European
Commission

Community research

MONITORING 2006

IMPLEMENTATION OF INDIRECT RESEARCH ACTIVITIES OF THE EC AND EURATOM SIXTH FRAMEWORK PROGRAMMES

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EXECUTIVE SUMMARY

This Monitoring report on the implementation of FP6 during the year 2006 represents a unique endeavour, as it is bridging from the traditional approach to monitoring in FP6 (and previous Framework Programmes) to the new requirements for monitoring in FP7.

The report is structured in three parts:

- The first part addresses the Framework Programme implementation in 2006 in the most literal sense, notably by presenting a statistical analysis on the almost 8000 proposals received and on the key achievements.
  As a novelty, the report also presents the results of a survey carried out among the Brussels-based Research Liaison Offices (IGLO - Informal Group of RTD Liaison Offices in Brussels for EU R&D) on their assessment of the FP6 implementation in 2006. While the IGLO representatives rated the information received, the evaluation procedures and the management of projects as slightly below or above the category 'good', they gave somewhat lower marks to the FP6 implementation in 2006 as regards the handling of contract negotiations and the communication on project findings.

- The second part brings together monitoring evidence on the implementation of FP6 as a whole, covering the period from 2003 to 2006. This includes notably an analysis on programme coverage over time, with a clear message that only some specific topics were not covered due to a lack of (good) proposals. As regards the project management cycle, the focus is on the evaluation process, where feedback from evaluators and independent observers is reassuring, and on the negotiation phase, where overall "Time to Contract" is still at around one year. This analysis is completed by an assessment of the FP6 contributions to other policies and an analysis of the follow-up and the implementation of recommendations from the monitoring exercises 2003 to 2005 and resulting lessons learnt.

- The third part of the report is the result of a test run: Networks of Excellence (like Integrated Projects) have to undergo an annual review by external experts, resulting in corresponding review reports. This source of information was, for the first time in a monitoring exercise, used for a more comprehensive analysis on how the reviewers assessed the implementation of Networks of Excellence. Roughly half of the ongoing NoEs are assessed as good to excellent projects and the other half as acceptable projects. Only one percent of the NoEs are characterised as unsatisfying. Developments over time have also been analysed for those NoEs where reviews from two or three consecutive years are already available. While the overall objectives of the NoEs are to an astonishing high degree found still to be of relevance, several years after network launch, reviewers think that a large number of NoEs will only partially be able to achieve their overall objectives within the time and resources available to the project.

0. Introduction

This Monitoring Report on the implementation of FP6 during the year 2006 represents a unique endeavour, as it is bridging from the traditional approach to monitoring in FP6 (and previous Framework Programmes) to the new requirements for monitoring in FP7.

For FP6[1] [2], monitoring has been implemented through annual exercises involving panels of independent experts which, following broad guidance provided by the Commission, selected specific areas of FP implementation and performance to analyse and report on.

For FP7[3] [4], monitoring should be carried out internally by the Commission services and should move into a more systemic exercise[5], based on a more extensive use of indicators and metrics.

Against this specific background, the purpose of this report is not only to address the implementation of FP6 in 2006, but also to complete the monitoring exercise for FP6 as a whole.

The present report does not aim at "reinventing the wheel", but wherever relevant, compiles information and evidence from different sources. At the same time, several new approaches were introduced and their viability tested in view of the forthcoming FP7 monitoring. As a result, major parts of this report present findings of a type not included in previous monitoring reports.

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- The first part addresses the Framework Programme implementation in 2006 in the most literal sense, notably by presenting a statistical analysis and key achievements. As a novelty, the report also presents the results of a survey carried out among the Brussels-based Research Liaison Offices (IGLO – Informal Group of RTD Liaison Offices in Brussels for EU R&D) on their assessment of the FP6 implementation in 2006.

- The second part brings together monitoring evidence on the implementation of FP6 as a whole, covering the period from 2003 to 2006. This includes notably an analysis on programme coverage over time and a closer look at the project

[1] Decision No 1513/2002/EC of the European Parliament and of the Council of 27 June 2002 concerning the Sixth Framework Programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002 to 2006)
[2] Decision No 2002/668/Euratom of the Council of 3 June 2002 concerning the sixth framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities, also contributing to the creation of the European Research Area (2002 to 2006)
[3] Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013)
[4] Decision No 2006/970/Euratom of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)
[5] This was explained more fully in the Commission staff working paper: Annex to the Proposal for the Council and European Parliament decisions on the 7th Framework Programme (EC and Euratom) - Main Report: Overall summary - Impact assessment and ex ante evaluation (SEC(2005)430)

management cycle, including the evaluation and the negotiation process. This analysis is completed by an assessment of the FP6 contributions to other policies and an analysis of the follow-up and the implementation of recommendations from the monitoring exercises 2003 to 2005 and resulting lessons learnt.

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As outlined above, this report addresses a number of issues through a variety of perspectives. As for every innovative product, customer feedback presents a crucial part of the process, so we therefore welcome your critical comments and suggestions in view of the forthcoming FP7 monitoring reports.

DG RTD A.3

1. FP6 Implementation in 2006

1.1. 2006 Key figures

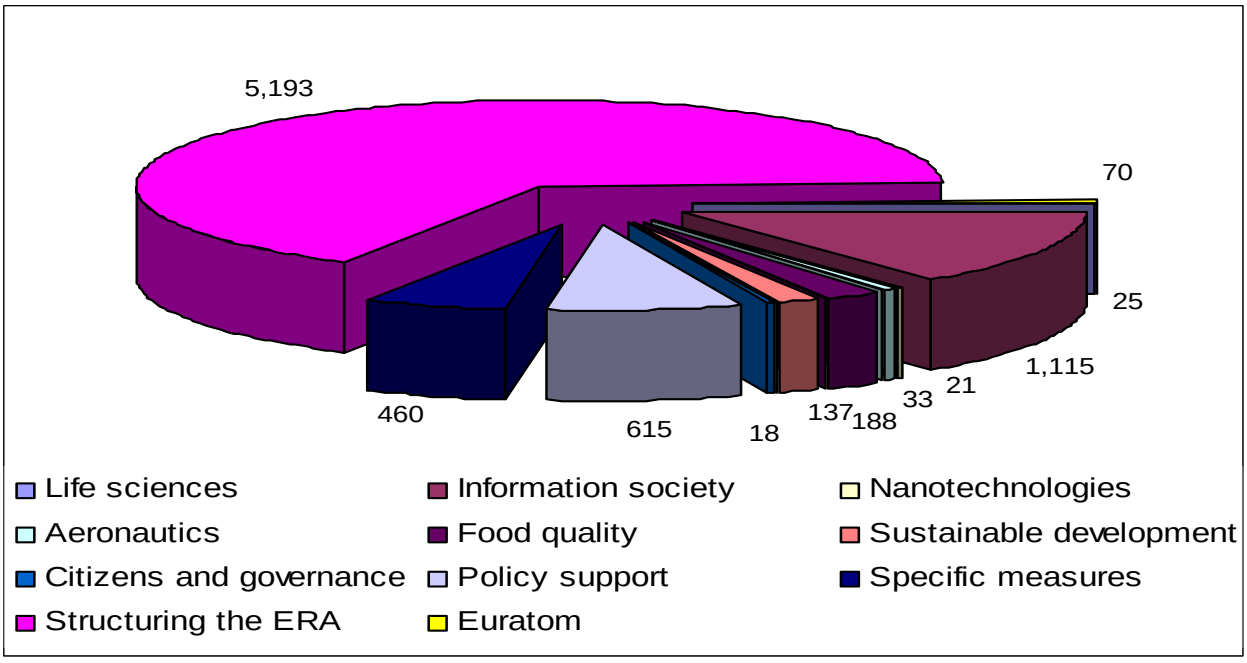
The following key figures present a very general analysis of the FP6 implementation by looking at the main "input" – the proposals received – and the main "output" – the contracts signed – of the overall process.

1.1.1. Proposals received in 2006

In 2006, 7875 proposals were received in response to calls published under FP6.

An analysis by thematic priority shows that the vast majority of proposals (5.193) were received under the *Structuring ERA* Specific Programme, mainly due to the large number of proposals within the Programme *Human Resources and Mobility.* With 1115 proposals received the thematic area *Information Society Technologies* was second largest accounting for 14% of the proposals. With 615 and 460 proposals, respectively, *Policy Support and Anticipating Scientific and Technological Needs* and *Specific Measures in support of international cooperation* accounted for the 3rd and 4th largest shares of proposals received in 2006. It should be noted that a number of thematic areas had already published their "major" calls earlier on, so that during 2006, the last year of FP6, they only received a rather small number of proposals.

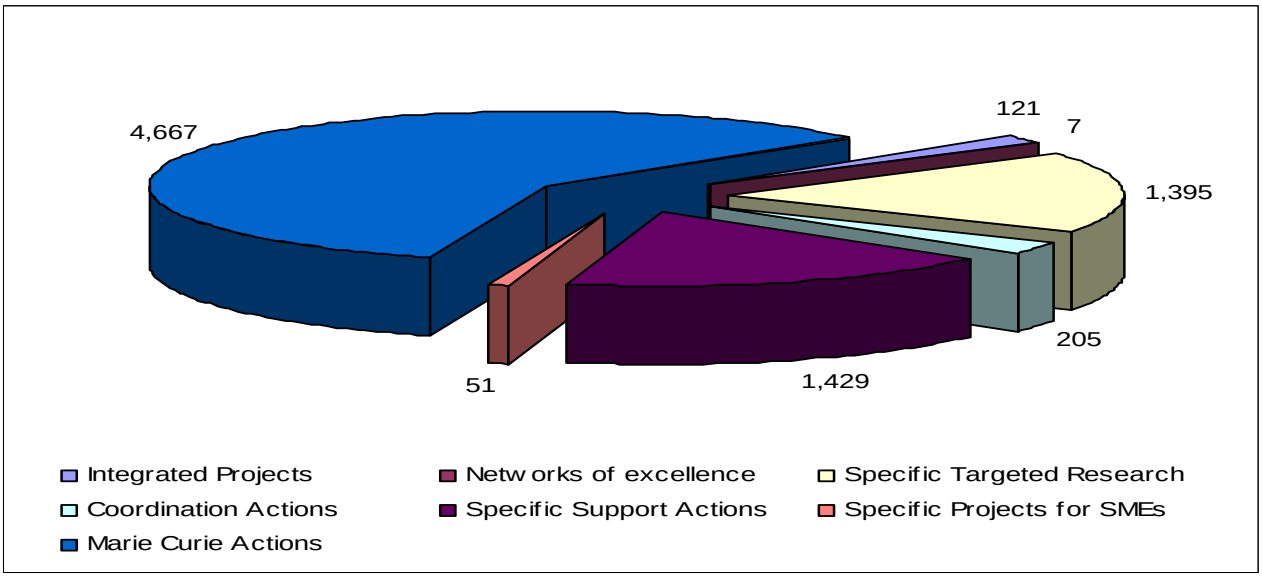
Figure 1: Number of proposals per thematic area



An analysis of the proposal numbers received per instrument shows that more than half of the proposals (4667) were submitted under *Marie Curie Actions*, thus making this instrument the most requested one within FP6 in 2006. 1429 proposals were received for *Specific Support Actions* and 1395 for *Specific Targeted Research*

Projects. The very low number of proposals submitted for *Integrated Projects* (121) and *Networks of Excellence* (7) is again due to the fact that a number of thematic areas had no more call deadlines in 2006.

Figure 2: Number of proposals per type of instruments



1.1.2. Contracts signed in 2006

An analysis of the contracts signed in 2006 shows a somewhat different distribution across thematic areas and instruments, thus reflecting that a high number of these contracts resulted from proposals submitted already in 2005.

Figure 3: Number of contracts signed in 2006, number of participants in signed contracts and EC contribution (M€) by thematic area

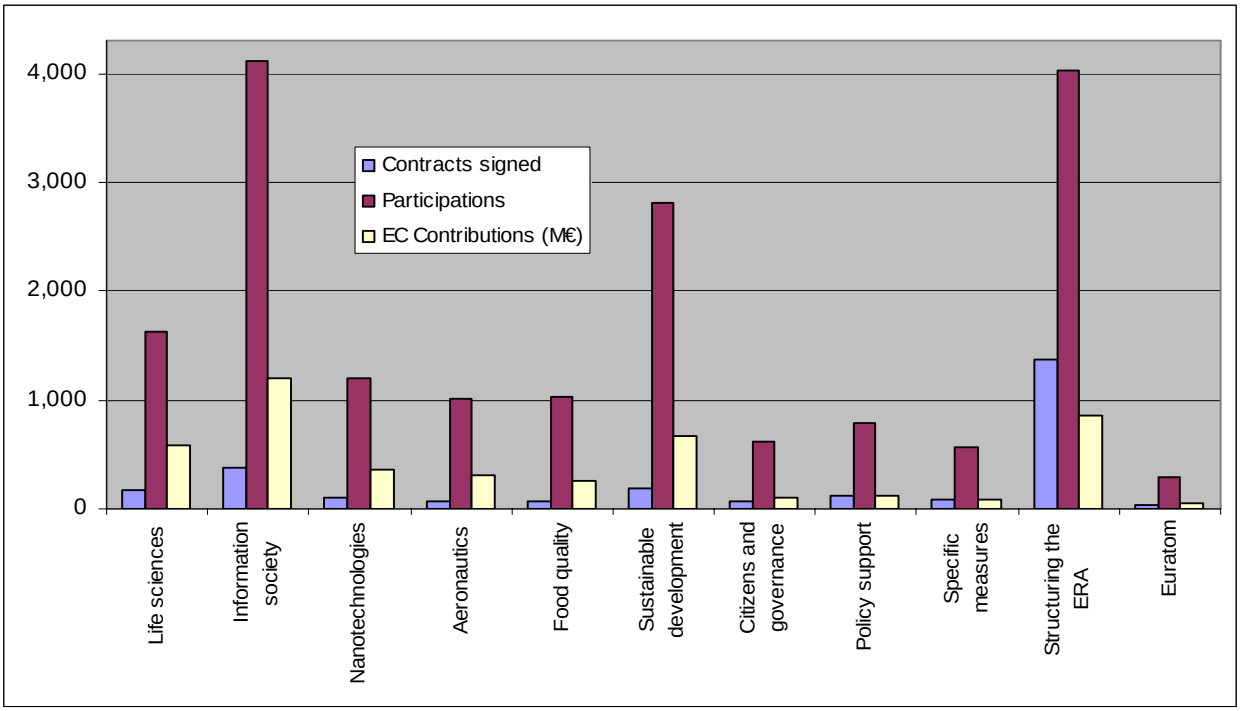
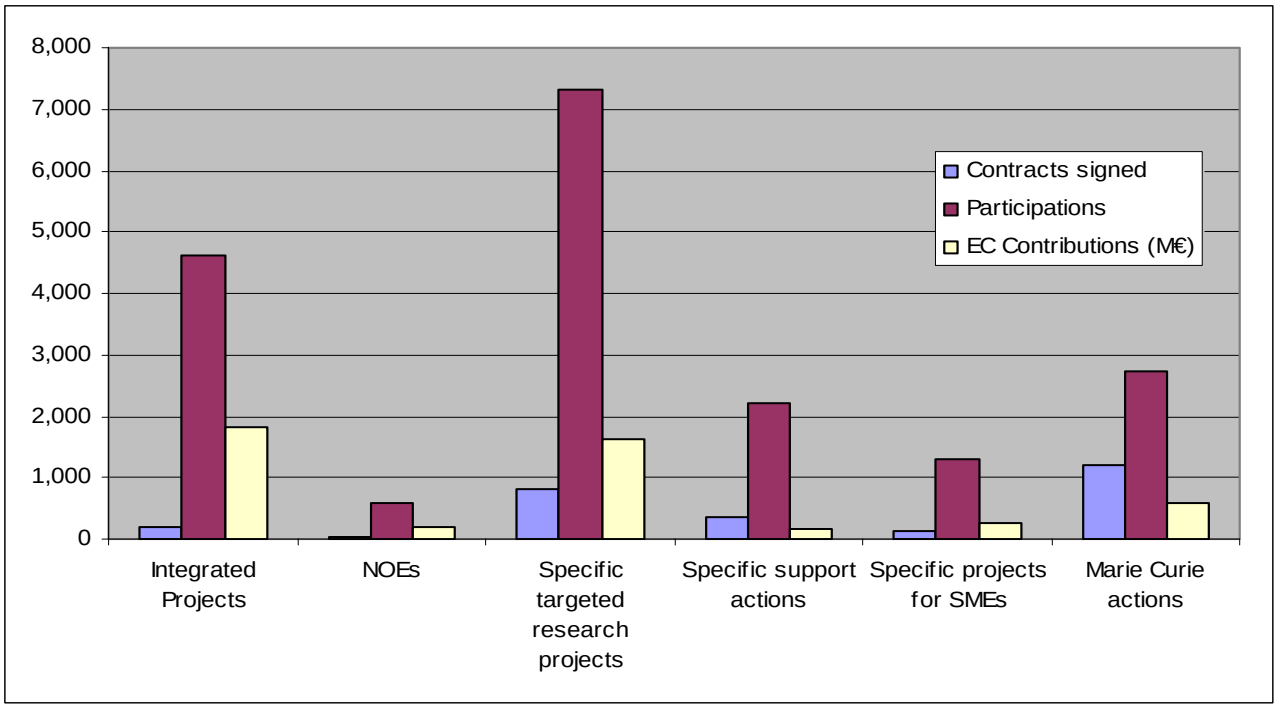


Figure 3 above indicates for each of the **thematic areas** the 2006 figures for the total number of contracts signed, the number of participants involved in these projects and the total Community contribution envisaged for these contracts. In terms of these three key categories the *Information Society Technologies* thematic priority and the *Structuring ERA* Specific Programme were the most active areas in 2006, followed by the *Sustainable Development* priority.

