

# Seventh EU Research Framework Programme 2006-10 (FP7)

## Response of stakeholders in Scotland to the UK FP7 consultation September 2004

**Networking Scotland in Europe**

**Research, Education  
and Training Group**

**SCOTLAND EUROPA** ★

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SEVENTH EU RESEARCH FRAMEWORK  
PROGRAMME 2006-10 (FP7)

RESPONSE OF STAKEHOLDERS IN SCOTLAND TO  
THE UK FP7 CONSULTATION

SEPTEMBER 2004

This Paper was compiled by:



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## **Introduction**

This document contains submissions from key stakeholders in Scotland to the 2004 UK government consultation on the Seventh EU Research Framework Programme (FP7). The consultation was open from May 2004 until the end of July 2004. The submissions are divided according to the questions posed in the UK government consultation document, which can be downloaded from:

<http://www.ost.gov.uk/ostinternational/fp7/consultation-7.html>.

Contact details for the organisations that have contributed to this document are reproduced below. The Universities Scotland submission was based on a discussion between European Liaison Officers of Scottish Universities that was facilitated by UK Research Office and Scotland Europa. The meeting was held on 1 June 2004 and hosted by Edinburgh Research and Innovation Ltd at the University of Edinburgh.

This Paper was compiled by Scotland Europa in Brussels. For further information please contact [paul.harris@scotent.co.uk](mailto:paul.harris@scotent.co.uk) or visit [www.scotlandeuropa.com](http://www.scotlandeuropa.com).

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For some questions, certain institutions above have supported the views expressed by another. In these cases, no comments appear under the name of that organization in order to avoid unnecessary duplication.

## **Abbreviations**

DTI	UK Department of Trade & Industry
ERC	European Research Council
ERDF	European Regional Development Fund
ESF	European Science Foundation
ETP	European Technology Platform
FEC	Full Economic Cost
FP	Framework Programme
HEI	Higher Education Institution
IP	Integrated Project or Intellectual Property
IPR	Intellectual Property Rights
IRC	Innovation Relay Centre
NCP	National Contact Point
OST	UK Office of Science and Technology
Q1, Q2 etc.	Question 1, Question 2 etc.
RTD	Research, Technological Development and Demonstration
S&T	Science & Technology
SME	Small/Medium-sized Enterprise
SSP	Scientific Support for Policy
TP	Thematic Priority

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- Which areas of the Programme have the strongest rationale and which should be assigned lower priority?

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- In which areas of the Programme is there evidence that it is working well or that it needs to function better?

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- Is basic research a priority compared with applied research?
- If there is a basic research element in FP7, how should this be administered to maximise its effectiveness?
- Should new support for basic research involve a requirement to collaborate across borders or, as is proposed, award grants to individual teams?
- Do the proposed criteria look appropriate ones to apply when judging proposals for a basic research action?

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- What should be the role for the European Community in funding scientific infrastructure development and maintenance?
- What areas are in greatest need of support and how should any Community support be delivered?
- How can infrastructure funding (by its nature long term) be reconciled with the four-year cycle of the Framework Programme?
- What is the best arrangement to support more strategic decision making on future research facilities and funding?

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- What are your views on the human resources and mobility activities in the Framework Programme?
- Do you agree that some restructuring is needed in FP7 to boost industry (especially SME) participation in the mobility activities?
- If so what structure would be optimal?
- Do you have any ideas for new activities (e.g. those that might encourage “brain gain” from third countries or foster inter-sectoral mobility in industry)?

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- How useful are existing SME-specific measures and what form should future SME instruments take?
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- Can you suggest evidence that identifies key areas for support?

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- What is the future role of EU funding in supporting links between Member State programmes?
- Which mechanisms are best suited for this purpose and how might they develop?
- Should European legal provisions allowing support for Member State collaboration be more widely applied in FP7?
- Is there a need for European aspects of regional programmes to be better coordinated?
- Should this be supported through the Framework Programme or are existing mechanisms at national level and through the EU Structural Funds sufficient?

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- Could the European Technology Platform concept be expanded to a wider range of technologies in FP7?
- What technologies would benefit from this approach and what criteria should be applied in the selection process?
- What level of funding would be appropriate for an ETP?

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- What priority should this area be given?
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- How might alternative instruments function?

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- Are there barriers facing business and the science base in effective engagement with EU research programmes?
- How can the UK more effectively influence and benefit from EU research funding and policies?
- How could management and administrative procedures be changed to make it easier for UK organisations to participate?

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**Scotland Europa submission to 2004 European Commission consultation on European research policy**

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**About the Research, Education and Training group of Scotland Europa**

**Question 1:**

- What is the rationale for the Framework Programme?
- Is the current €19bn budget appropriate? If you feel a need for change, why?
- Which areas of the Programme have the strongest rationale and which should be assigned lower priority?

**Scottish Executive Framework Programme Focus Group:**

We accept the rationale as detailed in the UK consultation document.

Due to the arrival of the accession states it would be appropriate to increase the budget to ensure that existing member states don't miss out.

From Scotland's point of view the main problem lies in a low level of research from our SMEs. Therefore those elements of the Framework Programmes specifically aimed at SMEs, such as CRAFT & Marie Curie, should be assigned a higher priority.

We concur with most of the initial evidence from UK stakeholders although there is no strong support for research into social issues. It is suggested that the model for Intellectual Property agreements developed between Universities Scotland & Scottish Enterprise's Intermediary Technology Institutes (ITIs) is a useful template.

**Universities Scotland:**

The general rationale for the Framework Programme can be seen to be research to ensure future economic competitiveness and that Europe leads the way through activities that will have a global impact both for the research groups involved and in terms of the value outputs.

However, it's clear that the competitiveness-only approach is unsustainable, and that it's impossible for Europe to be excellent at everything. A degree of prioritisation and concentration of resources in the most promising areas is one method to assure the contribution of the FP to European economic competitiveness; however, high-quality, non-prescribed research that does not immediately result in innovative products or policy impact can contribute to competitiveness in the longer term. Consequently, there is a clear role for allowing basic research that will form the building blocks of future research toward competitiveness.

There is value in centrally-administered EU research funding for higher-risk research. Collaborative programmes between national research funding authorities (e.g. ESF, EUREKA) can be limited as each project partner must apply to their own national funding source, resulting in logistical complexity and delays. The ERA-Net scheme is seen as a more 'researcher-friendly' method of national collaboration on research funding, but should avoid the ESF/EUREKA problems. ERA-Net could be a mechanism

to support European projects in areas that are only of interest to certain states/regions (e.g. fisheries) that are therefore unlikely to be a focus of FP Thematic Priorities.

There is a strong justification for the Science in Support of Policy (SSP) activities, although these should have additional budget to allow increased breadth of policy support areas.

The rationale for the CRAFT programme is strong, with regard to increasing involvement of SMEs. However, the FP6 administration provides a major disincentive for Scottish (and UK) university involvement (see response to Q7). This could have the effect of decreasing Scottish SME participation since it will be difficult to build upon existing, organic relationships between SMEs and HEIs if HEIs won't commit to this scheme.

The budget appears to be insufficient across the board due to the significant numbers of excellent proposals that are turned down. OST should also address the level of EU contribution received by each partner. IP participants do not always receive sufficient funding to allow for the increased scope of their activities. Similarly, Marie Curie actions have been obliged to place personnel on stipends rather than salaries due to budgetary restrictions. In all cases, EU projects should be funded at an appropriate level, before considering an increase in the number of funded actions.

With regard to addressing oversubscription, the clearest evidence for additional funds is the Marie Curie actions. Reasons for the success of Marie Curie actions appear to be its non-thematic nature and also the capacity to reduce the cost of hosting high-quality research staff. The success of the 'bottom up' Marie Curie activities could be used as a model to allow some sort of 'bottom up' activity in the Thematic Priorities (TPs). e.g. medium term activities in support of competitiveness; long term basic research activities with a demonstrable economic/social advantage. This suggests again that additional funding would be useful to fund new, bottom-up activities.

