European Academies

easac

Science Advisory Council

Ref:

Proceedings of a workshop held at the European Parliament on 22 February 2006 on bureaucracy in the 6th Framework Programme

March 2006

EASAC

EASAC – the European Academies Science Advisory Council – is formed by the national science academies of the EU Member States to enable them to collaborate with each other in providing advice to European policy-makers. It thus provides a means for the collective voice of European science to be heard.

Its mission reflects the view of academies that science is central to many aspects of modern life and that an appreciation of the scientific dimension is a pre-requisite to wise policy-making. This view already underpins the work of many academies at national level. With the growing importance of the European Union as an arena for policy, academies recognise that the scope of their advisory functions needs to extend beyond the national to cover also the European level. Here it is often the case that a trans-European grouping can be more effective than a body from a single country. The academies of Europe have therefore formed EASAC so that they can speak with a common voice with the goal of building science into policy at EU level.

Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of public policy to those who make or influence policy within the European institutions. Drawing on the memberships and networks of the academies, EASAC accesses the best of European science in carrying out its work. Its views are vigorously independent of commercial or political bias, and it is open and transparent in its processes. EASAC aims to deliver advice that is comprehensible, relevant and timely.

EASAC covers all scientific and technical disciplines, and its experts are drawn from all the countries of the European Union. It is funded by the member academies and by contracts with interested bodies. The expert members of project groups give their time free of charge. EASAC has no commercial or business sponsors.

EASAC's activities include substantive studies of the scientific aspects of policy issues, reviews and advice about policy documents, workshops aimed at identifying current scientific thinking about major policy issues or at briefing policy-makers, and short, timely statements on topical subjects.

The EASAC Council has 24 individual members – highly experienced scientists nominated one each by the national science academies of every EU Member State that has one, the Academia Europaea and ALLEA. It is supported by a professional secretariat based at the Royal Society in London. The Council agrees the initiation of projects, appoints members of project groups, reviews drafts and approves reports for publication.

To find out more about EASAC, visit the website – www.easac.org - or contact Fiona Steiger, EASAC Secretariat [e-mail: fiona.steiger@royalsoc.ac.uk; tel +44 (0)20 7451 2697].

1 Background

The European Parliament is a co-legislator in European research programmes and has responsibility for budgets and budgetary control. It will have the responsibility of working with the Commission on the development of the next Framework Programme, FP7, so that the programme achieves its aims.

Parliament is aware that concerns have been expressed that the formal procedures involved in European Framework programmes create a barrier to the participation of smaller actors, including new member states and Small and Medium Enterprises (SMEs). In order to inform its approach to the 7th Framework programme, the Committee on Industry, Research and Energy of the European Parliament commissioned a briefing on levels of bureaucracy in EU research programmes and on ways of improving access by actors of all scales. EP DG Internal Policies, Policy Department A and EASAC therefore jointly organised a workshop for the Committee at the European Parliament in Brussels on 22 February 2006 with Dr Paul Rübig MEP in the chair.

Participants at the workshop, including Dr Ingeborg Gräßle MEP, rapporteur on budget control, and Professor Jerzey Buzek, MEP, rapporteur on the EU's 7th Research Framework Programme (FP7), heard three presentations and there was a lengthy discussion. The context for much of the discussion was the forthcoming EP scrutiny of plans for FP 7 and the opportunity this provided for improvements to the administration of the framework Programmes.

During the presentation and the discussions following them some key points were raised about the rules of participation and the management practices surrounding European research programmes. Although there was a measure of agreement on some points, others were subject to a range of different opinions and it is not possible to arrive at a comprehensive set of specific conclusions. Nor, given the nature of the event in which individual contributors were presenting their own views rather than necessarily the views of their organisations, can the workshop be said to have generated formal recommendations for changes in policy or practice. However, the summary of proceedings given in this report contains many useful ideas based on real experience that will be of direct interest to those concerned with maximising the effectiveness of the next Framework Programme.

This report begins with a summary of introductory statements by the rapporteurs of two Parliamentary Committees. It then gives the background paper prepared by EASAC and the three formal presentations. The discussions that followed each of these presentations, and the overall discussion with which the workshop concluded, are then brought together in the final section in the form of a series of key points made by one or more participants. For simplification and to avoid repetition, these are not attributed to individuals.

2 Introductory statements

2.1 Dr Ingeborg Gräßle MEP

Dr Gräßle said that her Committee had received a number of representations on the administrative barriers to participation in EU Framework programmes and was concerned, in particular, to ensure that, whilst the rules governing the programmes continued to secure budgetary and financial control, they did not in themselves present an impediment to SMEs. The Committee had made every effort to take account of the comments they had received.

She felt that the rules were more important in this respect than the financial regulations. However, her Committee was pressing for some important amendments, in particular to ensure that there would be a common approach to financial matters across all DGs. It would also be important to move toward a single common database so that all the necessary information could be found from a single source.

The Committee had tried to ensure that the arrangements for eligible costs were revised to include bank and VAT charges. This would make the calculation of grants more transparent. It was clear, too, that payments were taking too long to materialise and this imposed a particular burden on SMEs. Small errors in applications should not be allowed to have a disproportionate effect.

Useful amendments would be that Commission staff must help all who apply for grants, and that grants could be provided by decision as well as by contract. This would improve access in the case of small grants.

2.2 Professor Jerzy Buzek MEP

Professor Buzek welcomed the Workshop as a good opportunity to consider how access to EU research funds might be improved. His Committee was in the last stages of its work on the latest draft proposals for FP7. They were aware of the difficulties for SMEs, but also for young people in such complicated procedures and so many documents. These were seen as a major obstacle and it was now time to consider how the rules could be improved.

3 Presentations

3.1 John Murlis[1], *Introduction to EU Research Framework Programmes and recent assessments of barriers to participation*

3.1.1 The Framework Programme

Research and Technological Development (RTD) is recognised as an essential function of modern society. It is a major factor in international competitiveness and in providing welfare and prosperity for citizens.