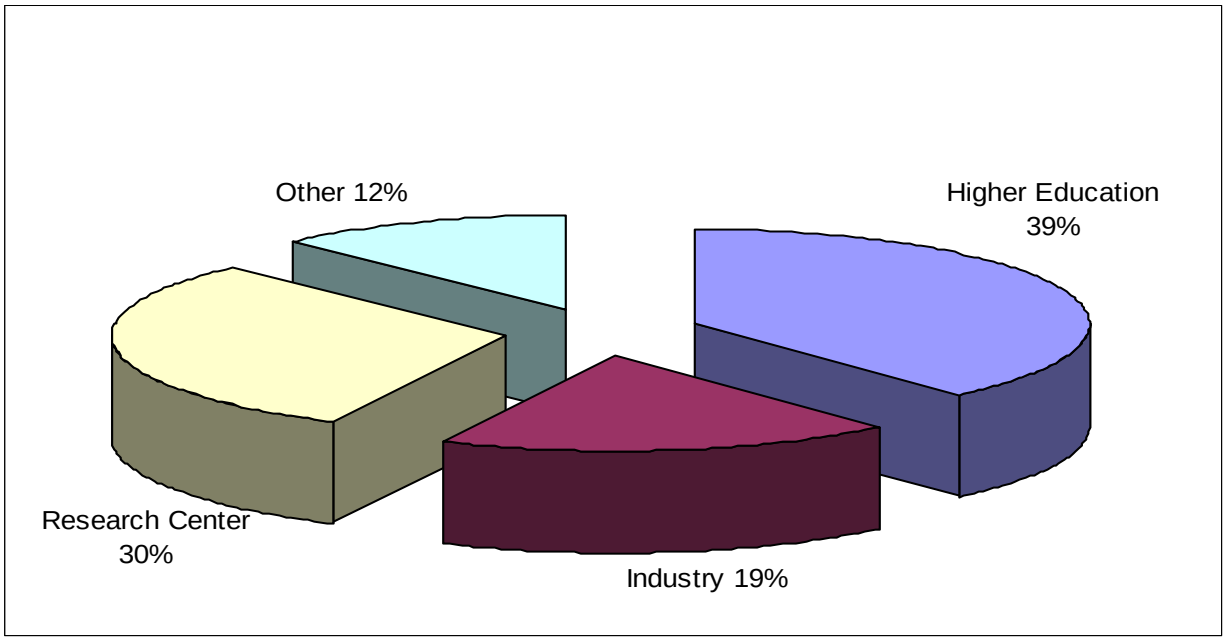
An analysis by **type of instrument** shows that in 2006 the highest number of signed contracts is related to Marie Curie Actions. However, as regards budget, *Specific Targeted Research Projects* represent by far the most important funding instrument in 2006.

Figure 4: Number of contracts signed in 2006, number of participants in signed contracts and EC contribution (M€) by instrument



For the signed contracts the distribution of committed funding among the main categories of beneficiaries was analysed (see definitions provided under figure 5). In 2006, the *Higher Education Sector* was the largest FP6 beneficiary receiving 39% of the committed funding. *Research Centers* received 30%, and *Industry* received 19% of the committed funding. It should be noted that Small and Medium Size Enterprises are spread across all the categories indicated below.

Figure 5: Percentage of committed funding in 2006 by main category of beneficiaries



Categories used in the chart:

• Higher Education: organizations only or mainly established for higher education/training.

• Research Centres: organizations only or mainly established for carrying out research activities.

• Industry: industrial organizations 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.

1.2. Main achievements in 2006

Significant progress has been recorded in 2006, the year of the final commitments under the Sixth Framework Programme (2002-2006), in all domains and horizontal themes of the revised Work-Programmes. Calls for Proposals were published broadly as planned and evaluations of proposals led to the negotiation of the last FP6 contracts. Efforts to attract the best researchers and the most innovative companies, organisations and institutions, leading players in structuring the ERA, continued.

In the domain of Life science, Genomics and Biotechnology, major actions were continuing in the European & Developing Countries' Clinical Trials Partnership in the fight against AIDS, tuberculosis and malaria. On food quality and safety, most activities related to the foundations for the implementation of the Knowledge-Based Bio-Economy (KBBE).

Following the Communication "*Towards a European Strategy for Nanotechnology*", the implementation of the Action Plan towards the responsible development of nanosciences and nanotechnologies has advanced. The platform on European manufacturing based on high added-value research and innovation is expected to speed up the rate of industrial transformation in Europe.

The implementation of the Environmental Technologies Action Plan was continuing with the development of policy activities notably on sustainable production and consumption. Research on global change and ecosystems, sustainable energy and transport systems continued to make a significant contribution to the reinvigoration of the EU Sustainable Development Strategy and to a broad range of other EU strategies, such as the maritime strategy, the Global Earth Observation System and the Environment and Health Action Plan.

Substantial progress has been made with the 31 European Technology Platforms (ETPs) covering a broad range of areas, from steel to air transport, water, hydrogen and photovoltaic and from nanoelectronics to mutual learning and foresight knowledge, which are instrumental for boosting European industrial competitiveness through strategic research agendas.

Joint Technology Initiatives (JTIs) involve a dedicated legal structure for long-term public-private partnerships to ensure that the EU leads in key technology areas. Six JTIs (Innovative medicines, Nanoelectronics, Embedded computing systems, Aeronautics and air transport, Hydrogen and Fuel Cells and Global monitoring for environment and security) were being considered. They involved the industrial partners and were progressing on the basis of a roadmap presented in November 2006.

Important progress has been made in the area of international cooperation for the fusion and fission research. This year saw the formal accession of the Euratom Community to the Generation-IV International Forum (GIF) Framework Agreement. The main achievement in fusion was the signature of the ITER Agreement in November 2006.

The capacity to respond to emerging challenges has been demonstrated by the emergency Call for Proposals in response to the avian influenza crisis and work on pandemic flu. The policy-oriented research, so called SSP (Scientific Support to Policies), was being implemented successfully; results from some SSP projects being used in the policy decision making process.

The full implementation of New and Emerging Science and Technology (NEST) has generated broad recognition of the quality and innovation of the trans-disciplinary agenda, including fields such as synthetic biology and measuring the impossible.

The regional dimension of the ERA further advanced with the continuation of the pilot action “Regions of knowledge” and the development of a new activity on trans-national cooperation among regional knowledge clusters.

Concerning research infrastructures, support to the development of a European approach for the emergence of new facilities and for the operation and enhancement of existing infrastructures has been provided through several means, in particular through support to ESFRI (European Strategy Forum on Research Infrastructures) strategic activities. ESFRI, following a mandate of the Council, elaborated the first European Roadmap for Research Infrastructures needed for the next 10 to 20 years. This document, published in October 2006, identifies 35 mature proposals for new (or major upgrades of) research infrastructures of pan-European interest, covering seven key research areas. This first Roadmap, to be updated periodically, is the result of an intensive two-year consultation and an international peer review process.

The scientific, technical, legal and financial monitoring of many actions initiated under previous Framework Programmes, especially FP5, has continued and a number of projects have been finalised. Their scientific and technical results and the socio-economic impact were the subject of an ongoing multi-annual evaluation programme to maximise and optimise their potential in the innovation and policy-making chain. The technology implementation plans were expected to help advance from knowledge to know-how and to facilitate innovation and capital formation.

1.3. User Feedback on FP6 implementation in 2006 – A survey among RTD Liaison Offices (IGLO group)

With the purpose of testing new approaches for getting informed feedback on the FP6 implementation process, a survey was addressed to the Brussels-based RTD Liaison Offices (IGLO – Informal Group of RTD Liaison Offices in Brussels for EU R&D), considering that these offices are in close contact with large numbers of applicants and contractors from their respective countries[6].

All 22 IGLO members were asked to complete a questionnaire addressing the different main phases of the project cycle in FP6. In each of the questions the IGLO officers were asked to rate the various project cycle phases on a scale ranging from 1 (poor), 2 (basic), 3 (fair), 4 (good) to 5 (excellent). It was requested that the ratings were to be based on observations made by the IGLO-representatives themselves as well as on feedback received from researchers in their home countries. A total of 16 questionnaires representing 14 'IGLO-countries' (including two sets of questionnaires from different French and Cypriot organisations) were received.
While the results obtained should not be regarded as fully representative, they provide nonetheless an interesting 'snapshot' of how IGLO officers and their respective research communities have experienced FP6 implementation in 2006. The IGLO member organisations were thus invited to attend a meeting in September 2007 to analyse the questionnaire replies in more detail; 8 representatives from different IGLO organisations were able to participate.

Question 1
Based on your own observations and the feedback received from researchers in your country, how do you rate the information received on the 2006 calls of the 6th Framework Programme?

The average score for *information received* was **4.1,** thus marginally better than the category 'good'. None of the responses used the categories 'poor' or 'basic', and there appeared to be general agreement on the main points. Comments largely fell in three groups:

- Satisfaction was expressed concerning the availability on ***CORDIS*** of almost all necessary information and guidance, with which an increasing familiarity has developed during the course of FP6.

- ***Information overload*** was mentioned as a critical aspect in receiving FP6 information. The problem of information overload is partly related to a limited user-friendliness of CORDIS.

- Additional issues mentioned included the lack of central mechanisms of dissemination of information to ***SMEs and other non-academic sectors*** of the economy.

[6] *IGLO - Informal Group of RTD Liaison Offices in Brussels for EU R&D,* is an informal association of 22 Brussels-based non-profit R&D Liaison Offices. The aim of IGLO is to facilitate and enhance the interaction, information exchange and co-operation between Members of IGLO, their national research systems and the European institutions on issues related to EU RTD, in particular, the Framework Programme.

Question 2
Based on your own observations and the feedback received from researchers in your country, how do you rate the procedures for the evaluation of proposals submitted under FP6 calls in 2006 in terms of transparency, clarity and effectiveness?

The average score on *the procedures for the evaluation of proposals submitted* was **3.8**, thus slightly below the grade 'good'.

- In general the comments in the survey were positive although a number of issues emerged both from the survey and during the meeting regarding a perceived ***lack of transparency*** and the fact that this was seen to vary across thematic areas.

- Several IGLO members underlined that seen from their own perspective the Commission's evaluation system generally functions well, although some researchers held very critical opinions indeed. It was proposed that the solution would not be to change the evaluation system but to address this question of perception, possibly by encouraging applicants including those who had been successful with proposals to become evaluators themselves.

- Several suggestions were made on possible ***improvements of communication*** of the funding decision including putting provisional results on a website, as has been introduced by the Marie Curie Programme. This might also help with horizontal issues and common misunderstandings, such as to explain that the new redress procedure can *only* deal with legal and procedural aspects while the outcome of the peer review cannot be changed.

Question 3
Based on your own observations and the feedback received from researchers in your country, how do you rate the handling of contract negotiations by the Commission services in 2006?

The average score given by the IGLO officers on *the handling of contract negotiations* was **3.1,** thus just marginally above the category 'fair'. Compared with the other scores, this was one of the two areas where the level of satisfaction was lower. The comments received point to several issues:

- ***Lengthy time to contract*** was mentioned by numerous IGLO members. The move towards providing clear ‘time lines’ for the time-to-contract in each Guide for Proposers was welcomed. However, communicating delays and the reason for these to participants was seen as an area which could be improved. The Marie Curie Programme was mentioned as best practice by ***providing on-line information*** about the status of negotiations, which was considered extremely helpful to participants.

- Some IGLO members pointed also to ***the concept of negotiations*** which was regarded as something of a 'one-way street' in which the Commission imposed its requirements on the potential contractors.

Question 4
Based on your own observations and the feedback received from researchers in your country, how do you rate the management of ongoing projects by the Commission services in 2006?

The average score given by the IGLO officers on *the management of ongoing projects* was **3.7,** thus an average score in-between the grades *fair* and *good*. Further analysis showed:

- A substantial number of the comments were broadly positive, many of which expressed the view that Commission services are highly committed to the success of project management. However in a few cases, other comments suggested that management was poor.

- There seems to be agreement among IGLO officers that 2006 was particularly troublesome for project management, one of the cited factors being internal reorganisation within DG Research having an adverse impact on maintaining contacts with the relevant Commission staff, and even in some cases in terms of the consistency of messages. Several IGLO officers argued that changes in scientific officers during a project have had negative influences on management.

Question 5
Based on your own observations and the feedback received from researchers in your country, how do you rate the communication and dissemination of project findings in 2006?

The average score given by the IGLO officers on *the communication and dissemination of project findings* was **3.0**, equalling the grade 'fair'. This was the lowest score given by the IGLO officers. In more detail:

- Comments generally seemed to recognise the work already done in this area by the research projects as well as by the Commission, which was acknowledged for continually stressing the need for dissemination. Remarks also pointed to the fact that the process of communication and dissemination has been improved partly due to the fact that the new instruments Integrated Projects (IPs) and Networks of Excellence (NoEs) include dissemination tasks in their work packages.

- Other comments showed general agreement that FP6 researchers do *not* have problems in ensuring project result dissemination to their peers in the specific research community.

- The perceived problem regarding the dissemination of research results is thus solely an issue in relation to the general public as audience.

- A number of comments related to issues regarding the most suitable format of dissemination given that this should be timely and widely available. It was also suggested that there is not enough communication and dissemination directly from the projects to the National Contact Points. Some comments also included suggestions on better use of the CORDIS website as a means for project dissemination.

2. FP6 Implementation overall

2.1. Programme Coverage

The Sixth Framework Programme, adopted in 2001, is basically implemented through a series of calls based on annual work programmes in the different thematic priorities. At the end of this four year implementation period it seems appropriate to analyse in more detail whether:

- All themes addressed in FP6 have been properly addressed by calls and projects;
- Major changes have been introduced due to unforeseen circumstances;
- Parts of FP6 have been suffering from a particularly strong oversubscription.

