsory mobility of Commission staff should be reconsidered by the Commission in light of its impact on the continuity of operations and loss of strategic expertise.

Commission services' response:

Mobility is compulsory for sensitive posts (e.g., those dealing with the awarding of contracts, determining rights and obligations, awarding of grants, etc.) and for top and middle managers. As a general rule, senior officials are subject to mobility after five years and do not normally stay with the same responsibilities for longer than seven years.

Commission services are well aware that mobility, either compulsory or volunteered, has to be implemented carefully so as to find the right balance between the advantages of widening experience and the need to ensure continuity, including in scientific and technical fields where specialised expertise is required.

8. PROJECT REVIEWS

Panel's recommendation:

Project reviews are perceived as very beneficial by both project participants and Project Officers. The group of external experts assisting the Commission is very helpful for any fine-tuning and reorientation of the projects.

The Panel recommends the Commission undertakes a systematic monitoring of the results of the project review process to assess its effectiveness and ensure the proper implementation of new instruments in line with the work programme.

Cluster reviews should be adopted by the Commission, whenever feasible, as a means of increasing synergies and collaborations among stakeholders in a specific domain and to promote European research.

The Panel recommends the Commission invites experts from outside Europe, whenever deemed necessary, and includes in the review team at least one reviewer with expertise in horizontal issues.

The procedures of review during the life of the project and at the end of the project should be overhauled to ensure there is an explicit audit trail against which the ethical dimension can be reviewed throughout.

The Commission should extend the use of Project Quality Indicators (PQI) to all project reviews.

Commission services' response:

The key issue in implementing project reviews under the 6th Framework Programme is to provide an overall assessment of the scientific results of projects and a means to check if projects performed their work as contractually defined. The process intended to set up a transparent and standardised system for accepting deliverables and work plans for the next period of time of the project and for deciding on re-orientating or stopping a project. The results of the project reviews are fed into the SESAM database that allows the monitoring of results of projects.

In the preparation of the 7th Framework Programme, a working group has been set up by the Research Directorate General to improve the process and produce new guidelines for the review of projects.

Cluster reviews are a way of organising reviews of several small-sized projects within a narrow thematic area with the support of external experts. Whilst not being their primary objective, these cluster reviews may also help to identify possible synergies and collaborations among stakeholders. As these cluster reviews imply the involvement of several experts, it might not be always the most cost-effective procedure to be used as a general system. Commission services identified other efficient ways to improve collaboration among stakeholders (e.g., workshops gathering all relevant stakeholders in a given research area).

The Commission services share the view of the Panel that it might be advantageous to invite experts from outside Europe for the project review process in specific cases. For New Instruments especially, when all the best experts in Europe are committed in the project, selecting experts from outside Europe can help to ensure the best expertise, while avoiding conflicts of interest. It might also be considered for projects addressing international cooperation or research of world-wide interest. On the contrary, it might be avoided for projects aiming at enhancing the competitiveness of European industry.

The choice of experts performing the reviews has to be based on a careful analysis of the expertise needed to carry out the project review and the cost of the review. Commission services thus believe that the inclusion of one reviewer with expertise in horizontal issues should be decided on a case by case analysis of the project. For example, for projects with sensitive ethical issues, it is indeed necessary to include reviewers with the required expertise.

Ethical issues are part of the contract wherever relevant and are, consequently, part of the project review process. Ethical reviews of ongoing projects with sensitive ethical issues are, for example, mandatory. These reviews are carried out by an ethical review panel organised by Commission services that brings together independent experts in the field of ethics. It should also be noted that tools such as "ethics audit" do exist and it is the clear intention of Commission services to ensure that they are used more frequently in the future.

The Project Quality Indicators (PQI) address the same issues as the review questions. The added value of the PQI is to record the opinion of the Project Officer, if different from that of the external reviewer, and to enter scores which allow statistical analysis of the reviews.

