Report

Evaluation of the effectiveness of the New Instruments of Framework Programme VI

21 June 2004

Report of a High-level Expert Panel chaired by Professor Ramon Marimon

Table of contents

Annexes:

1. First calls: facts and figures on the New Instruments
2. Survey among Project Participants - Research Results
3. Hearing of participants (Rome – Prague – Munich)
4. Estimate of average contribution / year and participant – First calls of FP6

1. Executive Summary

An independent Panel of high-level experts, chaired by Professor Ramon Marimon, has evaluated the effectiveness of the New Instruments introduced in the Sixth Framework Programme (FP6). This evaluation is based on information deriving from the first calls for proposals and feedback received from participants. Key recommendations are as follows:

1. The New Instruments introduced in FP6 are a powerful means to foster transnational collaborative research in the European Research Area (ERA). Moreover, too much discontinuity is detrimental with respect to other forms of public and private funding. The New Instruments should therefore be maintained in FP7. There are however many design and implementation aspects that need to be improved, possibly already during FP6.

2. The European Commission should clearly classify instruments according to the goals to which they are expected to contribute, establish clear guidelines and criteria for their use and communicate them to the participants to help them prepare their proposals.

3. The European Commission should specify the portfolio of Instruments available and the strategic objectives. Participants should define the specific research objective they will pursue and why this can best be met by the Instrument they have chosen.

4. It is a common misconception that the New Instruments should be very large. "Critical mass" depends on the topic, the thematic area, the participants and the potential impact and added value. The concept of 'one size fits all' should not be applied across all thematic areas and Instruments. Participants should justify in their proposal the way they have built their consortium to reach the adequate critical mass.

5. Networks of Excellence (NoEs) have met with a significant level of criticism but the general concept of structuring and strengthening the ERA has been well appreciated. Problems with the processes need attention but the major problem has been the concept of "durable integration". NoEs should be designed as an instrument to cover different forms of collaboration and different sizes of partnerships.

6. Integrated Projects (IPs) have gained general approval but, as with NoEs, processes such as consortia-building, proposal submission, proposal evaluation and contract negotiation need to be improved. The concept that Integrated Projects are primarily concerned with delivering new knowledge and competitive advantage to European industry needs to be emphasised. As IPs and Specific Targeted Research Projects (STREPs) have many common characteristics, the differences between these Instruments should be clarified.

7. A greater role must be played by Instruments such as STREPs and small consortium IPs. Such instruments are better adapted to risk-taking, industry, participants from new Member States and to smaller players in general. Their role for the research community is essential. This must be reflected in a substantial increase in the total share of the budget finally allocated to STREPs in future calls of FP6 and in the future FP7.

8. Emerging groups should be attracted rather than discouraged from participation. The best research groups and the most innovative firms should be attracted since they must play a leading role in structuring the ERA.

9. The position and participation of small and medium sized enterprises (SMEs) in the New Instruments has not been satisfactory. SMEs have found it almost impossible to become involved in NoEs and SMEs have tended to be dominated by larger organisations and disadvantaged in IPs. The emergence of more research-intensive SMEs as participants in the New Instruments is to be welcomed but, in general, SMEs prefer the Traditional Instruments of STREPS, Cooperative (CRAFT) and Collective Research.

10. The portfolio of Instruments for collaborative research should be designed and developed to enhance co-ordination and collaboration with other forms of public and private funding across the European Union.

11. To improve the efficiency and reduce the costs for participants, a well conceived two-step evaluation procedure should be introduced.

12. Administrative procedures and financial rules should be significantly simplified and further improved to allow more efficiency and flexibility in implementing participation instruments.

The Panel hopes that its considerations and recommendations will be of use to the European Commission and, in general, will help to improve the effectiveness of EU funding in FP 6 and future Framework Programmes.

Barcelona, 21 June 2004.

2. Introduction

The European Research Area as objective of the Sixth Framework Programme **(FP 6)**

The need to strengthen the European scientific and technological bases, to enhance competitiveness and to promote research activities are objectives of the European Union (EU), already defined in the Treaty. Framework Programmes have translated these general objectives into specific policies for publicly funded research and technological development, to be implemented by the European Commission.

The objective of developing a European Research Area (ERA) provided more focus to these policies and stressed the need for further structuring European research and technological capabilities. FP 6 is the first Framework Programme that takes this additional objective explicitly into account.

This has led to the introduction of two new instruments in the range of tools offered in order to implement the FP 6 priorities: **Integrated Projects (IPs)** and **Networks of Excellence (NoEs),** which are **expected to have a structuring effect on research and technological development in Europe[1].**

Such innovation in European research and technology policy generated important debates within the EU institutions and within the scientific and technological communities.

The evaluation of the effectiveness of the New Instruments

While adopting the FP 6, the European Parliament and Council decided that an independent evaluation exercise should be organised in order to assess the effectiveness of the New Instruments towards the achievement of the FP 6 objectives and in particular the contribution to the realisation of the ERA[2].

A Panel of 9 independent experts was therefore assembled. The experts were selected on basis of their experience and knowledge of Community research policy and at the same time ensuring a balance among the various components of the research community, as well as at a geographical level. This Panel was chaired by Mr. Ramon Marimon, former Spanish State Secretary for Research and Science, who also took part in the debates preparing the adoption of FP 6.

Mandate of the Panel

The Panel's mandate was defined in rather broad terms in the legal arrangements: "*In 2004 an evaluation will be undertaken by independent experts on the effectiveness of each of these instruments in the execution of the Framework Programme "*

Integrated projects (IPs)

Multipartner projects to support objective-driven research, where the primary deliverable is knowledge for new products, processes, services etc. They should bring together a critical

[1] Decision of European Parliament and Council on the 6th Framework Programme, 27 June 2002 Decision 1513/2002/EC of 27 June 2002

[2] Idem, Annex III, and 4th preambular clause of the European Parliament and Council decision on the Specific Programme « Integrating » Decision 2002/834/EC of 30 September 2002

mass of resources to reach ambitious goals aimed either at increasing Europe's competitiveness or at addressing major societal needs.

Networks of excellence (NoEs)

Multipartner projects aimed at strengthening excellence on a research topic by networking the critical mass of resources and expertise. This expertise will be networked around a joint programme of activities aimed primarily at creating a progressive and lasting integration of the research activities of the network partners while, at the same time advancing knowledge on the topic.

In the frame of this mandate, the Panel defined its mission as follows:

- To evaluate the relevance of the New Instruments, in respect of their design and of the way they are implemented in relation to the objectives for which they were created, as well as in relation to the whole portfolio of instruments available.
- To provide recommendations to improve the efficiency of the instruments that could be implemented in the second part of FP 6, as well as recommendations that could help the design of the next (FP 7).

Main basis of the Panel's work: facts and messages from the users

The Panel members, from their first meeting, agreed to base their analysis on the information resulting from the **first calls for proposals** launched under FP 6, and to gather as much material as possible directly from the users' community.

A **questionnaire** (see annex 2) was therefore addressed to all co-ordinators of proposals related to the New Instruments, whether selected or not. A total of 275 useful responses were received. Three **hearings** with proposers, both successful and unsuccessful, were organised in Rome, Prague and Munich (see annex 3). There was also a special hearing with the European Commission programme managers, as well as meetings with programme managers from other agencies, such as the National Science Foundation (NSF) and the National Institute for Health (NIH).

Structure of the report

In the interest of clarity, the information collected from the various sources above and the analyses conducted in relation are annexed to the core of the report, which is structured as follows:

- An "**Executive Summary**", which summarises the Panel's main conclusions and recommendations;

- A chapter entitled "**Main findings and issues**", which contains the main messages from the users and, as a consequence, the main issues the Panel had to deal with when formulating its recommendations and conclusions;

- A final chapter entitled "**Conclusions and Recommendations**", comprising the core of the report, and relating to both the future FP 6 calls and to FP 7.

The members of the Panel

1. Ramon Marimon, chairman *(Professor at Universitat Pompeu Fabra, Barcelona)*	Spain	Economics
2. Hans-Jörg Bullinger *(Professor, President of Fraunhofer Gesellschaft, Munich)*	Germany	Industrial technologies
3. Eleftherios Economou *(Professor, President-director General of FORTH)*	Greece	Innovation
4. Louise Gunning Schepers **(***Professor of Social Medicine, Chairman of the Board and Dean of the Academic Medical Centre, University of Amsterdam)*	Netherlands	Medicine
5. Janina Jozwiak *(Professor of Economics, Director of the Polish Institute for statistics and Demography, Deputy Chairman of the Polish Scientific Research Committee)*	Poland	Economics
6. Bob Keown *(Chairman, Beta Technology Limited)*	United Kingdom	Small and medium sized enterprise
7. Philippe Kourilsky *(Director General of Pasteur Institute, Paris)*	France	Molecular biology
8. Berit Svendsen *(Executive Vice-President, CTO and working Chairman of Telenor R&D)*	Norway	Telecom
9. Georges Wanet *(Managing Director "1A Conseil" and Professor, Solvay Business School, Brussels)*	Belgium	Strategy and Organisational Management
Alain Denis *Rapporteur, Managing Director of Yellow Window Management Consultants*	Belgium	

Acknowledgments

The Panel would like to thank all those who replied to the questionnaire, those who participated in hearings and, in general, those that have contributed to the report with their comments. It takes this opportunity to thank the European Commission (EC), National Science Foundation and National Institute for Health programme managers who provided feedback, and, in particular, the EC staff that have provided support.

3. Main findings and issues

This chapter covers the findings and main issues as they were identified by the Panel.

The main sources of information for the Panel were:

- An analysis of the statistics provided by the EC on the first calls under FP6. This analysis covers the period up to October 2003, when the panel started its work. A report on these statistics is attached (Annex 1).

- A survey among co-ordinators of projects submitted under the New Instruments. A sample of 275 participants answered this survey. Both successful and unsuccessful proposers replied to the questionnaire. The full survey findings are attached (Annex 2).

- Hearings with proposers. To complement the survey, the Panel considered it was necessary to collect qualitative information and decided to organise hearings with both successful and unsuccessful proposers. Hearings took place in Rome, Prague and Munich. The report on these hearings is attached (Annex 3).

- Analysis of comments received by the Panel through various sources and from various parties. This includes comments received through CORDIS, the numerous comments that respondents made in the survey with coordinators, position papers received from associations, institutions and Members States, letters and comments sent formally by individual persons on their own behalf or on behalf of their organisation as (former) participants in the Framework Programme.

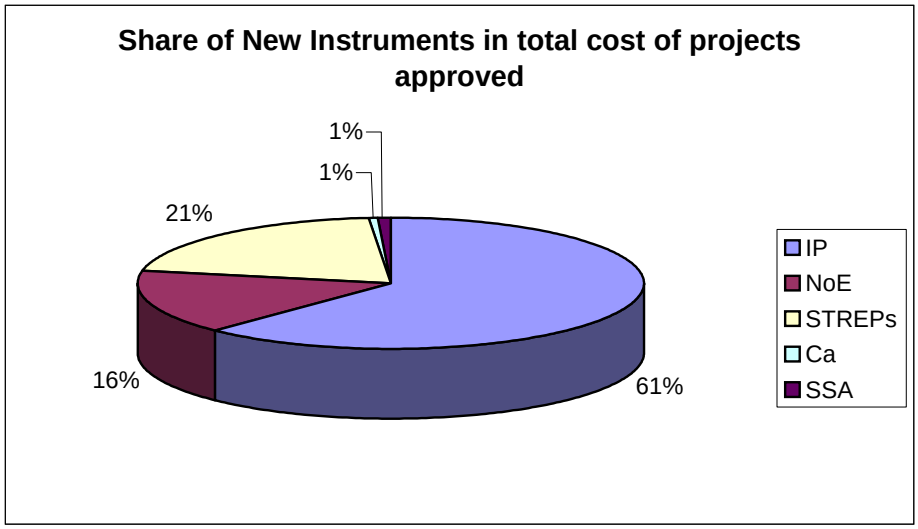
- Interviews with managers from all thematic areas of FP6.

The scientific and technological community had high expectations from FP6 and in particular from the New Instruments. These high expectations have only very partially been fulfilled. As a consequence this section of the report might appear as a somewhat negative assessment of the New Instruments. Realism is however needed and weak points need to be identified to formulate corrective measure that will ensure the New Instruments will have the impact for which they have been created.

Before addressing the main issues it is important to situate the importance of the New Instruments within FP 6. The box below includes some key figures, extracted from annex 1 to this report which covers the first calls of FP6.

The New instruments in the first calls of FP6

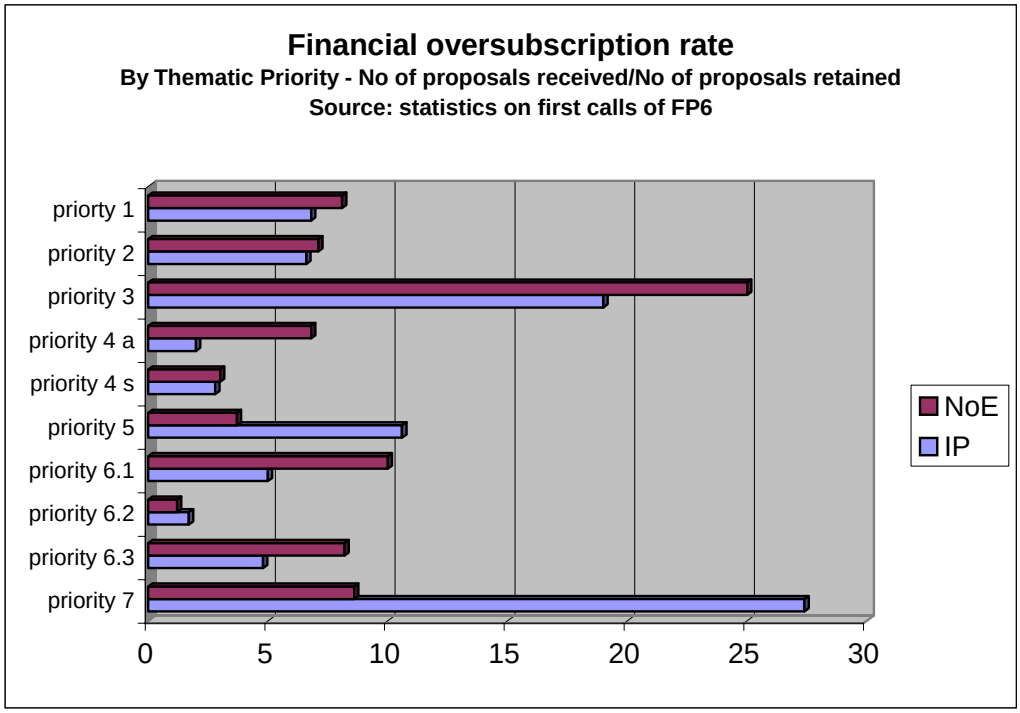
(source: analysis of statistics of first calls of FP6)



	FP6 (new instruments)	**FP6** (all instruments)
Average EC contribution requested	12 Million €	6.2 Million €
Average number of participants	32	17.5
Financial oversubscription rate	7 (IP) 9.5 (NoE)	7.3
Participation rate of SMEs (funding)	13 %	16 %
Participation rate of industry	34 %(IP) 10 % (NoE)	23 %
Participation rate from new Member States and Accession Countries	6-7 %	7 %

The analysis of the figures from the first calls leads to the following main conclusions:

- The New Instruments account for the large majority of the funds (77%) from the start of FP 6. More money is invested in IPs than in NoEs. Thematic Priority 5 is an exception with a similar amount invested in both instruments.
- As anticipated, the average size of projects has increased significantly. The average contribution per partner and per year has however not increased. This was estimated to be on average € 75,000 for IPs and € 45,000 for NoEs based on the information from the first calls for all Priority Thematic Areas (see Annex 4).
- Oversubscription has increased in comparison with FP5 but is not abnormally high. There are however big differences among the Thematic Priorities as can be seen on the chart on the next page.
- Industrial participation has reduced significantly: e.g. in IST (priority 2) from 55 % to 29 %, in energy from 49 to 31%. The low number of industrial participants in NoEs is one of the factors explaining this change but many other factors are playing a role, including the formulation of the Work Programme topics.
- Participation of SMEs follows the downward trend of industrial participation. The overall average of 13 % seems promising but there are some difficulties in interpreting the figures (e.g. small public sector organisations are also categorised as SMEs).



3.1. Relevance of the New Instruments

The information collected and examined by the Panel shows that there is broad consensus on the relevance of the New Instruments. The objectives for which they were created are valid, the Instruments correspond to a need and are likely to contribute to the achievement of these objectives. In their current format, however, they have not yet achieved their potential. There is much less consensus on the Networks of Excellence primarily because of the reluctance of many organisations to engage in the type of long term commitment aimed for by the designers of the Instrument. This is particularly true for industry and is described further in this report.

3.2. High costs and risks of participation

A general complaint on the high cost and risks of participation

Application costs and risks of participation are intrinsic to any competitive funding process. Success rates in the first calls can range from high to extremely low depending on the thematic priority as can be seen in the chart above. On average they are not that different from those of the past or of other funding agencies. There are reasons however to believe that both costs[3] and risks are unreasonably high.

[3] During the hearings, various examples were mentioned of the actual investment needed to prepare a proposal. All examples were well above € 100, 000.

- The mismatch between the expectations of users and the reality of the first calls, the evolving information material (see below), led to preparation costs for budgets and levels of funding that were not realistic.
- The many proposals and consortia specifically developed for FP6 may, on the one hand, be proof of success (e.g. demonstrating higher levels of ambition and integration) but, on the other hand, it also means that unsuccessful participants may loose most of their preparation work.
- This problem is compounded by the fact that many specific Work Programme topics are only covered in one call. This means that failure to succeed in a specific call may result in failure to succeed in the whole of FP6.

Statement from a participant[4]:
"Although I liked the FP's a lot, I decided not to take part this time as the present programmes are too big. They require a big consortium and a big managerial effort. Being in industry, that is not what I want to take on my shoulders. This is beyond what I can justify."

Extract from the report on the survey among participants (annex 2):

Proposers are pushed to put forward projects with a higher level of ambition and to involve more partners (from more countries) than they would normally do.

On the other hand, opinions of the co-ordinators seem to prove that there are significant adverse effects, and that their behaviour as a reaction to the New Instruments is not necessarily the most adequate:
Partnerships are enlarged artificially (the opinion of 61 % of the proposers), proposals may also be artificially adapted to fit work programmes, and scientific risk taking would not be stimulated.

A constantly evolving communication from the Commission

The efforts to ensure transparency that the European Commission pursues have led to 'evolving' communication material being made available when decisions regarding implementation were not yet final. The consequences have sometimes been the creation of false expectations and distorted perceptions among all stakeholders, including some of the staff of the European Commission.

Confusion about the efficient size of the New Instruments

Confusion has been created around the need for bigger projects. This is linked to the way the Commission communicated during the launch of FP6 (see below), but also with the lack of clarity of the definition of critical mass.

The result is artificial enlargement of partnerships, way beyond the potential added value that can be created, sometimes leading to inefficiencies of scale and management problems.