The analysis presented here is based on a questionnaire circulated to the services implementing FP6[7].

2.1.1. Coverage of all programme areas and topics

More than 75% of the services replied that *all* areas within their particular part of the Framework Programme were covered during the four-year course of the Framework Programme.

The remaining 25% of the respondents reported that they had not been able to cover all parts of FP6.

Analysing this further, it becomes obvious that the lack of coverage is not to be found at the broad "research area" level, but rather at the most detailed "research topic" level. For example, in the Health Programme *all **areas** were covered, although 61 **topics** out of a total of 369 topics in this priority were not covered.* Similarly, in the Biotechnology, Agriculture and Food Programme 11 topics were not covered. Within the Energy Programme, a number of topics were not covered properly in the first call. These topics were however later covered in a final call which contained an element called *"Strategically important topics not well covered by running projects".*

The questionnaires give two main reasons for topics in FP6 *not* being covered, namely *lack of proposals* and lack *of proposals of good quality*. On the basis of the questionnaires received from the services, it can thus be concluded that programme coverage within FP6 has indeed been good, with exceptions only in specific fields where (good) proposals have not been received.

2.1.2. Major changes to initial work programmes

While roughly half of all services do *not* report any major changes to the initial FP6 work programme, the other half indicated that such major changes to the initial FP6 work programme were made.

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[7] The questionnaires were sent to members of the Interservices RTD Evaluation Network, who were then responsible for further coordination within each Directorate/DG. A total of 22 replies were received covering the relevant Directorates within DG RTD, DG INFSO, DG FISH and DG ENTERPRISE. In most cases, one completed questionnaire was returned *per* Directorate. Two Directorates however choose to answer per Unit thus increasing the total number of replies. Due to the nature of the questions only targeting indirect research, the Joint Research Centre was not included in the survey.

As regards the different reasons for introducing changes in the work programme, three main categories can be identified:

- The need to be able to respond to new and emerging diseases.
- The need to be able to take part in increased international cooperation.
- The need to adapt the Work-Programme to more general developments.

The following examples illustrate this pattern:

- The emergence of SARS and avian flue which led to profound major changes in the Health Work Programme in order to re-allocate funding for these areas. The changes in the work programme resulted, among other things, in a joint call being issued by the Life Sciences and Health and the Food Safety Programmes.
- In the Nuclear Fusion part of the Energy Programme, major changes were necessary to take into account the evolving situation with regard to the international negotiations on the construction of ITER and in particular the decision made to site ITER in Europe.

2.1.3 Oversubscription of parts of the work programmes

More than half of the services give at least one indication for an area in their respective work programmes which was particularly oversubscribed, while slightly less than half do not mention any oversubscribed areas.

The examples given by the services and the possible reasons indicated do however not allow identification of similar patterns or the drawing of common conclusions across the different programmes involved.

2.2. Project evaluation and negotiation

2.2.1. Evaluation of proposals

The last calls under FP6 were completed in 2006. It is therefore appropriate to take stock and look at the overall performance of the system for project evaluation throughout FP6. This analysis takes into account information and data resulting from the '*FP6 Evaluators Survey on Proposal Evaluation'* (a questionnaire survey sent to FP6 evaluators after each evaluation session) as well as the annual meeting of independent observers held in 2003, 2004 and 2005.

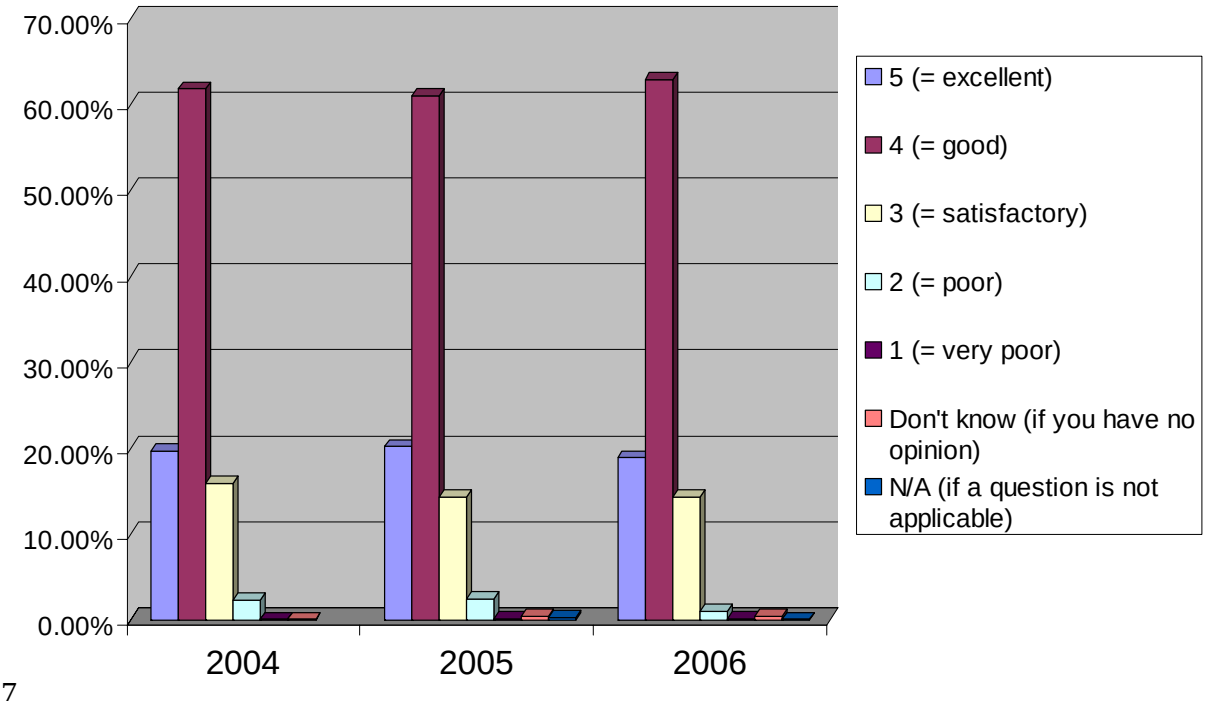
Overall, the evidence shows that the proposal evaluation and selection procedures performed well. The quality of the peer reviewers was judged to be very high and the evaluators' view was that the Commission managed the process well. This high standard was supported through systematic modifications and improvements, many of which were the result of the Commission implementing recommendations from the independent observers. Further details are available in Annex 1.

Evaluation system performance

The '*FP6 Evaluators Survey on Proposal Evaluation'* from 2004, 2005 and 2006 provides a detailed statistical picture of the quality of proposals and the background of the evaluators. The main findings are presented below.

- Over the period 2004-2006, approximately 19% of the evaluators reported that the overall quality of the evaluation was excellent; 61% rated the quality as good, and 14% found that the quality was satisfactory. While these figures did not change over this period, the proportion of evaluators who rated the quality of the evaluation as poor was reduced from 2.4% in 2004 to 1.1% in 2006.

Figure 6: Quality of the evaluation (source: FP6 evaluators' survey on proposal evaluation (2004-2006))



- 15-17% of the evaluators responding to the survey considered the evaluations under FP6 very much better than the national/international research evaluations which they had knowledge of; 36%-42% found the FP6 evaluations to be better; 19-31% found the procedures to be similar in quality, and 3-5% found that the evaluation procedures were worse than the ones used in national/ international research funding schemes.

Table 1: FP evaluation process vs other funding schemes (source: FP6 evaluators' survey on proposal evaluation (2004-2006))

FP Evaluation process versus national / international research funding schemes			
	2004	**2005**	**2006**
5 (= very much better)	17%	15%	17,1%
4 (= better)	42,1%	36,1%	38,9%
3 (= similar in quality)	30,7%	21,2%	19,3%
2 (= worse)	4,9%	4,3%	3,2%
1 (= very much worse)	0,4%	0,6%	0,1%
Don't know (if you have no opinion)	4,6%	2,4%	3,7%
N/A (if a question is not applicable)		20,5%	17,7%
	100,1%	**100,1%**	**100,0%**

Evaluation system statistics - numbers, gender, background, nationality and experience

- 8094 evaluators were used during the course of FP6, 776[8] in the first year; 3222 and 3012 in years 2 and 3, respectively, and 1084 in 2006.

- Over the first three years of FP6, female evaluators annually constituted between 30% and 32% of the evaluators. This figure was to around 39% for 2006.

- The overwhelming majority of evaluators (75 to 79% throughout the 4 year period) were from the EU15 Member States. Evaluators from the EU12 constituted between 13 and 14% of the total. 3 to 4% evaluators came from Associated Countries, 1% from Candidate Countries, and 4 to 7% from Third Countries. The only noticeable change in this picture over FP6 was the decline from 6 to 7% for the evaluators from Third countries over the first three years of FP6 to below 4% in 2006.

- Higher education and research centres constituted the two main types of organisations as regards evaluators' home institutions. 38% of the evaluators came from higher education organisations and 34% from research centres. The Business Enterprise Sector accounted for 16% of the evaluators and 'others' for the remaining 12%. The most striking change over the four years was the diminishing proportion of evaluators coming from the Business Enterprise Sector

[8] The year by year figures correspond with the year when the expert contract was issued.

which decreased from 21% in 2003, to 17% in 2004 and to 13% in 2005 and 2006.

Highlighted issues

Throughout the course of FP6 and based on feedback from the Independent Observers and the results of the FP6 evaluators' survey, the process and the procedures were continuously updated and modified. Some of the key observations, areas where concerns were raised and where improvements were made, are highlighted below:

- Independent Observers noted a perceived lack of clarity with some of the **evaluation criteria** against which proposals were evaluated, including terms such as "Relevance", "Potential Impact" and "Management". This was despite several improvements made to Commission background documentation and guidelines. The observers also called for more attention to be given to horizontal aspects of the proposals and the need for clear Commission briefings, avoiding the use of 'jargon'.

- Issues were raised by the Independent Observers on the **Evaluation Summary Reports (ESR)** which record the consensus reached by evaluators in the evaluation process. In response to concerns that the quality and consistency of the information in the ESRs was sometimes insufficient to provide adequate feedback to project proposers and to guide effectively the contract negotiators, the Commission improved the briefings to evaluators (written briefings sent to experts in case of remote evaluation and oral briefings in Brussels), strengthened the quality control of the ESR, and ensured that a sufficient number of experienced evaluators were available for evaluation sessions.

- The increasing use of **remote evaluation**, including the use of the online evaluation tool, resulted in concerns particularly amongst industry observers, on the importance of maintaining the confidentiality of the process. It was also remarked that the use of remote evaluation placed further emphasis on the need for consensus meetings to allow discussions between evaluators.

- Reaching consensus between the evaluators was seen by the Independent Observers to be heavily dependent on the quality of **EC moderators.** Their training was highlighted as a crucial issue. To this end, the Commission has developed Guidelines on good practice. Overall, evaluators and independent observers found that the Commission officials were performing their tasks in an efficient and neutral way.

- Difficulties, encountered particularly at the beginning of FP6, were noted regarding the use of **IT tools** (remote logistics and on-line evaluation). These were progressively solved by the Commission.

- As regards the **evaluators' expertise**, the Independent Observers noted that external evaluators possessed appropriate expertise for the tasks to be performed. Evaluators themselves commented that the expertise and quality of

their peers was very high and that the balance of expertise amongst evaluators was appropriate. Linked to this issue, Independent Observers stressed the importance of maintaining an effective balance regarding the types of background of the evaluators, notably between the research and business enterprise sectors, in terms of nationality, the use of non-European experts and the proportion of experienced evaluators being used.

- The role of **moderators and rapporteurs** of consensus groups, chairpersons of hearings and panel meetings had to be clarified during the course of FP6. The Independent Observers repeatedly recommended ensuring continuous training of all the actors by provision of adequate briefings on the evaluation procedures (including briefings on objectives, instruments, ethical issues, evaluation criteria, etc.).

- As regards procedures for **selecting and managing evaluation experts**, some dysfunctional aspects were highlighted including delays between the selection of experts and the evaluation itself leading to the loss of the best experts who were unable to wait until confirmation of the evaluation process. Some complaints were received from evaluators about delays in their remuneration and reimbursement of their travel expenses. No major problems were reported regarding conflict of interest matters, while any issues which did arise were dealt with by the Commission.

2.2.2 Time to contract (TTC) and the Contract negotiations

Time to contract

Time to contract, calculated as the average number of days from the call closure date to the final signature date, is regarded as a key indicator for the functioning of the evaluation and contractual process.

Data on average time to contract is provided in Table 2. The three instruments which had the shortest average time to contract at roughly one year were *Specific Support Actions*, *Marie Curie Actions* and *Coordinated Actions*, while both *Networks of Excellence* and *Specific Actions to promote research infrastructure*, on average had a time to contract above 400 days.

Table 2: Time to contract by instruments

Instrument	Average Time To Contract: Call Closure Date -> Signature Date (days)
SSA - Specific Support Actions	353
MCA - Marie Curie Actions	356
CA - Coordinated Actions	358
STREPs - Specific Targeted Research Projects	376
IPs - Integrated Projects	385
NOEs -Networks of Excellence	404
II – Specific Actions to Promote Research Infrastructure	430
	365

In addition to the above statistical data, more information on TTC has been provided by a survey of Commission services implementing the Framework Programme. Key issues are:

- On the question of whether timetables indicated in the Calls for Proposals were respected, 5 of the 21 provided responses indicated that TTC timetables outlined in the Calls for Proposals within their respective parts of FP6 were fully respected. A further 2 responses indicated that timetables were respected in roughly two thirds of the cases involved.

- The survey revealed that while the basic statistics on TTC raised concerns, the real picture was considerably more complex and should be interpreted with care. For instance, some examples show that delays occurred due to Project Coordinators failing to respect deadlines. In other cases, delays were linked to the structuring of the funding and the availability of the budget for a call. In again other cases, delays occurred when additional funds became available and projects from the reserve list were brought forward with the result that these contracts were signed very late and well beyond the original planning.

Negotiation of contracts

The survey on TTC also revealed issues related to the project negotiation process. Commission services were asked to specify the importance of four different sets of issues that might be sources of difficulty during negotiations, namely scientific aspects, management aspects, legal and financial aspects, and other aspects. The findings are as follows:

- *Scientific aspects* appear to be of relatively low importance as reasons for lengthy negotiation processes. Some replies suggested that relatively few calls – somewhere between 5% and 10% of the total number of calls within the respective research area – did not respect the expected TTC due to *scientific aspects.* The picture however is complex, and it appears that delays due to *scientific aspects* were more important for IPs than for STREPS, which may be due to the generally higher complexity of IPs.

- As regards *management aspects*, the responses to the survey show that between 5% and 40% of the negotiation delays were due to management issues. There seemed to be more consistency regarding the actual detailed management problems, e.g. problems derived from the definition of role and responsibility between partners for NoEs and IPs, the complicated structure of large consortia, changes in the composition of the consortia, and changes of the coordinator. Other issues include problems concerning the management of costs for industrial partners preventing them from taking on the role of Coordinator and difficulties in defining appropriate progress indicators for NoEs.

- *Legal and financial aspects* of the project negotiations represent by far the biggest set of issues deemed to have caused delays, with responses to the survey indicating that this category was responsible for between 10% and 90% of all

delays. Details mentioned include internal Commission problems such as the availability of trained staff, and insufficient access to dedicated financial/legal advice. A second important set of issues refers to delays linked to obtaining correctly filled and stamped administrative, legal and/or financial information forms from potential contractors. This was noted to be particularly a problem for SMEs. Other issues were the difficulties associated with the process of validation of legal entities, the complexities of the financial guidelines for the NoE and IPs, and the size of projects notably for NoEs and IPs.