The Commission services agree that the different good practices identified on the project review process should be disseminated for appraisal by the services. Work on this issue is already under way within the working groups set up for the preparation and the implementation of the 7th Framework Programme.

9. SOCIO-ECONOMIC DIMENSIONS AND SCIENCE AND SOCIETY

Panel's recommendation:

The Panel recognises the efforts of the Commission to raise awareness of Socio-Economic Dimensions and Science and Society, and to integrate them into the 6th Framework Programme. Nevertheless, some issues need further attention by the Commission.

There should be an on-line self study facility developed for researchers, evaluators and Project Officers which covers aspects of the Socio-Economic Dimension and Science and Society.

The Commission should ensure horizontal issues are treated seriously throughout the project cycle from proposal to project completion.

The Panel recommends that SED and S&S dimensions receive more visibility at both the EU and national levels. The Commission should address these dimensions in the work programmes and in the evaluation and review processes in the same rigorous way as the other dimensions.

Proposers should explicitly address ethical concerns in their proposals both in terms of the substance of their research and their research conduct, and describe their ongoing approach to identifying and addressing associated ethical issues culminating in an ethical and social impact review as part of the end of project report.

It is recommended that guidance and training are provided for researchers, evaluators and Project Officers so that the full range of ethical issues relating to Science and Society is explicitly addressed.

Commission services' response:

The Commission is particularly conscious of the importance of the Socio-Economic Dimensions and Science and Society issues (including ethical issues) and acknowledges the recognition of its efforts by the Panel.

The efforts to ensure a better integration of societal concerns into research are fostered in the 7th Framework Programme. Cross-thematic partnerships will be established between the "Science in Society" theme and other themes within the "Cooperation" specific programme through expert groups, conferences, studies and analyses. The aim is to encourage actors in their own disciplines and fields to participate in developing Science in Society perspectives

from the very beginning of their activities. For 2007, two such activities are envisaged in the themes of "Nanotechnology" and "Energy". Similar initiatives should follow for the theme "Social Sciences and Humanities".

The Commission services take note of the recommendation of the Panel to develop an on-line self-study facility and will examine further options for the implementation of such a facility.

The Commission recognises the importance of the societal dimension in research and has taken stock of the experience in the 6th Framework Programme.

For proposal evaluation in the 6th Framework Programme, services have drawn up a set of explanatory material and slides for use in the briefing of evaluators to help them deal with the "horizontal" evaluation criteria. Those criteria were not marked but commented on in the evaluation.

For the 7th Framework Programme, the approach focuses attention on those areas where the societal dimension is paramount. The societal dimension is emphasised where appropriate in the work programmes, and is automatically picked up in the assessment of the "standard" evaluation criteria. An internal mapping of topics with a clear socio-economic dimension in the "Cooperation" work programmes showed that, albeit with variations, concrete efforts have been made to integrate the Socio-Economic and Science in Society dimensions. With the aim to develop new means and methods that will allow for a more effective integration of those dimensions into other programmes, Commission services plan to re-launch the Inter-service group of Socio-Economic correspondents. Horizontal aspects, including gender aspects, can also be introduced during the negotiation phase of successful projects. There will also be provisions for reporting on these during the life of projects. The optional questionnaire under the 6th Framework Programme to assess the extent to which the consortium took into account the horizontal dimensions is mandatory for the 7th Framework Programme.

Applicants under the 6th Framework Programme had to fulfill all ethical and/or legal requirements at national level and conform to the ethical rules of the Framework Programme. A Guide for Proposers checklist allowed applicants to identify ethical issues in their proposed research projects and provided them with specifications to ensure that they give sufficient and clear information on the subject(s) identified. Those proposals that passed the scientific evaluation were submitted wherever relevant to a stringent ethical review by a multidisciplinary team of ethical experts from different Member States. This EU level ethical review was additional to ethical reviews in individual Member States or in other countries where the research was carried out. At the end of the projects, final reports covering all aspects of the projects life include, wherever relevant, how the ethical issues were addressed.