### **IRC Scotland:**

Rationale: Feedback from clients advised on FP6 indicates there is a funding gap between public funding for research and commercial development. Unfavourable comparisons are made with USA and Japan where public funding covers activities much nearer to market and at much higher % intervention rates. Current State Aid rules therefore need to be revisited

Budget of FP6: It is clearly insufficient. This is demonstrated by the large number of good quality proposals that cannot be funded. The low success rate and time taken to get evaluation result are disincentive to participate.

Propose significant increase in overall budget with at least doubling of budget for SMEs, Marie Curie and Industrial Research.

### **The Royal Society of Edinburgh:**

The Framework Programmes have enabled new/further science to be done, increased the size and impact of the UK Science programmes, encouraged and strengthened collaborations across the Community to our mutual benefit. The collaborations have brought into the UK new knowledge and new skills, and driven up the level of knowledge and skills in Europe.

In terms of priority areas for the programme, three important areas will be the new and emerging areas of science and technology (NEST), mobility for academia and industry, and the Science and Society programme. This latter has been neglected too long and damage to the public perception of science has been done. Programmes aimed at Small to Medium sized Enterprises (SMEs) will also be important to Scotland in order to increase the current low level of research being carried out by such companies.

### **University of Strathclyde:**

The rationale for European funding applies where it clearly makes sense to collaborate in the pursuit of synergistic effects, as opposed to ventures which can be more appropriately pursued unilaterally or within national frameworks. While we understand the imperative of linking such research in a direct manner to future economic competitiveness, we feel that this should not preclude increased scope and budget for basic research, for well conceived and monitored global scientific cooperation, for research in the social sciences (both horizontally and in disciplines per se), and for specifically targeted areas of European research strengths.

We welcome the idea of collaborative programmes between national research funding bodies, provided an obvious theory-practice gap can be bridged here (given the different cultures and rules which abound).

We support the rationale for CRAFT, but feel that the terms whereby SMEs own intellectual property generated by universities against low financial return constitutes a disincentive to universities to participate.

We support the continued expansion of Marie Curie activities, which allows high quality research with straightforward procedures.

All of the above should be based on the principle of funding being open to “excellence wherever it is found”.

We feel that the budget needs to increase, as evidenced in particular by the number of highly rated proposals which have to be turned down, and by the increased size of the EU.

### **University of Edinburgh:**

The Framework 6 programme aims to bring together European researchers to collaborate in an effective way to improve competitiveness and ensure that research results impact not only at a European level but also internationally. To achieve this goal the Framework, through various instruments, aims to create a collaborative, dynamic environment attracting world-class researchers. Framework 6 intended to address the issue of research fragmentation in Europe by creating sufficient critical mass necessary to compete on the world stage. Whilst this is the rationale, the question has to be asked whether this has been achieved, and what could be done further to achieve this.

Firstly, the budget has to be considered. Despite a 17% increase in the budget from Framework 5, particular programmes remain under-funded, and others over-funded<sup>1</sup>. Oversubscription in many programmes has been a particular problem, particularly that of the Marie Curie Programme. Why is this programme so popular, and can the Commission learn from this? The answer to the first part of the question lies in the fact that the programme has a 'bottom-up' in approach, and so the scientists do not need to 'fit' their research to one of the thematic priorities. Furthermore, it is a programme that provides the scientific community with an activity that they wish to see supported and wish to participate in, for example PhD training under the Early Stage Training (EST) instrument. A lesson to be learned from the response to this programme is the 'bottom-up' approach, and whether such an approach could be extended not only for the purposes of training researchers but also in the area of scientific research. The IST programme is another model to look at in this context. It allows for 'Newly Emerging Scientific Technologies' (NEST), and 'Future Emerging Technologies (FET) to be funded but is mainly confined within in the context of the overall ambitions of the IST programme. If this concept could be extended to be included in all of the thematic priorities, with it being clear, that projects must still have an economic/social advantage and offer added value for Europe, there is an argument that this would provide and allow the development of key scientific areas that are currently not being supported at a European level.

Allowing for this approach would of course impact on budget, and whilst it was expected in Framework 6, particularly through the Integrated Projects and Networks of Excellence, that increased funding would be available to consortia to allow greater flexibility in the direction of the research currently, there is no evidence to support this. It would appear that many projects have aimed to attract larger number of partners to ensure achieving 'critical mass', without the large increase in funds coming from the Commission, causing the funds to be diluted amongst the partners. This makes it operationally difficult to participate in projects, and to allow certain areas of activity to be sustainable. It must be stressed that projects should be funded at an optimal level to achieve the best results and so to avoid fragmentation within projects to occur due to the limitations of funding.

### **University of Glasgow:**

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<sup>1</sup> Funds allocated for the participation of Accession countries in certain programmes

The rationale for the framework programme is to increase the competitiveness of the EU compared to the USA and Japan by increasing the percentage of GDP spend on R&D and producing products / results that add value to the Europe Union and improve the life of the European citizen. Key to this rationale is the creation of the European Research Area (ERA). The ERA should lead to reduced duplication in research activities and collective outputs greater than the sum of the outputs of each member state.

The Framework Programmes (FPs) have brought researchers together from throughout Europe, but the longer-term benefits are much harder to quantify, as there has so far been little investigation of their long-term impact. Anecdotal evidence at the University of Glasgow would suggest that European funding has not led to a significant commercial return.

The €19bn budget is a relatively small amount of funding for the ambitious objectives set for the programme and compared to the total funding managed by the EU. The FP has often though failed to convince the genuine leading players in key fields that this is the best route for their R&D, particularly in areas expected to lead to large commercial returns. Increased funding could therefore be hard to justify. Many UK HEIs see the FP as an additional source of funding and a good forum to make new contacts, but not necessarily the best place to put your key technology.

The strongest rationale may be to focus on specific key areas, rather than trying to make Europe the lead player in so many areas. In some fields, the question of whether it makes sense to compete with industry, not involved in the FP, should be considered.

It would also be helpful to move the focus away from research that is so close to the market, and more towards basic research, as this may also be important for the long-term competitiveness of the EU.

The European Commission (EC) currently rejects many projects, despite them receiving excellent evaluations, due to the lack of available funds. EC desk officers also reduce the budgets on many projects during negotiation to allow the EC to fund extra projects. This has the knock-on effect that many participants are left under-resourced to perform their project adequately.

**Question 2:**

- What evidence can you suggest on the key issues to be addressed in the new Programme?
- In which areas of the Programme is there evidence that it is working well or that it needs to function better?

**Scottish Executive Framework Programme Focus Group:**

A number of issues are raised, in particular the question of whether it would be more administratively efficient to devolve management of funds to member states or a regional level and whether money should be available for capital projects & the need for a greater frequency of calls with shorter decision times.

**Universities Scotland:**Works well:

**Marie Curie** – Opportunity for bottom-up, researcher driven activities but incredibly high demand. Low success rates suggest additional funds required to fund all excellence.

**CRAFT** – excellent mechanism, in general, for SME involvement.

**SSP** – well regarded mechanism for translating research into policy and co-ordinating policy approaches. Could benefit from additional funds to increase topic areas, e.g., to include Public Health.

**IPs** – General principles seem sound. Most research groups favour the broader approach.

**STREPS** – By far, the preferred instrument with most researchers; probably due to simplicity and familiarity.

Needs to function better:

**Marie Curie** – there have been some budgetary problems with Marie Curie actions whereby some organisations have been obliged to place personnel on stipends rather than salaries because of budgetary restrictions. In all cases, EU projects should be funded sufficiently, before considering an increase in the number of funded actions.

**CRAFT** – Whilst the current scheme is appropriate to engage SMEs, the administrative and financial issues virtually prohibit involvement of Scottish universities, and other organisations using the additional cost model.

**IPs** – Whilst the general principle of the IPs is sound, there have been questions raised concerning budgets. The broader focus of activities means that if the budget is cut, the potential implications may reach beyond the task or partner(s) involved. There have also been reports that some organisations have a much smaller level of participation in IPs than they would have in other instruments, meaning that resources may be being spread too thinly.