- *Other* aspects noted as having caused delays to negotiations included ethical issues, communication and dissemination problems, illness and changes of key staff, patent issues and legal aspects in Member States. Generally though the *other* category was seen to be less important.

The survey asked for comments on how to improve the negotiation process, examples of the replies being as follows:

- Need for more effective use of existing information.
- Better internal linkage between Commission financial and operational services.
- Strengthening of the collection and analysis of data on TTC performance.
- Use of clearer terminology.

2.3. Contribution of FP6 to other Community policies

The EC Treaty states that one of the objectives for Community research is to support other areas of Community policy. Previous evaluation and monitoring activities have provided rather limited analysis regarding this important issue. One of the objectives of the 2006 Monitoring exercise is therefore to assess several related key aspects in more detail. This is particularly relevant considering the emphasis given to policy-relevant research under FP6.

Three areas are highlighted: First, an overview of the contribution of FP6 research to the policy work of other Directorate-Generals; second, an analysis of the *Scientific Support to Policies (SSP)* initiative under FP6; third, a summary of some of the main policy-related research activities supported by the FP6 thematic priorities. In addition, brief comments on the internal role of the DGs in supporting cross-Commission consultations on new policy initiatives and a comment on the links between FP6 and other major research policy institutions worldwide are included.

The analysis of FP6 funded research contributing to the policy work of other DGs was carried out specifically for the 2006 Monitoring exercise based on information contained in the 2003 to 2006 DG RTD Annual Management Plans. This analysis covers all parts of FP6 managed by the Directorate-General for Research[9]. The links between DG RTD and other DGs are summarised in Annex 2. Some of the key observations from the analysis are as follows:

- One global observation is that care should be taken in trying to formulate a general model to explain the link between research and policy impact, which appears to vary quite considerably according to the type of research results and the nature of potential users. For instance in some cases, data and findings from completed research projects have been used directly to support regulatory work. In other cases, the link is more indirect and may involve the hosting of a workshop for policy makers or the provision of scientific advice for a background note.

- During FP6, at least 20 different Directorate-Generals and 5 other Commission institutions and bodies have benefited from the research activities carried out by EU-funded projects.

- The users of FP6 research highlighted most often in the analysis are DGs Energy and Transportation, Enterprise and Industry, Environment and Health and Consumer protection.

- Other DGs whose policy work was cited as having drawn on FP6 funded research include Education and Culture, Employment, Social Affairs and Equal Opportunities, Justice, Freedom and Security. Additional Directorate-Generals that are also mentioned in the Progress Review of the 2006 Annual Management Plan include DGs Competition, Regional Policy, Internal Market and Services, Economic and Financial Affairs, and Environment.

[9] Those parts of the 6th Framework Program administrated by other Director-Generals (JRC, DG INSFO, DG FISH, DG Enterprise and DG TREN) are not included.

- The cluster of DGs dealing with external relations - DGs Development, External Relations and EuropeAid – were for 2006 all noted as having benefited from FP6 funded policy-relevant research results.

The *Scientific Support to Policies (SSP)* activity was a specific initiative under FP6. The aim was to establish a coherent research base, reflecting the increasingly integrated nature of Community policies and the science underpinning these. The SSP was also intended to operate in a complementary way to the many other areas of policy-relevant research which were supported through the thematic research areas of FP6. Policy areas where the SSP has been notably active include:

- the common agricultural policy (CAP)
- the common fisheries policies (CFP)
- environment, energy, transport
- health
- development aid
- consumer protection

SSP research results have been used by Commission DGs and the European Parliament as well as by national authorities. One of the benefits of the SSP concept is that it has allowed projects to be more focused on solving policy problems via pragmatic and more applied research with shorter time frames for individual projects. This was seen to good advantage with the addressing of specific scientific questions needing rapid responses such as SARS and Avian Influenza. To back this up an Action Plan has been implemented for SSP awareness raising and exploitation involving, among other things, workshops for policy makers and a dedicated website.[10] There has also been a link to the SINAPSE[11] tool for supporting scientific advice that was developed in the 'Science and Society' programme of FP6.

The list of DGs which have been closely involved with SSP funded research results includes DGs FISH, TREN, AGRI, ENV, ENTR, SANCO, JLS, DEV, REGIO, ECFIN, TAXUD.

Even if many projects are still running and if efforts should continue to disseminate the results to a large audience in the view of their exploitation, many outputs have already been provided. The most salient output of the SSP programme is obviously the significant improvement in the relationships between the scientific and policy services of the Commission. Furthermore SSP allowed the development of ways and networks involving scientists and policy makers at regional, national, European and international levels. This was of particular importance in the frame of the development of the 7th Framework Programme.

[10] http://ec.europa.eu/research/fp6/ssp/index_en.htm
[11] http://ec.europa.eu/sinapse/sinapse/index.cfm

Finally, research outputs under the thematic priorities provided contributions to a number of Community policy areas, some of the highlights of which are illustrated below:

- In **life sciences**, relevant work includes ifluenza preparedness and response as well as feedback on draft guidance in the area of non-commercial clinical trials. DG Research also supported capacity building for neglected infectious diseases and poverty related diseases such as HIV/AIDS, tuberculosis and malaria.

- **Sustainable development, global change and ecosystems** supported research in three different priority sub-fields*:*

  - Reducing greenhouse gases and pollutant emissions (Kyoto), increasing the security of energy supplies, improving energy efficiency and increasing the use of renewable energy;
  - Enhancing the competitiveness of European industry and improving quality of life both within the EU and globally (Johannesburg follow-up);
  - Promotion of the sustainable development of surface transport;
  - Global change and ecosystems including e.g. greenhouse gas emissions, the water cycle, biodiversity and ecosystems, etc.
  - Research activities thus contributed to the development of future EU Maritime Policy (preparation of a green paper on a European vision for the Oceans and Seas), to the preparation of Communications and mid-term review on ETAP (Environmental Technologies Action Plan), to the "Environment and Health" action plan, the "European Climate Change Programme" (also in cooperation with the UN) and the implementation of various directives such as the Water Framework Directive or the directive on "Emission Trading".

- Within **nanosciences and industrial technology,** research has contributed to Community policies in areas such as environmental technologies and sustainable development and industrial competitiveness as well as a number of cross-cutting issues'.

- In **social sciences and humanities,** research outputs contributed to other policy areas including employment, education, equal opportunities, governance, welfare and family, demography and ageing, education and creation of a European Institute of Technology. Contributions have also been made to the Barcelona process towards a Euro-Mediterranean free trade area through several research projects aiming at providing policy tools to assess regional and multilateral trade integration.

- FP6 research in **Aeronautics** has made substantial contribution to policy areas such as the World Trade Organisations case on Large Civil Aircrafts and on Air Traffic Management.

- Research in **food quality and safety** contributed to the prevention and control of infectious diseases which could be transmitted from animals to humans (e.g. EU preparatory action on avian flu); to the European Platform for Diet, Physical Activity and Health; to food safety, consumer and public health policies; to the

elaboration of the legislation on GMO coexistence and the Community Action Plan on the Protection and Welfare of Animals.

- Within the thematic priority of **Energy (Euratom)** research, an important input has been made to the EU Green Paper on Energy (published in March 2006) and to the preparatory work which led to the adoption of the Communication *An Energy Policy for Europe* in January 2007. In both policy documents nuclear energy was underlined as being a reliable low carbon energy source which can play a significant role in terms of the EU's dependence on imported fossil fuels and CO_2 emissions. Adoption of ITER international agreement was an additional step towards Europe having secure and sustainable energy source in the future.

Within the Commission itself, any analysis of the impact of FP6 on policy should take into account the procedures which allow DGs to comment on new policy initiatives and Commission draft proposals. As an example, between 2003 and 2006 DG RTD had to give its formal opinion on the substance of 6,766 proposals originating from other DGs.

Finally, Community research contributed to the underpinning of policies and decision making in various international organisations. The United Nations, the World Health Organisation and the World Trade Organisation are among the international organisations that benefited from FP6-funded research. Other international organisations have, in various ways, actively benefited from Framework Programme financed research (G8, COST[12], EUROCONTROLE, the World Meteorological Organization and Union Internationale des Transports Publics). Community research was also a driving force in the process of establishment of the ITER organisation in Cadarache (France).

[12] European Co-operation in the field of Scientific and Technical Research

2.4. Follow-up of the previous recommendations of Monitoring panels

Each of the three previous FP6 Monitoring Reports (2003 to 2005) contained a series of recommendations that have been formally addressed by the Commission services. Additionally, the Commission prepared a specific follow-up for each action undertaken in response to these recommendations. It is therefore appropriate to conclude the series of FP6 Monitoring exercises by an aggregate assessment of the follow-up given to these recommendations.

According to a recommendation of the 2003 Monitoring panel, the mandates of the FP6 monitoring exercises have followed the cycle of the Framework Programme. The focus of monitoring thus shifted from efficiency towards effectiveness as FP6 progressed, just as the focus of implementation shifted from launch towards achievement and outcomes. The mandates of the Monitoring exercises are presented in Table 3 below.

Table 3: Mandates of FP6 Monitoring exercises (2003-2006)

Monitoring 2003	Monitoring 2004	Monitoring 2005	Monitoring 2006
Independent expert panels			**Internal exercise**
Completion of the previous FPs			
Completion of FP5			
Implementation of FP6			
Launch of FP6. Objectives and clarity of WPs. Evaluation of proposals. IT tools for programme management.	Project selection and implementation. Review of the new initiatives. Participation of actors. IT tools.	Integration of SED and S&S aspects. Project review process. Dissemination and exploitation of results of projects and programmes. Participation of actors. Action plan on simplification. IT tools.	Statistics on FP6. Programme Coverage. Project life cycle (or project management). Contribution of FP6 to other community policies.
Support to research programme policy making			
Methodologies used for objective setting, the development of indicators, and follow-up mechanisms.	New evaluation strategy of the overall FP.		
Follow-up of the recommendations of the previous monitoring exercise			
Follow-up of the recommendations of the monitoring 2002 of FP5.	Follow-up of the recommendations of the monitoring 2003.	Follow-up of the recommendations of the monitoring 2004.	Follow-up of the recommendations of the monitoring 2003, 2004 and 2005.
Preparation of the next FP			
		Preparation of FP7.	

Annex 3 summarises the recommendations of the FP6 monitoring panels, the replies from Commission services and the follow-up of the actions taken (see also the Monitoring reports on CORDIS[13]).

The various panels overall acknowledged the commitment of the Commission in addressing and solving the weaknesses identified during each previous monitoring exercise.

The **2003** monitoring panel focused their recommendations mainly on two aspects, the improvement of the proposal evaluation and selection process for example to reduce oversubscription, and the revision of the objective and indicator systems to support the policy making process.

In **2004**, recommendations aimed at improving the implementation of the new initiatives developed under FP6, such as the New Instruments (Networks of Excellence (NoEs) and Integrated Projects (IPs), the ERA-Nets schemes and the EPTs. Recommendations were also provided concerning the ex-ante Impact Assessment process and the organisation of the ex-post evaluation of FP6.

In **2005**, recommendations were orientated towards gaining experience from the implementation of FP6 and the preparation of FP7.

Except in a few duly justified cases, most of the recommendations of the expert panels were followed by actions from Commission services.

[13] http://cordis.europa.eu/fp6/find-doc-general.htm#moni

3. Special Feature: A first analysis of the review reports for ongoing Networks of Excellence

As a possible test run for future monitoring activities under FP7, an attempt has been made to analyse in a systematic way the information given in the annual project reviews for Networks of Excellence. These project reviews are mandatory in FP6 for both Integrated Projects (IPs) and Networks of Excellence (NoEs) and are carried out by external expert. The review reports include notably assessment marks on different aspects of the project quality, so that a systematic collection of this information can become a first step towards building an indicator on project quality, which has been missing so far.

Table 4: Networks of Excellence launched under FP6

INFSO Dir. D – Converged Networks & Services	22	RTD Dir. G – Industrial technologies	22
INFSO Dir. E – Digital Content & Cognitive Systems	15	RTD Dir. H – Transport	8
INFSO Dir. F – Emerging Techn. & Infrastructures	3	RTD Dir. I – Environment	8
INFSO Dir. G – Components and systems	13	RTD Dir. J – Energy (Euratom)	3
INFSO Dir. H – ICT addressing Societal Challenges	5	RTD Dir. K – Energy	5
RTD Dir. E – Biotechnologies, Agriculture, Food	12	RTD Dir. L – Science, Economy and Society	14
RTD Dir. F – Health	39	ENTR Dir. H Aerospace, GMES, Security & Defence	1

3.1 Data collection and processing

A total of 170 Networks of Excellence launched under FP6 between December 2003 and January 2007 were identified. Some of the longest running Networks of Excellence have existed for more than 3 years, so in these cases three review reports could potentially be collected. Most of the NoEs have however only been operating for one or two years, and a few of the newest NoEs are yet to produce their first annual review report. Thus the number of available review reports per NoE varies from zero to three depending on the age of the Network in question.

A total of 262 NoE review reports have been collected. It is estimated that these 262 reports constitute roughly 75% of the targeted population of around 350 potential review reports. Out of these 262 review reports, 162 used the standardised *'review report template'* and were thus usable for a *statistical* purpose (besides the *original* purpose as a key input in the annual decision on the continued funding of the ongoing projects). The remaining 100 review reports received from services are kept on file, but due to large variations in size, structure and content they have not been included in the data processing.

The presentation of the findings is divided into two main blocks. Firstly the overall results are presented and secondly developments over time are analysed for those NoEs where reviews have taken place two or three years in a row. A complete list of tables concerning the NoEs can be found in Annex 4.

3.2. Overall Results

Table 5: Overall assessment of the Network of Excellence (1a)

Good to excellent project: The project has *fully* achieved its objectives and technical goals for the period and has even exceeded expectations	**51%**	**82**
Acceptable project: The project has achieved *most* of its objectives and technical goals for the period with relatively minor deviations	**48%**	**77**
Unsatisfactory project: The project has failed to achieve critical objectives and/or is not at all on schedule	**1%**	**2**
Not available	**1%**	**1**
Sum	**100%**	**162**

Independent reviewers characterise roughly half of the ongoing NoEs as *good to excellent projects* and the other half as *acceptable projects*. It should be noted that an *acceptable project* here is defined as a project that *has achieved most of its objectives and technical goals for the period with relatively minor deviations.* Only *one* percent of the NoEs are characterised as unsatisfactory.

3.2.1. Implementation and objectives

Regarding the Network *objectives* three out of four reviewers agree that the objectives of the NoEs are *still achievable* (2bii). However, a remarkable 23% of the reviewers only *partially* agree that the overall objectives of the NoE are *still achievable* within the time and resources available to the project. At the same time, the overwhelming majority of the reviewers (96%) are of the opinion that the overall objectives are *still relevant* (2bi).

Table 6: Results of review reports for Networks of Excellence in FP6: Objectives

	Yes	Partially	No	n/a	Sum
2a Have the objectives for the period been achieved?	57%	43%	0%	0%	**100%**
2bi Are the overall objectives still relevant	96%	4%	0%	0%	**100%**
2bii Are the overall objectives still achievable within the time and resources available to the project?	76%	23%	0%	1%	**100%**
2c Do you recommend changes in objectives in order to keep up with the current state-of-the-art?	5%	24%	70%	1%	**100%**

When assessing the progress on the project as a whole (3a), 3 out of 4 reviewers gave a positive assessment. Views are expectedly somewhat less positive when looking at the situation for each work package (3b). As regards the planned milestones and deliverables, more than have of the reviewers saw these only partially achieved.