At the 2000 Lisbon Council the European Union set itself the aim of becoming the world's most competitive economy. In recognition of the role that RTD will play in achieving this objective, the Union set itself the 'Barcelona target' of spending 3% of GDP on RTD by 2010.

In order to implement these aims, the Union has developed a strategic approach to RTD. It is recognised that the principle of subsidiarity applies to research and that member states will, through their own national research programmes, make a major contribution to the Union's aims. There are, however, areas of research where joint action by partners spanning national boundaries is required and for these the Union has developed a system of framework programmes. The European Framework Programmes have provided funding for a large number of international projects and have achieved a high rate of participation. Calls for proposals have routinely been over-subscribed.

However, the overall picture is that spending on research in Europe has stagnated over recent years. The Union recognised that greater efforts in cooperation are needed and agreed to the establishment of a European Research Area (ERA). The sixth framework programme (FP6) is the main instrument for implementing the ERA.

FP6 covers the period 2003 to 2006. It has an indicative budget of Euros 17.5 billion (almost 4% of the total EU budget) and the broad aims of encouraging collaborative actions, facilitating researcher mobility and initiatives specifically for SMEs. It is made up of three main blocks of activities: focusing and integrating the European Research Area (ERA), structuring the ERA, and strengthening the foundations of the ERA.

The bulk of FP6 is organised around the seven main scientific areas :

- genomics and biotechnology for health
- information society technologies
- nanotechnologies and nanosciences
- aeronautics and space
- food safety
- sustainable development
- economic and social sciences

One of the aims of FP6 has been promote integration, including vertically, engaging the full range of stakeholders in a project, horizontally, engaging with actors across themes and sectorally, and engaging actors from different private and publicly funded research groups, including SMEs.

[1] EASAC secretariat and Chair of the final discussion session at the workshop

FP6 introduced two new instruments designed to strengthen the coherence and general effectiveness of co-operation in science in Europe. The Integrated Projects instrument was to support objective-driven research (research which aims to deliver knowledge for the development of products, services or processes). Networks of Excellence are intended to strengthening communities of knowledge and expertise on specific topics where it is essential to build critical mass at a European level. The NoEs are research type projects each with a specific programme of activities jointly agreed, but with no specific research target.

3.1.2 Evidence of the performance of Framework Programmes in engaging SMEs and group from New Member States (NMSs)

Given the aims of strengthening the European Research Area and encouraging international collaboration and, in particular, the participation of SMEs, it was clearly important to ensure that this was happening in practice. A high level expert panel, chaired by Professor Ramon Marimon, was commissioned to evaluate the effectiveness of the new instruments in FP6.

The panel reported in June 2004. It concluded that FP6 had been effective in fostering trans-national collaborative research, but it identified a number of weaknesses. In particular, it concluded that the participation of SMEs in the new instruments was unsatisfactory. The panel singled out the Networks of Excellence as an area that was particularly devoid of SME participation because SMEs found it 'almost impossible to become involved' in them.

The panel also concluded that the participation of research groups from NMSs was 'growing too slowly'. The panel considered the reasons for these disappointing findings. They list a number of factors but the most immediately relevant for the workshop are as follows:

- The costs and risks of participation, the Panel concluded, seemed unreasonably high and this had deterred partners from industry, in particular SMEs and especially groups in NMSs from participating. The 'one step' application process had increased risks and costs and the panel recommended the implementation of a 'two step process'.

- There was a perception that bureaucracy had increased. The panel noted this as a matter of very high concern.

- There was also criticism of the evaluation mechanisms, which were considered unhelpful and confusing by many of the parties consulted by the panel.

- Protracted negotiations (up to a year to award of contract) and cuts in funding during the process were also cited by many consultees as a cause of low participation.

The Marimon panel, however, noted that some of the older instruments in European Framework Programmes continued to achieve good levels of participation by SMEs and NMSs. In particular, the STREPS (Specific Targeted Research Projects) and CRAFT (Cooperative Research Action for Technology, aimed at SMEs) programmes seemed to be attractive to SMEs and certainly preferable to the new instruments. The panel, however, also considered that stability was an important factor in encouraging participation and recommended that the instruments and actions were not altered again for the next framework programme.

The Marimon report is the most recent source of evidence on participation and an important background document for the workshop. It contains analysis of participation rates and a full assessment of the consultations made by the panel.

Without going over the same ground again, it is the purpose of the workshop to consider the current state of affairs and, in the light of experience with FP6, to suggest how administrative barriers to participation can be lowered.

3.2 Ameli Schwalber[2], *Barriers to participation from the perspective of an SME*

3.2.1 Minimum degree of bureaucracy necessary for budgetary control and auditing purposes

Problem (a)	The reporting of actual personnel costs is very difficult and tedious for many institutions. Very often, personnel costs are based on estimates or imputed costs. Accounting systems cannot provide this information easily and, as a result, difficult manual calculations are necessary.
Solution	Flat rate for personnel costs. We suggest a flat rate per person under consideration of the respective country and the number of person-months to be contributed. Person-months should be registered with time-sheets. Target/actual comparisons should be made with the person-months status-table. Paid salaries are disregarded, the only thing that counts is planned person-months vs. actual person-months.
Advantages	Easier provision of information, less bureaucracy Transparent and calculable for all parties
Problem (b)	High effort for yearly reporting. According to our calculations, the yearly reporting for an IP or NoE with 20 partners as in FP6 takes the consortium about 1670 hours.
Solution	Since the scope of information cannot be reduced very much without losing too much control, we would plead for longer reporting periods, such as either 18-monthly reports or reporting periods that are connected to certain project events, eg important milestones or phases to be completed. Special Clause 39 allows a contract to be amended to reduce the frequency of audit certificate provision. We would recommend to leave the decision about whether a participant should submit a yearly audit certificate to each contractor, and in this way avoid that the costly audit certificates have to be submitted regardless the amount of eligible costs. Nevertheless, fixed points of submission of audit certificates could be discussed, for example at the half-time review.
Advantages	In this way, researchers are not too tied up with reporting. The update information makes sense and provides an added value in terms of news. Costs for audit certificates are reduced.
Problem (c)	The terms 'deliverable' and 'milestone' are confusing, researchers don't understand the difference, hence work planning and progress follow-ups contain errors or are inconsistent.
Solution	We suggest to abolish the term 'deliverable' and call all tasks 'milestones'. 'Milestone List' defines whether a task is a report, point of decision, prototype or achieved state.