Projects of large size have specific problems. In addition to these 'natural' problems related to size, there are specificities of the New Instruments:

o To maintain excellence is more difficult as size increases;

[4] These statements are selected as 'typical' comments made by participants, to illustrate opinions as they exist within the scientific and technological communities. They are not necessarily shared by the Panel members.

- o Intellectual Property issues tend to be more complex with larger and heterogeneous consortia;
- o With regard to management costs and complexity, there are little experience and skills available in Europe for managing large research consortia.

There is however a logic to the size of a New Instrument, specific to the FP6, that must also be taken into account. The goals of structuring (NoEs) and integration (IPs) express the potential long-term benefits from relatively large consortia. This goal must however be balanced against the risks of loss of efficiency.

Statements from participants:

"It is an illusion to think that all partners are technically "excellent" so that bundling efforts will improve efficiency and quality. With the IP/NoE the bad are thrown with the good, which essentially slows everything down, so that what comes out is mediocrity."

"We normally join with groups we feel comfortable working with and the New Instruments force us to find constellations we otherwise would not form."

3.3. The right portfolio of instruments

Significant barriers to participation discourage many

Primarily based on what was learnt through the hearings with both programme managers and with proposers, it appears that *there are barriers to participation for industry in general, for SMEs, for all types of participants from accession (and third) countries, and for smaller and emerging groups of scientists.* These barriers seem specific to the New Instruments with the exception of the accession countries, where the problem is more generic (even if exacerbated in case of the New Instruments).
The main barriers identified are:

- the high cost of making a proposal;
- the complexity and investment involved in managing large consortia and projects;
- the high responsibility of the co-ordinator;
- the long duration: risks associated with it and the long-term commitments.

Instruments are not clearly classified according to their objectives

Even if the instruments are linked to specific objectives, this is not always clear to the proposers, staff of the Commission or evaluators. A general misconception is that all instruments contribute to all objectives. The lack of clarity in this respect leads to inefficiencies in e.g. evaluations, but also to a lack of focus in the effort of participants preparing proposals.

Integrated Projects and STREPs are not well differentiated

IPs are the most important instrument within the FP6 portfolio to achieve the Framework Programme objectives of knowledge creation and competitiveness. Reactions from the participants confirm that IPs correspond to a real need.

The concept as it has been implemented does not always fully correspond with the original idea. The IPs which have been approved often seem to be larger, more ambitious STREPs. The average budget per participant and per year is similar for an IP and a STREP, even if the effort of proposing an IP is much higher than for a STREP. As a consequence there is still room for more "real" Integrated Projects that could be clustered to reach strategic goals. There is also a need for a clearer differentiation between STREPs and IPs.

Many doubts on Networks of Excellence

Barriers against the concept of durable integration exist.

The concept of "durable integration "has led to many misunderstandings and misperceptions among proposers and even among staff members of the Commission. Furthermore, in many sectors, institutions are ready to cooperate on an ad hoc basis rather than to integrate on an institutional basis given that they are 'competitors'.
Durable integration also means depth in the co-operation, and a commitment that goes beyond the lifetime of the NoE. The hearings have shown that project partners can rarely give a commitment for a longer duration than the network contract. This is unlikely to be feasible for very large networks.
The first examples of approved NoEs also show the limits of the concept: various types of impacts are made possible by these first networks, but not necessarily always leading to this high-level ambition.

The difficulty of evaluating a Network of Excellence

For the evaluation of NoEs, more transparency is needed regarding the evaluation criteria. This is particularly the case for the criterion "excellence" as far as the status of members of the consortium is concerned and regarding the access to complementary funding sources.

The difficulty to motivate industry

NoEs appear as an instrument directed primarily at academia. The main motives for the reluctance of industry to participate seem to be the concept of durable integration (see above) and the handling of Intellectual Property within such networks.

A complicated funding system

The "grant for integration" concept defining the budget ex-ante has been difficult to communicate, as it breaks with the tradition of a cost-based budgeting. The concept is also likely to lead to greater confusion in the future, as the actual payments will still be based on actual costs. The end result is that a trial to simplify budgeting is leading to confusion and inefficiency.

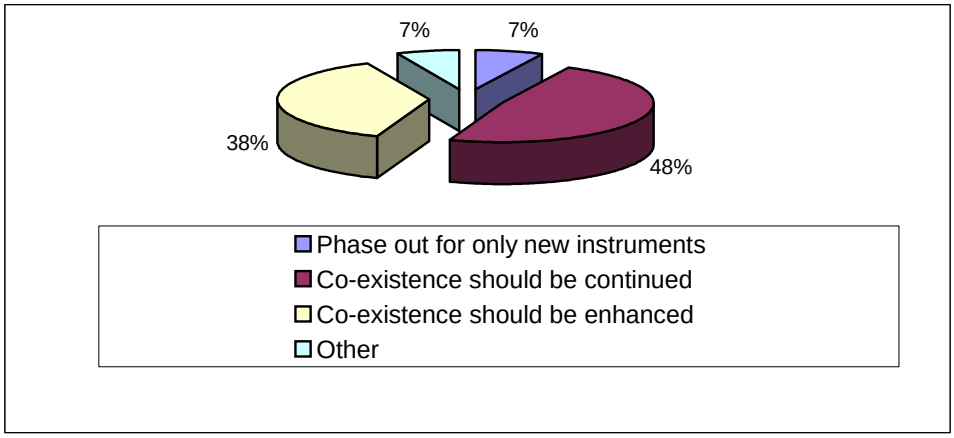
STREPs have a role to play

The introduction of the New Instruments left much less resources to the STREPs which were used for the bulk of the funds under FP5.

STREPs play a key role within the portfolio of instruments of FP6. They appear particularly adequate for small players such as SMEs, small teams, as well as actors from the new Member States. Furthermore, by participating in STREPs these actors can enter a learning process, familiarising them with EU RTD programmes and preparing them to an active participation in other types of Instruments.

There is a strong tendency in favour of the continuation of the co-existence of New and Traditional Instruments, with a strong trend in favour of enhancing the traditional instruments' share. This opinion is shared by all types of participants and appears clearly from the survey results.[5]
The oversubscription of STREPs led to an oversubscription of the CRAFT programme with the unsatisfying success rate of only 8 %.

Chart: Opinion on co-existence of New Instruments with Traditional Instruments (n=230) – Results in % (source: survey among participants – see annex 2)



[5] For further information, please refer to the report on the survey among proposers in annex 2.

3.4. Ensuring participation of all players

Truly innovative research and scientific risk is not achieved

The ambition to increase the impact through substantial funding of fewer projects creates two types of biases: towards research groups which have already proven their excellence and towards "well-accepted' objective-driven research. New approaches, higher scientific risk and emerging research groups tend to be excluded.

The participation of SMEs is problematic

The involvement of SMEs in Framework Programmes is essential if Europe is to raise R&D investment to reach the objective of 3% of GDP. SMEs are of strategic importance in many areas of the Programme including innovation, exploitation of results and the FP6 objective of raising competitiveness.

With a target of 15% participation across the seven Priority Thematic Areas, the current level of participation of 13% is seen to be both realistic and encouraging as FP6 continues. However, there is clear evidence that SMEs are having some difficulties with the New Instruments, especially NoEs. Meanwhile SMEs are continuing to participate enthusiastically in the Specific Research Activities for SMEs (Collective Research and CRAFT).

One positive aspect of SME participation in the New Instruments is the appearance of research-intensive SMEs as well as industrial SMEs to carry out specific tasks in IPs. SMEs can play a critical, specialised role in many areas such as research, demonstration, training, technology transfer and dissemination. These critical roles can be played by various types of SMEs (from start-up to mature companies, from providers of specialised services to traditional industrial companies, from management-owned to off-shoots of large companies). The Panel has observed that the information available on SME participation does not allow differentiation between types and roles.

Particularly noteworthy is the emergence of SME-led IPs in Thematic Priority 3 (nanotechnologies and nanosciences) and SME-led STREPS in Thematic Priority 4 (food safety and quality) and these initiatives are to be encouraged across other thematic areas.

Problems encountered by SMEs in the New Instruments relate especially to the processes of consortium building, evaluation and contract negotiation. Guidance is missing at the level of SMEs themselves, but is also missing for scientific officers and contract negotiators in order to ensure that SMEs, like other weaker players, are protected from exploitation by stronger consortium partners.

In general, SMEs require lower levels of bureaucracy, short-term projects, short time-to-market topics and flexibility to join and to leave long-term projects. Durable integration makes SME participation in Networks of Excellence an almost impossible requirement. It is also very difficult for SMEs to be involved in the co-ordination of very large IPs.

The participation of groups from New Member States is problematic

Participation from New Member States (7%) is growing too slowly, which can partly be explained by the introduction of the New Instruments.
The barriers to be a co-ordinator of a project submitted under the New Instruments are high:

- the cost of the preparation process with the needs to travel and to have pre-contractual meetings

- access to information
- one must be an authority in his field to be accepted as a co-ordinator by one's peers (image of accession country scientists in the EU)
- to co-ordinate large groups one must have the management capacity. Scientists in an accession country do not have (access to) this management capacity.

Participants do not contact the EC directly. They rely on their partners within the EU to do this.

3.5. Implementing the Instruments

The unnecessary costs in the application process

The process of submission of proposals was not sufficiently mature at the time of launching the first calls. Participants had to provide the same information more than once in different formats. Furthermore, the informatics tools were far from being ready. This created unnecessary costs for participants and created a bad image for the Commission services

The urgent need to improve the evaluation process

Although the evaluation process is similar for the New Instruments as for the other instruments, the Panel has detected this to be a cause of concern that may influence the *efficiency* of the instruments *and* the *trust* of the scientific and technological communities in the process. Therefore the Panel considers it is necessary to cover this issue.

Fairness through harmonised application of criteria

Participants seem to be convinced that some discrepancies exist in the implementation of the evaluation criteria among the different thematic priority areas. The absence of any benchmarking references regarding the "excellence" and "integration" criteria for NoEs, make it possible to have variable interpretation by the different teams of evaluators.

The winner takes it all

For many research topics and therefore teams, there is only one chance in the course of the FP cycle to send in a proposal. The combination of the use of New Instruments and a budget limitation means that only the winner takes the entire budget, and that other excellent teams and proposals lose the opportunity to get funded.

The influence of the one-step evaluation on the cost

Two-step evaluations have only marginally been used for the first calls of the New Instruments. It is considered as a solution by many participants to address the problem of low success rates and to reduce the total cost of preparing a proposal. The experience with this two-step evaluation has been criticised both by the EC and by participants. The Panel considers that this is mainly due to the way it was implemented rather than to the principle itself.

Dissatisfaction with the feedback on evaluation results

Feedback is sent to participants as an "evaluation summary report" (ESR). The general perception is that these are of very variable quality which can be explained in part by the choice of evaluators and in part by the fact that the short ESR does not reflect the work done during the evaluation process.

Extract from the report on the survey among participants (annex 2):

The high level of **dissatisfaction** regarding the process transparency is surprisingly high for **successful proposers**. This is a sign that there is still significant room for improvement.

The following elements notably are criticised,(significantly higher (very) negative scores):

- the transparency of the evaluation process : 34 % of the respondents (strongly) disagree that the evaluation process is fully transparent;
- the smoothness and efficiency of the contract negotiation : 31 % of the respondents (strongly) disagree that this process was smooth and efficient;
- the comprehensiveness of the feedback : 27 % of the respondents declared not to be satisfied (at all) with the comprehensiveness of the feedback received on the evaluation of their proposal.

Independently of the perception of quality, there is a general feeling of lack of adequacy between the investment in a proposal and a one page feedback, which is the usual format of an evaluation summary report (ESR). The content does not necessarily allow for unsuccessful proposers to learn from their experience and improve for a possible re-submission. Although the current evaluation process has been praised in different priority areas, it does not seem to be very efficient to build up trust.

Doubts exist on adequate selection and training of evaluators

The hearings have shown that there are sometimes strong doubts on the quality of evaluators. Improvements mentioned include the need to select real experts on the given topic, the need for evaluators to be properly trained and to have sufficient time to evaluate very long and complex proposals.

Hearings are useful but could be more user-friendly

When hearings were used, this is generally perceived as a positive technique by the proposers as well as the programme managers and evaluators. The way it is implemented by some Priority Thematic Areas was however very rigid and is being criticized by proposers as no real dialogue or discussion between well prepared evaluators and proposers was possible.

Statements from participants

"We were shocked by the lack of competence and the poor, on some points, clear misjudgments of the evaluators."

"The cryptic feedback allows neither to understand the decision, nor to prepare a better submission in future."

"You cannot expect that researchers who worked for months on a 200 page proposal can be satisfied with only one or two lines of comments on each of the 5 criteria."

The negotiation process: unexpected cuts and difficult consortium agreements

The period under review by the Panel was characterised by severe budget cuts at the start of the negotiation process.

Two types of justifications to these budget cuts were identified:

- Budget cuts proposed by the independent evaluators. This was mainly due to incomplete information in the proposal, leading to doubts as to the justification of all activities;
- Budget cuts decided by the EC to be able to finance more of the projects evaluated above the threshold.

The key question when considering budget cuts is whether the projects will still be able to deliver and to reach their initial objectives without becoming under-funded. The absence of clear guidelines on feasible budgets has resulted in high and unfulfilled expectations. In turn, this has created serious problems in trying to adjust consortium ambitions and size to their final budget.

The approach of ex-post, unexpected cuts by the EC might lead to a reaction from the market, with inflated budgets submitted in anticipation of severe cuts during negotiation.

Extract from the report on the hearings with participants

Negotiation

- Some criticism was expressed regarding the unrealistic deadlines conceded to the participants and "the take it or leave" it approach.
- Some concerns regarding the dominating role taken by the co-ordinator.
- Bureaucracy is generally perceived as increasing rather than decreasing.
- Consortium agreement and Intellectual Property: the higher level of autonomy has some adverse effects. The different interests of science based organisations versus industry and the two legal models (EU versus US) are now in direct confrontation. Not all (types of) proposers are able to cope with this new situation.

3.6. Flexibility and simplification

Flexibility and simplification are either not delivered or are the source of new challenges

The First Calls have revealed the complexity of managing large projects. The full implementation of the research programmes is likely to reveal even more difficulties linked to the size and complexity. The current experience raises some management issues that deserve more attention: the need to sign in a short time a consortium agreement; the need to solve complex Intellectual Property issues, in particular when public and private consortia are formed and have to sign relatively long-term agreements; the existing rules for sub-contracting; the costs of audits, etc.

Another novelty introduced in FP 6 is the shift of management tasks from the Commission to the coordinators, compensated by a 100 % financing of management costs within the limits of 7 % of the total EC contribution. Reactions from participants are mixed on this aspect as the burden on coordinators is becoming very high and management tasks, including the cost of audit certificates, is taking up more than the 7% contribution.

Statements from participants

"Financial and administrative rules prevent the claimed flexibility. It is not obvious how the budget can be allocated dynamically, possibly to new partners."

"With some 40 or more partners (as in our case) the expected auditing costs cover 2/3 of the total management budget."

Perception of an increasing bureaucracy

A matter of very high concern is the perception of participants that the bureaucracy is increasing rather than decreasing. The current experience of participants is a valid source[6] and should be taken into account.

3.7. The New Instruments fostering complementary funding

Even if the Framework Programme plays a key role on the research scene in the EU, the funds available are far from sufficient to achieve the ambitious goals of increasing competitiveness and the level of research investments associated with this. FP6 was designed with the ambition to create links with other sources of funding, thus fostering ERA and the structuring impact of the Framework Programme.

The first signs are that the potential multiplier and federating effect of the Framework Programme is not being realised with the New Instruments.

This is particularly the case for NoEs as they are designed specifically for the Framework Programme and can never be presented to another source for funding. Excellent proposals and networks, which are evaluated above the threshold but not retained, have lost their investment. The 'excellence' of the consortium and of its plans is recognised by the evaluation process, but does not open any doors.
Similarly, an IP may be suitable for other sources of private and public complementary funding once it has been properly evaluated. It could also be clustered with other (national) or EUREKA projects, to create synergies and a better use of funds.

[6] See page 21 of annex 2 (results of survey among coordinators). The same opinion was shared by participants in the hearings.

4. Conclusions and recommendations

The context

Europe needs to fully develop its scientific and innovative potential, to be competitive and to enhance the welfare of its citizens. This goal is set in European Council resolutions and is commonly accepted. There is overall agreement that public European funding can play a major role in the development of the European Research Area (ERA), which supports this goal.

The 6th Framework Programme (FP6) has been conceived according to these goals and it is expected that the 7th Framework Programme (FP7) will have similar objectives. Nevertheless, as with any public expenditure, one must guarantee that it is both justified and efficiently implemented. Since the main instruments for participation in FP6 have been "New Instruments", their efficiency and effectiveness must be assessed. To make this assessment has been the mandate of this Panel.

Since FP6 funded research is just starting, it is clearly too early for a complete assessment of the New Instruments. The first months and experiences with the New Instruments however have revealed strengths and weaknesses. This is the right moment to reflect on them and modify course if needed.

Strengths and weaknesses of the New Instruments

A major strength is that the New Instruments follow a long tradition of transnational collaborative research in Europe, opening the possibility to set more ambitious goals in objective-driven research (Integrated Projects) and in integration of research (Networks of Excellence) through consortia that have the right structure and critical mass to realise a major scientific and technological impact.

Given the Panel's mandate, however, it is natural that weaknesses are emphasized and recommendations formulated to overcome them. The costs and risks of participation seem unreasonably high. Especially partners from industry, notably SMEs, as well as small and emerging groups, have been deterred by the increased emphasis on longer-term and larger-scale research. The goal of achieving greater flexibility and simplification has yet to be reached. A stronger, more balanced, portfolio of instruments is possible. It is also necessary to improve the quality and transparency of the evaluation and contract negotiation processes.

Many of the recommendations can already be implemented in the future calls of FP6, others may have to wait until FP7.

4.1. Portfolio of Instruments

Recommendation 1

The New Instruments introduced in FP6 are a powerful means to foster transnational collaborative research in the European Research Area. The New Instruments should be maintained in FP7. There are however many design and implementation aspects that need to be improved, possibly already during FP6.

To count on a well designed and stable Portfolio of Instruments is a basic requirement for efficient funding. The Panel recommends that the current Portfolio of Instruments be maintained since it can be adapted – and, if needed expanded — to properly finance transnational collaborative research. Providing continuity is important in scientific and technological policy, but nevertheless several improvements to the design and implementation modalities of the New Instruments are needed.

Recommendation 2

The European Commission should clearly classify instruments according to the goals to which they are expected to contribute, establish clear guidelines and criteria for their use and communicate them to the participants to help them prepare their proposals.

There are different objectives being pursued by the Framework Programme and the various instruments are designed differently to achieve these goals. In particular, 'creating new knowledge' and 'facilitating the application of that new knowledge to enhance Europe's competitiveness or serve societal needs' are two related objectives that should be accomplished but not confused. Although the current definitions allow for a classification of instruments, the confusion among participants demonstrates that further clarification is needed.