3.2.2. Evidence of integration

NoEs were designed as part of FP6 to strengthen scientific and technological excellence within selected research topics through the durable integration of the research capacities of the participants. As an instrument designed to facilitate the creation of a European Research Area they aim to overcome fragmentation of European research by gathering a critical mass of resources and by gathering the expertise needed to provide European leadership. Findings regarding *integration and restructuring of activities between network partners* are thus particularly important in assessing to what degree the original goals behind the introduction of NoEs in FP6, seem to be partially fulfilled.

Nearly 60% of the reviewers answered *yes* to finding evidence of real integration and restructuring of activities between partners in the form of exchanges of personnel, shared infrastructures, joint research and training activities and/or changes of research orientation of individual partners in order to better integrate into the NoE. 40% of the reviewers *partially* found such evidence of real integration (3f1). Only one percent of the reviewers did not see any integration at all.

3.2.3. Consortium partnership

14% of reviewers have identified conflicts or evidence of underperforming partners, lack of commitment or change of interest of partners and are on this basis recommending changes. An additional 30% of the reviewers *partially* find conflicts or evidence of underperforming partners. Added together a total of 44% of the reviewers either *fully* or *partially* identify conflicts or evidence of underperforming partners. On the other hand 53% of the reviewers do *not* find any such evidence (5c).

Roughly two thirds of reviewers agree that collaboration between participants has been effective (5a) and that partners have contributed as planned to projects and tasks assigned to them (5b).

Table 7: Results of review reports for Networks of Excellence in FP6: Consortium partnership

	Yes	Partially	No	n/a	Sum
5a Has the collaboration between the participants been effective?	67%	30%	1%	2%	**100%**
5b Have the partners contributed as planned to the project and tasks assigned to them?	67%	28%	2%	2%	**100%**
5c Do you identify any conflicts or evidence of underperforming partners, lack of commitment or change of interest of any partners? Do you recommend any changes in responsibilities?	14%	30%	53%	2%	**100%**

An interpretation of the different results concerning consortium partnerships suggests that even though in a number of cases there is evidence of conflicts, underperforming partners and/or lack of commitment, the overall collaboration in the affected NoEs have still been effective.

3.3. Developments over time: Comparison of 1st, 2nd and 3rd year reviews

The lifespan of NoEs varies depending on the individual project. The NoEs in FP6 have a lifespan between 2 and 6 years with the vast majority having a length of 3, 4 or 5 years. The NoEs financed by FP6 and launched throughout the four year

Programme, are now of various ages and as a consequence have undergone different numbers of reviews. The statistical material included in the 2006 Monitoring exercise includes 82 1st year reports, 65 2nd year reports and 15 3rd year reports.

As a consequence of the different number of reviews by NoE and in particular the limited number of 3rd year reviews, the findings concerning 3rd year NoEs should be interpreted cautiously. The results presented below should thus be read having in mind that especially NoEs with contract duration of 4, 5 or 6 years still have several years to develop further.

3.3.1. Network objectives

Three questions deal with Network objectives and allow identifying patterns when comparing answers from the reviewers over time:

- The *overall* objectives are to an astonishing high degree found still to be of relevance, several years after launch of the networks.

- Over time there are some improvements in the achievement of objectives *for the current time period*.

- But simultaneously over time the number of NoEs is increasing for which there is an expectation that they will only partially be able to achieve their overall objectives *within the time and resources available to the project.*

Table 8: Results of review reports for Networks of Excellence in FP6: Objectives

	Yes			Partially			No		
Year	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
2a Have the objectives for the period been achieved?	54%	60%	67%	46%	40%	33%	0%	0%	0%
2bi Are the overall objectives still relevant	98%	94%	100%	2%	6%	0%	0%	0%	0%
2bii Are the overall objectives still achievable within the time and resources available to the project?	78%	78%	53%	22%	22%	40%	0%	0%	0%
2c Do you recommend changes in objectives in order to keep up with the current state-of-the-art?	4%	5%	13%	32%	20%	0%	63%	75%	87%

Although it seems that the overall objectives for a number of NoEs will *not be reached fully,* reviewers do not recommend changes in objectives on a larger scale. Among 3rd year reviews a high proportion (87%) does *not* recommend changes in order to keep up with the current state-of-the-art (2c). A possible interpretation of this data could be that there is a large group of NoEs, which are doing well and where *no* change is recommended, whereas for a much smaller (but increasing) group of NoEs such changes are recommended by the reviewers.

3.3.2. Work plan and resources

Concerning satisfactory progress in relation to the Description of Work (3a) 80% of 1st year reports contain positive answers, whereas among 2nd and 3rd year reviews

this number drops slightly to 69% among 2nd year reviews and 73% among 3rd year reviews.

An opposite development over time can be identified when looking at the number of NoEs where reviewers found evidence of *real integration and restructuring of activities between partners* (3f1): The number grows over time although only slightly - up from 57% among 1st year reviews to 67% among 3rd year reports.

Table 9: Results of review reports for Networks of Excellence in FP6: Work plan and resources

	Yes			Partially			No		
YEAR	1.	2.	3.	1.	2.	3.	1.	2.	3.
3a Has the project as a whole been making satisfactory progress in relation to the Description of Work	80%	69%	73%	18%	29%	27%	1%	2%	0%
3f1 Is there evidence of real integration & restructuring of activities between partners.	57%	58%	67%	40%	40%	33%	2%	0%	0%

3.3.3. Consortium Partnership

Added together the questions regarding consortium partnerships paint a picture of a majority of NoEs doing well, with nevertheless a relatively large number of NoEs - 25–30% or even 40–50% - where participants are only *partially* collaborating internally, only *partially* contributing as planned or *partially* in conflict or underperforming. The data do not show the positive development over time one might have expected as the Networks evolve and grow more mature.

Table 10: Results of review reports for Networks of Excellence in FP6: Consortium Partnership.

	Yes			Partially			No		
YEAR	1.	2.	3.	1.	2.	3.	1.	2.	3.
5a Has the collaboration between the participants been effective?	65%	71%	60%	34%	23%	40%	0%	2%	0%
5b Have the partners contributed as planned to the project and tasks assigned to them?	66%	68%	73%	30%	26%	27%	2%	2%	0%
5c Do you identify any conflicts or evidence of underperforming partners, lack of commitment or change of interest of any partners? Do you recommend any changes in responsibilities?	15%	15%	7%	26%	31%	53%	59%	49%	40%

3.3.4. Use and dissemination of knowledge

Among *first* year reviews 71% indicate that the *plan for the use and dissemination of knowledge is developing in a satisfactory manner* (7b). Among second year reports this figure has fallen slightly to 65%, and among 3rd year reports it is down to 53%. The figures thus indicate that as Networks mature the proportion with a satisfactory *plan* for dissemination of activities is decreasing.

Finally a question deals with *the involvement of potential users and other stakeholders from outside the Network consortium* (7d). Here the figures are not particularly encouraging: Over time a growing number of NoEs (up from 41% among first year to 53% among third year reviews) are only *partially* involving potential users and other stakeholders from outside the consortium in a suitably way.

Summarising the findings on dissemination it seems that the large majority of NoEs are carrying out dissemination activities according to the plans. But it seems that over time these plans are *not* developed in an ambitious, satisfying way, thus resulting in large number of potential users and outside stakeholders that are not being involved, or at least not involved in a sufficient way.

The picture of somewhat limited ambitions in the area of dissemination is also supported by the findings on satisfying interaction with *other* related 5th & 6th Framework projects or other national / international R&D programmes: Slightly more than half the NoE consortia interact in a satisfactory manner with other related 5th and 6th Framework projects or with other national or international R&D-programmes. But at the same time reviewers think that another 30-40% of the NoEs do so but only *partially*.

Table 11: Results of review reports for Networks of Excellence in FP6: Use and dissemination of knowledge

	Yes			Partially			No		
YEAR	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
6d Is the consortium interacting in a satisfactory manner with other related 5th & 6th Framework projects or other R&D national / international programmes (if relevant)?	55%	65%	53%	30%	28%	40%	2%	2%	0%
7a Does the project have significant use potential (if applicable)?	89%	91%	80%	10%	6%	20%	0%	0%	0%
7b Is the Plan for the Use and Dissemination of Knowledge developing in a satisfactory manner?	71%	65%	53%	26%	34%	40%	1%	2%	0%
7c Have the contractors disseminated project results & information as foreseen by the contract and the plan for dissemination & use of knowledge (publications, conferences...)?	79%	82%	87%	21%	14%	13%	0%	0%	0%
7d Are potential users and other stakeholders (outside the consortium) suitably involved (if applicable)?	39%	35%	27%	41%	49%	53%	9%	5%	13%

4. Conclusions

This Monitoring Report provides a first illustration of what a Monitoring system for FP7 will be able to perform – a systematic follow-up of the implementation of a Framework Programme through a range of indicators and key data, taken from a variety of fields to give an adequate coverage of the different aspects of an activity as diverse as the EU RTD Framework Programme.

The present report presents notably two test runs for information sources not used in previous exercises – the survey among IGLO offices and the analysis of the NoE review reports. Both exercises led to interesting results and insights, and will hopefully stimulate some debate and discussion among the readers of this document.

Experience with the preparation of this report has also shown that collecting the necessary information for a more holistic analysis of the Framework Programme is not as easy as one might think. Due to the complex nature of the FP and the decentralised management responsibilities, compiling aggregated data requires a good cooperation of all actors involved and a steady planning process. Work on this is underway for the FP7 monitoring, in order to provide an even richer and more complete picture of the manifold activities in the Framework Programme.

5. List of acronyms

AAR: Annual Activity Report
ABB: Activity-Based Budgeting
ABM: Activity-Based Management
AMP: Annual Management Plan
APS: Annual Policy Strategy
CA: Coordinated Action
CAP: Common Agricultural Policy
CFP: Common Fisheries Policy
CLWP: Commission Legislative and Work programme
CORDIS: Community Research & Development Information Service
COST: Scientific and Technological Cooperation
DG: Directorate-General
EEIG: European Economic Interest Group
EFSA: European Food Safety Agency
EIB: European Investment Bank
EPSS: Electronic Proposal Submission Service
ERA: European Research Area
ERC: European Research Council
ESF: European Science Foundation
ESP: Evaluation Service Provider
ESR: Evaluation Summary Report
ESFRI: European Strategy Forum on Research Infrastructures
ETP: European Technology Platform
ETAP: Environmental Technologies Action Plan
EURATOM: European Atomic Energy Community
FP: Framework Programme
IA: Impact Assessment
IGLO: Informal Group of RTD Liaison Offices in Brussels for EU R&D

INCO: International Cooperation
IP: Integrated Project
IPR: Intellectual Property Rights
ISC: Inter-service Consultation
ITER: International Thermonuclear Experimental Reactor
ITRE: Industry, Research, Energy (EP Committee)
J(E)TI: Joint (European) Technology Initiative
JRC: Joint Research Centre
KBBE: Knowledge-Based Bio-Economy
MSs: Member States
NCP: National Contact Point
NEST: New and Emerging Science and Technology
New MSs: New Member States
NMP: Nanotechnologies, Materials, Processes
NoE: Networks of Excellence
REA: Research Executive Agency
R&D: Research and Development
RSFF: Risk-Sharing Finance Facility
SARS: Severe acute respiratory syndrome
SCAR: Standing Committee on Agricultural Research
SED: Socio-Economic Dimension aspects
SESAM: On-line Submission Tool
SESH: Socio-economic Sciences and Humanities
SINAPSE: Scientific Information Advice for Policy Support in Europe
SMART: Specific, Measurable, Accepted, Realistic, Timed
SME: Small and Medium-sized Enterprise
SP: Specific Programme
SPP: Strategic Planning and Programming
SRA: Strategic Research Agenda
S&S: Science and Society
SSA: Specific Support Action
SSH: Social Sciences and Humanities
SSP: Scientific Support to Policies
S&T: Science and Technology
STREP: Specific Targeted Research Action
TTC: Time to Contract
URF: Unique Registration Facility
WP: Work Programme

6. Annexes

Annex 1: Statistics on evaluation of proposals submitted for funding under FP6

Annex 2: Contribution of research to other Community policies

Annex 3: Summary of the recommendations of the FP6 Monitoring panels, the Commission Services responses and follow-up in 2007.

Annex 4: Project reviews of NoEs funded under FP6 – quality and relevance of ongoing research projects

Annex 1: Statistics on evaluation of proposals submitted for funding under FP6

Figure 1.1: EU process versus national / international research schemes (source: FP6 evaluators' survey on proposal evaluation (2004-2006)

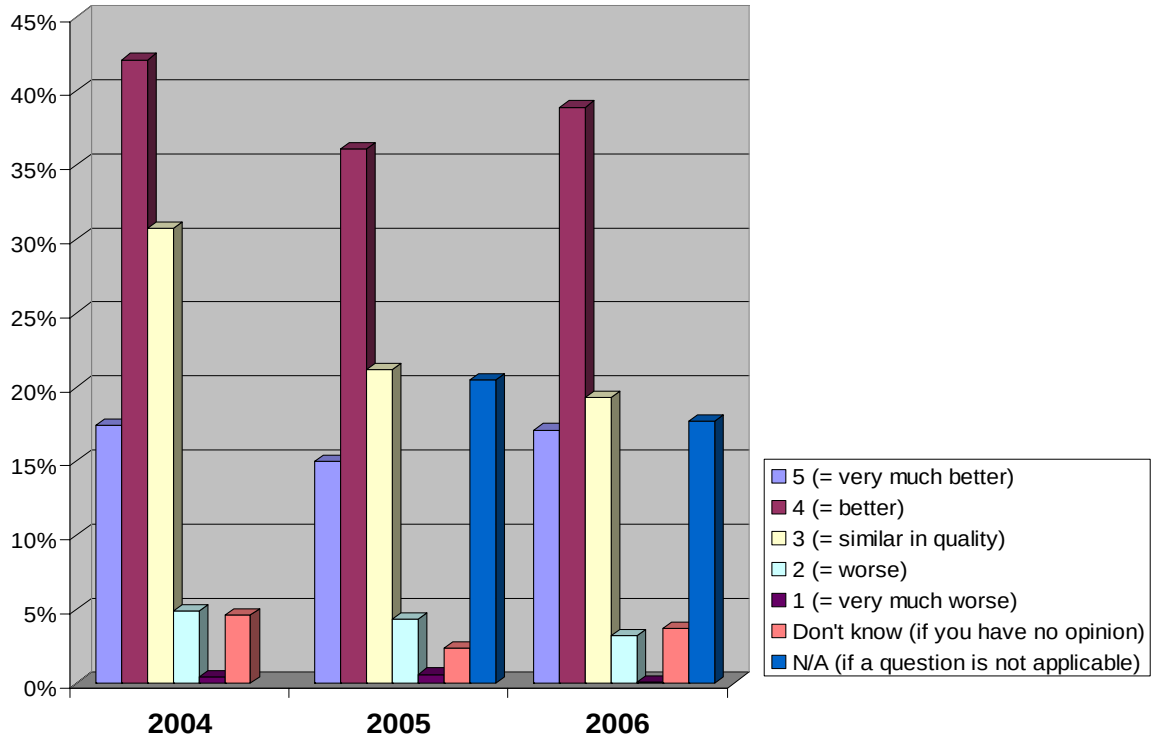


Figure 1.2: Level of complexity of the evaluation task (source: FP6 evaluators' survey on proposal evaluation (2004-2006)