[2] Project manager for EU projects for GABO, a company for process management and organisation of communication based in Munich

Advantages	Work planning rationalised, less text No confusion or duplication and thus easier understanding and follow-up
Problem (d)	Language is still a burden. Existing guidelines are too long and hard to understand. There is no compendious document with definitions of the most important or frequent terms or rules in different languages (eg what are indirect costs, how to treat salaries, travel expenses, consumables, depreciation, subcontracting, etc.). Consequently, people need longer for administrative tasks and make more mistakes.
Solution	We propose to provide short extracts of the guidelines in all languages in alphabetical order. Extracts on a certain topic should not be longer than one page. For more information, they may refer to the comprehensive guidelines.
Advantages	Fewer delays Higher productivity Fewer mistakes

3.2.2 Procedures for processing applications

By way of providing a worked example, the following is the chronological order of events for an application that was submitted under the 4th call in FP6 (IP, 17 partners, applied for Euros 13m funding).

Step 0	4 months before deadline	Meeting of all partners, work out a roadmap, general discussion about budget scale
Step 1	2.5 months before deadline	Submission by all partners of - Consortium Description + Budgets + Person-Months - A2 Forms - WP Descriptions
Step 2	1.5 months before deadline	Submission by all partners of - Ethics Questionnaire - Gender Questionnaire
Step 3	4 weeks before deadline	- Aggregation of all data into one document - B1-4 Objectives, Relevance, Impact, Outline implementation plan from scientific coordinator - B5 Consortium Descriptions - B6 Management Description - B8 Implementation Plan: Deliverables-/Milestones List, WP-Descriptions, etc - B9 Ethical Issues - B10 Gender Issues
Step 4	3 weeks before deadline	Meeting GABO:mi and Coordinator - Review of and decision on budgets - Review of existing contents

Step 5	2 weeks before deadline	Revision of - B1-4 Objectives, Relevance, Impact, Outline implementation plan - B7 Resources and Efforts (= Financial plan, person-months, justification of budgets) - B8 WP Description (fine-tuning of person-months, deliverables and milestones)
Step 6	1 week before deadline	General revision of all parts - Creation of Pert + Gantt Chart - Upload of A2 data to EPSS - Final clarifications - Formatting
Step 7	2 days before deadline	Last reviews and upload to EPSS

3.2.3 Time it takes to receive an answer from the Commission in response to a proposal, and possible delays in this process

Three months as the time to receive an answer from the Commission in response to a proposal as defined by the guidelines is acceptable in our opinion. Usually, the promised answer comes within this timeframe.

Once a project is approved for funding and the writing of the Technical Annex has started, the time to receive answers differs from one scientific officer to another. Experience shows that the contract negotiation takes about one year, which is partly caused by further and late demands for information from the scientific officers. This could be speeded up, if a well-structured request for information were explained by the scientific officer in the very beginning and no further requests came at a later time (eg additional tables, etc.).

It usually takes the most time to receive an answer from the Commission when a project has started. Here, if one needs advice or a decision for example for the reporting, it usually takes between one and several weeks to receive an answer. Although different from scientific officer to scientific officer, it is in general hardly possible to just call somebody at the Commission and get a quick answer to a question.

We suggest that:
- Scientific officers should be better reachable.
- It should be clear from the beginning which information has to go into the Technical Annex. A closer collaboration between coordinators and the scientific officer would be useful in this phase.
- During the project running time, we would suggest to set time points for meetings between the coordinator and the scientific officer (eg on a half-yearly or yearly basis). This would foster a clear communication between the parties and hence speed up decision processes.

3.2.4 Time it takes to receive payment, and possible delays in this process

Payments are a crucial point with FP projects as a project cannot take on speed without the necessary resources.

We have experienced that a contract was concluded later than the start date of the project and hence the first pre-financing came about 4 months later. In contrast, first milestones and deliverables were due three

months after the project date and the whole set-out of events and schedule remained as first specified. The fact of late payment caused severe delays in employing people and buying project material. As a result, the project still suffered from delays, also towards the end of the project.

In the same project, the first set of periodic reports was submitted after 43 days. However, the first response came after 80 days instead of after 45 days as set out in the guidelines. The EC then asked for several formal amendments (Form Cs, Audit certificates, clarifications) and as a result, the reports were not fully approved until 11 months after their submission. The further pre-financing arrived at the Coordinator's account at the same time as the next periodic reports were processed, that is one year later. This has had the effect, that many partners were again severely in the red and could not act as intended with regards to their objectives.

Another project, which was rated as 'a good to excellent project which exceeded expectations' after the first year, received an the evaluation report which recommended a budget cut of 50% in total. It turned out, that most of the statements made in the report were based on errors or misinterpretations. The same happened in the financial evaluation report. The points raised mostly lacked full understanding or thorough study of the documents. All points were answered by us and it now looks like the next, full pre-financing will be transferred within project month 19. In any case, this whole procedure was very time-consuming and discouraging for all participants.

We suggest that:

- The term of 45 days for the review of the reports should not be exceeded.
- Six months between the end of the reporting period and the arrival of the further pre-financing should be the maximum, since especially universities have problems with renewing working contracts without having the money on their accounts.
- In case that information given in the reports is unclear, we would recommend to communicate more closely in order to avoid evaluation reports which are based on mistakes.
- In general, we consider a closer collaboration between the coordinator and the scientific and/or financial officer crucial in order to avoid substantial delays.