**NoEs** – The general feeling is that it is still unclear what NoEs should involve. There is a perception that there is serious overlap between IP and NoE activities, and that NoEs should be used to supplement IP activities, rather than be a separate instrument in their own right.

More generally, the Expressions of Interest exercise was appreciated by the research community, although there seemed to be a lack in transparency in the translation of topic ideas into thematic priority topic areas. The failure to reword EoI suggestions gave the impression that groups were pre-ordained to receive funding in specific topics.

The key issue to be addressed, though, is oversubscription. Whilst additional funds would allow further, excellent proposals to be funded, the Commission should also, perhaps, look at the frequency of deadlines. Most calls have an annual deadline, forcing research groups to submit whether the proposal is fully developed or not. A move toward numerous cut-off points would negate this false demand, and would allow researchers to prepare their best effort proposal. Whilst it is difficult to envisage how this process could be managed for the prescriptive Thematic Priorities, it should be given due consideration for the implementation of Marie Curie and other bottom-up type activities.

### **IRC Scotland:**

The time from formulating a project idea to being able to start the project needs to be drastically reduced. The lower frequency of calls in FP6 compared with FP5 and the delay from submission to award of contract adds at least a year of dead time, i.e. a year further away from market.

Suggested improvements:

- More frequent calls, e.g. CRAFT in FP5 or open calls, e.g. EUREKA
- Two stage proposal process, better still the 3 stages, e.g. FET in IST programme.
- Decentralise decision making process to national level (EUREKA) or regional level (ERDF)

FP7 should have much greater emphasis on bottom-up measures rather than the very prescriptive thematic priorities of FP6. The move to fewer larger projects creates impression of 'closed shop' into which SMEs cannot easily break.

### **The Royal Society of Edinburgh:**

The new Framework Programme must strike an appropriate balance between applied research/R&D and untargeted fundamental research which will underpin future generations of applied research. It must strike a balance between top-down, directed priorities and responsive mode, allowing researchers to build on unexpected recent discoveries and sudden improvements in techniques/technologies. It must attract excellent researchers and focus on research excellence. It should focus on areas where a Europe-wide effort or European-scale initiative is appropriate.

Greater effort also needs to be made in improving the administrative efficiency of the application process, with a greater frequency of calls and shorter decision times. A second issue is the increasing burden of administrative activity placed on programme

co-ordinators by the EU. Such programme co-ordinators are largely liable for research contract under-performance, but have little real capability to ensure the timely delivery of outcomes from their European partners. Indeed, within Framework 6, where substantial centres of excellence are envisaged, the legal and administrative burdens placed upon the co-ordinating institutions are heavy.

### **University of Strathclyde:**

We have concerns from experience of FP6 so far that the major players in a particular field will not necessarily fall neatly into place in IPs and NoEs, and that these types of instruments are not necessarily as integrated in nature as intended (with some staff feeling isolated in a project within a series of projects that sometimes seem loosely connected). In the case of NoEs, many report that they simply do not understand the aim and purpose of these. IPs AND NoEs also tend to have governance structures within which the work schedules and budgets of partners can be altered outside of the control of the partners concerned, which many universities will find to be a disincentive. Projects of the size and nature of STREPs have much support among staff, given their relative simplicity.

In terms of the logistics of making applications, we support the much mooted two stage submissions, a process which would have the potential to reduce the exorbitant amounts of time spent on unsuccessful proposals. We also favour more numerous deadlines, which would offer greater flexibility to groups wishing to apply.

### **University of Edinburgh:**

Key areas to be addressed include what needs to function better:

#### *Oversubscription*

Particular problems within the Marie Curie Programme are discussed in Q1. Throughout FP6, more frequent deadlines would help address the problem of oversubscription, and also the widening of the two-stage proposal submission throughout the programme. This has only been seen in certain thematic programmes, including Global Change. This method of proposal submission has been problematic in recent times, in particular with inconsistency between evaluators' scores and differing comments resulting from two different evaluation panels. Methods would need to be improved to overcome this.

#### *Oversight of key research areas*

Due to the prescriptive nature and specific focus within thematic priorities some scientific areas fall between the thematic priorities within the overall programme, they simply do not fit. This included areas such as, electron diffraction; public health; and health for economic development. A wider 'bottom-up' approach across the programme could help this problem be overcome, it is however accepted there would be difficulties in setting the criteria.

### *CRAFT*

Funding mechanisms for participation by Universities using the additional cost model in CRAFT proposals, and the position regarding Intellectual Property has almost made it prohibitive for University participation. Lessons could be drawn from activities available under ERDF (European Regional Development Fund) funding, and ESF (European Social Fund) that actively encourages SMEs and University sector collaboration both in a research and training environment.

### *IPs*

Whilst having been generally well received, problems have resulted from budget distribution. Involving greater number of partners in order to increase critical mass have resulted, as discussed in Q1, in some cases for funds to be extremely diluted. Therefore, the University has had to increasingly absorb more of not just the indirect costs, but also the direct costs. This problem in particular has resulted when a number of industrial partners have been involved. There has been experience of greater funds being allocated to the industry partners at the detriment of the academic partners. The justification being given is that the exploitation of the research would benefit the University, so the loss now could be seen as an investment. However, taking into account the likelihood of return, this model proves to be unattractive.

### *NoEs*

It would appear that a general unease still exists surrounding the nature of what a NoE is, and what they hope to achieve. A misconception amongst researchers is that they will help fund research staff, there is general difficulty in understanding how funds would otherwise be spent.

As NoEs are funded on a 'head-count' principle, overall it has put a squeeze on total funding available. To ensure that as much as of the budget available goes towards the activities of networks, co-ordinators appear to have found themselves in a position of not securing the maximum 7% available for project management. In turn they have exerted pressure on partners to cover audit costs from budget already allocated, or for this cost to be covered by the institution. This is another example of Universities covering a direct cost related to participation in the Programme, despite clear financial guidelines stating this cost is 100% recoverable.

What works well

### *IPs*

The principles of IPs seem to be welcomed by the research community. Collaboration of all key European scientists in a particular research priority leads to an environment allowing for the transfer of knowledge resulting in excellent scientific research.

### *Marie Curie Programme*

As detailed in Q1, despite funding problems, this strand of FP6 is very popular and for many researchers offers the only way in to participate in the Framework Programme due to its bottom-up approach.

### *Two stage proposal submission*

Positive experience of the two-stage programme within the Global Change thematic priority. The required shorter first stage application keeps costs and investment of staff time to a minimum, far reducing effort and resources required to submit a full application. This is attractive to researchers. Evaluator comments from first round also help to shape better projects and consortia for second round submission, resulting in an overall strengthening of the projects that are eventually funded. Extension of two-stage submission welcomed with consideration to shorter initial criteria for evaluation at stage one, for example; scientific proposal, European impact, and make-up of consortium.

### **University of Glasgow:**

FP6 funded many projects that were designed to lead to activities far beyond the initial funding period. If these are to be successful, then FP7 should give these projects the opportunity to apply for further support, to maintain and develop the networks created.

Marie Curie actions work well, although the success rate is low and the time delays between application and contract can make things very difficult for the individual fellows involved.

CRAFT has the potential to be highly beneficial to SMEs, but does not currently offer sufficient incentives to HEIs to be the research performer, given the funding return, administrative burden, and the inherent risks in working with SMEs. The lack of incentives for HEIs leads to opportunities being lost.

It appears that the slightly smaller and more focused projects within FP6 are being more effective than those that are trying to balance a multitude of different objectives. Many applications have contained too many partners and this has created projects that are difficult to manage and with insufficient resources to perform the research.

There still remain significant doubts over whether Networks of Excellence (NoEs) will wield anything like the desired results. Even within funded projects, the objectives often don't seem to match the strategic purpose of NoEs and there is still confusion over what individual projects are actually trying to achieve.

The FP needs to look beyond research that is going to lead to a direct commercial return and place a greater focus on longer-term aims. This may also encourage researchers who have not been keen on getting involved to participate.