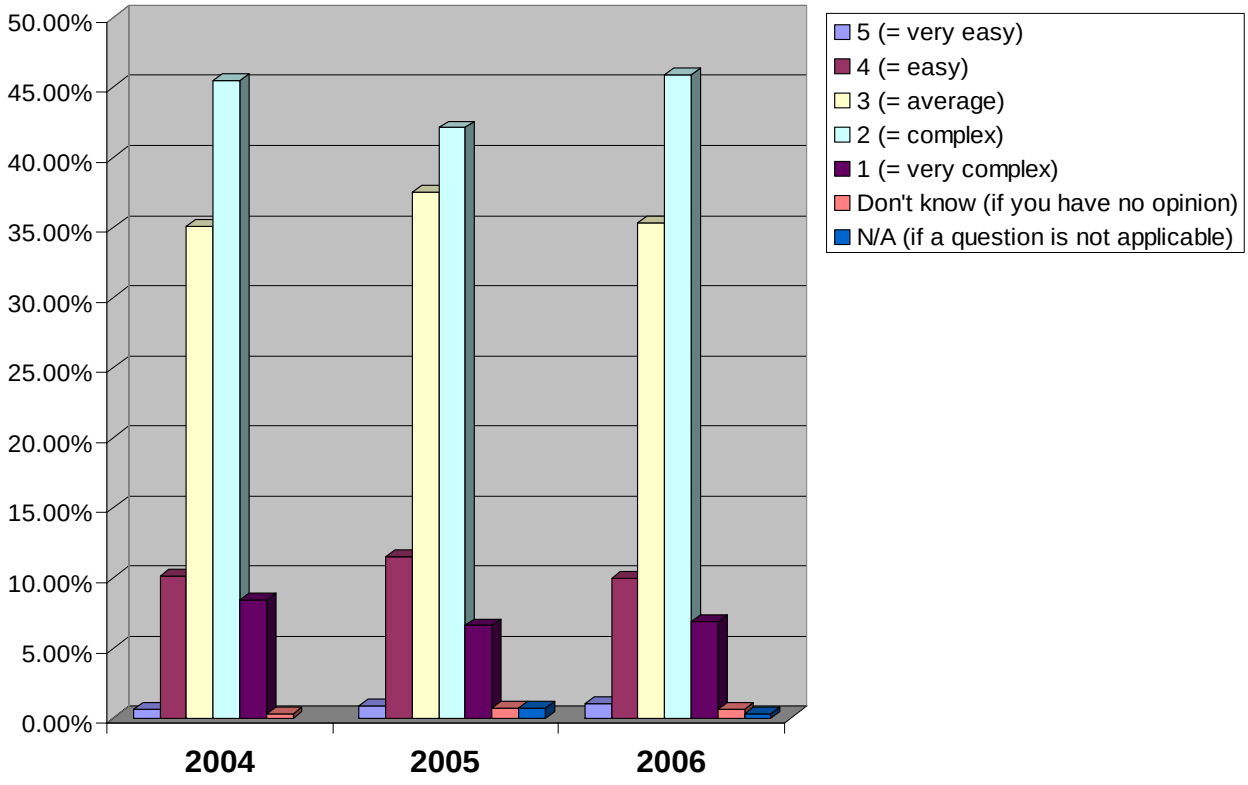


Figure 1.3: Number of experts per year with a signed or finalised contract (source: EMI, Expert management module)

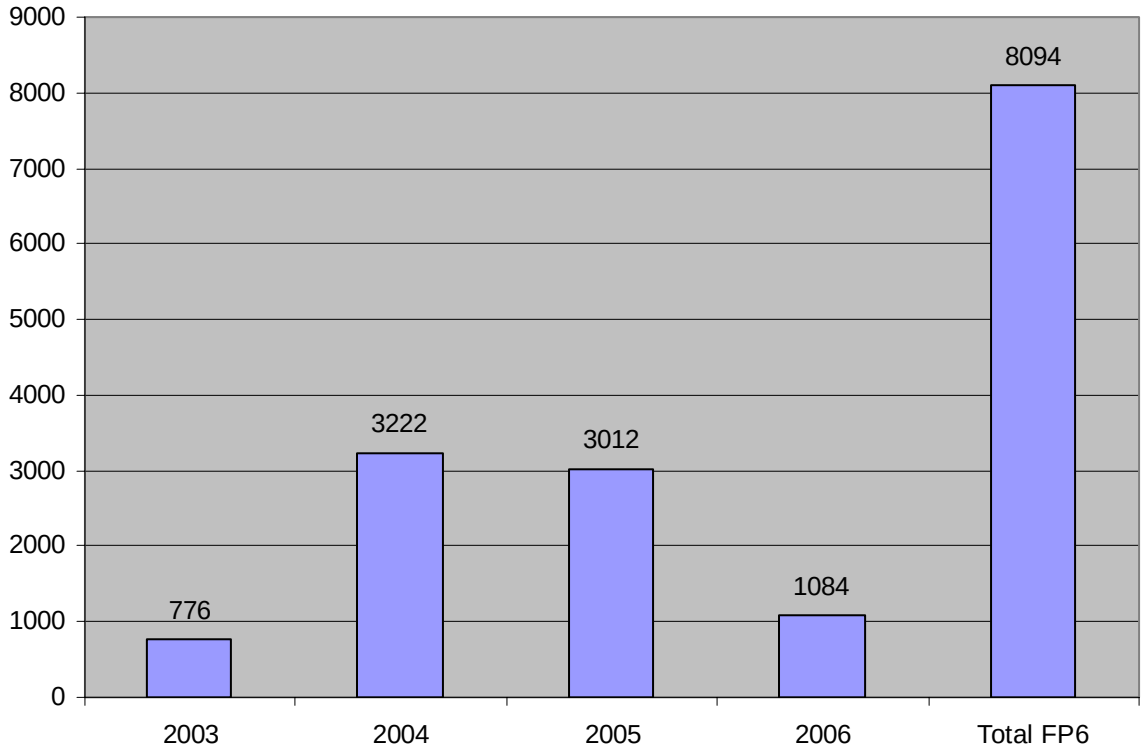


Figure 1.4: Background (home organisation) of evaluators (source: EMI, Expert management module)

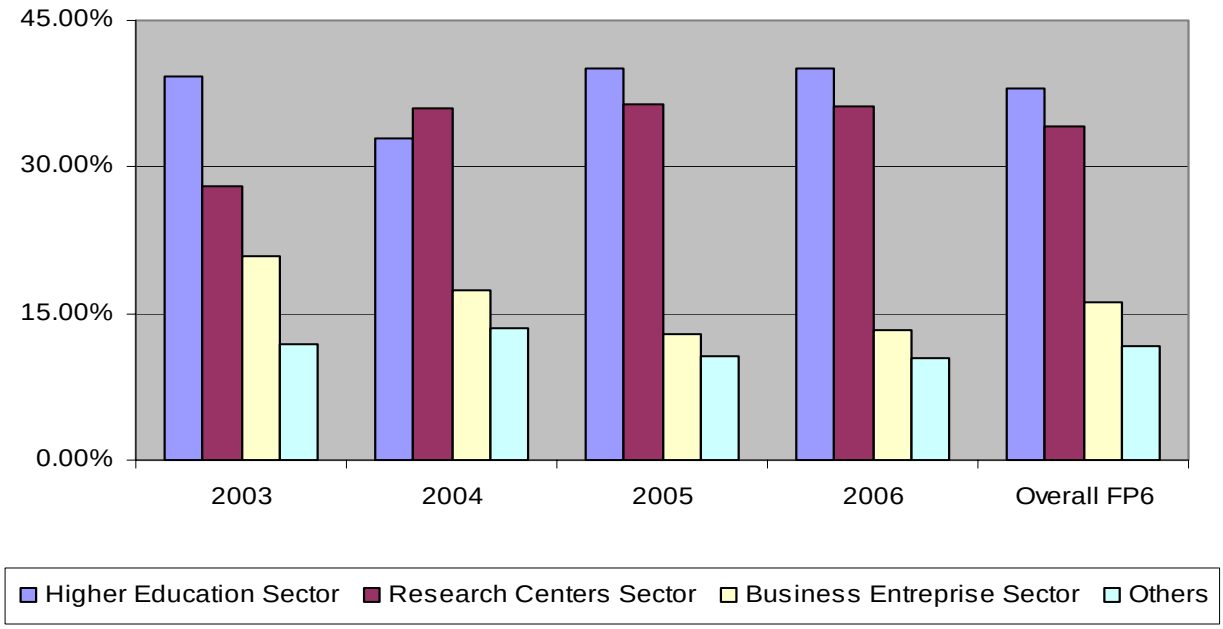


Figure 1.5: Gender of evaluators (source: EMI, Expert management module)

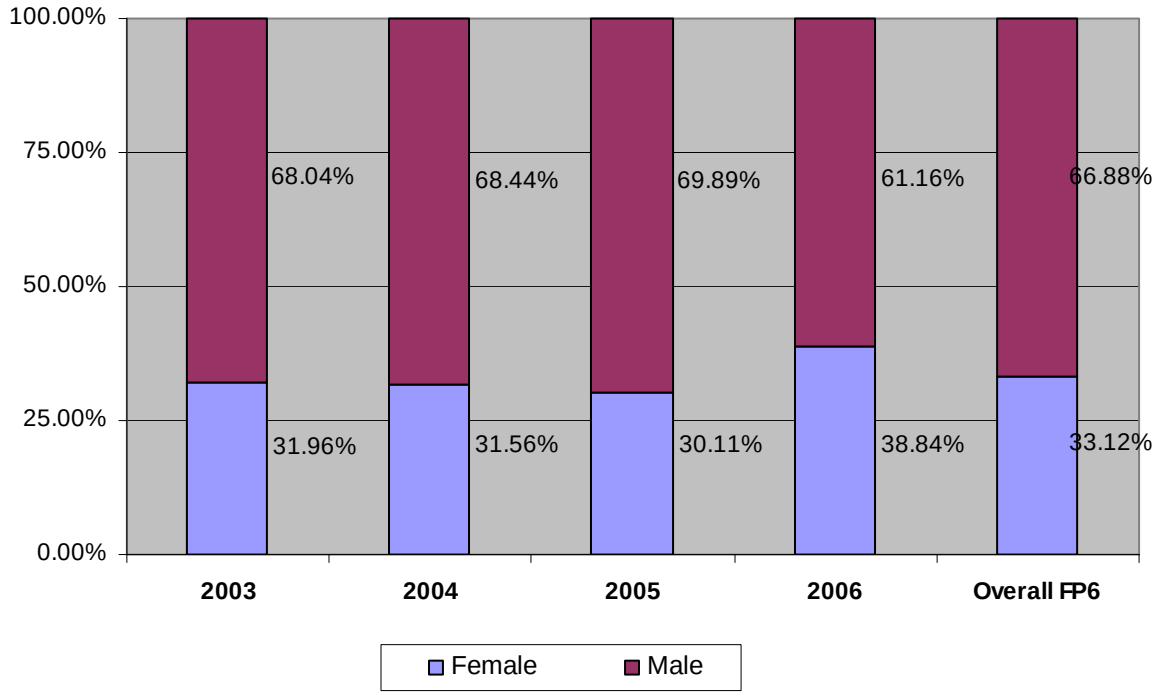


Figure 1.6: Nationality of evaluators (source: EMI, Expert management module)

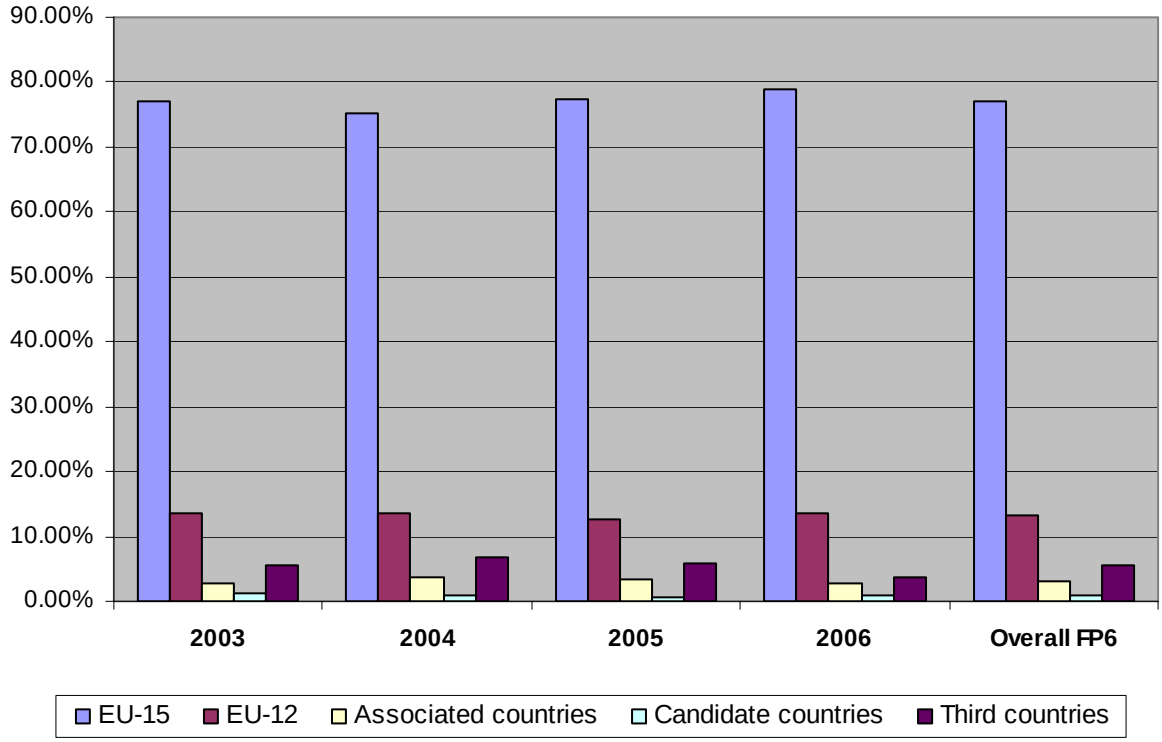
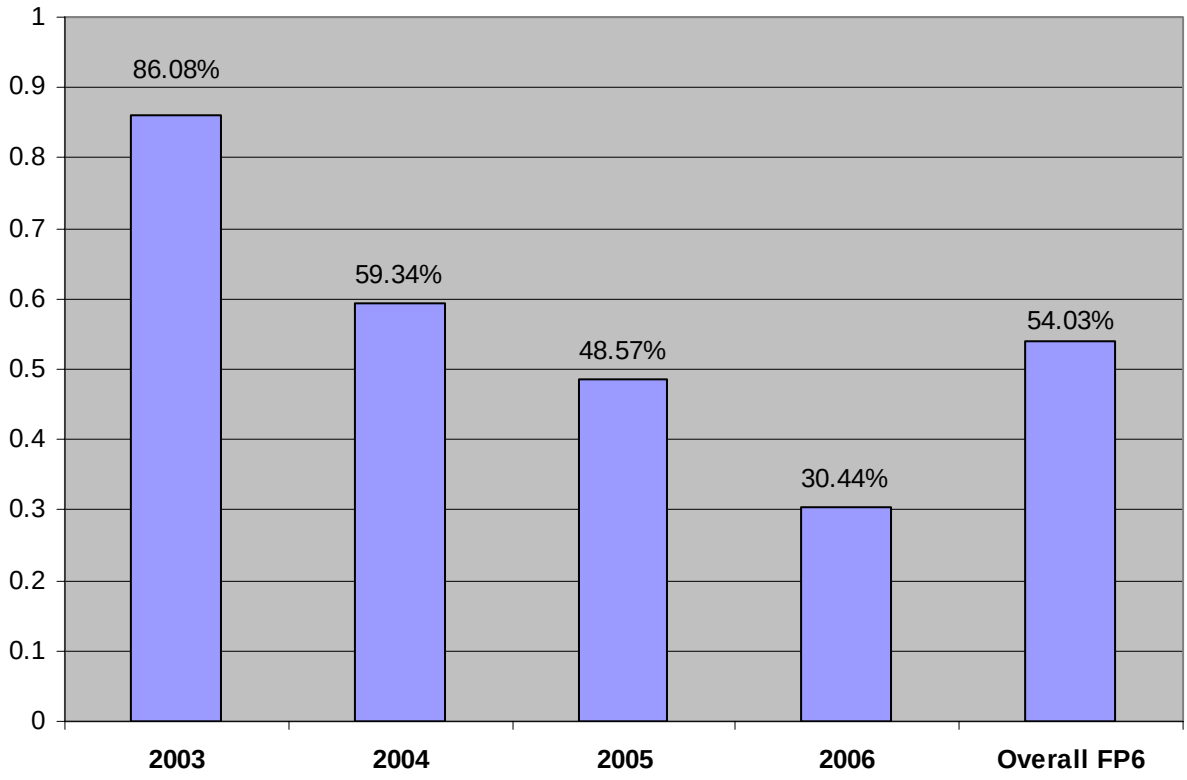