Recommendation 3

The European Commission should specify the portfolio of Instruments available and the strategic objectives. Participants should define the specific research objective they will pursue and why this can best be met by the Instrument they have chosen.

Very detailed lists of research topics coupled to a specific instrument type should not be the rule, unless there is a well documented societal, scientific or innovation need that allows justifying a specific choice of research topic and of instrument. In the Work Programmes and calls, programme managers should define the portfolio of Instruments, set the strategic objectives and goals, and communicate them clearly. By defining broad objectives these can be present in all (or most) calls, providing continuity. The participants should be left free to choose the specific research topics and the right solution (Instrument) to reach their research goals, and justify their choices in their proposals. It is then the challenging task of programme managers to ensure that the right evaluation and selection is done in order to guarantee the

most efficient use of funds. To follow this guiding principle requires significant changes to the existing practice.

"Expressions of Interest" (EoI) are not considered an adequate bottom-up process. The timing aspect, the lack of potential foresight and the artificial nature are all reasons to prefer other processes to feed the definition of work programme topics. More "open" calls on the other hand provide continuously enhanced and relevant information and also provide continuity (a much needed element in FP funding), Giving more voice and freedom to participants also means giving them more responsibility by making them more accountable of their specific choices.

Recommendation 4

"Critical mass" depends on the topic, the thematic area, the participants and the potential impact and added value. The concept of 'one size fits all' should not be applied across all thematic areas and Instruments. Participants should justify in their proposal the way they have built their consortium to reach the adequate critical mass.

It is a common misconception that the New Instruments should be very large. The Commission has not properly defined the concept of 'critical mass' and participants have often constructed artificially large consortia perceiving size and composition to be determinant for success, while excellence should be the determining factor.

Networks of Excellence

Networks of Excellence have met with a significant level of disapproval and criticism but the general concept of structuring and strengthening the European Research Area has been well received. Problems with the processes (as described below) need attention but the major problem has been the concept of "durable integration".

Recommendation 5

Networks of Excellence should be designed as an instrument to cover different forms of collaboration and different sizes of partnerships.

Durable integration is not always feasible. For many domains, intermediate steps are needed to reach the conditions that could allow it in future. Rather than take a rigid view, the panel proposes to cover more needs with this instrument going from durable integration to various types of integration of research programs in transnational networks. This also means flexibility in size. For example, clustering of only a few entities to form a new European level entity or integrated programme should be eligible. Small consortium NoE also have a role to play. Having more explicit indicators of 'integration' and 'excellence' can help participants and evaluators in making their choices.

Although NoEs are more suitable for research groups and research centres, the lack of industry participation should also be addressed. If industry is not participating as project partner, because they do not wish to commit for such long periods and ambition of integration, then other models of involvement should be considered.

Integrated Projects

Integrated Projects have gained general approval but, as with Networks of Excellence, processes such as consortia-building, proposal submission, proposal evaluation and contract negotiation need to be improved.

Recommendation 6

The concept that Integrated Projects are primarily concerned with delivering new knowledge and competitive advantage to European industry needs to be emphasised. As Integrated Projects and STREPs have many common characteristics, the difference between these Instruments should be clarified.

To develop ambitious objective-driven research does not mean that IPs must be large-scale projects. Relatively small IPs must also be considered. However, since then there will be more overlap between IPs and STREPs, the difference between both should be clarified. IPs have a role to play and the potential to create real impact if they are used for what they were designed for: a long-term instrument, allowing flexibility and clustering of research activities to realise ambitious and strategic goals.

Flexibility in developing consortia should be ensured as its absence would reduce significantly the potential for participation.

STREPs

STREPs and Small Consortium IPs are better adapted to risk-taking, industry, participants from new Member Sates and, in general, to small and emerging players. Their role for the research community is essential.

Recommendation 7

A greater role must be played by Instruments such as STREPs and small consortium IPs. This must be reflected in a substantial increase in the total share of the budget finally allocated to STREPs in future calls of FP6 and in the future under FP7.

4.2. Adapting instruments to risk-taking, emerging groups and smaller players

Recommendation 8

Emerging groups should be attracted rather than discouraged from participation. The best research groups and the most innovative firms should be attracted since they must play a leading role in structuring the ERA.

This is a general principle that should guide the whole implementation of the Framework Programme. It is a recommendation in as much as the evaluation of different programmes should consider whether such a principle is being followed. The right portfolio of Instruments and its proper implementation should make it possible.

The tradeoff between 'awarding proven excellence by established groups' and 'risk taking often led by emerging groups' tends to be resolved, in the current context, in favour of the former. This situation must be corrected since Europe will not take the lead in science and technology if it does not take the risk of using public funds to sponsor more innovative groups and research. Programme managers must seek an appropriate balance, within their programmes, between established and potential excellence. In order to take risks only in projects that deserve it, programme managers will need sound advice in the evaluation process.

The position and participation of **SMEs** in the New Instruments has not been satisfactory. SMEs have found it almost impossible to become involved in Networks of Excellence and SMEs have tended to be dominated by larger organisations and disadvantaged in Integrated Projects. The emergence of more research-intensive SMEs as participants in the New Instruments is commendable but in general SMEs prefer the Traditional Instruments of STREPS, Cooperative (CRAFT) and Collective Research.

In general, the relatively long-term horizon of consortia within the New Instruments tends to discourage SME. In particular, 'durable integration without clear market objectives' makes the barriers for participation in NoEs too high. Also in IPs, SMEs tend to be dominated by larger organisations and put at a disadvantage.

SMEs should be strongly encouraged to participate in IPs and STREPs. This is much more easily achieved if the projects are not too large and of shorter duration, as well as if there is appropriate assistance and guidance on consortia building and contractual arrangements. An effective way to promote SME participation that should be considered is the promotion of SME-led IPs and SME-led STREPs.

The realisation of the FP6 15% target for SME participation in Thematic Priority areas should concentrate on IPs and STREPs. Nevertheless, more information needs to be collected on the quality and quantity of SME participation in FP6.

Recommendation 9

For FP7 a much more flexible approach to SME participation should be explored. The possibility to foster the market-oriented innovation activities across Priority Thematic Areas should be considered.

Specific SME and more innovation-related measures should be increased. This could be achieved by using the CRAFT and Collective modalities in Thematic Priorities. Demonstration activities could become part of a separate programme with the aim to facilitate the transfer of technologies into the market. A flexible, optional scheme designed to encourage SME participation in FP7 could be developed, with the possibility of delivery via instruments based on Articles 169 or 171 of the Treaty.

The New Instruments mean additional barriers for participants from the **New Member Sates**. The characteristics of the New Instruments are at the basis of this situation. Solutions that can be envisaged are to improve the quality of participation through providing services to potential applicants, and to encourage the participation and leadership of research groups and firms from New Member States. The full development of the ERA requires an active participation of the New Member States, as well as of all different **Regions of the EU**. Participation mechanisms should facilitate this 'integration through excellence' rather than imposing arbitrary cohesion criteria.

In general, supporting emerging groups, SMEs and groups from New Member States is not seen as an additional evaluation criterion to be satisfied within all projects. This only leads to paternalistic and artificial collaborations. These are goals that must be satisfied within programmes and it is the responsibility of programme managers to encourage the presence of these groups, in particular an appropriate leading presence, without compromising on excellence. To ensure such pro-active management is feasible, much more information regarding the participation of these groups, their composition and needs (e.g., for different types of SMEs), needs to be available to programme managers.

4.3. Coordination with other sources of funds

Recommendation 10

The portfolio of Instruments for collaborative research should be designed and developed to enhance co-ordination and collaboration with other forms of public and private funding across the European Union.

The Framework Programme generates a high demand of high quality transnational collaborative research projects. It is a necessity to increase the funds available, but even with increased funds; the Framework Programme can only play its structuring role if links are created with other sources of funding such as structural funds, EIB or National programmes. Instruments should be designed, mechanisms created and strict evaluation procedures implemented with a view to making approved consortia attractive to other sources of funding.

For example, NoEs whose evaluation is above accepted thresholds should be recognized as such not just by the EC.

As a consequence, Instruments should whenever possible be designed to generate multiplier effects. This should be the guiding principle for FP7, but could already be implemented in FP6. For example, giving a special status of 'scientific excellence' to NoEs that have been evaluated above the evaluation threshold but for which there is insufficient funding. These could benefit by acquiring the recognition needed to obtain other sources of funding. It is also possible to create institutional links with complementary sources of funding, opening doors for approved projects to fund new tasks or to more quickly reach the application level.

This approach also has consequences on evaluation procedures, as one should clearly differentiate between 'excellence' at different levels (research project, partners in the consortium or the consortium as a whole). It also requires that the evaluation process be fully trusted by other parties.

4.4. Enhancing evaluation procedures

Recommendation 11

To improve the efficiency and reduce the costs for participants, a well conceived two-step evaluation procedure should be introduced.

The evaluation process is a fundamental part of the discussion on the efficiency of the New Instruments. In competitive public research funding, the critical evaluation process is the main guarantee that public funding is properly spent.

The Panel's recommendation to implement a well developed two-step procedure responds to several objectives stated in this report. First, the reduction of participation costs. Second, the need to establish an operational procedure for the principles of enhancing transparency and of giving more voice and freedom to the scientific and technological community to make specific choices, within general programme objectives and within a well defined portfolio of Instruments. Third, it allows maintaining continuity on general research objectives through the full duration of the Framework Programme. Fourth, by providing more structure to the evaluation process it allows for a better feedback to participants. The following box describes its main components.

The Panel is aware that such a procedure introduces a delicate passage between the First and the Second Steps. In particular, to guarantee that there are well defined expectations for success in the Second Step, selection must be meaningful in the First Step and at the beginning of the Second Step more precise information on how budgets are planned to be allocated will be needed. In some cases this may require to specify, at this interim stage, the potential distribution between types of instruments and sizes (in exceptional cases, responding to 'well specified societal needs,' this may have been defined at the beginning of the First Step).

First step

- *Proposals are short proposals,*
- *The consortium structure is defined, but only a core membership needs to be formalised.*
- *Proposals are evaluated on a limited set of criteria (no more than three, for example) including adequacy and excellence.*
- *Evaluation criteria are applied in a flexible but transparent way:*
  - *Weights given to the criteria can be different depending on the thematic area or objective pursued (type of instrument used)*
  - *Specific criteria can be included for projects pursuing certain goals (e.g. specific criteria on integration, when integration is the goal).*
- *Remote reading and on-line marking is used in preparation of consensus meetings.*
- *Evaluators, chosen among best specialists in the programme areas, are properly briefed.*
- *Feedback provided in evaluation reports (Evaluation Summary Report and, if possible complemented with the individual evaluators reports) allows learning from experience, and, for the successful proposals, gives guidance for the second step submission.*

Second step

- *Participants in the Second Step have a high probability of receiving funding (of the order of one out of three)*
- *Second step proposals are complete and sufficiently define the full project period (even for longer term projects).*
- *The consortium is committed in order to avoid problems in the negotiation phase.*
- *The same evaluators as in Step 1 evaluate the same proposals. They should be complemented by other specialists to adequately cover the needed expertise.*
- *Additional evaluation criteria may be considered, but they should not be many and well defined ex-ante.*
- *Hearings are part of the evaluation process for the New Instruments (large projects)*
- *Feedback provided allows learning from experience, and for the successful proposals, gives guidance for contract negotiation.*

This reallocation should be carried out based on criteria that have been defined beforehand. It is a type of arbitration that has to be documented and transparent. The budget defined should be realistic taking into account the number of approvals at the First Step evaluation (e.g. capacity to adequately fund at least 1 in 3 of the approved proposals).

Although there are already experiences of 'Two Step Evaluations' the one recommended here requires its full development and full explanation to the community. As with any evaluation procedure, it has its costs in terms of time and evaluators resources. The latter should be minimised in order to guarantee that the best researchers and innovators participate in the process. Its implementation could be started within FP6, perhaps at the pilot level to ensure the process is well proven and efficient in order to meet the expectations.

4.5. Providing better services

Recommendation 12

Administrative procedures and financial rules should be significantly simplified and further improved to allow more efficiency and flexibility in implementing participation instruments.

Managing a programme such as the Framework Programme, once approved, is a service that is being provided to the users. The Panel makes a set of recommendations that are feasible to implement by the EC and would change the situation dramatically for the users.

The key point is however the capacity of the EC to combine the role of policy-maker and implementation agency. For example, EC rules for rotating public officials within services have their own rationality, but they also have devastating consequences if, at the same time, these public officials must serve as Scientific Programme Managers, which requires in-depth knowledge of the corresponding scientific and technological fields, of on-going contracts, etc. Other models exist within Member States and the solution might therefore be to consider alternative solutions whereby policy making and implementation are separate. Within the current EC funding structure it is important to minimise disruptions and to fully motivate Programme managers. The process of following-up funded research also places high demands on them, since it involves scientific and technological, as well as, administrative criteria. Meeting these demands with continuity and professionalism are essential to sustain trust from the scientific and technological communities.

Managing the Framework Programme implies an interdisciplinary approach. The EC needs to adapt its own organisation to cope with this demand and ensure both coherence among various services, and cooperation among them. In particular, this organization should guarantee that interdisciplinarity does not compromise excellence.

Rules that have been defined in FP6 as part of this drive for more flexibility and autonomy need to be reconsidered. Sub-contracting is handled in a rigid way which goes against the very principles pursued by the New Instruments. For some projects the audit costs become prohibitive. These rules should be reconsidered and the actual way to implement them clarified so that the New Instruments can reach their potential impact for an acceptable cost.

The type of problems that are appearing because of the higher level of autonomy have to be monitored closely. This is particularly the case for Intellectual Property related issues. It is the Commission's responsibility to help participants and particularly to protect the weaker players.

FP6 foresees different funding mechanisms (cost-based system, "forfaitary" approach) and various implementation modalities (cost models) which participants can use and such flexibility should be preserved. Some simplification has been brought in the cost-based approach (removal of cost categories for example, allowing participants to use their own accounting practice), but further simplification is needed to allow for projects, valued on a general cost-based form, to be managed as "forfaitary" funding when incurring actual expenses.

The existing Financial Regulation should be applied correctly. Too often, the interpretation is stricter than what is mentioned in the Regulation, leading to delays and a bureaucratic image. The application procedures must be revised to guarantee that the appropriate service is provided,

Set of specific recommendations to improve the level and quality of the service

Information should be made public well on time, but only when mature and tested for clarity and user-friendliness.

Adequate training of all EC staff involved is a necessity to avoid inconsistency in communication and interpretation. Staff rotation should not disrupt the efficient handling of the funding process.

Application forms should go through a simplification exercise to minimise the burden on participants.

Electronic tools have to be tested and be ready on time. Duplication of efforts by participants is not acceptable.

Processes should be set in place to monitor and regularly improve the quality of the different service aspects. This involves clear guidance to those in charge, quality control and benchmarking.

Assistance for elaborating consortium agreements and handling Intellectual Property issues is a necessity, particularly for the smaller and weaker players. The existing IPR help desk is a necessary tool to ensure all types of players have access to expertise and advice and deserves more promotion efforts from the Commission.

Budget cuts during contract negotiation should always be justified and be part of the Evaluation Summary Report.

The problems associated with managing large scale projects should be monitored closely and lessons should be translated in action plans.

The Financial Regulation and the way it is used should be revised in order to ensure a service-minded approach is feasible. Further simplification is needed to allow for projects, valued on a general cost-based form, to be given enough flexibility regarding the final allocation of expenses. Assistance on such matters could be channeled through a specialised help desk.
Risk management (rather than risk avoidance) combined with service level standards, should be used to define procedures. Procedures and their interpretation should be common for all Directorates /Directorates- General.

In summary, the Panel has listed above the recommendations directly linked to its mandate and also those that the Panel thought were relevant to improve the efficiency of the Instruments. The Panel is convinced these can be implemented within the current EC funding rules and structure. Recommendations related to the evaluation procedures have been included even if they deserve specific attention and may have been the object of other evaluation panels.

Annex 1

First calls
Facts and figures on the new instruments

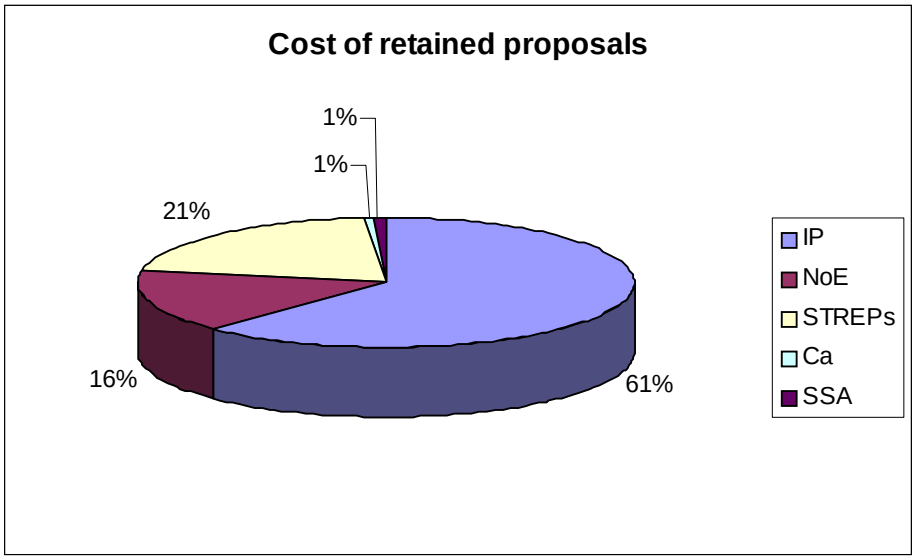
Annex 1 to the report of the High Level Expert Panel

Contents:

Introduction:

This report presents key figures regarding the New Instruments in the first calls of FP6. It is based on information available by end of November 2003, when all evaluations of first calls were known. When figures are not mentioned, it is because they were not available to the panel. The information was provided to the Panel by the European Commission.

1. Overall situation of FP6 (first calls)



	FP6 (new instruments)	**FP6** (all instruments)
Average EC contribution requested	12 M	6.2 M
Average number of participants	32	17.5
Financial oversubscription rate	7 (IP) 9.5 (NoE)	7.3
Participation rate of SMEs	13 %	16 %
Participation rate of industry	34 %(IP) 10 % (NoE)	23 %
Participation rate from new Member States and Accession Countries	6-7 %	7 %

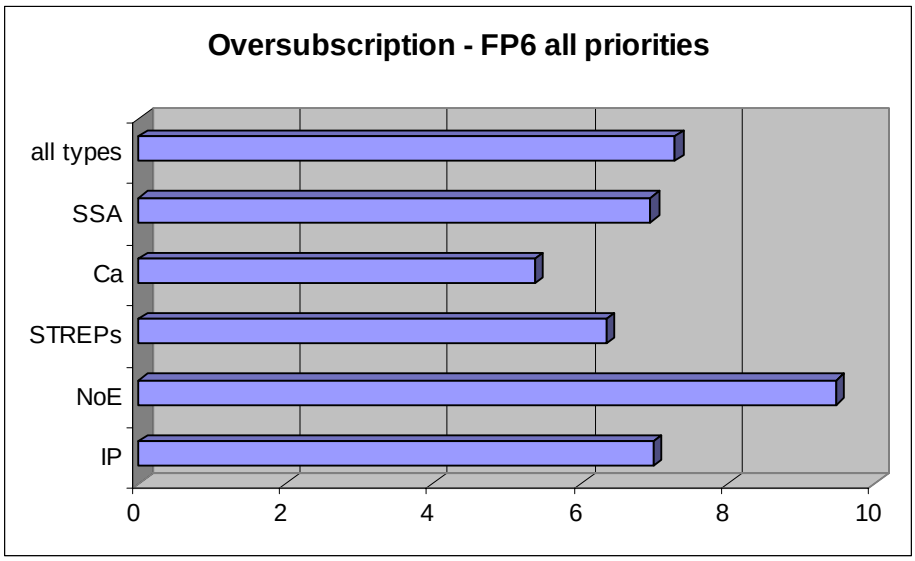
The New Instruments are taking the large majority of the funds (77%) from the start of the 6th Framework Programme. This is valid for all priorities, except for Priority Thematic Area (PTA) 7[7].