Specific Targeted Research Projects (STREPS) seem to be the preferred type of projects for many researchers, since their objectives are relatively straightforward and clear, the focus is on research outcomes and they are a manageable size.

The Expression of Interest exercise was found to be very useful by many and FP7 needs to find the balance between applied and untargeted fundamental research and

also between priorities chosen by the Commission and those that are key objectives for the research community (balance between top-down and bottom-up selection of priorities).

Over subscription is clearly a major issue and disincentive, as is the time delay between application and the contract being finalised. This is now often greater than 12 months.

**Question 3:**

- How strong is the case for a major increase in EU funding to improve excellence in basic research?
- Is basic research a priority compared with applied research?
- If there is a basic research element in FP7, how should this be administered to maximise its effectiveness?
- Should new support for basic research involve a requirement to collaborate across borders or, as is proposed, award grants to individual teams?
- Do the proposed criteria look appropriate ones to apply when judging proposals for a basic research action?

**Scottish Executive Framework Programme Focus Group:**

An increase in funding for basic research would fit with the establishment of the European Research Council (ERC). Any such funding should be allocated on the basis of scientific excellence.

Basic research is needed as the foundation on which applied research can build but the balance of funding between European level & member states needs to be more thoroughly discussed.

**Universities Scotland:**

The case for a separate European funding stream for fundamental research is strong, although there may be difficulties in defining fundamental and applied research. Moreover, funding should be allocated for excellence 'wherever it is found' (without seeking to concentrate resources in the more research-intensive universities), and should advocate a long-term strategy that is not driven by outputs.

Current levels of over-subscription could suggest that there is a potential danger that funding for fundamental research would be heavily oversubscribed, particularly if it simply required any research team working in any field to advocate the excellence of their proposal. In order that the scheme should attract those eminent researchers normally averse to the FP, the programme should be as administratively light as possible. Nevertheless, eligibility restrictions could be applied that prevent the submission of proposals rejected by national funding bodies. Alternatively, the possibility of referring particularly good national funding proposals to a European Research Council could be explored, as it would reduce the application burden upon researchers. Perhaps it could even be possible to 'top-up' existing, nationally funded activities.

Novel and innovative ideas in fundamental science should be particularly sought, as these often have the highest long-term economic/social impact. Cross-border collaboration should be an option rather than a requirement for applicants to the fundamental research funding stream.

With regard to operation of the fundamental research scheme, the Human Frontiers Science Programme could perhaps be used as a model, illustrating that a complementary, competitive, high-quality funding stream for fundamental research can be successfully operated, without duplicating national efforts.

Further, in terms of adding a fundamental research element into thematic priorities, the Future and Emerging Technologies (FET) element of the Information Society Technology TP, with its 'bottom-up' 2-stage application process, provides a useful EU precedent. The European-added value sought from a fundamental research funding stream would be the development of European excellence as a driver to competitiveness, rather than addressing duplication.

However, issues of governance – particularly with respect to mission and peer review - would need to be addressed before launching a new system, in order to ensure buy-in from the research community.

### **IRC Scotland:**

This is of little interest to the majority of our clients who are SMEs. Some of them have shown interest in the FET part of IST and NEST. (If this counts as basic research.) These two parts of FP6 are relatively more flexible because of their bottom-up and multi-stage proposal process.

FP6 dropped some of the nearer market measures that existed in FP5, e.g. IST take up measures

### **The Royal Society of Edinburgh:**

There is a strong case to increase in EU funding to improve excellence in basic research through an European Research Council (ERC) to provide support for high-quality, long-term, curiosity-driven research, based more on scientific decision, as opposed to political decision, devoid of the principle of "juste retour", and as such providing funding for the top research excellence in the European Research Area.

There is a danger that this work is undervalued, but such research is the "seed-corn" that underpins the next generation of applied research. While it is natural for the EU to look for projects that will have an impact on the lives of the populations of member states in a tangible way, this has arguably led to the support of results-based short to medium-term research at the expense of very little long-term perspectives.

Funding from a European Research Council should be focused on transnational research that inevitably crosses national boundaries, such as marine pollution and global warming or on those programmes and areas that cannot be supported by the individual states within the EU and that require concerted inter-state interactions. For example, when the cost or specialisation of a research base cannot reasonably be

supported by a single state (particle physics and astronomy are traditional examples but the impact of technology now extends strongly into the biological sciences).

In terms of selection criteria, we support the proposed focus on complementarity with the Framework Programme, scientific excellence, peer review, minimised bureaucracy and full cost funding, although we would suggest that full cost funding should be the first priority, and complementarity with the Framework Programme, the last.

### **University of Strathclyde:**

We support a significant injection of funding for basic research at a European level, as an important foundation for applied research, provided that funding is allocated on the basis of “excellence wherever it is found” and not on a policy basis of funding a limited number of perceived research-intensive universities.

We believe that there is scope for a European Research Council to operate on the twin bases of funding individual research teams and of funding cross-border collaboration among research teams where a scientific justification for this can be made.

We are mindful that the peer system for deciding on areas and proposals to be funded will need to be put into place with great care and thought.

### **University of Edinburgh:**

Collectively the case for supporting basic research appears to have been received positively. It could be argued that in previous programmes there has been a major deficiency, with the funding far too focused on specific areas, with much good science simply not fitting in. Basic research, in terms of innovative and novel ideas, should be given priority on the basis that the timescales necessary to the successful operation of FP projects are much better suited to basic research than applied. It should be recognised that much longer-term investment than the current 3-4 years may be required in certain fields to achieve desired results of economic and social impact. The New Zealand funding programme is a model that could be considered, where funding is for excellent, new and innovative research for up to 10yrs.

Moving towards a ‘grant’ based award to fund basic research may also simplify and help the administration to be effective, particularly if projects are non-collaborative.

The difficulty will be in deciding the criteria for funding, and avoiding the current problem of over-subscription, as well as avoiding duplication at funding at a national level. To overcome these hurdles, within in the evaluation process, screening at a national level could be the first step. Again allowing for a two-stage proposal system to operate with full proposals being submitted on the basis of invitation only.

Funding ‘excellence’ where it exists, with the caveat that this might not necessarily be within the current research-intensive research institutes, arguably could help towards

creating the European Research Area, and increasing Europe's ability to compete on the European stage. FP6 may certainly have gone some way in addressing fragmentation, however, it may not always be the case that Framework research needs to be collaborative. If new support were genuinely 'additional', then there would be merit in collaborating. Overall it must be stressed that the research will need to be funded in a sustainable manner, meeting the full costs of the research team(s) involved.

### **University of Glasgow:**

The case for the funding of basic research is strong, as the previous approach of focusing on applied research has led to the continual pursuit of short-term goals at the expense of the long-term. The EU has long-term objectives for the role of R&D and so the type of research they fund should reflect this. Support of basic research may encourage the involvement of those who have previously felt that European Funding is too bureaucratic.

There will be a number of practical difficulties with funding basic research. If cross-border collaboration is not necessary to obtain funding, then there is likely to be much debate over where the funding should go. There will also be questions over what the benefits would be when researchers could be funded at a national level.

Funded research could address issues that are either clearly European issues, or that couldn't adequately be addressed by an individual country. Given that it should be the best teams in Europe being funded, and that an exploitable outcome cannot be expected from the research, the issue of fully funding these teams should be considered.

The FP is already vastly oversubscribed. Funding basic research would increase this problem and further reduce the already low success rate. The submission of proposals that have already been rejected at national level could also be a problem. One possible way of addressing this could be to link the support given for basic research to national funding received.

**Question 4:**

- What should be the role for the European Community in funding scientific infrastructure development and maintenance?
- What areas are in greatest need of support and how should any Community support be delivered?
- How can infrastructure funding (by its nature long term) be reconciled with the four-year cycle of the Framework Programme?
- What is the best arrangement to support more strategic decision making on future research facilities and funding?