Figure 1.7: Percentage of evaluators with a first contract (source: EMI, Expert management module)



Annex 2: Contribution of research to other Community policies

This table indicates which DGs are developing and implementing the policies and general strategy and the main actions where DG RTD provided inputs. This table does not list the cooperation actions undertaken in the scope of the European Technology Platforms neither all the participation of DG RTD in various conferences, workshop, meetings or working groups *(sources: DG RESEARCH Global Progress Review ANNUAL MANAGEMENT PLAN 2003, 2004, 2005 and 2006).*

ABM/ABB ACTIVITIES	FP6
Interservices Consultations	6,766
LIFE SCIENCES, GENOMICS AND BIOTECHNOLOGY FOR HEALTH	SG and DGs SANCO, ENTR, DEV, AIDCO, RELEX, TRADE and JRC: consultation on the Environment and Health Strategy; the Community Waste Directive; the Sustainable use of Pesticides Strategy; the Pollution Prevention and Control; the Community Strategy on Dioxins; and the Health Warning on Tobacco packages DG ENTR: simplification concerning medical product dossier, labelling and packaging DG ENTR and TRADE: neglected diseases DG SANCO: implementation of research actions defined in the “Community Strategy against Antimicrobial Resistance” and “Community Influenza Preparedness and Responses Plan” DG AIDCO: research projects on poverty related diseases
NANOTECHNOLOGIES, INTELLIGENT MATERIALS, NEW PRODUCTION PROCESSES	DG ENTR: industrial competitiveness, innovation and the market DG ENV: environmental technologies and sustainable development, climate change and energy efficiency, DG INFSO: information society
AERONAUTICS AND SPACE	DG ENTR: competitiveness and innovation; Green paper on European Space Policy and White Paper "Space: a new European frontier for an expanding Union - An action plan for implementing the European Space policy"; preparation of Global Monitoring for Environment and Security (GMES) DG TREN: transport, infrastructures, safety and security; Joint programme on Air traffic management (with EUROCONTROL) DG EMPL: employment and education DG ENV: Communication on “Reducing the Climate Change Impact of Aviation” and in the Steering Group on External Noise
FOOD QUALITY AND SAFETY	DG SANCO and EFSA: European Platform on “Diet, Physical Activity and Health”; GMO coexistence; Avian flu preparedness; Animal Welfare Action Plan; Organic Farming and Food Action Plan; implementation of the Zoonoses Directive; trade of fresh pig meat; implementation of the Food Contamination Legislation; Transmissible Spongiform Encephalopathy (TSE) Roadmap DGs ENV, SANCO and the JRC: Environment and Health Strategy (SCALE initiative) and subsequent Action Plan JRC, DGs SANCO, MARKT and ENTR (and OECD): action plan and regulatory needs on Genetic Testing DG AGRI: rural development DG ENV: Directive on the implementation of the Bonn “Guidelines on access and benefit sharing”; EU positions within the UN’s Convention on Biological Diversity (CBD). DG ENTR: REACH proposal

SUSTAINABLE DEVELOPMENT, GLOBAL CHANGE AND ECOSYSTEMS	DG ENV: Directives on “Emission Trading” and “Joint Implementation/Clean Development Mechanism”; Communications and mid-term review on ETAP (Environmental Technologies Action Plan); “Environment and Health” action plan; “European Climate Change Programme” (with JRC, UN, etc.); strategies on “Soil Protection”, “Pesticides” and “Competition, Internal Market and the Water Sector”; Water Framework Directive; Commission Communication "Halting the loss of biodiversity by 2010 and beyond"; implementation of the Environmental liability Directive; and the Sustainable Environmental Assessment and Environmental Impact Assessment Directives; the Thematic Strategy for Prevention and Recycling of Waste and the proposed new Framework Directive on waste. DG TREN: support package following the “Prestige” disaster; trans-European transport network; mid-term review of the white paper on European transport policy; the Communication on “Freight Logistics in Europe – key to sustainable mobility”; the second “Marco Polo” programme 2007-2012 to improve the environmental performance of the freight transport system; co-draft of the Communication 'Towards a European Strategic Energy Technology Plan'; Maritime safety; railway interoperability and capacity improvement of road infrastructure, Environmental Noise Directive. DG TREN and DG INFSO: road safety. DG ENV and FISH: Contribution to the development of future EU Maritime Policy (Green Paper “A European vision for the oceans & seas” adopted in 2006); Framework Directive on the EU marine environmental policy. DGs ENV and ENTR: Thematic Strategy on the Sustainable Use of natural resources. DG ENTR: report on the competitiveness of the European automobile industry CARS 21 Other cooperation with the European Environment Agency.
CITIZENS AND GOVERNANCE IN A KNOWLEDGE-BASED SOCIETY	DG MARKT: plan « Modernising Company Law and Enhancing Corporate Governance in the European Union » DG JAI: preparation of the Scoreboard on the Space of Freedom, Security and Justice, Communication on immigration, integration and employment DG EAC: proposal for a Council Decision establishing a Community Action Plan for the promotion of active civic participation, Other cooperation with DGs EMPL and ENTR
SPECIFIC MEASURES COVERING A WIDER FIELD OF RESEARCH	EP: Report on European Agricultural research; input for the discussion on the "Regulation on international migration and asylum statistics". Transfer of the SCAR (Standing Committee on Agricultural Research) from DG AGRI to DG RTD in 2004 DG ENV: "Environment and Health" Action Plan; environmental assessment; technologies; sustainability; cultural heritage issues; new European Climate Change Programme (ECCP2); Communication on Marine Strategy; Framework Directive on the EU marine environmental policy and of the envisaged EU Mercury policy; Communication on Biodiversity. DG SANCO: selection of Community reference laboratories in the area of animal health/food safety; Avian Influenza preparedness; Programme of Community Action in the field of "Health and Consumer Protection 2007-2013". DGs EMPL, SANCO, ECFIN, and EUROSTAT contribution in the area of disabilities, budgetary projections and healthcare, provision of health care and services. DG DEV: implementation of the UN Convention on Desertification (UNCCD) DG ENTR: European Partnership for Alternatives to Animal tests. DG JLS: communication on Crime proofing Other cooperation with DG EMPL, JLS, RELEX, ELARG and AGRI

STRENGTHENING THE FOUNDATIONS OF THE EUROPEAN RESEARCH AREA	DG ENTR: the Action Plan on Risk Capital and the Environmental Technologies Action Plan, industrial policy, the innovation action plan, intellectual property, the broad economic policy guidelines, the multi-annual plan for enterprises, and the preparation of the Competitiveness and Innovation Framework Programme.
STRUCTURING THE ERA	Contribution to achieve Lisbon objectives: Follow up of the work of the Kok High Level Group; preparation of the report of the Commission to the 2004 Spring European Council concerning the Lisbon strategy; Communication and Regulation on European Institute of Technology (EAC, ENTR, JLS, DEV, REGIO, INFSO, EMPL, RELEX) and on the "Modernisation of Universities" (EAC). Contribution to the development of the Commission proposals for the Financial Perspectives. Finalisation and launch of SINAPSE: Scientific Information for Policy Support in Europe (involvement of 19 DGs and services). DG EMPL: impact assessment of the Communication “Roadmap for equality between women and men 2006-2010”; study on the Eures network. DG EAC: study about the complementarities of EU funded networks in the field of mobility; Action Plan Skills and mobility. Other cooperation with DG ENTR, DG JAI, DG REGIO, DG INFSO, and DG RELEX.
RESEARCH AND TRAINING ACTIONS UNDER THE EURATOM TREATY	DG TREN: EURATOM policy issues; follow-up of the energy and nuclear package policy. Information on ITER to DGs ADMIN, BUDG, RELEX, MARKT, TREN.

Annex 3: Summary of the recommendations of the FP6 Monitoring panels, the Commission services responses and follow-up in 2007 (sources: 2003-05 Monitoring reports & update from Commission services in 2007).

MONITORING 2003	
Summary of recommendations	**Summary of replies from Commission services and follow-up in 2007**
1. Completion of FP5: On improving dissemination, the Panel suggests that the Commission analyses what communities are targeted and decides how activities are monitored, whether sufficient resources have been allocated, and whether there should be sanctions for inadequate delivery. **2. Implementation of FP6:** **2.1.** On oversubscription, the Panel noted that, while the level is higher than expected, this shows that the Community action is appreciated by and attractive to the research community. The two-stage submission and evaluation procedures should be continued and information on this should be widely communicated **2.2.** On improvements in evaluation and assessment of proposals, it draws the attention of future Monitoring Panels to this for further review and suggests that the Commission should include assessment of socio-economic outcomes. **2.3.** When moving from proposal to contract, a balance is required between efficiency (speed) and effectiveness (value and quality). Targets for time-to-contract should be adapted to the type and complexity of contracts in a stated activity area. A concise table should be produced to show planned and actual proposal-related workflows per activity area. **3. Support to research programme policy making:** **3.1.** Directorates General involved with FP6 should consider revising their objective and indicator systems so as to support not only evidence based reporting of programme management but also 'light touch' monitoring. Annual Management Plans and follow-up reports require objectives with different levels of precision and prioritised by scientific-technological, socio-economic and administrative objectives in a different manner. Nonetheless, the Panel also concluded that the task of monitoring could be made easier, and management of the FP6 process could be better supported, if there were changes to objective and indicator setting. It was difficult, for example, to analyse proposal-related workflows or to make comparisons between activity areas. Statistics described participation rates for different countries and types of organisation, but expectations for these were not generally set. Because objectives were interpreted locally within programmes, and expectations might vary between work areas, the connection with overall FP objectives was sometimes unclear. **3.2.** The Panel RECOMMENDS that the focus of monitoring should shift from efficiency towards effectiveness as FP6 progresses, just as the focus of implementation shifts from launch towards achievement and outcomes.	**1.** A "guide to successful communication" was set up and is available on EUROPA. A series of new initiatives were also taken to raise public awareness e.g. the conference on "Communicating European research" in 2005. Commission services found it more appropriate to encourage the contractors to have a more active attitude concerning dissemination. **2.1.** Publication of additional information material to help improve proposers understanding of e.g. New instruments. Workprogrammes also have been adjusted and the two-stage procedure for submission of proposals has also been developed. **2.2.** The process for evaluation of proposals has been improved via briefing sessions, evaluators selection and check of the quality of evaluation reports. **2.3.** For FP6, a new indicator (Time to contract) has been introduced in the AMP 2005; targets have been developed and introduced through road map in calls in calls for proposals; guidelines for reporting on FP6 projects were developed (with indicators like gender issues…) and projects interim reports started to be collected. **3.1.** Commission services revised objectives and indicator systems during the course of FP6 and in view of FP7 (see FP7 ex-ante Impact assessment). **3.2.** Mandates for the 2003, 2004 and 2005 and 2006 Monitoring exercises fulfilled this recommendation: - 2003: launch of FP6 and efficiency, - 2004 and 2005: project management and effectiveness of the implementation, - 2006: synthesis of FP6, support to FP6 ex-post evaluation and test-run for FP7

MONITORING 2004	
Summary of recommendations	**Summary of replies from Commission services and follow-up in 2007**
1. Implementation of FP6: **1.1.** The use of remote individual assessment of proposals should be maintained and increased wherever feasible. **1.2.** Learning from the experiences with new initiatives (ETPs, ERA-Nets) and implementation of new instruments could be enhanced by the development of more organised knowledge transfer. **1.3.** It is essential that there are clear "rules of the game" for the process of recognising a Technology Platform as such. **1.4.** ERA Nets should be maintained and even enlarged in FP7. **1.5.** the thematic priorities of the Cooperation programme and the Ideas programme should both develop specific NEST-like activities for areas of new and emerging science and technology, fostering in particular the interdisciplinary approaches that the FPs have proved to be successful for achieving innovation. **1.6.** More effort is required to establish a common view of NoEs. In addition, a systematic review of the dynamics of the whole process of implementing NoEs needs to be undertaken. Also, preliminary returns from the first annual reviews show that further work should be done on the methodology used to measure the degree of integration of NoEs. **1.7.** Budgets for the part of the INCO programme handled under thematic priorities should be clearly earmarked as such and publicised better to scientific officers and researchers. It would be useful to establish a more efficient means for exchange with the INCO programme for projects implemented under thematic priorities. It would also be helpful to integrate international cooperation objectives into the evaluation criteria used for proposals evaluation. **1.8.** A tighter link between the overall planning and implementation of the FPs and IT tools development should be established. **2. Support to research programme policy making:** **2.1.** Potential users should be involved in the Ex ante Impact Assessment process at an early stage. Impact assessments based on statistical analyses give little insight without more in-depth analyses; it could be useful to investigate and report individual examples of successes and failures in more depth. **2.2.** The Panel recommends that the FP6 ex-post evaluation should be conducted in two steps to allow the Commission to prepare relevant analyses for step two on problem areas identified in step one. To prepare the ex-post evaluation of FP6, research on methodologies and horizontal studies should be launched at the latest in 2006. Further, the mid-term review of FP7 should include specific studies on the new initiatives developed by the ongoing FP.	**1.1.** The use of remote individual evaluation has steadily increased under FP6 and this tendency still continues. It is intended to apply it for the large majority of FP7 calls. **1.2 and 1.3.** In early 2004 the Commission services set up an Inter-Service Group (ISG) to coordinate all the Commission's activities on ETPs. Several reports were compiled, the latest of which is the third Status Report on European Technology Platforms[14]. A dedicated website for ETPs was set-up on Cordis[15]. At the beginning of 2007, there are 31 ETPs up and running. **1.4.** ERA-Net scheme are broaden and strengthened in FP7, notably through the introduction of the "ERA-Net plus. **1.5.** In FP7, the "Ideas" Specific Programme is implemented by the European Research Council operating under the guidance of an independent Scientific Council which had its first meeting in October 2005. **1.6.** Various measures were implemented to ensure better understanding of NoEs and a more uniform implementation of the instrument by the Commission services themselves. In the context of the FP6 ex post evaluation, an evaluation study will be conduced in 2007 to examine the effectiveness, the implementation and the impacts of the new instruments. **1.7.** Specific calls were developed under FP6 to extend contracts to teams from target countries outside EU. Following the consultation paper on the future of the European Research Area published early in 2007[16], Commission will propose actions to strengthen international S&T activities within the ERA in a Communication, probably in the first half of 2008. **1.8.** Commission services launched several actions to improve IT tools in DG RTD (test phase of a new methodology for IT developments, analysis of working procedures before launching IT developments, comparison of IT tools for contracting and contracts management). **2.1.** As part of the preparation of FP7, a vast number of consultations, preparatory meetings and discussions with concerned parties took place from an early stage, including stakeholder consultations. The debate about impacts was set up as an integral part of the FP7 policy process. The IA has provided for the very first time estimated effects of the FP on growth, employment and competitiveness, profiling of innovative activities and outputs of FP participants, and analysis of collaboration patterns. Individual examples and case studies are used in the IA report with statistics on the bigger picture. The forth coming FP6 ex post evaluation will also investigate and report individual examples of successes and failures in more depth. **2.2.** The modalities of the FP6 ex post evaluation and the mid-term review of FP7 are being developed according to the recommendations of the panel.