More money is invested in IPs than in NoEs. PTA 5 is an exception with a similar amount invested in both instruments.

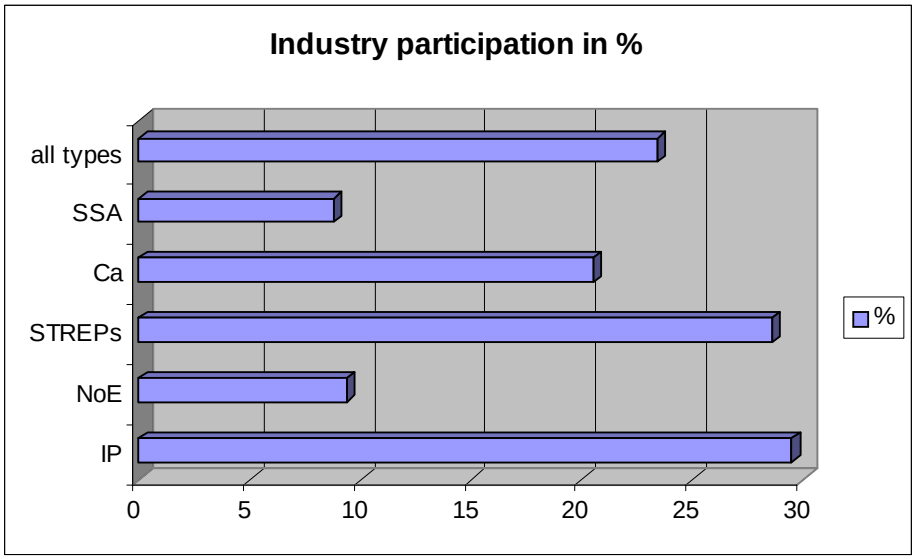
The average size of projects has increased significantly as foreseen. Based on the information available to the panel it seems that the average grant per participant and per year has not increased in comparison to FP5, which is an unexpected result worth further analysis (see also annex 4).

[7] The low percentage of funds used on the New Instruments is due to the fact that there was a second part of this first call which was exclusively open to New Instruments. Adding up both parts of the first call would lead to figures much more similar to the "average" picture, but the selection process for this second part is not yet completed in May 2004.

Oversubscription has increased significantly in comparison with FP5. There are however big differences among the Priorities Thematic Areas (PTAs).



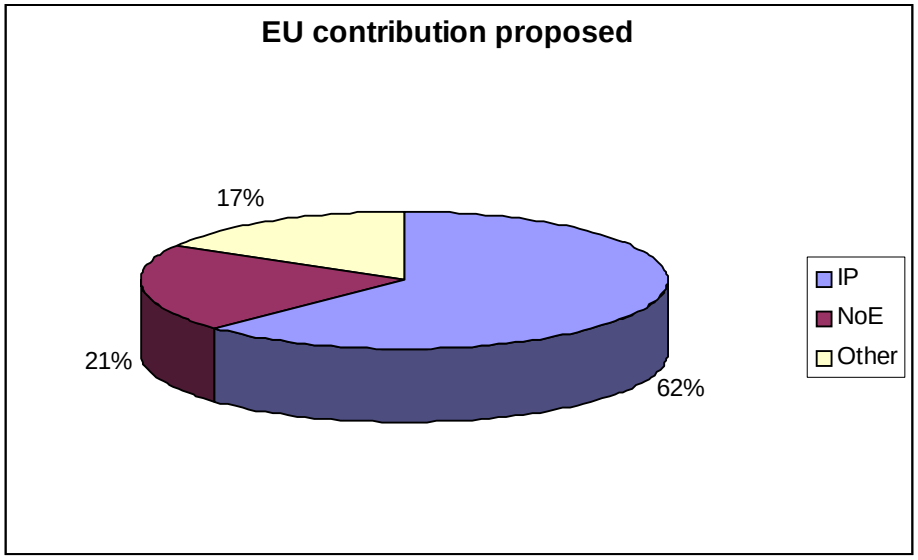
Industrial participation has gone down significantly. The low number of industrial participants in NoEs is one of the factors explaining this change, but not the only one.



2. Situation of new instruments in each priority

Thematic Priority Area 1
Genomics and biotechnologies for health

Chart: proportion of financial contribution going to new instruments

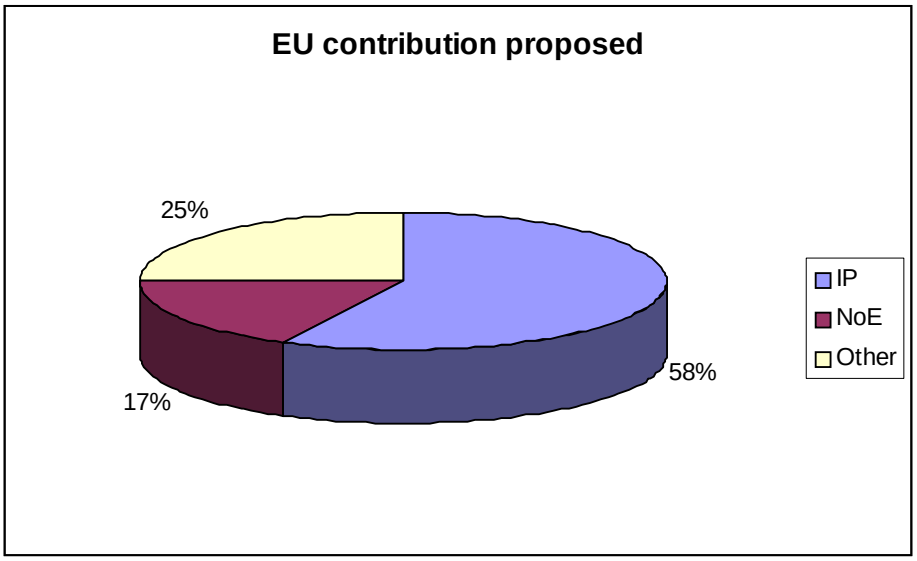


Key figures on new instruments

	IP	**NoE**
retained	42	15
Above threshold not retained	20	11
Oversubscription rate	4.9	4.2
Financial Oversubscription rate	6.8	8.1
Averages		
Value of project (M Euro)	18.2	16.4
No of participants	22	39
Industrial participation		
SME participation	11 %	6 %
New Member States and Accession Country participation	4 %	6 %

Thematic Priority Area 2
Information society technologies

Chart: proportion of financial contribution going to new instruments

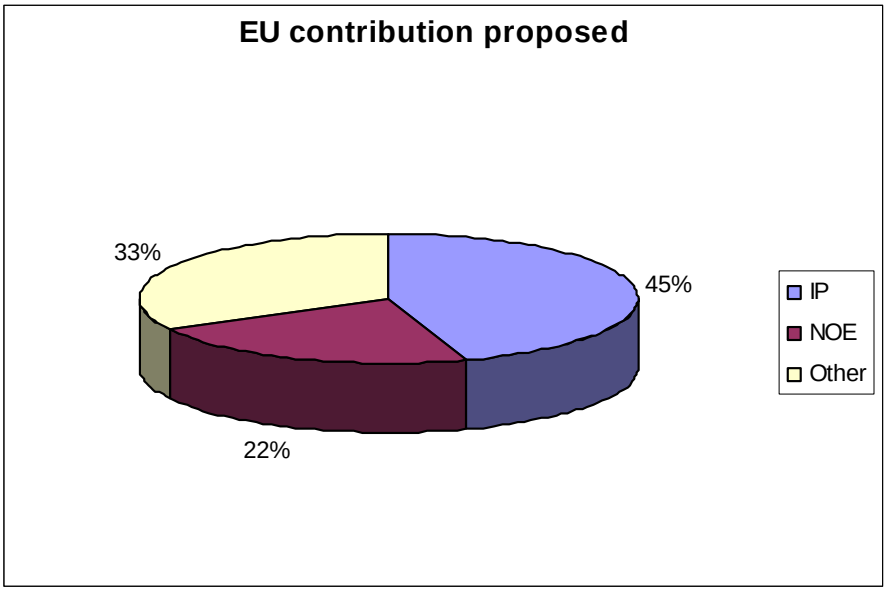


Key figures on new instruments

	IP	NoE
Retained	67	35
Above threshold not retained		
Oversubscription rate	5.6	5.8
Financial Oversubscription rate	6.7	10.3
Averages		
Value project (M Euro)	26.7	9.5
No of participants	26	36
Industrial participation	39 %	10 %
SME participation	19 %	10 %
New Member States and Accession Country participation	4 %	6 %

Thematic Priority Area 3
Nanotechnologies, nano-science, knowledge-base multifunctional materials and new production processes

Chart: proportion of financial contribution going to new instruments



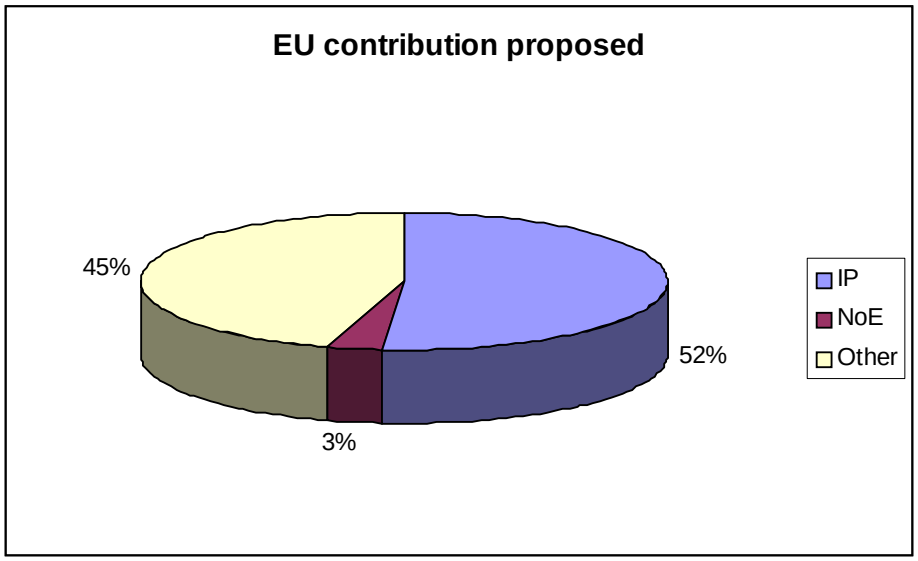
Key figures on new instruments

	IP	NoE
Retained	21	17
Above threshold not retained	17	3
Oversubscription rate	12	11
Financial Oversubscription rate[8]	19	25
Averages[9]		
Value project (M Euro)	37	12
No of participants	34	23
Industrial participation	32%	12 %
SME participation	20%	6 %
New Member States and Accession Country participation	6%	9,5 %

[8] Excludes IP for SMEs
[9] For IPs, averages are calculated on normal IPs excluding IP for SMEs.

Thematic Priority Area 4.1
Aeronautics

Chart: proportion of financial contribution going to new instruments

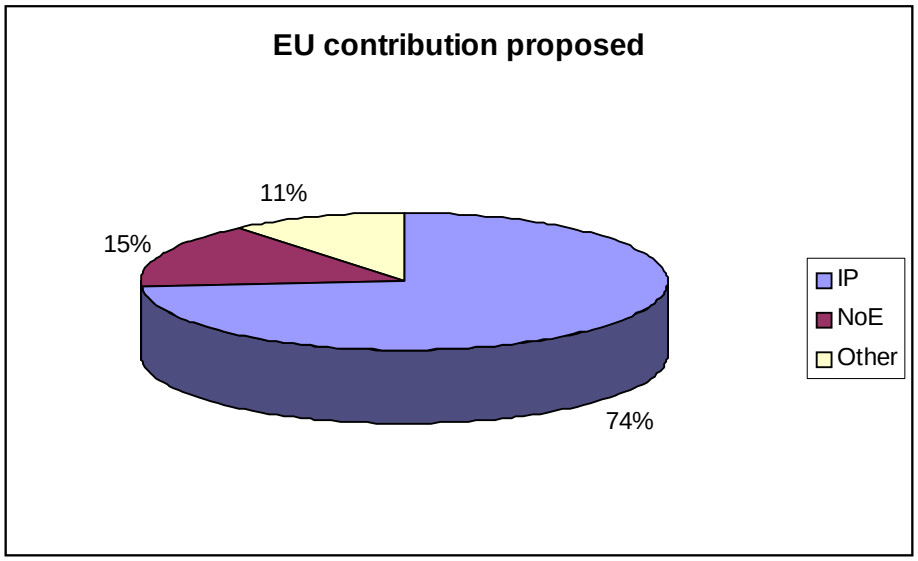


Key figures on new instruments

	IP	NoE
Retained	5	1
Above threshold not retained	0	0
Oversubscription rate	2	5
Financial oversubscription rate	2	7
Averages		
Value project (M Euro)	48	7.5
No of participants	43	14
Industrial participation	62 %	36 %
SME participation	18 %	7 %
New Member States and Accession Country participation	2 %	7 %

Thematic Priority Area 4.2
Space

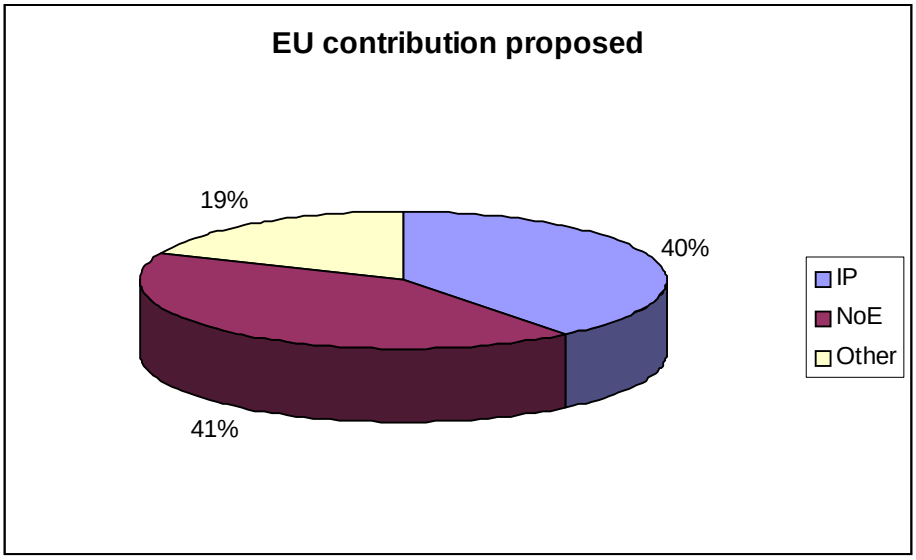
Chart: proportion of financial contribution going to new instruments



Key figures on new instruments

	IP	NoE
Retained	3	1
Above threshold not retained	0	0
Oversubscription rate	3	2
Financial oversubscription rate	3	3
Averages		
Value project (M Euro)	21	10
No of participants	45	52
Industrial participation	25 %	27 %
SME participation	20 %	25 %
New Member States and Accession Country participation	5 %	9 %

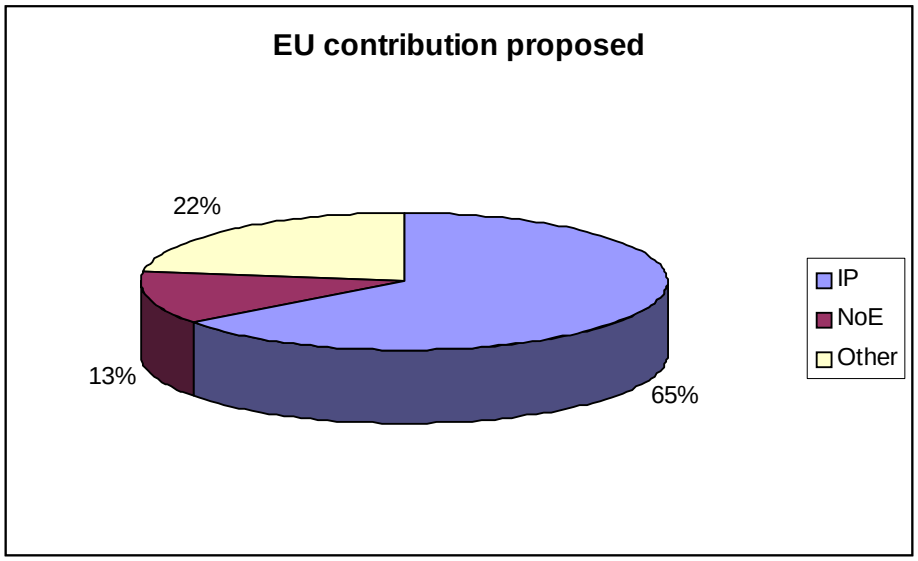
Chart: proportion of financial contribution going to new instruments



Key figures on new instruments

	IP	NoE
Retained	6	6
Above threshold not retained	8	5
Oversubscription rate	14	3.7
Financial oversubscription rate	11	3.7
Averages		
Value project (M Euro)	26	23
No of participants	47	20
Industrial participation	12 %	3 %
SME participation	18 %	5 %
New Member States and Accession Country participation	7 %	5 %

Chart: proportion of financial contribution going to new instruments



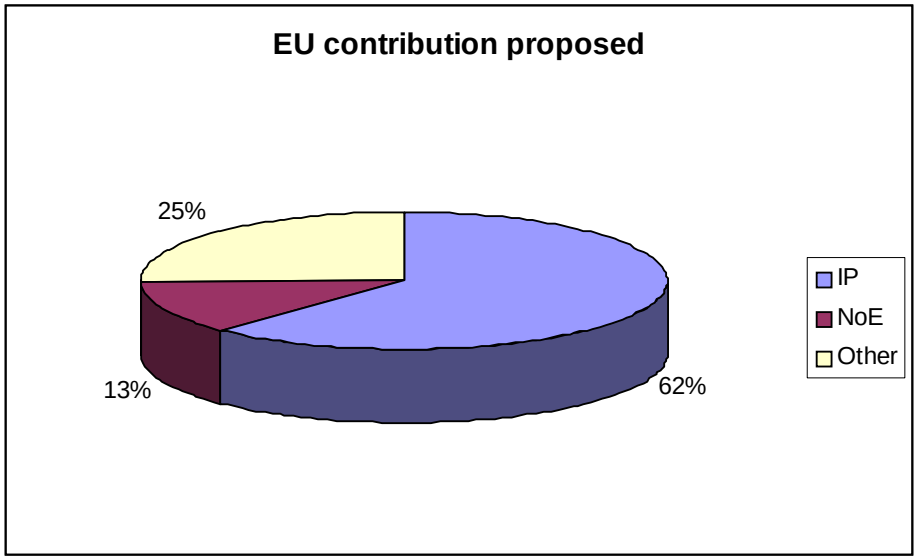
Key figures on new instruments

	IP	NoE
Retained	21	4
Above threshold not retained	9	2
Oversubscription rate	3.3	5
Financial oversubscription rate	5	10
Averages[10]		
Value project (M Euro)		
No of participants	35	16
Industrial participation	36 %	9 %
SME participation	17 %	6 %
New Member States and Accession Country participation	9 %	8 %

[10] Averages are calculated on part of the projects (14 Ips and the 4 NoEs).