**Scottish Executive Framework Programme Focus Group:**

The need for increased funding for scientific infrastructure is recognised. It is not clear how the process of funding under the European Growth Initiative would work – this needs to be clarified.

**Universities Scotland:**

The EC should provide an integrated approach to research infrastructure provision, to support access to facilities, the cost of research undertaken in infrastructures, as well as construction and running costs.

Some facilities currently receive more applications for access than can be covered by the FP grant, and so flexibility for additional funding in this case should come into FP7. Europe will need more centres of excellence in the future and there is concern at oversubscription to ERDF that will need to be compensated, possibly by the FP.

The strategy should allow for the improvement and extension of existing facilities, as well as the development of new facilities. Steps should be taken to better integrate FP funding with national and regional sources. Grants, in such cases, could target the medium-term contribution towards the regional and European knowledge base.

Funding for infrastructures should be allocated on the basis of four key criteria: European significance, excellence, novelty and impact (where impact refers to economies of scale for both large and small scale facilities).

**The Royal Society of Edinburgh:**

There is a need for increased funding for scientific infrastructure, however, infrastructure development fits badly into four year frameworks and science suffers when it is used as a political lever. For example, the EU has failed to put order into synchrotron light sources. Nevertheless, across the EU, strategic decisions could be based on consultation with the professional and learned bodies in each member country, or an autonomous body, such as the ERC, could be tasked to do the strategic decision making.

### **University of Strathclyde:**

We believe it to be appropriate for the European Commission to organise wide-scale access to specialist facilities, there being an obvious economy of scale here.

### **University of Edinburgh:**

There is an argument that suggests that the EC should be involved in funding the construction of infrastructures. In order for this to happen it may be necessary for individual countries to relinquish some control of their purchasing decisions and of their operating/access policy. This could be problematic for national research councils. For example, in Europe at the moment there are half a dozen national centres with the same type of IBM HPC computer, all of varying sizes due to upgrades at different times. Most countries have opted for these as these are well suited to Grand Challenge science - where a small number of users run jobs on a large number of processors.

However, if you were looking at HPC computing policy for Europe as a whole, in order to better meet the needs of the different groups of scientists, it would be more productive to fund a variety of machines of different architectures and sizes. Typically at national level there is not sufficient money to do this, therefore, the tendency is to fund the high profile, media attracting larger machines. Some areas of science are well co-ordinated at a European level e.g. QCD Physics, could take advantage of this, however, other areas may find it difficult to agree requirements.

For large-scale facilities it is agreed that the associated services need to be based where the excellence is. Providing users with access is only a small part of the total services - infrastructures need to be able to deliver a range of services such as user support, training, data management, expert help with optimisation etc. However, it should be noted that collocation of services and the machines is not always necessary, this is demonstrated within existing Framework funded infrastructure projects.

The users of such facilities also need to be taken more into consideration, with the majority not necessarily wanting access to state-of-the-art facilities - they want access to facilities which are significantly better than those available in their own countries. This doesn't really accord with current EC policy, which funds infrastructures to be the best in Europe. However, the majority of users from countries which have very limited HPC facilities, would rather develop or optimise their codes for more modestly sized machines, which are similar to machines they will have access to at home. Why? Currently the access to infrastructure programme only gives them three months access. This is another issue that needs to be addressed as three months access is of limited use if you have no comparable machine to use for scientific research when you return home.

Further infrastructure funding cannot really be reconciled with 4 year funding programmes. The average procurement process can take at least 2 years from start to

operational machine. An 8 to 10 year funding programme would, therefore, prove to be a more realistic timeframe.

The establishment of a European Research Council or equivalent, in the area of infrastructures, will be a pre-requisite for longer-term strategic decision-making. What is required is the co-ordination of the needs of all the different scientists in Europe in an impartial way, to try to co-ordinate the spending of the individual countries. Each nation should aim to provide national machines for scientific research, if necessary, with EC funding for new countries, but that Grand Challenge science has to become more international. Facilities for this research need to be agreed and co-funded at a European level. To aid in this decision making process existing (inclusive) Integrated Infrastructure Initiatives or Networks of Excellence could also play an important role in advising the EC of requirements, given the history they will have of coordination at a European level.

### **University of Glasgow:**

Most of the FP ignores the costs related to maintaining the infrastructure that is used to perform the research they fund. This is a continual problem for HEIs as they often suffer through under investment in their infrastructure.

A four-year programme is not the best mechanism for providing the long-term funding that infrastructures require. Providing funding to expand the best facilities in Europe to accommodate more users should continue and European funding could be used either to take nationally funded infrastructures to the next level or to fund infrastructure projects that would be outside the scope of an individual country.

**Question 5:**

- What are your views on the human resources and mobility activities in the Framework Programme?
- Do you agree that some restructuring is needed in FP7 to boost industry (especially SME) participation in the mobility activities?
- If so what structure would be optimal?
- Do you have any ideas for new activities (e.g. those that might encourage “brain gain” from third countries or foster inter-sectoral mobility in industry)?

**Scottish Executive Framework Programme Focus Group:**

We should look back at FP5 & before to see those initiatives which helped SMEs such as CRAFT & the IST programme.

**Universities Scotland:**

FP7 should increase the funding for the Marie Curie Early Stage Training (EST) fellowships to offer more opportunities for PhD students. Most EST applicants favour the mono-contractor option since the multi-contractor option requires moves towards a transnational PhD. This is perhaps over-ambitious, at present, given the funding provided and could perhaps be better dealt with in another EU activity (e.g. implementation of the European Higher Education Area/Bologna Process). Work should be done first to determine whether, and how, a EuroPhD could work before tying this objective to the EST aim.

The issue of fees remains for UK university participants in this scheme. Whilst it seems that the EC accepts that the fees cover the research costs, the reporting requirements of the FP make it impossible to account for such a ‘charge’. The OST should take a lead in ensuring that such problems are overcome in advance of the launch of the next FP.

It was also felt that it would be useful to extend the eligibility of the EST scheme to first post-doc researchers. This could have the benefit of increasing industrial participation.

Further, it could be useful to reintroduce the individual category 20, post-graduate researcher fellowship, as seen in FP4.

Excellence Grants should be open to staff working for an organisation up to 18 months before the call deadline instead of the present 12. Alternatively, deadlines should be more frequent.

The possibility of shorter (5-6 month) individual fellowships might be more attractive to researchers in smaller departments and also SMEs.

In order to reduce over-subscription, all Marie Curie actions should employ a 2-stage application procedure. Further, the introduction of more frequent cut-off dates could reduce subscription levels by removing the artificial urgency imposed by annual calls.

### **IRC Scotland:**

The concept of the Excellence Grant for Teams, Transfer of Knowledge and Early Stage Training are all attractive to SMEs, particularly 'newish' small higher tech SMEs. The Individual Fellowships can be attractive to a wider spectrum of SMEs, provided they can link with a local university to provide facilities for the Marie Curie fellow. These types of projects are smaller in scale and so provide an entry level to international collaboration for SMEs. The very formulaic grant calculation with absence of match funding and excellent Handbooks are plus points. However the low success rates are a disincentive. Modifying the scheme so the project emphasises the ultimate commercial value of research rather than scientific excellence would make it easier for industry to relate to it.

### **The Royal Society of Edinburgh:**

More of the Framework Programme budget could be committed to training, the spread of best practice and facilitating researcher mobility which would also help other motives in the European agenda, such as the general Bologna process to harmonise higher education across Europe. However, care will need to be taken not to enforcing mobility on young scientists as it is hard for those with caring responsibilities to be mobile, and a work-life balance should feature in European circles as well as in the UK. In this context, there could be EU funding for internationally collaborative programmes which funded stay-at-home fellowships, but with travel for short visits to international partners.