3.2.5 Quantity of information required in order to apply and prior to receiving payment

Problem (a) The quantity of information for a full proposal is very high. The application for an IP with 17 partners and 11 WPs took us 1463 hours of work in total. 35 people were involved for a period of 4 months. Information required exceeds by far the scientific idea and core concept of the project, but goes very much in detail from the very beginning (eg exact milestones and deliverables dates, dissemination level, etc.). It also includes administrative details (eg person-months per WP, subcontracts), gender aspects and ethical aspects.

Solution We find the two-step application very efficient. Like this, it can be ensured that the general idea of the project meets with the expectations of the EC before putting the full effort into a proposal that may be doomed to failure from the very beginning. In FP6, this could be applied only partly. We would suggest to make this a general rule in FP7.

Problem (b) The quantity of information for the Technical Annex or the periodic reports, which are the pre-condition for payments, is also very high (eg 1670 hours for periodic reports, 20 participants, NoE).

Solution Lump sums for personnel, no tracing of expenses or payments

Performance-related funding component to be paid upon completed milestones. No reporting or justification of costs for this amount.

3.2.6 Decision-making procedure in the European Commission

Decisions from the EC usually take a long time. Official statements about a problem from scientific officers may hardly be expected earlier than 3-4 weeks after the request. In most cases, even minor decisions require official letters from authorised officials sent by post. Financial officers do not have the authority to decide on financial matters, everything has to go via the desk of the Scientific Officer. This causes serious delays, especially with regards to pre-financings or small contract amendments.

We therefore suggest that more authority is assigned to the operating departments (eg the financial officer). If everything really has to be decided by the Scientific Officer, this person should have more time for communication with project coordinators.

3.2.7 How is a de-facto discriminatory status against smaller actors (ie SMEs) best avoided?

Problem (a) An application is a lengthy process and therefore expensive. There is no guarantee that occurred costs will be refunded or at least rewarded by approval of the proposal. Smaller companies cannot afford to take the burden of such a risk. Furthermore, there is no particular incentive for project coordinators to accept the challenge of this increased amount of work.

Solution Refund of application costs upon project approval.
Creation of a special incentive for project coordinators.

Problem (b) Cost accounting as a basis for the calculation of requested funding is not possible for many, since their accounting systems can provide only estimates or imputed costs. Despite a costing-based calculation of the requested EC contribution, the funding rate for research is only 50%. Many SMEs cannot bear the expense of the other 50%.

Solution Funding rates should be negotiable on an individual basis or should better take into account the basis of eligible costs.

Problem (c) SMEs are often not well integrated in the research community. Bigger institutes or research entities are well known and more likely to be contacted for a project endeavour than smaller entities. Precious potential and know-how is thus not exploited.

Solution The EC should hold regular fairs or congresses for interested researchers in order to foster the exchange of information and ideas and to meet with others.

3.2 8 Given differences in national administrative traditions does the system encourage or deter actors from certain Member States from applying for EU research funds?

There is nothing to our knowledge that generally deters actors from certain Member States from applying for EU research funds.

3.2.9 Some initial steps for simplifications were taken in FP6; is this something that has been found to improve the situation compared to earlier framework programmes?

Abolition of fixed cost categories was found to increase flexibility enormously when applied; However, some projects did again define cost categories in their Technical Annex and had to follow up on them.

The two-step application was found to be a good idea.

3.3 Professor Dr Sierd Cloetingh[3] *Application and monitoring processes in FP-6: perspectives from the earth sciences*

3.3.1 Why are Earth Scientists applying to Framework Programmes?

Since the strongly diversified planet Earth is their object of study, and since Earth Sciences make use of a wide range of cost-intensive technologies (eg observational satellites, drilling rigs and ships, seismic, geomagnetic and GPS networks, analytical facilities, IT infrastructure):

- Earth Sciences are by definition cross-cutting national boundaries;
- both research and training are highly trans-national;
- mobility of researchers and students and sharing of research and training facilities on a full European scale are vital;
- in the field there is a strong connection between fundamental science and societal relevance like water and energy, mineral resources, environment and geohazards.

Because of this international and technology intensive character of Earth sciences, there is a strong need for:

- coordination of regional research endeavours;
- bringing together complementary expertise;
- linking universities, research institutes and end-users;
- exchange and mobility of researchers and students;
- obtaining critical mass;
- joint use of capital intensive research facilities;
- bringing students in contact with future employers throughout Europe.

EU research funding is crucial in achieving this over private and national research funding schemes. Although EU funding is often relatively limited, it provides an enormous multiplying effect through coordinating nationally funded science. Cooperation on a European scale allows being able to compete on an international level, for results, funding and people. It is the excitement provided by the European dimension that prevents brain drain to the U.S. and other leading research nations.

Universities are the germ cells for any research and education endeavour through providing ideas, expertise and people. Science academies, research institutions, large companies, SMEs are participants, stakeholders, contributors and beneficiaries.

[3] Professor of Geology at the Vrije Universiteit Amsterdam and Scientific Director of the Netherlands Research Centre for Integrated Solid Earth Science

3.3.2 Possible obstacles to successful applications

(i) Fear of bureaucracy

a) unfamiliarity with the processes involved in preparing a successful application;
b) expectance of heavy workload in preparing application documents;
c) expectance of heavy bureaucracy in reporting and monitoring procedures.

(ii) Funding factors and over-definition of policy

d) expectance of low funding ratio;
e) cost models and matching requirements (Example I);
f) a multitude of boundary conditions imposed.

(iii) Structural and process features

g) cross-cutting criticality in specific programmes (Example II);
h) lacking flexibility in instruments (Example III);
i) re-diversification and fragmentation of responsibilities (Example IV).