Thematic Priority Area 6.2
Sustainable surface transport

Chart: proportion of financial contribution going to new instruments



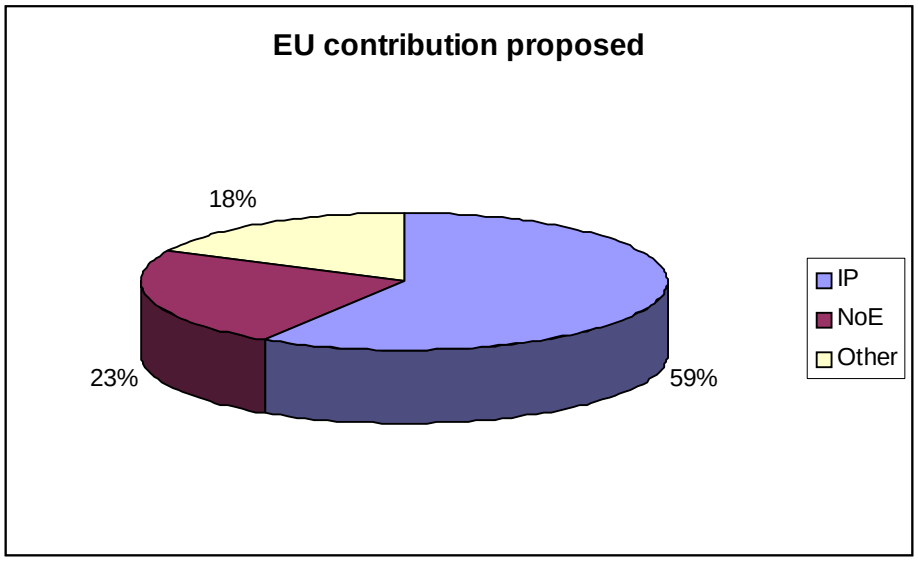
Key figures on new instruments

	IP	NoE
Retained	11	4
Above threshold not retained	3	0
Oversubscription rate	3.2	1.5
Financial oversubscription rate		1.8
Averages[11]		
Value project (M Euro)	34	8
No of participants	33	46
Industrial participation	48 %	20 %
SME participation	15 %	12 %
New Member States and Accession Country participation	4,5 %	12 %

[11] Averages for Ips cover only 8 from the 11 projects retianed for negotiation.

Thematic Priority Area 6.3
Global change and ecosystems

Chart: proportion of financial contribution going to new instruments

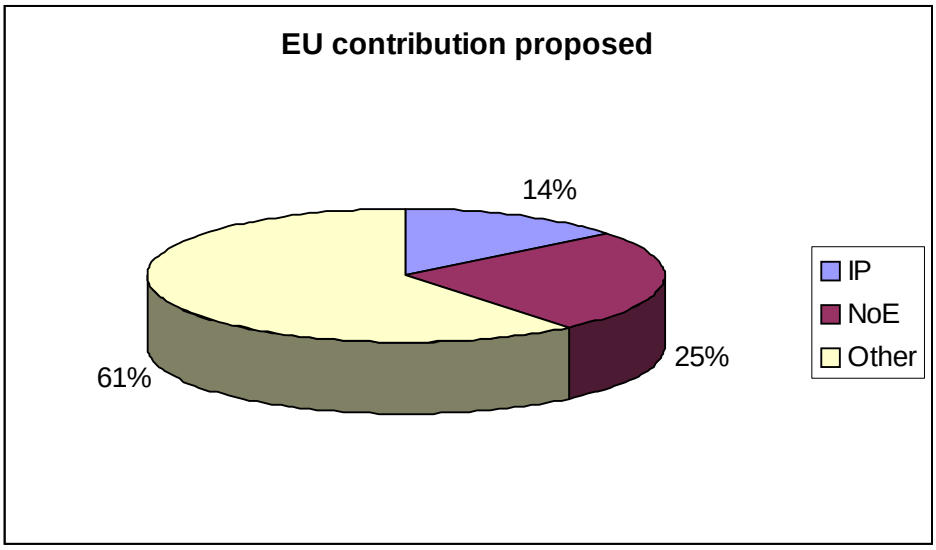


Key figures on new instruments

	IP	NoE
Retained	8	4
Above threshold not retained	8	1
Oversubscription rate	6.3	4.8
Financial oversubscription rate	4.8	8.2
Averages		
Value project (M Euro)	22	17
No of participants	53	39
Industrial participation	7 %	1 %
SME participation	7 %	7 %
New Member States and Accession Country participation	11 %	10 %

Thematic Priority Area 7
Citizens and governance in a knowledge-based society

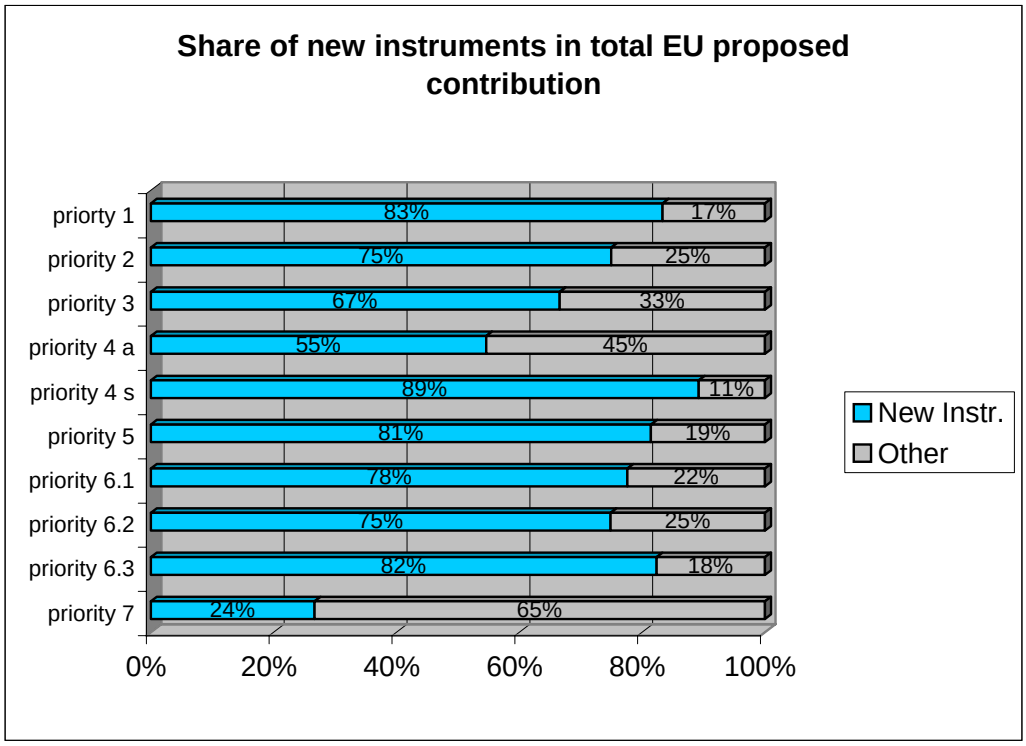
Chart: proportion of financial contribution going to new instruments

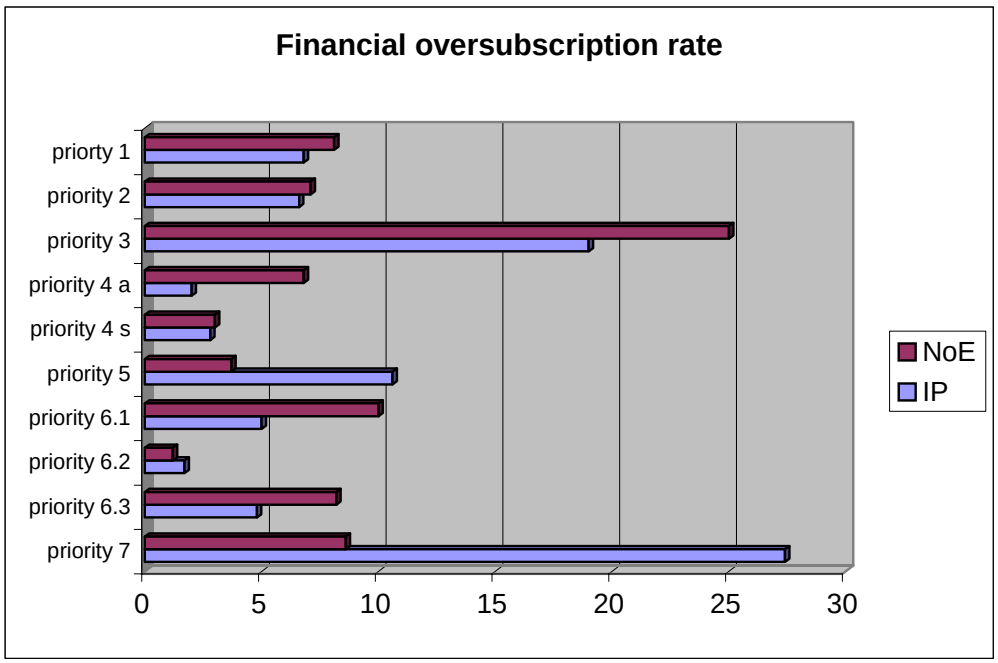


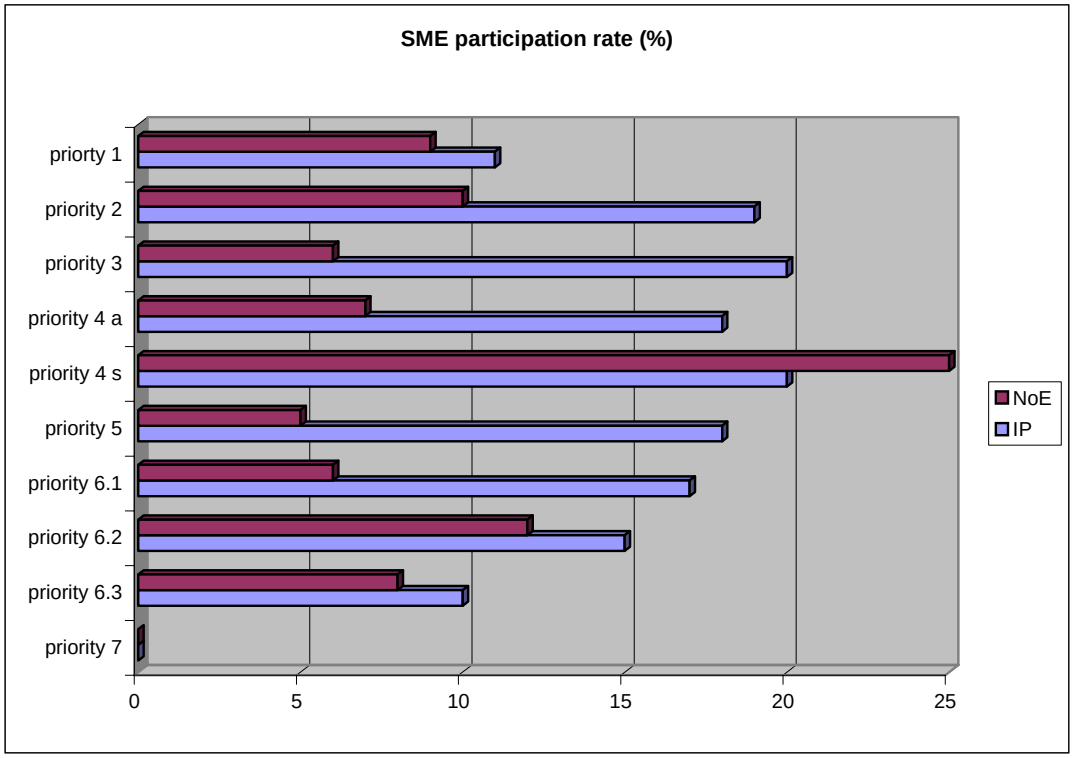
Key figures on new instruments

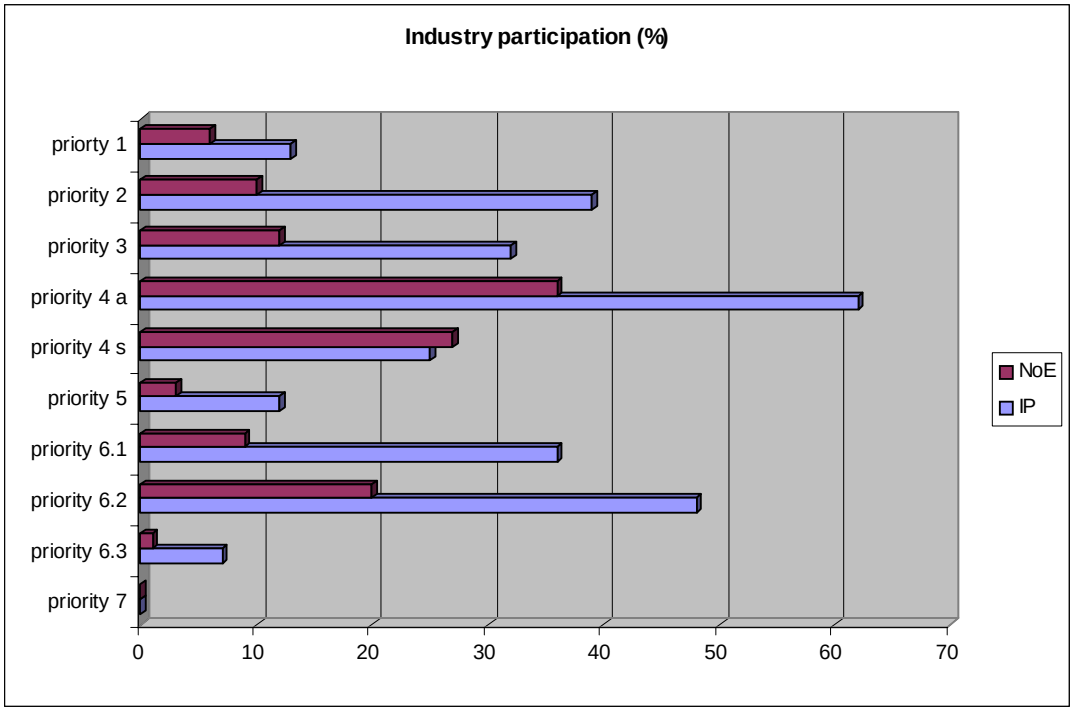
	IP	NoE
Retained	2	3
Above threshold not retained	6	3
Oversubscription rate	23	8.3
Financial oversubscription rate	27	8.6
Averages		
Value project (M Euro)	5.5	
No of participants	31	31
Industrial participation	0 %	0 %
SME participation	0 %	0 %
New Member States and Accession Country participation	16 %	8 %

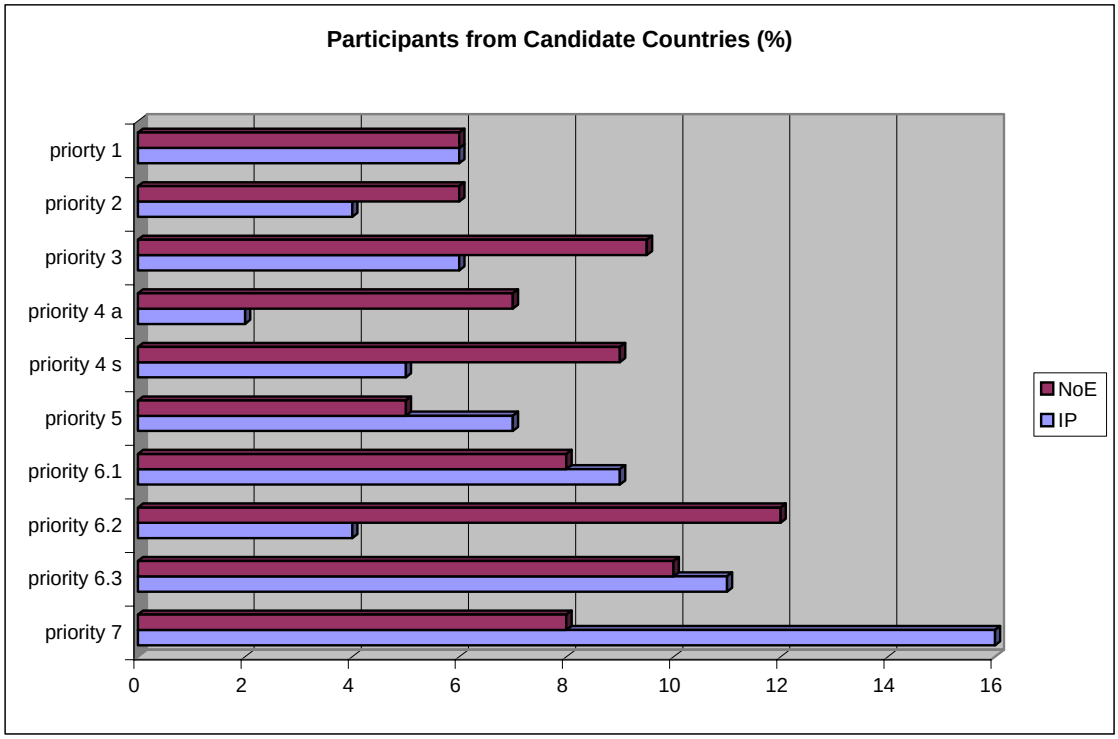
3. Comparison between priorities






SME participation rate (%)
priorty 1
priority 2
priority 3
priority 4 a
priority 4 s
priority 5
priority 6.1
priority 6.2
priority 6.3
priority 7
0
5
10
15
20
25
NoE
IP


Industry participation (%)
priorty 1
priority 2
priority 3
priority 4 a
priority 4 s
priority 5
priority 6.1
priority 6.2
priority 6.3
priority 7
0
10
20
30
40
50
60
70
NoE
IP


Participants from Candidate Countries (%)
priorty 1
priority 2
priority 3
priority 4 a
priority 4 s
priority 5
priority 6.1
priority 6.2
priority 6.3
priority 7
0
2
4
6
8
10
12
14
16
NoE
IP

Definitions

Industry participation:	Based on the number of the industrial participants from all sizes.
SME participation:	Based on the number of organisations categorised as SME based on the information provided in the A2 form or contract preparation form.
Oversubscription:	Total number of projects submitted / Total number of projects retained for negotiation
Financial oversubscription:	Total EU contribution requested (received proposals) / Total EU contribution proposed for the retained proposals.
Average value of project:	Average total cost of projects retained for negotiations
Retained:	Proposals retained for negotiations (excluding reserve)
Above threshold not retained:	Proposals which have received a score above the threshold at the evaluation, but which were not retained for negotiation

Annex 2

Survey among Project Participants

Research Results

Annex 2 to the report of the High Level Expert Panel

6 February 2004

Table of Contents

Page

Introduction

This report analyses the results of a survey among coordinators, both successful and unsuccessful, of proposals of New Instruments (Integrated Projects and Networks of Excellence) submitted in the frame of the first calls for proposals under the 6th Framework Programme. It is based on a total of 275 returned questionnaires.