### **University of Edinburgh:**

The human resources and mobility priority is well received. In terms of improvement there are a number of possible ways the activity could be enhanced in the next Framework:

1. Increased funding for the Marie Curie Early Stage Training (EST), as the activity has been very over-subscribed due to its nature of typically funding PhD programmes. It is questionable whether this is the most appropriate arena for trying to forge partnerships resulting in Euro PhDs. The Mono-contractor option is generally preferred, due to the complexities of cross-border issues surrounding the creation and delivery of jointly executed PhD programmes. More effort is required at a national level for the convergence of PhD programmes, as it appears over ambitious for the EST to achieve this. Finally, the Commission must recognise the difficulties faced by UK higher education institutions in the requirement to charge student fees, and allowance must be made for this in allocation of the budget to fund EST in the UK.

2. Consideration that current Marie Curie activities has shifted too far away from postdoctoral support. For instance, the Marie Curie RTN network changed the evaluation criteria substantially in favour of taught courses rather than research apprenticeships without making this clear.

3. Shorter individual fellowships might be attractive (minimum of 6 months), and particularly might aid the participation of industry.

4. Over-subscription and then lengthy delays in issuing contracts could perhaps be overcome by an 'Open' call approach with a number of 'batch' cut-off-points as seen exercised in other areas of the Framework Programme.

### **University of Glasgow:**

The human resources and mobility activities have been one of the most successful areas of previous FPs and given that in FP6 this area has also been vastly oversubscribed, funding for this should be increased in FP7.

The requirement for mobility within the funded schemes has proved to be particularly successful for the UK in attracting fellows, due to the widespread use of English in the scientific community.

In order to foster 'brain gain' it may be necessary to increase the links between the fellowship and the career opportunities offered to the individual researcher. It is difficult to get the kind of commitment necessary when all that is guaranteed is funding for two years.

Although the mobility part of FP6 has worked well overall, there have been several practical problems. The documentation suggests that institutions could choose whether to pay researchers a salary or a stipend, when desk officers have forced institutions into using stipends during the negotiation meeting in order to reduce the cost of projects.

The delays between applying for fellowships and the funding actually being in place, as well as there only being one deadline per year, makes the transition into fellowships difficult for individual researchers.

**Question 6:**

- How can the Framework Programme be made more attractive to industry and increase private sector R&D investment?
- Are there alternative delivery mechanisms which could foster industrial participation?

**Scottish Executive Framework Programme Focus Group:**

The issues of streamlining the application process & cutting bureaucracy are important here too.

**Universities Scotland:**

Industrial participation is logical in most FP partnerships, although this should remain organic rather than obligatory. In general, universities do not have difficulties in identifying enterprises to include in their FP projects. In any case, there are a variety of well-established support mechanisms at the regional and European level (e.g. DETECT-It FP6 Economic and Technological Intelligence project) to foster these links.

However, changes that could be implemented to increase industrial participation could include a more favourable IPR regime; training schemes to improve knowledge on FP opportunities; and additional support to industry at application stage. Such additional support could include advice on structuring the proposal, or contractual and financial issues.

**The Royal Society of Edinburgh:**

In realising the Lisbon goal of research and technological development (R&D) investment in the EU approaching 3 % of GDP by 2010, 2% of which coming from industry, it will be important to seek ways of reversing the fall in industrial participation in the Framework Programme. In this context, the issues of streamlining the application process and of cutting bureaucracy will be important in making the Framework Programme more attractive to industry. There would, therefore, be merit in focusing some Framework funding instruments more clearly on industrial involvement to facilitate their involvement, while recognising the needs of university sector involvement in other Framework funding instruments, for example in basic research in support of policy areas.

**University of Strathclyde:**

From a university perspective, we do not find difficulty in identifying industries who wish to work with us in EU collaborative research programmes. Some companies, SMEs in particular, go cold on the idea at an early stage when they realise the time and costs involved of putting together a bid. This issue can be addressed by the type of regional scheme which exists in Scotland, which helps cover the costs.

Industries do not like the types of uncertainty that come with NoEs, with many apparently having decided not to participate in these, given the contractual risks which they perceive in relation to payment and to continuation of activity without further funding beyond the life of the contract.

CRAFT seems an attractive mechanism to many SMEs, although the transnational requirement may not always be appropriate here, and we state again our view that CRAFT should not be at the expense to universities that currently exists.

### **University of Edinburgh:**

Industry participation would appear to be strong in certain areas, including 'e-science, and telecommunications sector'.

In order to increase participation consideration could be given to the following:

1. Review of IPR regime
2. Greater flexibility within projects for when it is right for industry participation, an approach based on an opt-in, opt-out mechanism. For example, it is difficult for industry to participate in NoEs due to their long term collaborative nature, and the danger that objectives of the NoE will in future years not fit the strategic aims of any participating industrial partner.

### **University of Glasgow:**

FP projects do not always meet the needs of industry i.e. they fund research that they would not otherwise have chosen to perform. It is therefore not always core to the activities of those who participate.

Getting several HEIs, particularly from different countries, to work successfully together can be difficult, but the problems can be greater when dealing with industry. The idea of working directly with your competitors on key technology areas is something many industrial organisations are not prepared to do.

The frequency and extent to which the results of FP projects have been successfully exploited to bring large commercial gain should be investigated. Currently there is not a significant amount of evidence that these projects have lead to substantial commercial benefits and, given that the EC only fund 50% of the costs, there may not therefore be the necessary incentive for industrial participation.

The costs incurred by HEIs are also only funded at the equivalent of 50% (at best) and they also often believe that they don't get other significant benefit from the results, aside from publications. The areas being funded, the type of projects and even the balance of participants therefore need to be examined. One option could be having fewer partners trying to deliver the same ambitious goals.

All potential participants may be encouraged by a change in the access rights given to background intellectual property. There can be uncertainty over exactly what you have agreed to give access to and this acts as a major disincentive from becoming involved in projects.

Industrial bodies also have less experience of dealing with FP applications so the set-up costs, combined with the low chance of success and the complex application process, may stop them applying. Measures to address this could include support for application costs and a simplified application process, possibly involving the increased use of two stages.

Industry is often not aware of the opportunities available to them, or the best way to find partners and get involved in applications. An education programme and additional support with forming applications could greatly increase industrial interest in future FPs.

**Question 7:**

- How can EU funding best address the needs of SMEs?
- How useful are existing SME-specific measures and what form should future SME instruments take?
- If necessary, how can SMEs be integrated into mainstream Framework Programme projects?
- How could mobility for SME employees be increased to access technology and skills?

**Scottish Executive Framework Programme Focus Group:**

The section in the UK consultation document on addressing the needs of SMEs covers the point:

*35. FP6 has an overall aim that SMEs will make up 15% of participants. In the first calls in the thematic priority areas, SMEs represented 13% of the funding for successful projects, although the wide definition of what constitutes a SME may have skewed these figures. Although it is a little early to say whether SMEs have been affected by the new focus in FP6, the longer-term nature of the new instruments does seem to have resulted in some shift in the balance of interest towards larger companies.*

*36. The Commission intends that SMEs will be brought into Networks of Excellence once they are established. However, it is not clear how far this will happen in practice. SME participation may also be affected by an apparent move to discourage the use of sub-contractors in favour of full partners. In many cases SMEs would prefer to participate as sub-contractors rather than long-term members of the consortium and are less likely to participate if they cannot do so on those terms.*

*37. This suggests that there needs to be a separate means for engaging SMEs that avoids the danger of weakening the impact of strong projects by introducing new requirements to include extra participants. Following the relatively disappointing figures from the first calls the Commission has proposed a number of corrective measures, including the introduction of SME-focused Integrated Projects. There have been strong calls from within the SME community for stronger emphasis on measures akin to the previous version of the CRAFT programme aimed specifically at SMEs. CRAFT has been carried into FP6 through revised Cooperative Research Awards (one to two year projects with a significant part of the research undertaken by RTD performers such as universities or research centres), and these have met with approval to the point where early calls have been substantially oversubscribed and there is pressure for increased funding to be allocated.*

*38. Clearly any new instruments aimed at SMEs must have simple delivery and management procedures, as they do not have the financial ability to commit to resource-intensive and longer-term collaborations. It also needs to be recognised that direct participation in EU R&D may only be appropriate for a relatively limited number of*