Example I: Scientific drilling and the ENGINE project
Scientific drilling of deep boreholes (3-8km) is essential for research on eg geothermal energy, CO_2 sequestration and geohazards (earthquakes, volcanoes). Scientific drilling is expensive and can only be competitive with the US and Japan on a European scale.

In the ENhanced Geothermal Innovative Network for Europe (ENGINE, an FP6 coordination action), researchers from universities and research institutions from large and small countries from Western and Eastern Europe, as well as end-users including SMEs, are working together on setting the next step for giving Europe a competitive position in the geothermal energy market. The next logical step in the project will involve cost-intensive drilling. Such large investments (typically Euros 5M per borehole) cannot be matched by contributions from universities or public research institutions, particularly from new member states. What is the real benefit of omitting cost models? Only one column can be left out, but universities and all possible participants with a limited capital base are lost.

Incidentally, in the light of the EU's great concern about its future energy supply it is noteworthy that only Euros 5-10m has been made available out of FP6 for funding geothermal research.

Example II: Research on Gas hydrates in FP7 – is there a means of implementation?
As a part of marine environmental research, gas hydrates have been subject to smaller EU research ventures to some extent in the past. However, they are a major cross-cutting issue, which concerns not only fundamental research, but also new energy, security, natural hazard, global change, terrestrial and marine ecosystems, microbiology, industrial processing, and information technologies.

The U.S., Japan, India and China are spending vast funds on gas hydrate research. Why is there no means of calling for research on gas hydrates before all the access to foreign knowledge may be lost?

Example III: Establishing standards in Isotope Geochemistry – can it fit in?
Isotope chemistry has proven to offer a wide number of extremely useful tools in microanalysis for geosciences, environmental sciences, and material sciences (in particular nanomaterials). However, in order to achieve the accuracy, precision and reproducibility required for these applications, the establishment of

standard procedures and material standards is essential. Because of poor flexibility of project design between 'traditional' and 'new' instruments and their particular features, it seems to be impossible to fit this kind of research in the Framework Programmes. Europe is therefore missing the chance to take the lead in a field that has a great potential for the future.

Example IV: Re-diversification: The GMES programme
It is not useful for science purposes when research fields are re-delegated to different General Directorates. We have the example of GMES, the Global Monitoring for Environment and Security programme. This programme was already problematic when it was a joint venture of ESA and the European Commission. However, presently it is being completely fragmented between DG Research, DG Enterprise & Industry, ESA and other players, each with different formal requirements and financial regulations. It is obvious that coherent results cannot be expected from such a programme.

3.3.3 Possible remedies

(i) Fear of bureaucracy

- Effort of applicants: learning by doing
- Assistance by national agencies
- Guidance by EU staff (eg training courses)
- Reducing level of required documentation
- Constructive monitoring process
- Reduced level of reporting requirements

(ii) Funding factors and over-definition of policy

- Some parts of the programme are underfunded (eg Marie Curie Networks), so that funding ratios drop to 5% or lower. Topics and programmes that attract such great interest from researchers are by definition hot and should receive adequate funding.
- A critical assessment should be made of the volume of funds spent vs. the significance of the outcome (eg gas hydrate research).
- Simplifying cost models can reduce bureaucracy, but care should be taken that it does not lead to exclusion of critical parties.
- European research policy is over-defined by default. It is not science oriented but is suffering the loads of finance policy, work and employment policy, social policy, gender policy, to name only a few. This idea has to be changed urgently. If this change is successful, an enormous bureaucratic burden will be taken away from the scientists.

(iii) Structural and process features

- There should be an instrument for funding research that cross-cuts pre-defined priorities defined in the FP programmes.
- Simplification of instruments and procedures should not lead to a decrease in flexibility. Important research should not be excluded because it doesn't fit in a pre-defined box.
- Fragmentation of large research programmes through sharing responsibilities should be prevented.

3.3.4 Final remarks

- Experience with EU programmes shows a great commitment of dedicated EU staff to provide constructive feedback to scientists involved in coordinating research and training activities. Young scientists in particular are very motivated by the active interest of EU staff in their experiences and their needs.
- Reporting requirements are not excessive and reasonable flexibility is experienced, under the condition that a-priori information gathering and consultation with EU staff takes place.
- Some further streamlining of review panels should be considered. Because of EU expansion the panels become very large. An alternative could be to delegate responsibility to more compact review panels on a rotational basis, expanding possibly the role of external reviewers.

3.3.5 In summary

- The role of the FP programmes in the context of the significance of science as a driver for moving Europe's horizon forward is vital.
- New opportunities for strengthening Europe's position requires intensification of European cooperation and exchange of know-how.
- Europe should build on its strengths: union in diversity.
- Barriers and obstacles are there but are remediable with a common effort from the side of the applicants and the participants in FP programmes, and by further optimization of the application and monitoring processes in FP.

3.4 Amanda Crowfoot[4], *Barriers to participation in European research programmes*

3.4.1 The UK Research Office

The UK Research Office (UKRO) is the UK's leading information and advice service on European Union funding for research and higher education. Established in Brussels in 1984, UKRO is jointly funded by the seven UK grant-awarding Research Councils and receives subscriptions from over 150 research organisations, principally in the UK.

UKRO's mission is to promote effective UK participation in EU-funded research programmes, higher education programmes, and other related activities by:

- supporting sponsors and subscribers through early insight and briefing on developments in European programmes and policies;

- disseminating timely and targeted information on EU funding opportunities;

- providing high quality advice, guidance and training on applying for and managing EU projects; and

- exchanging information between the UK research and higher education community, the Institutions of the European Union, and other countries participating in EU programmes.

[4] Director of the UK Research Office (UKRO) in Brussels

3.4.2 Introduction

This paper focuses on problems experienced by participants from research organisations in the 6th Framework Programme (FP6), with respect to the following phases in a project's life-span:

- submission and evaluation;
- contract negotiation and preparation; and
- reporting and auditing.

It seeks to identify ways in which some of these difficulties could be alleviated, and to look at the extent to which the European Commission's proposals for FP7 address these.