Basic facts related to the approach followed:

- The questionnaire: is attached for information (annex 1). It was prepared before the first meeting of the panel with inputs from the Commission, the Chairman of the Panel and the rapporteur. Comments were received after the first meeting from other panel members and taken into account.
- The questionnaire was sent out by e-mail to lists of coordinators, both successful and unsuccessful, provided by the management of each of the priorities within the Commission.
- The mailing was done electronically by the Commission, to ensure the privacy policy of the EC was followed.
- All coordinators should have received the questionnaire together with two accompanying letters (one from the EC, one from the Chairman of the panel). Both letters are attached as annexes 2 and 3.
- Answers were received starting 10 December 2003 and were taken into the analysis up to 5 January 2004.
- Multiple answers from the same respondent (who had received more than one questionnaire) were filtered and only one response was taken into account.
- The questionnaire was accessible for consultation through Cordis as well.

1. Description of the sample

The sample of 275 respondents is well balanced between successful and unsuccessful applicants and spread over the thematic priorities.

The sample appears to be well-balanced between successful and unsuccessful applicants. The responses received are split nearly equally among respondents whose proposal was selected and those whose proposal was not retained for funding (47 – 53 %).

Out of the total 163 IPs that were selected for funding, we received responses from 65 coordinators or a response of 39 %.
Out of a total of 85 NoEs selected for funding, we received responses from 36 coordinators or a response of 42 %.

Response rate for IP and NoE not selected for funding is approximately 10 %, still a response that can be considered as normal for this type of survey. The response from coordinators whose proposal received a rating at the evaluation above the threshold, but which were not selected for funding is significantly higher as 10 %. At the moment of writing this report, we do not have information that allows to calculate the response rate of this specific group.

Chart 1.1: Type of applicant (n=275) in %

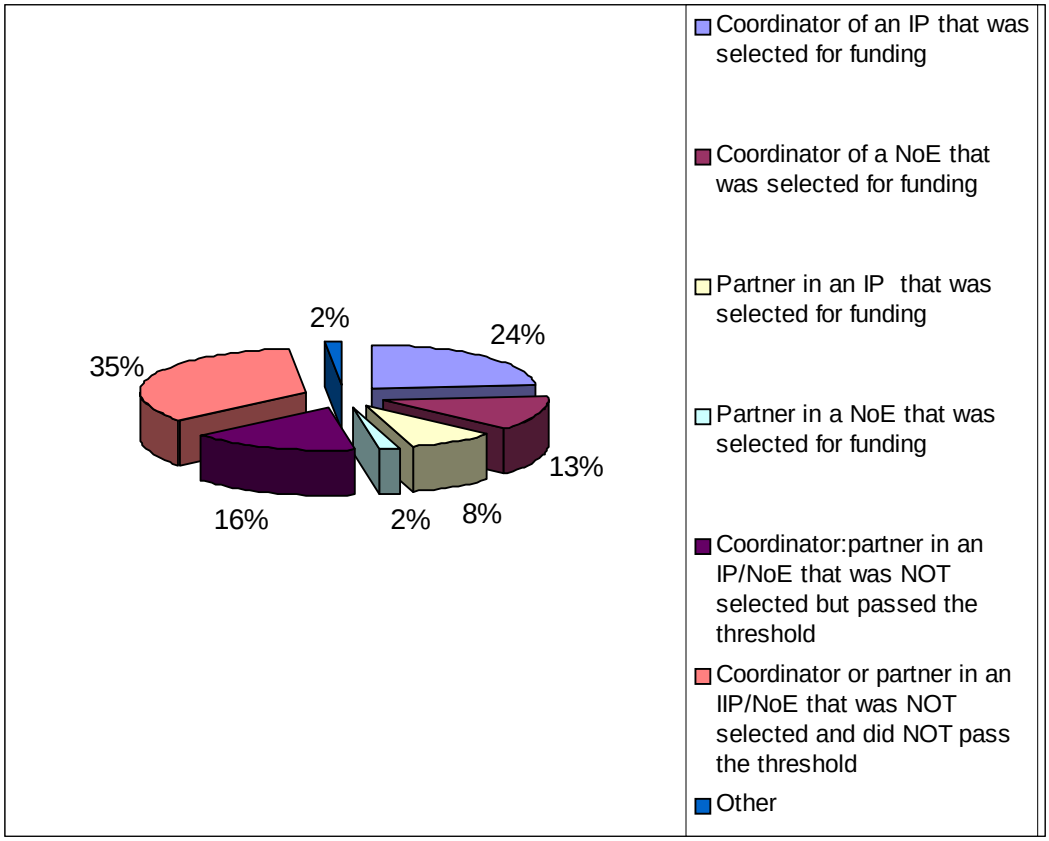


Table 1.2: Type of applicant by thematic area (n=275) in %

Priority	*Total No. of responses (absolute)*	*Successful applicants %*	*Unsuccessful applicants %*
Life sciences, genomics and biotechnology for health	58	41	59
Information Society technologies	88	44	56
Nanotechnologies and nanosciences, knowledge-based multi-functional materials and new production processes and devices	55	53	47
Aeronautics and space	6	83	17
Food quality and safety	20	50	50
Sustainable development, global change and eco-systems	39	51	49
Citizens and governance in a knowledge-based society	8	38	62
Total for all priorities	275	47	53

Table 1.3: Response of coordinators of successful IP and NoE (n=101) in absolute figure

Priority	*IP and NoE proposals selected for funding*	*Response in survey (coordinators only)*	*Response rate in %*
Life sciences, genomics and biotechnology for health	57	20	35
Information Society technologies	102	29	28
Nanotechnologies and nanosciences, knowledge-based multi-functional materials and new production processes and devices	20	20	100
Aeronautics and space	10	5	50
Food quality and safety	12	10	83
Sustainable development, global change and eco-systems	42	14	33
Citizens and governance in a knowledge-based society	5	3	60
Total for all priorities	247	101	40

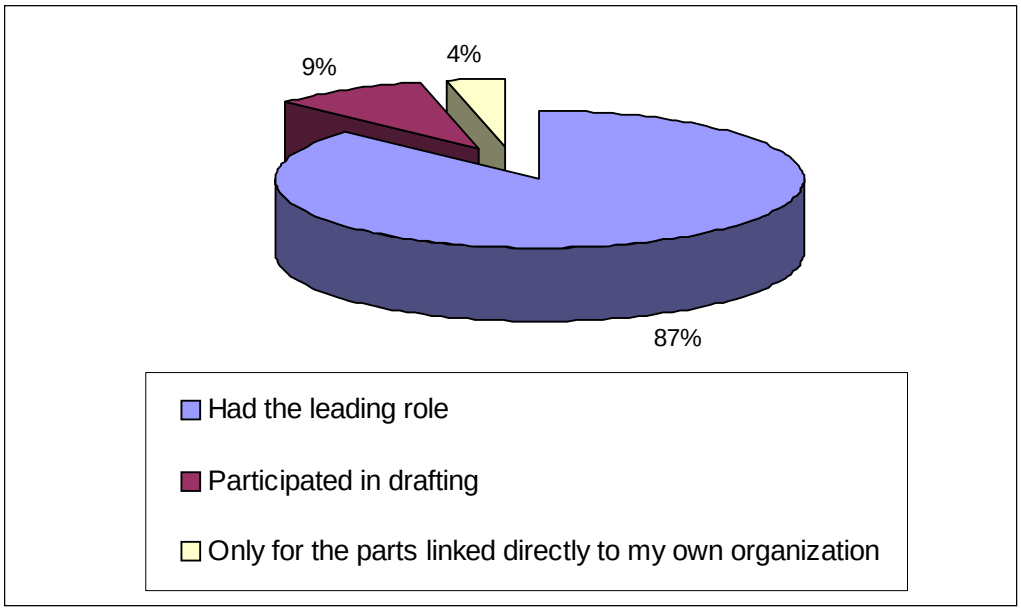
Table 1.4: Respondents by country (n=275)

Country	Responses (n=275)	% of total
Austria	6	2
Belgium	15	6
Germany	44	16
Denmark	6	2
Spain	30	11
Finland	5	2
France	42	15
Greece	8	3
Ireland	1	0
Italy	28	10
Luxembourg	1	0
Netherlands	15	6
Portugal	2	1

Country	Responses (n=275)	% of total
Sweden	12	4
UK	33	12
Accession countries	11	4
Other	11	4

The largest response from accession countries came from Poland.
The largest response from third countries is from Norway.
Five respondents did not mention from which country they are (no reply).

Chart 1.5: Role of respondents in the preparation of proposals (n=275 in %)

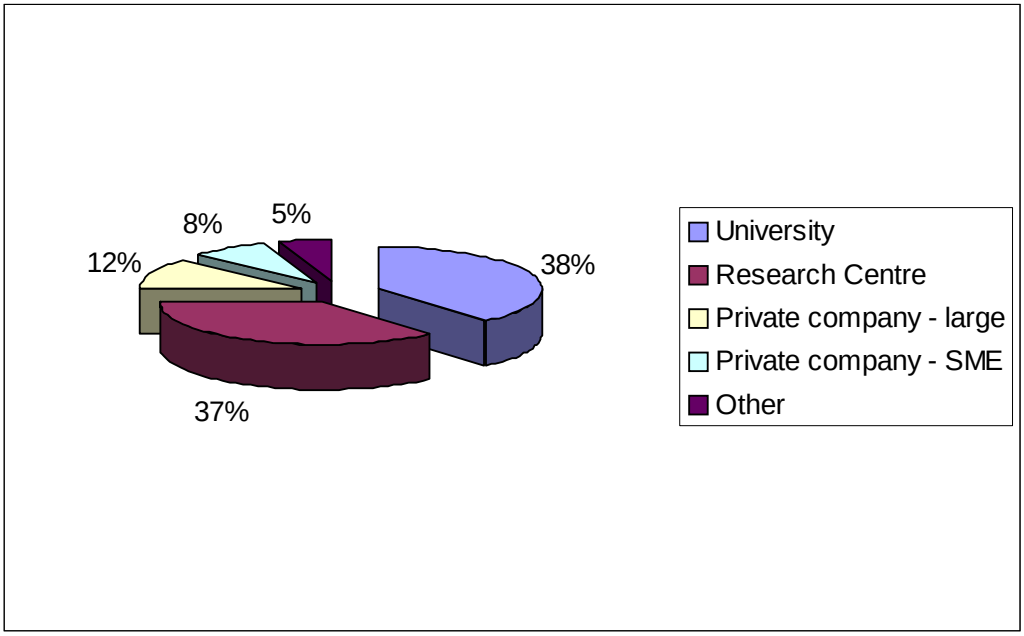


The very large majority of respondents (nearly 90 %) played a leading role in the drafting of the proposal. Even if questionnaires were sent to coordinators, we received answers from participants (see chart 1.1 above). Still, involvement in proposal preparation is high for nearly all respondents.

There is a good spread in terms of type of organisations (see chart on next page). Universities and research centres together represent 75 % of respondents in the sample. The remaining 25 % is spread over private sector companies and others (primarily pubic sector and NGOs).

A response of 8 % of SMEs is high taking into account the actual participation rate of SMEs and the profile of respondents (primarily coordinators if IPs and NoEs). Of the 21 SMEs that answered the questionnaire, 9 are part of successful partnerships and 12 are from consortia that have not been funded. This proportion is similar to the full sample. This is not the case with the larger private companies, where respondents are mostly successful participants (23 against 8 unsuccessful).

Chart 1.6 : Type of organisation (n=275) in %



When looking at the priorities:

- The priority with the highest 'private sector' response is priority 4 (4 out of 6 responses from large companies).
- The lowest industrial participation is Priority 5 where there is only 1 private company out of a sample of 20.
- Universities dominate the sample from Priority 1 (65 %) and priority 7 (5 out of 8).
- Research centres are 1 in 2 of the respondents for the samples from priorities 3, 5 and 6.

2. Goals pursued by the New Instruments

In general, there is broad agreement with the goals for which the New Instruments have been created. There is however a high level of scepticism whether the New Instruments are adequate for certain goals particularly:

- stimulate scientific risk taking,
- simplify administration,

and concern as to adverse effects like the higher difficulty for new research groups to emerge.

Table 2.1: Opinion on the goals pursued (n=275) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful n=130	Unsuccessful n=145
Creating critical mass is a goal worth pursuing and will enhance the efficiency of research in the EU	4.2	3.7
Durable integration of research means and teams will contribute to creating critical mass and efficiency	4.1	3.6
A more flexible implementation will lead to higher efficiency of EU research funding	4.3	4.2
Administrative simplification through larger size projects is a goal worth pursuing in order to enhance the efficiency of EU research funding	3.6	3.1
The trend to bigger projects and consortia will lead to reduced competition among research groups	2.7	2.8
The trend to bigger projects and consortia will make it more difficult for new research groups to emerge	3.5	3.9
The trend to bigger projects and consortia will stimulate scientific risk taking	2.8	2.7
The new instruments (IP and NoE) are adequate tools to implement the goal of flexible implementation	3.2	2.8
The new instruments (IP and NoE) are adequate tools to implement the goal of creating administrative simplification through larger size projects	2.7	2.6
The new instruments (IP and NoE) are adequate tools to achieve an efficient critical mass	3.8	3.3

Overall, respondents agree with the majority of the statements. On three important statements, however, there was disagreement both among successful and unsuccessful proposers:

- respondents do not agree that bigger projects and consortia will reduce competition among research groups (in the same proportion for successful and unsuccessful);
- neither do they believe bigger projects and consortia stimulate scientific risk taking;
- the new instruments are not regarded as adequate tools to create administrative simplification through larger size projects.

Opinions are split on the stimulation of scientific risk taking by the new instruments. A majority is giving negative scores, but there still is a significant group of respondents giving a positive score: 7 % of respondents fully agree with the statement.

Priorities where the group of respondents who 'don't agree at all' is the largest are priority 1 (with 29 % giving this extreme score) and Priority 6 (with 35 %). The split in opinions among respondents is the biggest in Priority 1, where 35 % of respondents still give a positive score (4 or 5).

Another important result is the expectation that the trend to bigger projects will make it more difficult for new research groups to emerge. The difference between successful (score of 3.5) and unsuccessful proposers (3.9) is high and can be explained by the difference in attitude. Still, 24 % of the successful proposers fully agree with the statement as formulated. As a comparison 43 % of the unsuccessful proposers fully agree with the statement. We did not notice any significant difference according to the type of respondent (university, research centre or industry) or the priority.

Differences in opinions between successful and unsuccessful proposers (where scores differ 0.4 points or more, marked in yellow) appear mainly on statements related with the creation of critical mass. Clearly, the unsuccessful proposers are less convinced that the new instruments can have a positive contribution to creating critical mass and efficiency.

Respondents are in favour of the objective to pursue a higher efficiency through more flexibility. They are however sceptical that this can be achieved through the new instruments:

Statement	Successful n=130	Unsuccessful n=145
A more flexible implementation will lead to higher efficiency of EU research funding	4.3	4.2
The new instruments (IP and NoE) are adequate tools to implement the goal of flexible implementation	3.2	2.8

The same applies to administrative simplification, where the 'negative' scores dominate for both the successful and unsuccessful proposers. The claim that the New Instruments would reduce the red tape is apparently not convincing. 20 % of all respondents answer 'don't agree at all' to the statement "*The new instruments (IP and NoE) are adequate tools to implement the goal of creating administrative simplification through larger size projects".*

Regarding the goal of critical mass, opinions are quite mixed on whether the New instruments contribute to the goal. Even if the average scores are 'positive' (3.8 and 3.3 – see above) to the statement, there is a large goup who do not agree with the statement. Overall, 20 respondents (7%) said not to agree at all with this statement and more than 21 % gave a 'negative' score (don't agree or don't agree at all). Respondents from universities are the most negative: more than 35 % gave a negative score to this statement.

3. Proposal preparation

Survey results on the application process are showing that the New Instruments lead to a high level of "additionality":
Proposers are pushed to propose projects with a higher level of ambition and to involve more partners (from more countries) than they would normally do.

On the other hand, opinions of the coordinators and participants seem to prove that there are significant adverse effects, and that their behaviour as a reaction to the new instruments is not necessarily the most adequate:
Partnerships are enlarged artificially, proposals may also be artificially adapted to fit work programmes, and scientific risk taking would not be stimulated.

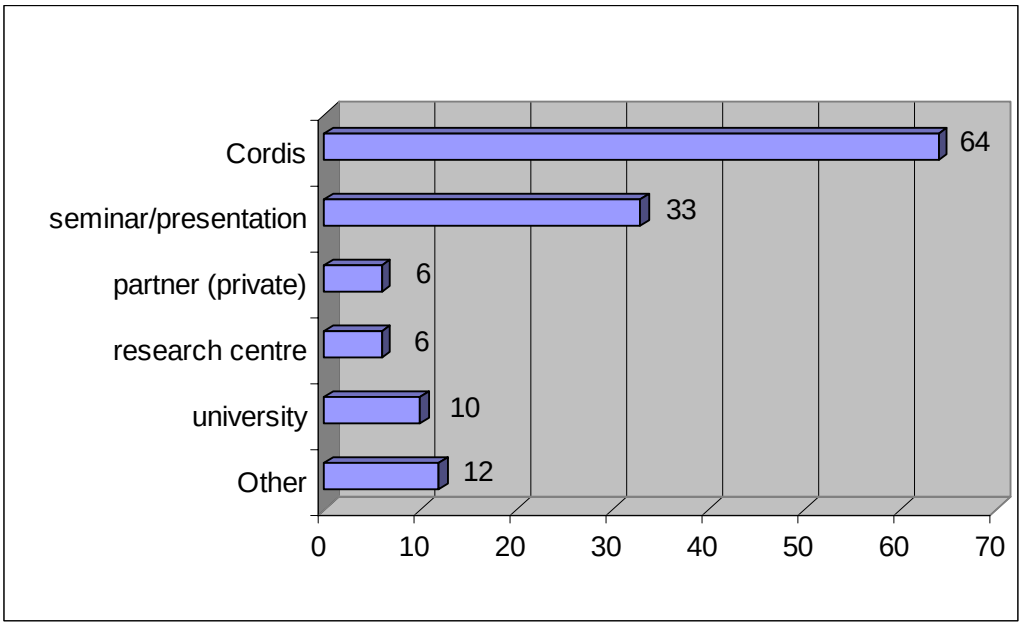
As mentioned above, most of the respondents to this survey played a leading role in the preparation of their proposal. Many of the respondents also mentioned multiple involvements in FP6, both as coordinator and as participant, sometimes of both NoE and IP.