These procedures of addressing ethical issues showed their efficiency and will continue in very much the same way in the 7th Framework Programme which also requires that all the research activities must be carried out in compliance with fundamental ethical principles.

In order to further improve the understanding of all actors involved in EU-funded research, a major educational programme on ethics in research is currently being prepared for training Commission staff and the greater scientific community. This programme aims to translate the major pieces of relevant legislation into easily understandable concepts that can be readily applied to day-to-day research. It will be implemented at the beginning of 2007.

10. DISSEMINATION AND EXPLOITATION OF RESULTS

Panel's recommendation:

The Panel recognises the effort carried out by the Commission to consider the issue of dissemination and exploitation of results as an important element in proposal evaluation and project review. Nevertheless, several aspects should be addressed to improve the current implementation and follow-up in the dissemination and exploitation of results.

The Commission should prepare detailed analyses of the impact of dissemination and exploitation of results and provide statistics on the intensity, scope (sectorial or geographical), timing, percentage of budget, of dissemination activities devoted by projects, thematic priorities, and instruments.

IPs, STREPs and NoEs should deliver off-line and on-line material oriented to non-experts as a part of their contribution to knowledge dissemination.

The Commission should favour cross-dissemination of the results achieved within the projects.

The Commission should prepare guidelines and informative notes on IPR provisions for non-expert participants.

The Commission should update the check list for Consortium Agreement as to emphasise co-authoring of patents and papers.

Commission services' response:

The Commission services welcome the comment of the Panel on the progress made regarding the dissemination and exploitation of results. Communicating and disseminating results of research is indeed a key in a knowledge-based society to stimulate innovation and to promote knowledge sharing, greater public awareness, transparency, debates and education.

Analysing the impact of dissemination activities regarding results of research projects and exploitation of results will be included in the forthcoming ex-post 6th Framework Programme evaluation. This evaluation will also specifically address the instruments in the 6th Framework Programme. Capturing the dissemination process, however, is complex and labour-intensive, and statistics can only provide proxy-indicators of what impacts have been achieved.

Communication and dissemination of results of research projects are contractual obligations for participants in the Framework Programmes.

Communication aspects have been strengthened under the 6th Framework Programme by communicating projects' results to the broader user communities wherever relevant and by involving stakeholders in research projects from the very beginning of a proposal (e.g., consumer and patient organisations, farmers, ethicists or lawyers).

In the 7th Framework Programme, these communication issues will be further reinforced especially in the work programmes, in the 7th Framework Programme grant agreement and in the negotiation guidance notes. The Commission proposes that project participants shall,

throughout the duration of the project, take appropriate measures to engage with the public and the media about the project aims and results. Thus communication will be an integral component of the research project activities.

In line with the recommendation of the Panel to favour cross-dissemination of the results achieved within the projects, workshops or conferences are organised on a regular basis for specific research areas to share projects' results while fostering collaboration and increasing synergies between projects.

Specific dissemination actions that target specific sectors or sets of stakeholders as potential users are envisaged under the 7th Framework Programme with a proactive approach to disseminating results from across a range of projects, including those from previous Framework Programmes and other research programmes.

Difficulties faced by participants regarding IPR (Intellectual Property Rights) issues often result from the large number of participants in some projects, the growing relevance of IPR in today's knowledge-based economy, and indeed from a lack of understanding by some less-experienced participants. Accordingly, IPR guidelines for the 6th Framework Programme projects were made available from an early stage. Guidelines for consortium agreements were also available from the beginning of the 6th Framework Programme and these will be prepared also for the 7th Framework Programme. The legal helpdesk in Research Directorate General supports participants. The Commission also funds a project (IPR-Helpdesk) that provides free advice to participants who have IPR enquiries.

In the 7th Framework Programme, it is intended to continue to provide direct assistance (through the 7th Framework Programme helpdesk and guidelines) and indirect assistance (through the National Contact Points network and IPR-Helpdesk project) to (non-expert) participants.