3.4.3 Submission and evaluation

When applying to FP6, a consortium is required to complete a set of short administrative forms ('A' forms), and a lengthy 'Part B' containing the substance of the proposal. Whilst there is no requirement for additional documentation, a large amount of work is required, representing a significant investment in time and effort.

Two-stage submission (a short proposal, followed by a longer, more detailed proposal for those who are successful at stage one) has been used in FP6, and is also envisaged in the FP7 Rules of Participation proposal. A two-stage system can certainly alleviate some of the burden on applicants, but there are a number of elements that should be taken into account:

- the first stage must be genuinely short, as opposed to constituting as much work as the full proposal;
- where used, the system must be standardised, which is not the case in FP6; and
- issues of evaluation, such as whether the evaluators should be the same people for both stages or not, need to be considered carefully.

Also in terms of evaluation, Evaluation Summary Reports – that is, the feedback from the expert evaluation – are often poor, and can comprise insufficient information on which to base a subsequent submission. Therefore, these must be consistently strengthened, and it would be useful to have a clear mechanism for seeking further feedback or clarification, if necessary; for example, if an ESR is contradictory or unclear.

In FP6, there are many separate documents that should ideally be considered by participants when putting together an application, including:

- guide for proposers;
- call text;
- work programme;
- evaluation guidelines;
- policy documents;
- financial guidelines/model contract;
- consortium agreement checklist, and
- EPSS (electronic submission) guidance.

Many of these would be better consolidated into a single 'application pack'. This should include everything that is needed for an application, along with links to other documents, including reporting and negotiating guidelines, so that participants can see what the later requirements will be. The application pack should ideally have a clear time-line for time-to-contract (see section 3.4.4 below).

Whilst it is understood that the Commission intends to rationalise the information and support processes in FP7, the FP7 Rules for Participation proposal does not deal with detail of this type, being the outline legal document; thus the research community awaits more detail in this respect.

The Commission has also indicated that for FP7 there may be the possibility for pre-registration of participant information in order to reduce the requests for duplicate information at application and negotiation stages. This pre-registration could be done in advance of, and entirely separately from, specific application. This would be a positive simplification, if done carefully, and assuming that:

- the database of information functions properly;
- all Commission staff are trained such that use of this is standardised;
- the correct institutional contact at each organisation provides the information; and
- there is a clear mechanism for amending the information.

FP7 is likely to involve entirely electronic submission; this is welcome, provided again that systems are robust. It would be ideal if the system allowed for information to be carried over easily onto Contract Preparation Forms, where a bid is successful, to save repetition of information.

3.4.4 Contract negotiation and preparation

Generally, participants seem to find the contract negotiation and preparation stage more problematic than the submission stage. The time from evaluation of a project to the start date of a contract can take be extremely long. In terms of 'paperwork', applicants are required to fill in a set of Contract Preparation Forms at this stage. This is the first point at which signatures are needed, by the representatives of participating organisations. At this stage there may also be a requirement to provide additional documentation, such proof of establishment/legal status.

A major problem experienced by some participants in FP6 has been repeated requests for the same information, such as copies of legal statutes. Financial viability checks may also be carried out at this stage; these can also be problematic, owing to lack of uniformity in terms of how Commission staff deal with this. Multiple information requests should be alleviated in FP7 with the proposed pre-registration system, outlined above. The Commission also intends to draw up internal guidelines on legal and financial viability checks to address the problems with this.

Often, participants do not generally have a problem with time-to-contract *per se*; rather, they have a problem with the uncertainty of not knowing what the time to contract will be, and with unexpected, and unexplained, delays. Consequently, there should be a clearly set-out timeline for this, at the outset; this should be monitored, and information communicated to coordinators where there is deviation from the time-line on the part of the Commission.

It has been proposed that in FP7 horizontal evaluation criteria (such as gender issues, socio-economic issues, and educational issues) will not be examined at application stage, but at contract negotiation. Whilst this will

simplify the application stage, care needs to be taken to ensure that discussion and agreement of these elements does not prolong the contract negotiation process.

3.4.5 Reporting and auditing

When 'bureaucracy' in the Framework Programme is mentioned, it is most often with reference to the application stage. However, it could be argued that post-contract delays and requirements for reporting and auditing are often more problematic for participants.

Periodic reporting can require completion and submission of a large number of documents, for example:

- activity report;
- management report – including audit certificates;
- report on distribution of Community financing;
- draft planning for next 18 months (Integrated Projects and Networks of Excellence);
- any other reports required by annex to contract;
- science and society questionnaire;
- report on gender action plan (Integrated Projects and Networks of Excellence);
- workplace statistics questionnaire (not Integrated Projects or Networks of Excellence); and
- socio-economic reporting questionnaire.

Reports, and audit certificates, must be submitted to the Commission within 45 days of the end of the period covered by a report. This has proven to be extremely problematic for many participants. For coordinators, this means the potential difficulty of collecting and collating all of the partners' information in time for submission; for partners, this often means providing their own information (and possibly arranging for an audit to be carried out) in considerably less than 45 days, in order that the documents can be forwarded to the coordinator.

In most cases, the Commission target for responding to reports is 90 days. However, in practice many participants report that it takes significantly longer than this. Indeed, there are instances where it has taken many months for feedback, and to receive payments (that is, the next tranche of pre-financing, following acceptance of a report). It should be noted that in some instances this may be due to errors in completion of the reporting forms, or queries over claimed costs or audit certificates. However, the delays are not always explained in this way and seem, in many cases, to be due to pressure in the system, which is not generally communicated to participants.

A further problem with respect to reporting in FP6 is that the forms themselves, as well as any related guidelines, were not made available until well after the first projects were up and running; indeed, the majority of documents were not available until the time that the first reports were due for submission. This meant that it was very difficult for participants to put systems in place within their consortia that mapped onto the reporting requirements, or to start the reporting process in advance (which would have been ideal, given the 45-day deadline). The Commission has produced an excellent working note on audit certificates. However, this was not published until mid 2005, well after the start of the programme.