Obtaining information

Table 3.1: Opinion on statements related to information (n=275) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful n=130	Unsuccessful n=145
Obtaining full information about the new instruments has been easy and efficient	3.3	3.2
Information about the new instruments was clear and straightforward	2.9	2.8

Chart 3.2: Sources of information most used (multiple answers were possible – percentage mentioned corresponds to how many respondents mentioned this source) (n=275)



Respondents, due to their profile, should probably be considered as rather well informed and experienced in Community research. Cordis and participation in presentations on FP6 or the new instruments are clearly the two dominating sources of information.
The main sources mentioned among 'other sources' are direct contact with EC officials and National Contact Points.
There are no significant differences between successful and unsuccessful participants.

A university as a source of information is most mentioned in priority 1 (where most respondents are from universities).
Cordis has a lower penetration as a source of information in priorities 7 and 6.

Penetration of Cordis as a source is higher among SMEs and other type of organisations (public sector outside research, NGOs) than with universities and research centres.

Results on the statements mentioned in table 3.1 correspond to what could be expected. The novelty of the New Instruments and the learning process explain the lower score on the quality of the information. The relatively low scores on easiness and efficiency to obtain information is more surprising from experienced participants, but is also probably explained by the novelty of the New Instruments.
It is to be expected that these shortcomings will automatically be avoided in the frame of the successive calls.

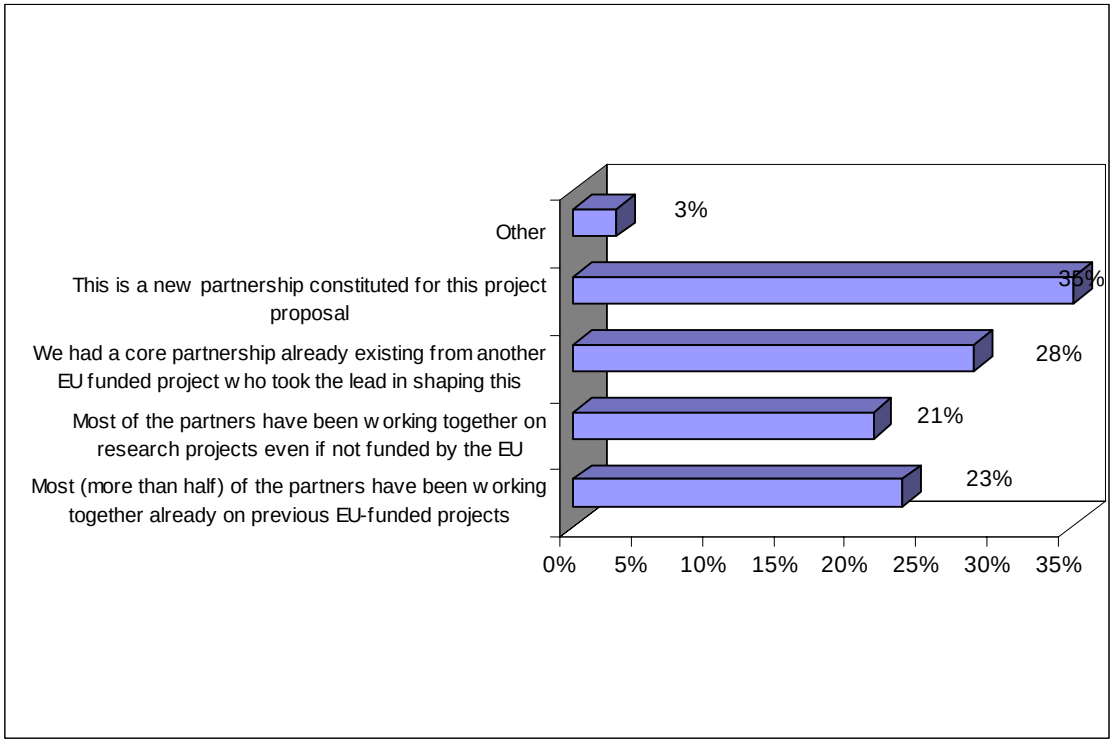
Consortium

Table 3.3: Opinion on statements related to finding partners (n=275) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful n=130	Unsuccessful n=145
Finding potential project partners has been easy	3.8	3.7
Setting up a consortium for an IP/NoE and concluding (non financial) agreements with project partners does not pose major problems	3.1	3.1

Creating the partnership has not been a main problem as is proven by the average result to the statement "finding potential partners has been easy". The result of the second statement is however much lower and an indicator of a problem related to coming to agreements among consortium members. This can be interpreted as a consequence of the larger autonomy left to proposers in FP6, and therefore the need to adapt and find new ways of working together. This low average score is hiding the fact that respondents are split in two camps, those who consider they had no problems, and those with a different opinion. 30 % of respondents do not agree with the statement. This is an important group the size of which is the same over all priorities. However, there is a significant difference in response between coordinators and partners. Partners (of successful consortia) tend to give a negative answer to this statement (40 % both for IP and NoE against an average of 30 % for the full sample).

Chart 3.4 : In how far was the partnership shaped before starting the proposal preparation (multiple answers were possible – percentages correspond to the share of respondents indicating this answer) (n=275)



The above table shows that an important part of the consortia (for 35 % of the respondents) were created for the purpose of the project.

Application process

Statement	Successful n=130	Unsuccessful n=145
The Cordis database of EOIs on projects has proven very useful in the proposal preparation phase	3.1	3.0
The forms for proposal submission, as required by the Commission, are clear	3.4	3.5
The workload required of the project co-ordinator to prepare the proposal dossier is reasonable in relation to the budgets concerned	2.2	2.5
We had to adapt the research programme in order to fit with the work programme of FP6	2.8	3.3
The time / investment required of the project partners to prepare the proposal dossier is reasonable in relation to the budgets concerned	2.6	2.8
The time foreseen by the Commission between opening and closing date of a Call is realistic	3.5	3.0

The average scores obtained on the different statements are overall lower than ‘4’, indicating that there is scope for improvement in this area. The most important element of criticism from the part of project proposers is the workload required of the project co-ordinator to prepare

the proposal, which is generally considered as not reasonable in relation to the budgets concerned.

On two statements, there appears a significant difference in opinions among successful and unsuccessful proposers (where scores differ 0.4 points or more, marked in yellow) :

- a majority of the unsuccessful proposers (54 %) confirm they had to adapt the research programme in order to fit with the work programme of FP6, whereas this proportion amounts only to 36 % of the successful proposers;
- whereas 59 % of the successful proposers agree that the time foreseen by the Commission between opening and closing date of a Call is realistic, only 40 % of the unsuccessful proposers share this opinion.

The fact that proposers are adapting their research programmes to fit the work programme of FP6 is not necessarily negative. It can be a sign that the research programmes are more ambitious on the one hand, or it can be a sign that they are making adaptations to maximise the chance of funding, even if the changes made are not necessary from a scientific point of view. On this item again, the respondents are split into two groups. Those answering negatively (meaning they did not adapt their research programme) is a group of 30 % of all respondents, the group answering positively is a group of 45 % of respondents.
This adaptation of the work programme seems to happen:

- more often for NoEs than for IPs;
- more often for priority 3 and 6 than for other priorities.

Table 3.5: Opinion on the added value of the application process (n=275) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful n=130	Unsuccessful n=145
It is an unnecessary burden that reduces the time available to do research	2.8	3.0
It helps in defining ambitious goals	3.6	3.4
It forces us to find new partners and extend our networks	3.5	3.7
It creates artificially large partnerships	3.2	3.7

As the table shows, there are no significant differences in opinion among successful and unsuccessful proposers where the added value of the application process is concerned. Both groups tend to agree that the application process helps in defining ambitious goals, finding new partners and extending their networks. However, a majority of the respondents (61 %) at the same time considers that the application process also creates artificially large partnerships.

Additionality[12]

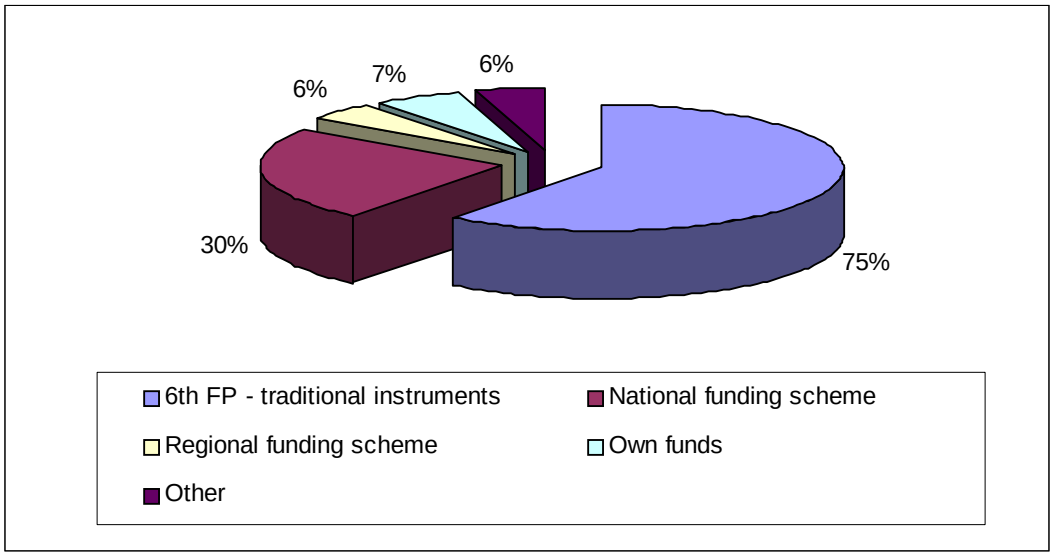
Respondents were also asked what would have happened to their RTD project if an 'Integrated Project' or a 'Network of Excellence' had not existed under the 6th Framework Programme.

While 5 % said not to have an opinion, 43 % stated it is (very) unlikely that a comparable project would have been submitted through other means. Looking at the different thematic areas, this share was considerably higher (75 % stating it is (very) unlikely) for 'Food Quality and Safety'.

A very small majority (52 %) answered it is (very) likely that a comparable project would have been submitted through other means. This proportion amounted to 67 % for thematic area 'Nanotechnologies and nanosciences, knowledge-based multi-functional materials and new production processes and devices'.

Those **respondents who answered it is (very) likely**, were asked under which scheme they think the project would have been submitted. On this question, 72 % of the respondents stated that the project would probably have been submitted as a traditional instrument under the 6th FP. Results are shown in the chart below. No significant differences appeared when looking at the answers of successful and unsuccessful applicants.

Chart 3.6 : Scheme under which the project might have been submitted alternatively – multiple answers were accepted (n=140)



Respondents who answered it is (very) likely they would have submitted their proposal to other funding mechanisms, were also asked in how far the project would have been changed. Their answers appear in the chart below (next page).

[12] The concept of 'additionality' is used to justify the use of taxpayers money. The question to answer is what would have happened if no European public funds would have been made available : would the project or activities have taken place, and in which form ? Measuring additionality is consequently difficult, because it is trying to know what would have happened in another situation.

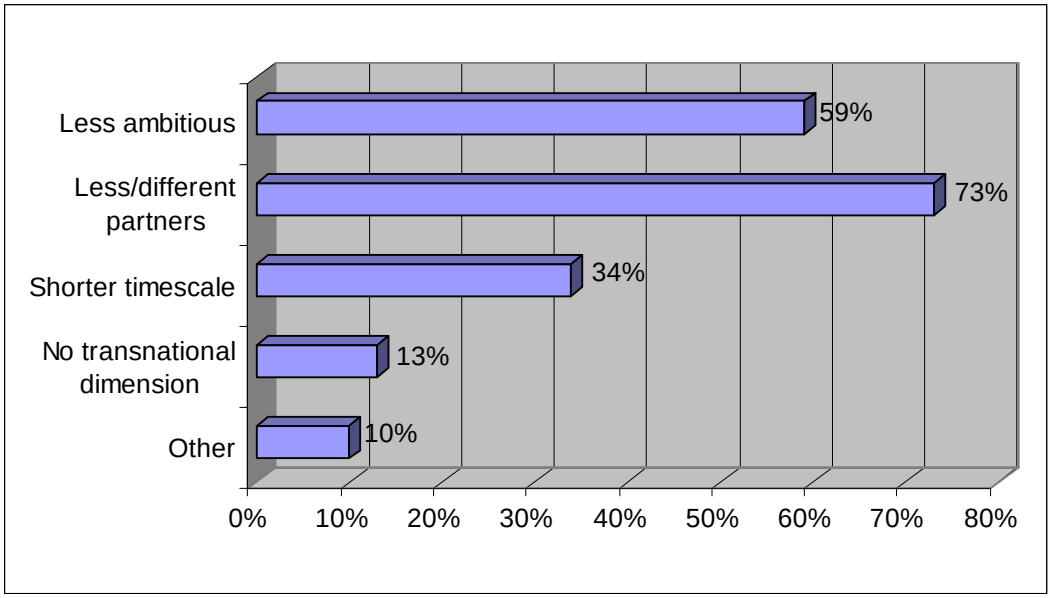
These results confirm that projects submitted under the New Instruments have a higher level of ambition. The fact that they would be submitted with less/different partners is probably directly linked to this level of ambition. The question that these results raise is also in how far the partnerships are not artificially inflated to fit the criteria of the New Instruments, as perceived by the participants.

There are significant differences between successful and unsuccessful proposals:

- for the transnational dimension. More of the successful proposals would not have a transnational dimension (17 % against 10 % for unsuccessful proposals);
- more successful proposers expect their proposal would have been les ambitious (66 % against 55 % for the unsuccessful).

Among the successful proposers, there are significant differences between NoE and IP:
None of the NoE coordinators mentioned there would be an absence of transnational dimension in their alternative proposal; nearly all coordinators of NoE said their project proposal would be less ambitious; only one in ten of the NoE coordinators said they would have less/different partners.

Chart 3.7: Main differences in implementation between project submitted as IP/NoE or through another funding mechanism (n=140) – Results are in % - multiple answers were possible.

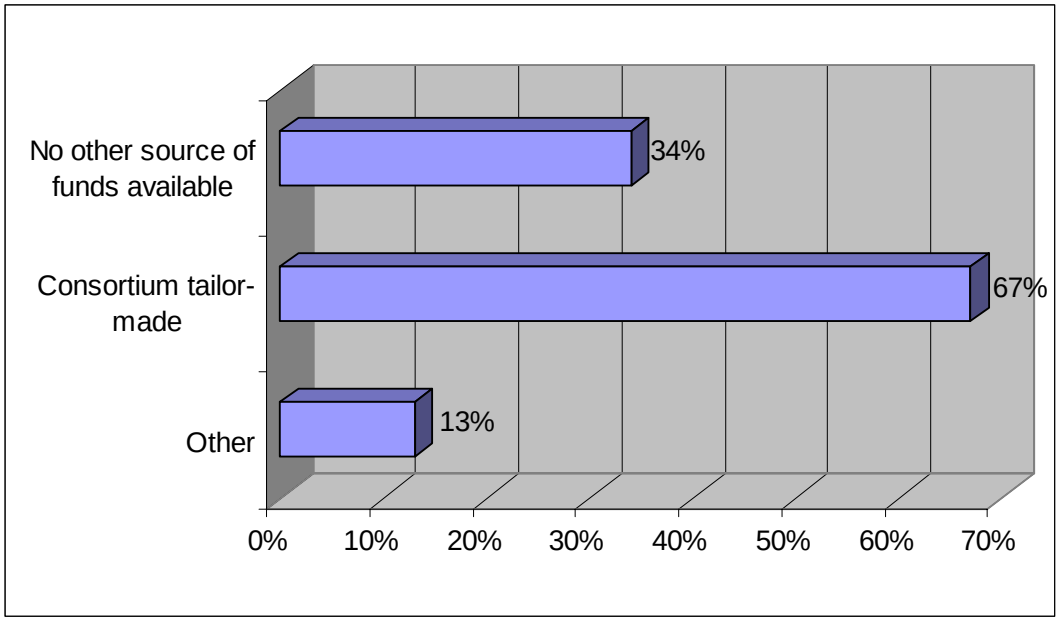


Differences among the priorities are rather minor. Some significant differences are:

- shorter timescale was answered by only two of the 29 respondents of priority 1;
- absence of transnational dimension is answered by only 2 of the 46 respondents of Priority 2.

As mentioned above, respondents were asked what would have happened to their RTD project if an 'Integrated Project' or a 'Network of Excellence' had not existed under the 6th Framework Programme. **Those who answered (very) unlikely to the question whether the project would have been submitted through other means**, were asked why.

Chart 3.8: Main reasons why project would not have been submitted to another source of funding (n=108) – Results in % - Multiple answers possible



No significant differences are noticed between successful and unsuccessful projects, nor between NoE and IP or by priority.

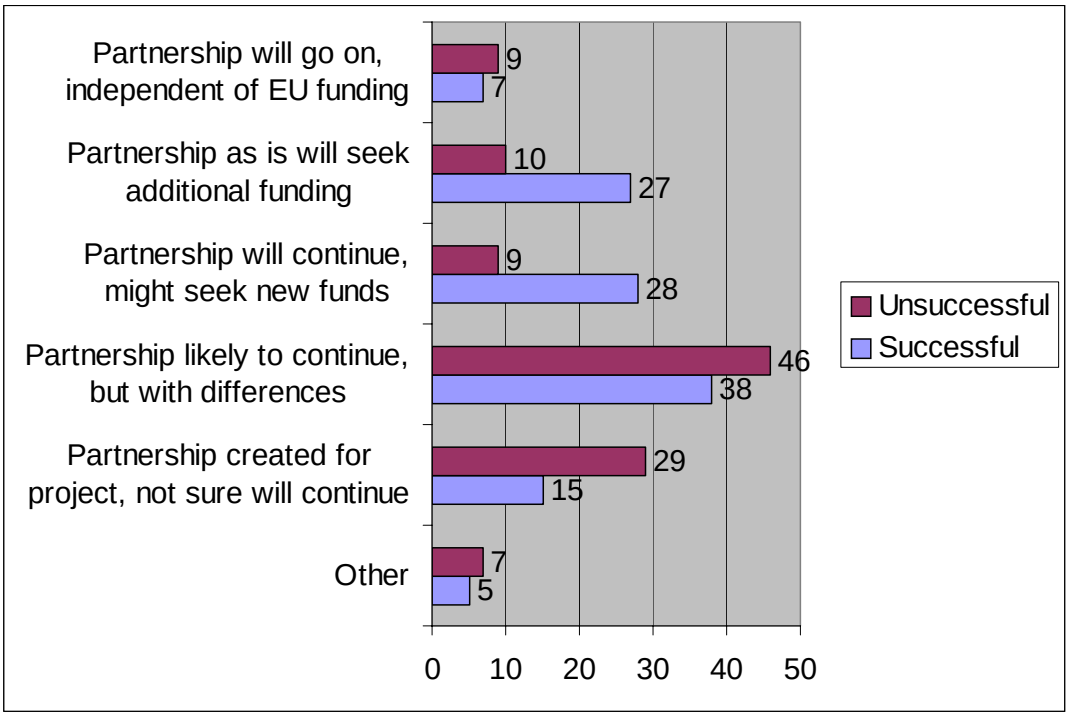
Future of the partnership

Another question asked to all participants, was their expectation as to the future of their partnership.