[14] ftp://ftp.cordis.europa.eu/pub/technology-platforms/docs/etp3rdreport_en.pdf
[15] http://cordis.europa.eu/technology-platforms/home_en.html
[16] http://ec.europa.eu/research/era/pdf/era_gp_final_en.pdf

MONITORING 2005	
Summary of recommendations	**Summary of replies from Commission services and follow-up in 2007**
1. Implementation of FP6: **1.1.** To give more visibility at both the EU and national level to the socio-economic dimension and the "Science in Society" aspects by refining the whole process, from the elaboration of work programmes to the project reviews. **1.2.** The Panel recommended to extend good practices identified in the Project review process to all project reviews when feasible (use of external experts, even from outside Europe; Cluster reviews and Project Quality Indicators). The review process should be further refined regarding the ethical dimension. A systematic monitoring of the results of the project review process is to be done to assess its effectiveness and ensure the proper implementation of new instruments in line with the work programme. **1.3.** The Panel recommends fostering communication aspects should be fostered at all levels: Within the Commission, towards the scientific community (e.g. to provide clearer and timely information regarding the administrative issues in FP6 and the Socio-Economic Dimension and Science and Society aspects); within the scientific community to ensure cross-dissemination of scientific results between projects and towards the public. **1.4.** A detailed analysis of the impact of dissemination and exploitation of results is recommended. **1.5.** International cooperation should be promoted both at the project and regional level with a pre-defined strategy and a dedicated budget. **1.6.** The effectiveness of the role played by SMEs in consortia is to be assessed. Looking at innovative national and regional initiatives would allow the stimulation of cooperation models for SMEs and possibly embed them into new instruments. **1.7.** In the area of Fusion, to increase the participation of industrial and university laboratories. **1.8**. The efficiency and effectiveness of the Action Plan for Acceleration and Rationalisation and the benefit experienced by projects is to be assessed. **1.9.** The Commission should ensure the effectiveness and efficiency of central IT tools for all users. **2. Preparation of FP7:** **2.1.** An impact study of the new Marie Curie actions launched under FP6 is to be done in view of any potential reorientation of the "People" programme in FP7. **2.2.** The role of the future executive agency is to be carefully addressed by the Commission. **2.3.** The decisions concerning the Action Plan for Acceleration and Rationalisation is to be finalised before publishing the FP7 calls, especially with regard to cost reporting and IPR issues. **2.4.** The definition of compulsory mobility of Commission staff should be reconsidered in light of its impact on the continuity of operations and strategic expertise. The impact of the FP7 activities on the management and implementation of FP6 should be analysed to ensure the allocation of sufficient resources.	**1.1.** Efforts to ensure a better integration of societal concerns into research are fostered in FP7. Information on many aspects of ethics is developed on the CORDIS web site and is also available on each call page. **1.2.** Work to ensure dissemination of good practices identified on the project review process for appraisal by services has been done within the working groups set up for the preparation and the implementation of FP7. A preliminary analysis of NoEs reviews is carried out in the context of this monitoring. This will be later on extended to IPs. In the context of the FP6 ex post evaluation, an evaluation study of new instruments will be conduced in 2007 (effectiveness, implementation and impacts). **1.3.** Communication aspects have been strengthened under FP6 and will be further reinforced in FP7 especially in the WPs, the FP7 grant agreement and the negotiation guidance notes. **1.4.** Analysing the impact of dissemination activities regarding results of research projects and exploitation of results will be included in the forthcoming ex-post FP6 evaluation. **1.5.** The policy for an expanded cooperation with third countries, with dedicated topics at country and regional level in the different themes, is incorporated in FP7. **1.6.** In the FP7 Cooperation programme, coordination and support measures will be launched to assess the impact of SMEs participation in research projects. **1.7.** In the Fusion programme, development of cooperation with third parties will be encouraged by the Commission services. **1.8.** The Commission has prepared a final report on the benefits of the Action Plan. Taking into account other simplification actions which are being introduced, the isolated effect of the Action Plan is next to impossible to measure. **1.9.** All central and local available IT tools used under FP6 are now being streamlined. A common Research data warehouse (CORDA) has been launched in 2005 to centralise all reporting and statistical data in the research area since FP5 and a Unique Registration Facility is being set up for FP7 to facilitate the work of applicants. **2.1**. An impact study of the Marie Curie Actions under FP6 is planned. **2.2.** The executive agency being set up under FP7 will carry out certain tasks required to implement the “Cooperation”, “People” and “Capacities” Specific Programmes. The Commission will have to be convinced that the agencies have the appropriate skills/expertise before they can be declared operationally autonomous. **2.3**. The regulation laying down the rules for the participation of undertakings, research centres and universities in actions under FP7-EC was adopted on 19-21/12/2006, before the publication of the first call for proposals on 22/12/2006. **2.4.** 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.

Annex 4: Project reviews of NoEs funded under FP6

Overall assessment

Table 4.1: Overall assessment of the Network of Excellence (1a)

Good to excellent project (The project has fully achieved its objectives and technical goals for the period and has even exceeded expectations)	**51%**	**82**
Acceptable project (The project has achieved most of its objectives and technical goals for the period with relatively minor deviations)	**48%**	**77**
Unsatisfactory project (The project has failed to achieve critical objectives and/or is not at all on schedule)	**1%**	**2**
Not available	**1%**	**1**
Sum	**100%**	**162**

Implementation and objectives

Table 4.2: Results of review reports for Networks of Excellence in FP6: Objectives

	Yes	**Partially**	**No**	**n/a**	**Sum**
2a Have the objectives for the period been achieved?	57%	43%	0%	0%	**100%**
2bi Are the overall objectives still relevant	96%	4%	0%	0%	**100%**
2bii Are the overall objectives still achievable within the time and resources available to the project?	76%	23%	0%	1%	**100%**
2c Do you recommend changes in objectives in order to keep up with the current state-of-the-art?	5%	24%	70%	1%	**100%**

Network objectives

Table 4.3: Results of review reports for Networks of Excellence in FP6: Work Plan and resources

	Yes	**Partially**	**No**	**n/a**	**Sum**
3a Has the project as a whole been making satisfactory progress in relation to the Description of Work	75%	23%	1%	0%	**100%**
3b Has each work package (WP) been making satisfactory progress in relation to the Description of Work (Annex I to the contract)?	51%	48%	0%	1%	**100%**
3c Have planned milestones and deliverables been achieved for the reporting period?	43%	56%	1%	1%	**100%**
3d Have resources been deployed as foreseen in Annex I, overall and for each participant?	50%	42%	2%	6%	**100%**
3e Have costs incurred (personnel costs and other major cost items) been 1) necessary for the implementation of the project and 2) economic.	70%	19%	2%	10%	**100%**
3f1 Is there evidence of real integration & restructuring of activities between partners (to be evaluated against indicators of Integration e.g. exchanges of personnel, shared infrastructures, joint research & training activities, changes of research orientation of individual partners to better integrate into the NoE etc).	59%	40%	1%	1%	**100%**

Evidence of real integration

Table 4.4: Results of review reports for Networks of Excellence in FP6: Work planned for the next 18-months period

	Yes	Partially	No	n/a	Sum
4a Is the proposed update to the *Joint Programme of Activity* for the next 18-month period satisfactory - from a scientific/technical point of view?	71%	23%	1%	4%	**100%**
4b Is the proposed update to the *Joint Programme of Activity* for the next 18-month period satisfactory - from a management point of view including use of resources?	69%	22%	2%	7%	**100%**
4c Is the proposed update to the *Joint Programme of Activity* for the next 18-month period satisfactory - concerning non-scientific activities (dissemination, exploitation, training, science-society issues, further integration etc)?	67%	28%	1%	4%	**100%**

Work planned for the next 18-month period

Table 4.5: Results of review reports for Networks of Excellence in FP6: Consortium partnership

	Yes	Partially	No	n/a	Sum
5a Has the collaboration between the participants been effective?	67%	30%	1%	2%	**100%**
5b Have the partners contributed as planned to the project and tasks assigned to them?	67%	28%	2%	2%	**100%**
5c Do you identify any conflicts or evidence of underperforming partners, lack of commitment or change of interest of any partners? Do you recommend any changes in responsibilities?	14%	30%	53%	2%	**100%**

Consortium partnership

Table 4.6: Results of review reports for Networks of Excellence in FP6: Management

	Yes	Partially	No	n/a	Sum
6a Has the scientific/technical management been performed as required?	81%	18%	1%	0%	**100%**
6b Has the administrative and financial management been performed as required ((including proper handling of contractual matters, maintenance of the consortium agreement, intellectual property rights, technical collective responsibility, sub-contracting, competitive calls)?	73%	16%	1%	10%	**100%**
6c Have (electronic) information and communication networks been established as required to support interactive working between the teams involved (if relevant)?	80%	19%	1%	1%	**100%**
6d Is the consortium interacting in a satisfactory manner with other related 5th and 6th Framework projects or other R&D national/international programmes (if relevant)?	59%	30%	2%	9%	**100%**

Management

Table 4.7: Results of review reports for Networks of Excellence in FP6: Use and dissemination of knowledge

	Yes	Partially	No	n/a	Sum
7a Does the project have significant use potential (if applicable)?	89%	9%	0%	2%	**100%**
7b Is the Plan for the Use and Dissemination of Knowledge developing in a satisfactory manner?	67%	30%	1%	2%	**100%**
7c Have the contractors disseminated project results & information as foreseen by the contract and the plan for dissemination & use of knowledge (publications, conferences..)?	81%	17%	0%	2%	**100%**
7d Are potential users and other stakeholders (outside the consortium) suitably involved (if applicable)?	36%	46%	7%	10%	**100%**

Use and dissemination of knowledge

Table 4.8: Results of review reports for Networks of Excellence in FP6: Other issues

	Yes	Partially	No	n/a	Sum
8a Have policy-related and/or regulatory issues been properly handled (if applicable)?	54%	2%	4%	40%	**100%**
8b Have ethical issues been appropriately handled (if applicable)?	56%	5%	2%	37%	**100%**
8c Have safety issues been properly handled (if applicable)?	53%	2%	1%	43%	**100%**
8d Has progress on the Gender Action Plan been satisfactory (if applicable for this reporting period)?	61%	14%	3%	22%	**100%**

Developments over time

Network objectives

Table 4.9: Results of review reports for Networks of Excellence in FP6: Objectives

	Yes			Partially			No		
Year	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
2a Have the objectives for the period been achieved?	54%	60%	67%	46%	40%	33%	0%	0%	0%
2bi Are the overall objectives still relevant	98%	94%	100%	2%	6%	0%	0%	0%	0%
2bii Are the overall objectives still achievable within the time and resources available to the project?	78%	78%	53%	22%	22%	40%	0%	0%	0%
2c Do you recommend changes in objectives in order to keep up with the current state-of-the-art?	4%	5%	13%	32%	20%	0%	63%	75%	87%

Work plan and resources

Table 4.10: Results of review reports for Networks of Excellence in FP6: Work plan and resources

	Yes			Partially			No		
YEAR	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
3a Has the project as a whole been making satisfactory progress in relation to the Description of Work	80%	69%	73%	18%	29%	27%	1%	2%	0%
3b Has each work package (WP) been making satisfactory progress in relation to the Description of Work (Annex I to the contract)?	49%	54%	53%	51%	45%	47%	0%	0%	0%
3c Have planned milestones and deliverables been achieved for the reporting period?	41%	46%	40%	59%	51%	60%	0%	2%	0%
3d Have resources been deployed as foreseen in Annex I, overall and for each participant?	45%	55%	53%	48%	37%	33%	2%	2%	0%
3e Have costs incurred been 1) necessary for the implementation of the project and 2) economic.	77%	63%	60%	17%	18%	27%	1%	3%	0%
3f1 Is there evidence of real integration & restructuring of activities between partners.	57%	58%	67%	40%	40%	33%	2%	0%	0%

Work planned for the next 18-month period.

Table 4.11: Results of review reports for Networks of Excellence in FP6: Work planned for the next 18-month period.

	Yes			Partially			No		
YEAR	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
Is the proposed update to the *Joint Programme of Activity* for the next 18-month period satisfactory: **4a** - from a scientific/technical point of view?	70%	72%	73%	27%	22%	13%	1%	2%	0%
4b - from a management point of view including use of resources?	68%	71%	67%	26%	20%	7%	1%	2%	13%
4c - concerning non-scientific activities (dissemination, exploitation, training, science-society issues, further integration etc)?	68%	66%	67%	28%	29%	20%	0%	2%	7%

Consortium Partnership

Table 4.12: Results of review reports for Networks of Excellence in FP6: Consortium Partnership.

	Yes			Partially			No		
YEAR	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**	**1.**	**2.**	**3.**
5a Has the collaboration between the participants been effective?	65%	71%	60%	34%	23%	40%	0%	2%	0%
5b Have the partners contributed as planned to the project and tasks assigned to them?	66%	68%	73%	30%	26%	27%	2%	2%	0%
5c Do you identify any conflicts or evidence of underperforming partners, lack of commitment or change of interest of any partners? Do you recommend any changes in responsibilities?	15%	15%	7%	26%	31%	53%	59%	49%	40%

Management

Table 4.13: Results of review reports for Networks of Excellence in FP6: Management

	Yes			Partially			No		
YEAR	1.	2.	3.	1.	2.	3.	1.	2.	3.
6a Has the scientific/technical management been performed as required?	85%	78%	73%	13%	22%	27%	1%	0%	0%
6b Has the administrative & financial management been performed as required?	76%	71%	67%	15%	17%	20%	1%	2%	0%
6c Have (electronic) information and communication networks been established as required to support interactive working between the teams involved (if relevant)?	82%	75%	93%	18%	22%	7%	0%	2%	0%
6d Is the consortium interacting in a satisfactory manner with other related 5th & 6th Framework projects or other R&D national / international programmes (if relevant)?	55%	65%	53%	30%	28%	40%	2%	2%	0%

Use and dissemination of knowledge

Table 4.14: Results of review reports for Networks of Excellence in FP6: Use and dissemination of knowledge

	Yes			Partially			No		
YEAR	1.	2.	3.	1.	2.	3.	1.	2.	3.
7a Does the project have significant use potential (if applicable)?	89%	91%	80%	10%	6%	20%	0%	0%	0%
7b Is the Plan for the Use and Dissemination of Knowledge developing in a satisfactory manner?	71%	65%	53%	26%	34%	40%	1%	2%	0%
7c Have the contractors disseminated project results & information as foreseen by the contract and the plan for dissemination & use of knowledge (publications, conferences...)?	79%	82%	87%	21%	14%	13%	0%	0%	0%
7d Are potential users and other stakeholders (outside the consortium) suitably involved (if applicable)?	39%	35%	27%	41%	49%	53%	9%	5%	13%

Other issues

Table 4.15: Results of review reports for Networks of Excellence in FP6: Other issues.

	Yes			Partially			No			N/A		
YEAR	1.	2.	3.	1.	2.	3.	1.	2.	3.	1.	2.	3.
8a Have policy-related and/or regulatory issues been properly handled?	55%	51%	60%	5%	0%	0%	2%	5%	7%	38%	45%	33%
8b Have ethical issues been appropriately handled?	56%	54%	67%	4%	6%	7%	2%	2%	0%	38%	39%	27%
8c Have safety issues been properly handled?	54%	52%	53%	2%	2%	7%	1%	2%	0%	43%	45%	40%
8d Has progress on the Gender Action Plan been satisfactory?	61%	62%	60%	17%	11%	13%	1%	6%	0%	21%	21%	27%