Possible improvements could involve:

- Consolidation of reports into a 'reporting pack', in much the same way as for the 'application pack' suggested above. The reporting pack should be made available in advance, to allow projects to be set up appropriately.

- Realistic deadlines for both participants and the Commission; these should be monitored, and appropriate feedback should be given to participants in any instance where the Commission deadlines cannot be maintained.

A further problem with FP6 has been the audit regime, in terms of both the time and cost associated with submission of audit certificates. Regarding the frequency of provision of audit certificates, the Commission has responded to the problems by introducing a Special Clause in FP6 ('Special Clause 39'), whereby a contract can be amended to reduce the frequency of audit certificate provision. This has been an extremely welcome introduction, although there have been some teething problems with respect to the implementation of this. The Commission plans to further rationalise the audit regime in FP7, although full details of this are not included in the Rules of Participation proposal.

Regarding the cost of provision of audit certificates, improvements are also planned for FP7. In FP6, a maximum of 7% of a project's Community contribution can be used to support management, at 100% of the cost. Audit certificates have to be the first call on this. In some cases (projects with small budgets but large numbers of participant organisations, particularly in the social sciences where there are minimal equipment costs) there is not enough money in the 7% to cover the audit certificates; in many cases the 7% is sufficient, but leaves little money for anything else. For FP7, the Commission proposes to have no limit in terms of the percentage that can be allocated to this. The increase of the 7% limit is welcome. However, having no limit does carry its own problems, and restricts the money available for the research itself. It would be preferable to allow consortia to negotiate a higher limit, if required, rather than to leave this entirely open.

3.4 6 Other issues

It is important to recognise that the Framework Programme is a large, multi-annual, multi-national programme, and that an element of 'bureaucracy' is inevitable. Adequate controls are needed, and it is not realistic to expect that participation will not entail certain obligations.

It is also important to recognise that some of the problems encountered by participants are beyond the control of the Commission, or result from other factors. Difficulties might be caused by:

- the over-arching Financial Regulations (such as the fact that identifiable indirect taxes are not eligible costs under the programme);
- national issues (for example, many participants suffer from exchange rate losses if their country is not within the 'euro-zone');
- internal consortium-level management systems, imposed by the project coordinators (training for coordinators is foreseen in FP7, and this is very much welcome);
- institutional management issues; or
- individual issues (such as lack of experience, or failure to comply with clearly-stated rules).

Whatever system is put in place by the Commission, there will be participants who require assistance with it. Consequently, the nature of the support given is of the utmost importance. All information and support documentation must be ready before the launch of the first calls for proposal, so that participants have all the materials they require, and know precisely what they are applying for and committing to. This has not always been the case in previous Framework Programmes.

It is essential that Commission Project Officers apply a uniform approach to issues such as financial viability checks, reporting requirements, contract amendments and application of special clauses, and that there is, as far as is possible, uniform interpretation of the legal, financial and management rules. This has been a major problem in FP6; whilst the Commission has clearly made efforts to address this, more needs to be done. Therefore extensive internal training is required. It is worth noting that this must also apply to any changes introduced during the lifetime of the programme, as well as at the outset.

A useful support service might be a mechanism for participants to track the status of their contract/project, for example via an on-line database. This could help considerably when awaiting outcomes of evaluation, contract negotiation and reporting submission, and could provide the Commission with a cost- and time-effective method of communicating basic information – such as what precisely is holding up approval of a contract or report – to participants. A 'tracking' system has recently been introduced in the FP6 Marie Curie programme, and has been used in other EU programmes.

The possibility of independent observation and review of contract negotiation and project reporting processes might be considered, in much the same way as is done with respect to the evaluation process.

Finally, it is important to note that the Commission's proposal for the FP7 Rules of Participation, published in December 2005, is not intended to cover all aspects of the system, but to provide a legal base for the programme that is flexible enough to draw up appropriate detailed procedures subsequently. Because of this, the 'simplification' promised for FP7 is not immediately apparent in the proposal, but will need to be brought out in the implementing rules and Model Grant Agreements; thus, the timetable and process for drawing these up are crucial.

4 Discussion

4.1 Broad issues

It was stressed in presentations and repeated in discussion that there were real barriers for SMEs in participating in EU research programmes. Bureaucracy really was an important issue, especially for SMEs, raising the costs and risks of participation. There were also a number of structural barriers for SMEs, including the rigidity of the thematic priorities, differences in application procedures between the various Commission DGs, and competition with large entities that were able to devote full-time resources to application processes.

The problems arising and the potential remedies were found in three main stages of the process:

- Submission and evaluation
- Contract negotiation and preparation
- Reporting and auditing

The areas of particular concern associated with these stages were:

- *Complex and unnecessarily time-consuming application procedures.* It was recognised that the use of public money demanded careful scrutiny and that the Commission had made progress in improving procedures. However, it was felt that the situation remained unsatisfactory and it was noted that much of the remaining complexity made no contribution to probity in application processes. Indeed, it might also aggravate the problem by creating a lack of transparency and making it difficult to audit decisions.

- *Unacceptable delays during the contract negotiations.* It was noted that successful groups had very variable experience of the time that it took to agree finally to a contract and to receive initial payments. This created problems, in particular, for SMEs without the resources available to larger entities. There was also evidence that in some cases budgets available to projects had been reduced during contract negotiations. This created difficulties where margins for contingency had already been pared to the bone.

- *Inefficient and onerous monitoring requirements.* Companies were experiencing high levels of effort to meet monitoring requirements, in some cases in excess of 1700 hours in a year. It was recognised that the audit function was essential, but there was a strong feeling that it could be streamlined without loss of probity. Reporting on project outcomes was considered an essential element of monitoring, but, again, there was considerable scope for improvement.