The different answers proposed were formulated as follows (answers are shortened in the charts below):

- The partnership will go on, independently of funding by the EU
- The partnership, in its present form, will seek additional funding for additional tasks
- The partnership will continue after the project, and might seek new sources of funding
- The partnership is likely to continue, but under a different form (with less partners, or with partially other partners)
- The partnership has been created for this project and it is not sure it will continue after the project, or if the project funding is not secured
- Other

Chart 3.9: Expectation for the future of the partnership – (n=275) - Results in % - Multiple answers possible



Successful and unsuccessful proposers have answered this question from different perspectives and therefore results need to be interpreted differently.

For **unsuccessful** proposers, the proportion of partnerships that are likely to continue even if under different forms is high. Results show that 57% of consortia created in the context of unsuccessful proposals would continue in one form or another. This is a high additionality effect of the application process.

For the **successful** proposers, the interesting result is that a large group plans to seek additional funds either during or after the project (both more than 25 %).
Results on this question also confirm the 'inflation' in the consortia for new instruments.

16 % of successful proposers do not expect this consortium to continue after the project is finished and 42 % expect it will continue but at this early stage they already expect it will be under a different form. These two percentages are high.

Continuation of the partnership under its present form seems to be higher with NoE, probably due to the "durable integration" requirement, than with IP projects:

- 36 % of NoE coordinators expect they will seek additional funding during the project, against 23 % of IP coordinators
- 42 % of NoE coordinators expect they will continue with their network after its end (after the end of the funding period) and they will seek additional funding for this, against 25 % of IP coordinators.
- Only 1 of 36 NoE coordinator said not to be sure the network would continue, against 16 % of the IP coordinators.

4. Evaluation and contracting process

The high level of dissatisfaction regarding the process transparency is surprisingly high for successful proposers. This is a sign that there is still significant room for improvement.

Questions on this subject were asked only to the successful proposers, as they had the most comprehensive experience. This should be taken into account when interpreting results.

Table 4.1: Opinion on different aspects related with the evaluation and contracting process (n=130 – only successful proposers answered this question) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful proposers n=130
Funding by FP6 can be a determinant factor to obtain funding from other sources	3.5
Feedback provided by the EC confirms the evaluation is done adequately and professionally	3.4
The foreseen evaluation process is appropriate for the new instruments	3.3
I believe decisions taken by proposal evaluators are adequate and fair	3.3
I am satisfied with the comprehensiveness of the feedback received on the evaluation of my proposal	3.3
The evaluation process is fully transparent	2.9
Proposals with similar or complementary goals and methods, and similar rankings, should be encouraged to merge, and only the merged proposals should be funded	2.9
The time taken for evaluation could be longer than what it is now as very large projects need to be evaluated thoroughly	2.7
In comparison to the evaluation process of other funding agencies, the evaluation process of FP6 is superior	2.7
The final decision by the Commission services after negotiation has been consistent with the evaluation report	2.6
Contract negotiation was smooth and efficient	2.6
The evaluation criteria, as we have interpreted them, have inhibited taking research and scientific risks in our research programme	2.5
In comparison to the evaluation process of previous FPs, the evaluation process of FP6 is superior	2.5
Proposals who scored above the threshold should have been funded even if at the expense of reducing the funds of the higher ranked projects	2.5

The average ‘no reply’ rate on each of the statements proposed to the respondents has been 9 %. The above table shows that respondents overall are rather unpronounced in their opinions with regard to the evaluation and contracting process. Still, with a majority of the statements receiving average scores below ‘3’, one can conclude that several aspects of the evaluation and contracting process need to be looked at carefully in order to improve on the present situation.

Following elements notably are criticised, with significantly higher (very) negative scores:

- the transparency of the evaluation process : 34 % of the respondents (strongly) disagree that the evaluation process is fully transparent;
- the smoothness and efficiency of the contract negotiation : 31 % of the respondents (strongly) disagrees that this process was smooth and efficient;
- the comprehensiveness of the feedback : 27 % of the respondents declared not to be satisfied (at all) with the comprehensiveness of the feedback received on the evaluation of their proposal.

Looking at the thematic areas, the highest rates of (very) negative scores were obtained in 'life sciences, genomics and biotechnology for health'; and in 'sustainable development, global change and eco-systems'.

5. Efficiency

New Instruments are perceived as likely to improve the efficiency of the actions supported.

Table 5.1: Opinion on different aspects related with efficiency (n=130) (on 5-points scale, whereby 5 = fully agree)

Statement	Successful proposers n=115
By the fact that more management responsibility is given to the consortium in case of an IP / NoE, a higher efficiency will be achieved	3.8
I believe that the provisions and requirements of the Commission for project funding (including monitoring, financial controls, reporting required, etc.) ensure proper accountability	3.7
The flexibility at the level of work programme and budgets of IPs and NoEs will lead to higher efficiency	3.8
The research proposals (work packages, etc.) were detailed enough as to guarantee an efficient follow-up of the approved projects	3.9
Budget provisions were detailed enough as to guarantee an efficient follow-up of the approved projects	3.6
It may be efficient to follow up on some close-to-win projects for future calls	3.6

The average 'no reply' rate for the above statements has been 14 %, probably due to the fact that these respondents consider it is still too early in the process to express themselves on these issues since the major part of the negotiation processes were still under course when the questionnaire have been filled out.

The majority of those respondents who did give their opinion, however, agreed with each of the statements given. No significant differences can be observed when looking at the different thematic areas.

6. Comparison with FP5 and traditional instruments

Opinions are clearly in favour of a continuation of the co-existence, with a significant group that would prefer traditional instruments to be enhanced.

A question was included to verify the previous experience of respondents with EU RTD.

The results are given in the table below.

	No reply	Once	More than once	Never
Have been coordinator of a project funded by EC RTD in the past	10%	22%	32%	36%
Have been a participant	11%	10%	59%	20%
Have applied unsuccessfully	20%	15%	38%	27%

The Experience level of successful participants is significantly higher as from unsuccessful applicants. This result is not surprising.

Of the 145 unsuccessful applicants, 31 have answered 'never' on all three questions above. For the 115 successful applicants, this figure is 14 only.

Table 6.1: Comparison of an IP / NoE as an instrument with a traditional shared cost research project in previous FPs (n=230, those who have previous experience with EU RTD) (on 5-points scale, whereby 5 = much higher / better with new instruments than with previous instruments)

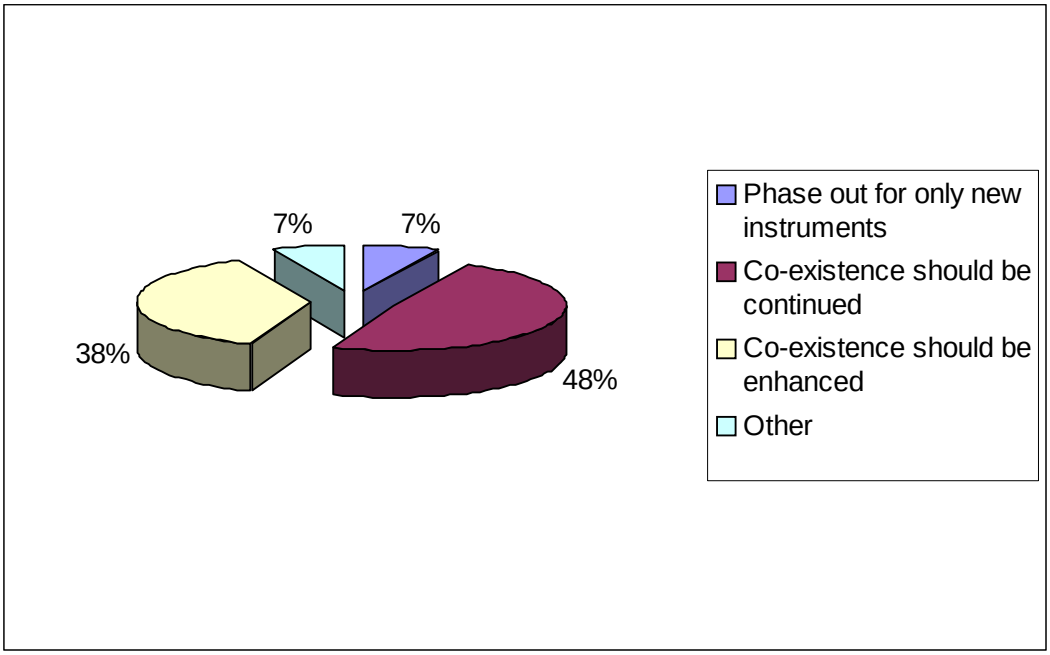
Statement	Successful n=116	Unsuccessful n=114
The possibility to fit the needs of my organisation	3.1	2.6
The share of time needed from the co-ordinator for management issues	4.0	3.8
The level of ambition	4.1	3.9
The level of risk-taking (scientific and other risks)	3.6	3.3
The level of flexibility allowed in the course of the project (in terms of size of the consortium and content of the project)	3.8	3.5
The level of bureaucracy	3.3	3.5
The level of complexity of IPR issues	3.7	3.8
The level of cost-efficiency for the project co-ordinator	3.0	2.9

The chart below gives the average result regarding the **co-existence of new instruments with traditional instruments**. There are significant differences between the successful and unsuccessful applicants. Those considering traditional instruments should be enhanced represent 28 % of the successful applicants, and 47 % of the unsuccessful.

There are no significant differences according to thematic priorities on this subject. When looking at the type of organisation of the respondent, research centres and universities are slightly more in favour of enhancing the traditional instruments than private sector organisations.

Other answers mentioned are a mix of opinions: some linked to the bureaucratic burden, one is pro NoE but against IP, or suggesting to create a European Research Council.

Chart 6.2: Opinion on co-existence of new instruments with traditional instruments (n=230) – Results in %



Annex 3

High level Panel of experts for the evaluation of the impact of the FP 6 New Instruments

Hearing of participants
Rome – Prague – Munich

Annex 3 to the report of the High Level Expert Panel

I. Factual issues

Participants

- All three hearings were mixing both **successful and unsuccessful** participants. This has not really been a problem as participants were very experienced and had often been involved in many proposals over time.
- The mix between academia, research centres and industry was different in each group. Overall, there was a good balance. SMEs were clearly underrepresented through these hearings. Academia was rather dominating in Prague and Rome. Munich was probably the best balanced participation.
- Although all participants demonstrated a **good level of knowledge** of the FP mechanisms, there was a significant difference between participants form EU Member states and from New Member Sates. Participants in Prague had a different type of experience, as partner rather than as coordinator, as institutions learning how to participate, rather than as main actors or initiators.

Discussion

The discussions were always open and frank.

Regarding the status of the Panel, it was necessary to underline the independence of the Panel, some participants being convinced that it was depending on the Commission itself.

II. Issues related to the application

Main points made

- "**Evolving character**" of the information, in particular regarding the size of projects (partnership, cost, contribution), the definition of IPs and NoEs, the definition of the "level of ambition "expected;
- Impression that there exist **inconsistencies** between the "official" information and the "unwritten" one which can only be known via a direct contact with EC officials
- These impressions often resulted in a **perception of the New Instruments** as having implicit requirements regarding (large) size and (spread) composition. Such perceptions shaped the applications.
- **Mixed views regarding the role of the EOI** and, in particular, in their role in defining the final Work Programmes. While for some participants there was a good match between EOI, WPs and their proposals, for many others the process was not transparent and lead to inefficient adaptations of proposals to the detailed WPs.

- The **difficulty to reduce the size of consortia**: based on first information received and also the EOI exercise, consortia were sometimes very large. It is very difficult later on to reduce. This has led to management problems consortia which are bigger than necessary.
- The **high level of responsibility for the coordinator** to organise the application process.
- The level of investment for the preparation of a proposal. Examples of costs mentioned were all (well) above 100 000 Euro, and up to 1.2 million Euro (in particular given the low expected success rate).
- Various examples were given of the **difficulty to involve SMEs**. There are barriers to their participation (availability of 1 or 2 experts to prepare the proposal; difficulty to plan over 4 year period) and they seem difficult to motivate for participation.

Why is industry more reluctant:

- Lower average grant per participant per year in FP6
- The large size of consortia is creating barriers: less focus, results are less concrete, risks associated with managing such projects
- Lack of strategic character of many proposals.
- Large industry is approached by scientists to take a management role (IPs). They tend to refuse due to the high responsibility and risks.
- SMEs are difficult to involve: low motivation is the main barrier, coupled to limited resources (both for preparing the application and for execution).

Direct contact with EC officials is a major source of information in the preparation process, mainly resulting from the conviction of several participants that there are "additional rules" which they need to know when preparing their proposal.

III. Issues related to the evaluation process

Main observations

- The participants mentioned a **good quality level** of the evaluation process. However, no consensus was reached regarding the feedback and in particular the satisfactory character of the **ESR** (evaluation summary report). In Prague, the need to receive a feedback that allows learning and improving was expressed even more strongly.
- There is consensus on the fact nothing better exists than a peer review, but concerns were expressed regarding the **selection of evaluators** given that, for the new Instruments it is not easy to find Europeans which are impartial and outside the EU it is not necessarily easy to recruit high quality evaluators.
- Mixed views regarding the **two stage evaluation** (as applied by thematic priority 3, NMP). For some it was perceived as not having been efficietly implemented, while for others it was seen as a way to reduce unnecessary application costs. The principle to balance effort and chance of success is perceived as a necessary goal.
- The **budget cuts** were perceived as not linked to the evaluation result, and against the principle of the New Instruments.

Other observations:

- Suggestions were made as to invest in the training of evaluators. Examples were given of inconsistencies or examples of decisions showing misinterpretations of new instruments by evaluators.

- Frustration at the concept of hearing: this is a one way communication. The opportunity to correct misunderstandings through a dialogue or discussion is lost with this concept (Munich only).
- Difference in speed of decision-taking and feedback between priorities is not understood.

IV. Issues related to the negotiation phase

Main observations

- Criticism was expressed regarding the **unrealistic delays** conceded to the participants in order to provide information already supplied in another format;
- The "take it or leave it "approach of the negotiation was criticised;
- Some concerns were expressed towards the **dominating role taken by the coordinator** (Rome and Prague).
- Participants seem to consider that **bureaucracy** is rather increasing than decreasing, in particular for what regards the financial and contractual aspects.
- Consortium agreement and **Intellectual Property issues**: the higher level of autonomy has some adverse effects. The different interests of science based organisations versus industry and the two legal models (EU versus US) are now in direct confrontation. Not all (types of) participants are able to cope with this new situation. IPR related problems, as appeared in the Munich group, will become more and more of an issue.

V. Opinion on the New Instruments

As a rule, the global opinion on the New Instruments is positive; nobody is saying they should be discontinued. The overall opinion is that this is the right direction to help structure European Research.

Positive assessment

- **Adequacy of the goals** pursued and good means to achieve the ERA;
- Necessity to **maintain** the current range of instruments offered in order to ensure continuity;

Furthermore, participants mentioned that even if not selected, the **efforts** conceded were **not lost**, since the partnerships set up will continue and might re-submit other proposals in the future.

Criticism or problems identified

- New Instruments were too much identified as rewarding – and, possibly, requiring - large consortia. Given the success rate and the amount finally granted to successful proposals, the ex-ante expectations were seldom fulfilled.
- New Instruments seem more dedicated to large and strong organisations and difficult for smaller and newer teams.
- Size of projects and consortia is also leading to adverse effects: efficiency problems, new power games are emerging, scientists are not prepared nor equipped to manage

such large projects, size is not synonymous of higher risk or more innovative actions, etc.

- The ‘’winner takes all strategy’’ which seems to have been often implemented, is criticised, in particular in areas where it is difficult to ex-ante choose the winners and where allowing for competition among different approaches might lead to better results.
- The New Instruments are not always the best solution. All depends on the aims pursued (e.g. competitiveness, structuring…) Structuring is not always the main goal that should be pursued. A large scale project is not always a necessity.
- Coordinators with the ideal profile are extremely difficult to find. Many of the statements were linked to the need for a coordinator to combine scientific excellence (a condition to be accepted as a coordinator) with management capabilities, flexibility (lack of bureaucracy) and having the right connections.
- The increased flexibility is perceived as positive. The restriction to the use of subcontracting is not understood. Sub-contracting allows involving expertise during the project which is not yet identified at the start. This is impossible with the New Instruments.
- New Instruments are leading to artificially large consortia (too many participants).

Necessity of continuation of traditional instruments

There was a strong opinion and consensus in all three groups that the traditional instruments should be continued and for most even enhanced. This is particularly necessary not to exclude smaller teams and in order to support more innovative actions.

VI. Specific questions to Networks of Excellence coordinators

Some **misunderstandings** obviously remain regarding NoEs, such as, mainly, the financial mechanism (establishment of the grant and use of the grant), and the concept of integration.

Those who have understood the concept agree this instrument is an excellent idea (but not per se suitable for industry). The main message is however that NoEs are not always the right instrument. Some prior conditions have to be met before you can start this type of integration process.

Annex 4 – Estimate of average contribution / year and participant – First calls of FP6

IP	PTA1	PTA2	PTA3	PTA4a	PTA4s	PTA5	PTA6.1	PTA6.2	PTA6.3	PTA7	Total
Total EU contribution proposed (000)	379200	626000	171600	124300	28970	81600	131000	155900	100070	8000	1806640
Total number of participants	907	1727	404	204	134	284	483	267	425	62	4897
average duration in years	5	3	5	5	5	5	5	5	5	5	5
average contribution/participant/year	83616	120826	84950	121863	43239	57465	54244	116779	47092	25806	73786
											0
NoE	PTA1	PTA2	PTA3	PTA4a	PTA4s	PTA5	PTA6.1	PTA6.2	PTA6.3	PTA7	0
Total EU contribution proposed	123800	190000	92400	7500	6000	86400	26000	31600	39930	14000	617630
Total number of participants	551	1205	326	14	56	119	66	183	157	93	2770
average duration in years	5	4	5	5	5	5	5	5	5	5	5
average contribution/participant/year	44936	39419	56687	107143	21429	145210	78788	34536	50866	30108	44594

Comments:
This estimate was done based on information provided by the European Commission on the results of the first calls. The duration of projects was not provided and has been estimated.
There is no comparable estimate done for STREPs in FP6 or for FP5 as no information was available to the Panel. Comparable information for FP5 was not found, but informal and partial sources mentioned averages that are quite similar to the averages mentioned above for IPs.