*SMEs with a strong interest in technology or research. The Programme potentially has a key role to play in providing better access for SMEs to technology and good practice in use of technology. The UK has suggested that the Programme could also focus more on 'knowledge transfer through people' and how it can positively impact on researcher mobility, including that of employees in SMEs.*

*39. Evidence both from applied and policy-related research suggests a need for improved exploitation of research results and the skills that are acquired. The UK evaluation and evidence projects will seek to identify options for improving the rate of industrial application, including the impact of Programme and project scale, composition and type of project supported. There may be a case for funding targeted specifically to increase the application or spin-out of results. Programme planning needs to take account of the availability of sustained private sector investment, and therefore the likelihood of eventual commercial benefit, in each area.*

*40. It is also important that there are strong links between UK national activities such as the development of business clusters, the work of the Regional Development Agencies and support for Collaborative R&D (LINK), Knowledge Transfer Networks (Faraday) or EUREKA Partnerships. This would enhance the likelihood of sustained investment and collaboration in key areas. Measures introduced in the UK, and being considered as a result of the Lambert Review, should help increase the benefits arising from university research. The DTI Technology Strategy will aim to promote synergies between UK and EU funding to enhance the benefits from research funding of all kinds through higher rates of technological innovation.*

*41. The current research and innovation part of the Framework Programme seeks to improve knowledge transfer, including through the network of Innovation Relay Centres. In order to strengthen links with promotion of enterprise and best practice this work might in future be supported outside the Framework Programme. Changes to this programme would be an obvious vehicle for implementing any policy to improve exploitation.*

*42. Programme planning also needs to take account of the needs of policy makers to access the evidence base produced by research, both competitive and that explicitly aimed at policy. Account particularly needs to be taken of how measures to secure intellectual property rights impact on dissemination of vital research and skills to the wider scientific and policy community.*

### **Scottish Enterprise:**

If the EC, in FP7 and beyond, is looking for member states to fund and manage 'CRAFT-like' support schemes focused on SMEs there is a danger of losing a lot of the business benefit that SMEs gain through being involved in an international project (i.e. international business network). If CRAFT disappears, or is so under funded that it means the chances of success discourage applicants before they begin, and the

member states own schemes don't insist on transnational collaboration, this will definitely be the case.

### **Universities Scotland:**

SMEs can play a valuable role in undertaking training elements within IPs, as many research actors do not have the capacity for this.

In order to support SME participation in the FP, governments might underwrite their participation in order to reduce the financial liability burden.

More frequent calls and a more rapid proposal selection process would also facilitate SME engagement.

However, the fundamental issue is that SMEs need to understand the rationale for involvement in the FP: particularly with reference to the cost-sharing nature of the majority of FP projects.

Supplementary calls to develop regional networks of SMEs may have the long term outcome of developing links that could be exploited in FP projects.

The CRAFT programme should be revisited since it can be problematic. Key issues to be addressed are the fixed cost recovery process; the need for multinational consortia (where relationships may be forced, rather than organic), and – for the UK – the issue of low university interest. The university interest problem could be addressed by reverting to the FP5 scenario, whereby the research performer is a subcontractor to the project and charges a price for their activity, since this would balance the lack of rights to intellectual property.

Further, as previously mentioned, the provision of shorter fellowships could inspire more SMEs to get involved with the Marie Curie fellowship schemes.

### **IRC Scotland:**

As previously stated the problems of over-subscription (see Q1) and dead time waiting for a decision (see Q2) must be solved. The success rates need to be higher; effort/benefit ratio is too poor. This means a much bigger budget. FP6 is only attractive to companies looking 3 or 5 years ahead. If instruments used and admin procedures made FP7 feasible for companies looking only 2 years ahead the number of interested companies would at least double. (Of course this would have adverse impact on success rates unless budget even further increased.) There is a need for some form of public funding that encourages trans-national co-operation to develop or transfer knowledge. National and regional programmes do not encourage and may even discourage companies collaborating with those outside the UK.

Bottom up measures, e.g. CRAFT, Marie Curie and NEST are more attractive than complying with calls for projects on specific topics. Some SMEs are wary of collaborating, particularly with large companies (IPR stripping) or universities (IPR leaking). So the special IPR rules of CRAFT and the smaller scale of Marie Curie projects are attractive. The Marie Curie Transfer of Knowledge scheme could be opened up to encourage trans-national co-operation between SMEs. Currently it is limited to Industry –Academia or applicant effectively has to be in an Objective 1 area. This would encourage skills/knowledge transfer between SMEs, build working relationships and hopefully early commercial benefits.

### **University of Strathclyde:**

In our experience, SMEs are put off by the expense of making bids, by the time from application to contract in fast-moving areas of research on which their prosperity or survival depend, and by the perceived financial risks to them in contracts.

### **University of Edinburgh:**

Problems of cost-sharing, the limitation of the CRAFT programme as highlighted in Q2, and the length of time from deadline to final contracts may be some of the prohibiting factors for participation by this sector.

The CRAFT programme requires projects to always be collaborative, extension of the monocontractor project in the CRAFT programme may be advantageous to SMEs. Changes to IPR regime and funding mechanisms for RTD performers may also, once again, attract University participation.

Shorter stays being made available in Marie Curie activities may enhance participation of SME community in this area, and encourage mobility between academia and industry.

### **University of Glasgow:**

CRAFT – The mechanism for this scheme appears to work well for the SMEs involved and it does give them access to research results that they could not produce themselves. Unfortunately, the funding mechanism is a major disincentive to HEIs acting as the RTD performers and so SMEs get access to less research expertise than they would otherwise.

Organisations are often nervous about collaborating with SMEs due to their inherently fragile financial status. The rules for FP6 have amplified this risk by requiring a consortium to carry the risk of the financial failure of the other partners. This risk should either be carried by the EC or by national agencies.

SMEs often have unrealistic expectations of what they should get from FP projects. They struggle with the idea of shared costs and that the collaboration should be

mutually beneficial. SMEs also sometimes struggle with the difficult relationships artificially created for FP projects.

**Question 8:**

- What should be done to make the Framework Programme better focused on exploitation and spin out?

**Scottish Executive Framework Programme Focus Group:**

See Q7

**Universities Scotland:**

Project exploitation is an integral element of FP6 projects, wherein budget must be allocated to the task from the outset. This means that there is little flexibility to adapt exploitation to developments as the project proceeds, and the budget allocated can be subject to redistribution into other project activities.

Specific funding should, therefore, be earmarked for the exploitation of FP projects, for which applications are made toward completion of the project. One useful reference is the Scottish Enterprise Proof of Concept fund, which is particularly effective in generating spin-outs. However, this is not always the most appropriate method of exploitation.

Many organisations could also benefit from additional assistance in identifying potential 'hot property' in their project outputs, and financial assistance to manage such 'hot property' could ensure that IP is neither shelved - due to lack of resource – nor lost to organisations in third countries.

**IRC Scotland:**

As the host of IRC Scotland we are active in fostering trans-national knowledge transfer. The majority of our successes come from SMEs. Most of them do not concern the exploitation of results of Framework projects. FP6 funds 45% of the support service of the IRC network; lower than in previous FP. We obtain match funding from Scottish Enterprise so our service is free to clients. Yet our clients cannot access any public funding to cover the costs of exploring knowledge transfer opportunities. Public funding for such activities would grow SME participation in this activity. This is evident by analogy with our FP6 activity, where the Scottish Proposal Assistance Fund ([www.ircscotland.net](http://www.ircscotland.net)) has stimulated SME involvement in FP6 proposal development.

Funding for stimulating exploitation would be consistent with the idea of maximising knowledge transfer/co-operation – see Q10. IRCs could be given budget from FP7 for providing grants to their clients using common guidelines.

**The Royal Society of Edinburgh:**

There is a big positive role for EU to sort out the patents issue across the EU. EU research and development collaborations with goodwill run into great difficulties over

issues of IPR and patents and much effort is wasted. A reform of patent law is needed and, the model for IPR agreements developed between Universities Scotland & Scottish Enterprise's Intermediary Technology Institutes (ITIs) could provide a useful template.