Two main kinds of improvement were identified:

- Changes to rules and formal procedures through the primary legislation of the Union
- Improvements in management guidance to the Commission and its officers in administering European Research Framework Programmes

In the case of changes to rules, the search for improvements should focus on the formal Rules of Procedure rather than the financial regulations.

There was a debate about how much should be prescribed within rules and how much should be left to the management guidance. The broad consensus was that rules should not be made too prescriptive and that there was considerable scope for improvement simply by following good management practice, for example on quality of responses from Commission officials.

4.2 Specific issues

(i) Submission and evaluation

- The complexity of application procedures should be proportionate to the resources being sought: small sums should have correspondingly simple procedures.
- For major applications, a two-step process – with outline applications in the first step followed by full applications from those selected – could have many advantages in terms of reducing cost and risk to applicants and should be adopted.
- Procedures should be amended to facilitate pre-registration of applicant information.
- Evaluators and officials should be willing to provide feedback to applicants on request. Finding sufficient numbers of high quality evaluators was becoming increasingly difficult. Evaluation processes should allow for exercise of judgement and not become too mechanistic. There should be incentives for evaluators to maintain high standards.
- Application packs should be made available to all applicants.
- Six DGs spent managed research budgets, not just DG Research. It would greatly simplify the process of application if all six standardised their procedures.
- There should be a common database within and across DGs funding research so that applying institutions did not have repeatedly to give the same information. The example of Oxford University being asked on 30 separate occasions to provide documentary evidence of its legal existence illustrated the problem.
- Procedural rules should be established, and made public, at the outset of any funding round. Delayed announcement of the rules, and rule changes during the course of a funding round, were unacceptable impediments to efficient administration.
- EC Project Officers should be allowed to make simple executive decisions and should receive proper training to do so. Current rules on personal liability were a barrier to taking initiatives.
- It might be useful to benchmark EC evaluation processes against what happened at Member State level.
- Researchers and other stakeholders should be consulted when rules of procedure were being drawn up.

(ii) Contract negotiation and preparation

- Payments should be made promptly. Delayed payments made it much less attractive for institutions to seek research funds from the Commission.
- To reduce the time for this stage, there should be better contact between scientific officers and project co-ordinators with regular meetings for major applications
- Service performance targets should be adopted for handling contract negotiations. A 45 day review period was suggested.
- Clearer guidelines should be provided to Commission officials and to participants on contract negotiations
- Pre-registered information on applicants should be used to streamline data collection at this stage
- More support should be provided by the Commission for consortium agreements

(iii) Reporting and auditing

- Accountability meant more than demonstrating probity in use of money: it also included researchers engaging with the public, and with the European Council, on the direction and the results of their research. The Commission should provide guidelines on how this might be done.
- Longer reporting periods should be adopted to lessen duplication of effort.
- A reporting pack should be available in advance.
- Audit requirements should be reduced and demanded less frequently.
- The 7% management limit should be relaxed.
- Realistic deadlines should be set and monitored.
- There should be more appropriate feedback to participants, with standards enforced through a code of conduct.

Annex: Biographies of Speakers

The Speakers at the Workshop at the European Parliament on Wednesday 22 February 2006 were Ms Amanda Crowfoot, Ms Ameli Schwalber and Professor Sierd Cloetingh.

Ameli Schwalber

Ameli Schwalber, graduate of international business management, has been working as a project manager for EU projects for GABO since 2003. Gabo are appointed as the project management office by co-ordinators who apply for EU funding. They are engaged as a normal participant of the consortium and perform the management tasks over the whole project duration. Ameli's strong international orientation and thorough grasp of the European Union's guidelines make her an expert for project management in FP6. She has been handling several large-scale projects on a day-by-day basis and has thus acquired lots of practical experience both from the coordinator's and from the participants' point of view.

Professor Sierd Cloetingh

Sierd Cloetingh is professor in Geology at the Vrije Universiteit Amsterdam and Scientific Director of the Netherlands Research Centre for Integrated Solid Earth Science (ISES), on of only six national Centres of Excellence established by the Dutch government. In ISES, researchers from three Dutch universities with complementary expertise cooperate in a programme with strong ties to other European research centres, universities, and end-users in the field of energy and the environment.

Sierd Cloetingh has been promoter of 50 PhD students of 13 different nationalities, many of whom were pursuing research in EU programmes. He served the science community through editorship of numerous international scientific journals, and through various functions including President of the European Geophysical Society (EGS), Chair of the Earth and Cosmic Sciences section of Academia Europaea, and President of the International Lithosphere Programme (ILP). He received honorary doctorates from four different European universities.

Amanda Crowfoot

Amanda Crowfoot is Director of the UK Research Office (UKRO).

UKRO is the UK's leading information and advice service on European Union funding for research and higher education. Established in Brussels in 1984, UKRO is jointly funded by the seven UK grant-awarding Research Councils and receives subscriptions from over 150 research organisations, principally in the UK.

UKRO's mission is to promote effective UK participation in EU-funded research programmes, higher education programmes, and other related activities by: supporting sponsors and subscribers through early insight and briefing on developments in European programmes and policies; disseminating timely and targeted information on EU funding opportunities; providing high quality advice, guidance and training on applying for and managing EU projects; and exchanging information between the UK research and higher education community, the Institutions of the European Union, and other countries participating in EU programmes.

Amanda has worked at UKRO for nearly five years. Prior to taking over as Director, she was a European Advisor within the Office, working closely with UK research organisations, providing detailed guidance on FP6 participation issues, and advice and support on negotiating the 'red tape' associated with EU programmes.

John Murlis

John Murlis has long experience of the development of environmental policy, starting with his experience of negotiation in the EU and the UNECE as head of a branch in the UK Department of Environment on environmental technology and culminating in his appointment as Director of Strategy and Chief Scientist to the UK Environment Agency.

During this experience he has acquired considerable experience of international negotiations and in particular in the areas of air pollution, climate change and environmental technology.

PMDC 04.iv.06