The Commission services will explicitly mention in the guidance given to participants that co-authoring of publications is a possibility and that all inventors of an invention made in the project should be named in an ensuing patent.

11. 7TH FRAMEWORK PROGRAMME

Panel's recommendation:

Although the recommendations presented in Section [Recommendations] have been prepared as a part of the monitoring of the 6th Framework Programme, the Panel is aware that many of these recommendations can be considered by the Commission in the preparation of the 7th Framework Programme. Specifically, the experience gained on several aspects related to the 6th Framework Programme instruments is very important due to their continuity in the 7th Framework Programme. Nevertheless, other aspects are new or different. Additional remarks should then be taken into account.

Dissemination and exploitation of results should also be relevant for ERC projects. In this case, as the Consortium Agreement could be useless to fix the mechanisms (a single partner) all provisions on this issue should be incorporated in the contract/grant structure.

Decisions concerning the Action Plan for Acceleration and Rationalisation should be finalised before publishing the 7th Framework Programme calls, especially, on cost reporting and IPR issues.

The Commission should make available all necessary documents (e.g., information packages, contract models) before launching the first calls of 7th Framework Programme; and

The Commission should look at innovative national and regional initiatives in order to stimulate cooperation models for SMEs and possibly embed them into new instruments.

Finally, the Panel suggests that the Commission analyses the impact of the 7th Framework Programme activities on the management and implementation of 6th Framework Programme, by ensuring the allocation of sufficient resources. Even though there is a natural tendency to pay more attention to the future than to the past and indeed the present, the implementation of 6th Framework Programme is not over yet.

Commission services' response:

The Commission services fully share the view of the Panel to use the experience gained through the implementation of the 6th Framework Programme in the preparation and implementation of the 7th, especially as there will be a continuity of certain actions between them.

The Commission services welcome the recommendation of the panel regarding a provision for the dissemination and exploitation of results of ERC projects. This issue has already been raised with the ERC (European Research Council) Scientific Council who is considering various issues with respect to the ERC Grant Agreement.

Where appropriate, the measures of the Action plan on Rationalisation and Acceleration are integrated in the Rules for participation in the 7th Framework Programme adopted at the same time as the decision of the European Parliament and of the Council concerning the 7th Framework Programme.

Commission services concurs with the Panel's views on the need to make all necessary documents available (e.g., information packages, contract models) for the 7th Framework Programme and to aim at ensuring that all relevant background documents for proposals submission and evaluation are available at the appropriate time.

Regarding the recommendation of the Panel to look at innovative national and regional initiatives in order to stimulate cooperation models for SMEs, the Commission has already engaged efforts in the 6th Framework Programme to stimulate cooperation among stakeholders through supporting various Technology Platforms and through ERA-Nets.

Many of the stakeholders involved in Technology Platforms linked the work at the European level to their local networks in Member States thus providing an interface to SMEs. By developing research and technological development strategies through their Vision paper and Strategic Research Agendas, Technology Platforms increased the transparency and helped SMEs to focus their research and technological development activities.

Two ERA-Net projects (EraSME and CORNET) funded under the 6th Framework Programme networked national and regional programmes targeted at cooperative and collective research. They allowed the development and implementation of new strategies of transnational co-operation between programmes with the objective of adding value for both programme participants (SMEs and research organisations) and programme owners.

This support to SMEs' integration into research will continue under the 7th Framework Programme.

Due to the fact that research projects last several years (up to five years for the 6th Framework Programme), there is an overlap between the completion of projects from one Framework Programme and the planning and launch of the next. Commission services have thus taken the necessary measures to ensure that sufficient resources are allocated for the management of projects funded under the 6th Framework Programme up to their conclusion.

Commission services noted a factual error on page 27 of the 2005 Monitoring report: the Impact Assessment report accompanied the 7th Framework Programme proposal and was therefore adopted at the same time in April 2005.