### **University of Strathclyde:**

In terms of spin-outs, we would welcome the option of finance being available to universities in projects to help with proof-of-concept activities and the creation of spin-outs relating to the results of projects. Since partner industries can exploit *knowledge* of universities free of charge, but may well choose not to so, universities may well be minded to seek their own routes to exploitation.

The much documented lack of visible industrial exploitation arising out of EU-funded research projects is not an easy problem to crack. The Commission cannot make guaranteed exploitation of a product or process a project deliverable, because technologies and markets do not work in a manner consistent with that. The Commission might think along the lines of assessing past performance of applicants in exploitation, using its own powers to license results, and ensuring that partners are giving due publicity to successful exploitation where it occurs.

### **University of Edinburgh:**

Exploitation is a clearly recognised objective within the Framework Programme. How exploitation will be managed within projects should be identified and budgeted for from the outset. There is difficulty in doing this, with the result that there may not be sufficient budget allocation to assist with exploitation further within projects. A more flexible approach within the Framework programme to assist in managing exploitation would be welcomed. The ability to 'go back' to the Commission to secure additional funding for exploitation and spinout at a time when it is required, by the provision of a separate funding stream, would be desirable.

Improved links between the Framework programme and EUREKA may also bring added value. Currently, the EUREKA programme is probably not fully utilised by HE sector due to lack of knowledge and understanding. The complexity of applying for funding does not make the programme attractive.

### **University of Glasgow:**

Adequate funding is required to take the technology forward. HEIs often have a number of technologies that they want to exploit, but the lack of funding to cover the substantial initial investment required prohibits them from doing so.

Within previous FPs there has been some funding for exploitation, but this has been both limited in value and only available during the lifetime of the project, making it of little value in terms of a long-term exploitation plan. Even if EC funding were available,

participants having to find 50% of the costs themselves would still be a major disincentive to fully exploiting results.

Exploitation of FP project results is not particularly attractive to either industry or HEIs due to the complications over who owns the results and it often being necessary to share any commercial return generated between a number of parties.

**Question 9:**

- How should FP7 be balanced to meet the needs of both research in support of policy and that in support of competitiveness outcomes?
- Should there be a clearer delineation between the two types of research in the structure of the Programme?
- How could the interests of end-users of policy-related research be better met?
- How can the need for transparency and dissemination of policy-related research be balanced with the need to protect IPR?
- What should be the future role of support for the Joint Research Centre (JRC)?

**Scottish Executive Framework Programme Focus Group:**

The focus in Scotland needs to be slanted towards competitiveness actions given the low proportion of SME investment in R&D. For all users of policy related research it would be useful to have a database allowing easy access to research outputs.

**Universities Scotland:**

There is a general need to ensure that FP policy-orientated research is effectively disseminated and implemented by public authorities. It is currently difficult for local authorities to engage with FP6 projects that are producing relevant results for local policy-makers. This could be related to the high cost of participation in international project applications. Consequently, the FP should provide measures to allow dissemination of outputs to the appropriate fora, or should inform authorities of the potential to participate as an end user in projects.

FP7 could add value by providing a subsequent funding stream for the demonstration/application of findings from national research projects, where the outputs may have a European dimension.

EU funding opportunities for technological development/knowledge application are not currently holistic, as there is a perceived funding 'gap' in the support for policy implementation programmes between the FP and other EC activities. For example, in the field of public health, the FP funds research that will address some of the major issues, and the Public Health Programme of DG SANCO funds networking and dissemination activities. However, it is unclear whether, and how, the two funds should be linked.

**IRC Scotland:**

The current Policy Related Research programme is the only one of the non-bottom up programmes that covers broadly such subjects as health, aquaculture, fisheries, forestry and agriculture. The Life Sciences and Food Safety programmes relate to small niches. So a number of our clients have considered how this programme can be used to meet their needs.

Since all FP6 projects have to fit with EC policies then it could be argued that the difference in practice between a policy related project and other projects lies only in the nature of the deliverables and the target audience of the dissemination activity. Could not policy makers from any level of government approach any FP funded project and provide it with additional funding so it can inform their policy interests?

### **University of Edinburgh:**

Both policy related research and the pursuit to achieve competitiveness are important outcomes from Framework projects. To a degree it is already recognised by the different types of instruments that not all projects can focus on both. The Specific Support Actions (SSA) act as a positive vehicle to fund research in support of policy, there is support that this instrument should be retained in Framework 7.

The problem of how to involve and engage with those that could carry out policy related research, and the end users of such research, i.e. Government, local authorities, within the IPs and NoE remains. Budget constraints are a factor, with the difficulty of identifying what funds may be needed, freeing up already constrained budgets to cover such activities. Again, a subsequent funding stream could be introduced or a natural progression available to apply for an SSA, by the means 'open-calls'.

### **University of Glasgow:**

Research in support of policy is important as the EU leads on the development of policy for many issues. However, the results of FP projects seem to be far removed from local policy makers and the results don't seem to flow down to them.

A clearer delineation between the two types of research would be helpful. The needs of end users could be better met by finding ways of getting them more involved in the research itself and also by improving the resources given to funded projects for dissemination.

The results of policy related research should be treated differently from that used with other research. Policy related research should have a clear focus on the results being disseminated widely. The funding model may also need to be modified to reflect this purpose.

**Question 10:**

- What criteria should be applied for identifying the S&T priorities for FP7?
- Can you suggest evidence that identifies key areas for support?

**Scottish Executive Framework Programme Focus Group:**

There was general agreement with the section in the UK consultation document:

*47. Criteria for EU support might include:*

- *Need for scale of instrument not possible at national level (in terms of research or infrastructure)*
- *Providing stronger alignment between aims of different national programmes, where the risks of overlapping or fragmented funding is high*
- *Support for an industrial or research community that is already increasingly integrated at European or global level*
- *Need for collaboration, including to bring in a wide range of inputs from different sectors*
- *Need to support specifically EU policies or problems common across Europe*
- *Timescale required for developments is appropriate, bearing in mind EU planning and contracting processes.*

**Universities Scotland:**

Although it was generally felt that individual organisations would be best placed to identify the key topics and themes for support in FP7, initial suggestions from the group included:

- Public health
- Veterinary medicine
- Aquaculture
- Energy production/conservation: both fossil fuels and renewable energy
- Education
- Social policy
- Humanities

Nuclear energy is not perceived to be a relevant action for Scottish universities.

Social sciences in FP7 should be better funded and include more opportunities for humanities. The 'Citizens and Governance' Thematic Priority of FP6 is too focused on EU policy issues. Social sciences elements should be brought in to other Thematic Priorities e.g. film and multimedia.

However, in terms of evidence to support suggested themes, social science should be used to identify the opportunities, outputs and applications to ensure that there is a clear rationale for the selection of ANY research theme.

**IRC Scotland:**

Should there be any priorities? A cynical view would be that the definition of these priorities and their embodiment in FP6 themes merely entrenches the vested interests of a few key players. If we are trying to stimulate a knowledge based European economy, then should we not be seeking to maximise the number of co-operations? Going for S&T priorities seems akin to 'officials' trying to pick winners? Of course there will be issues such as sustainability, where policies/legislation will drive the creation of improved technological solutions. So let the market and policies be the drivers.

### **The Royal Society of Edinburgh:**

Science and Technology priorities should be responsive to trends and developments (e.g. the growth in computing power and the consequent ability to understand better complex systems, the development of nano-technologies, genetic data bases); recognise needs e.g. climate change, health care (e.g. drug delivery, regenerative medicine) and encourage interdisciplinary activities (provided there are sound ways of assessing proposals in such areas).

### **University of Strathclyde:**

See Q1

### **University of Edinburgh:**

The Expression of Interest exercise prior to the launch of FP6 was valuable, and allowed researchers to engage and influence the programme by providing areas of research for future calls. It was generally welcomed and there would be added value to carrying out a similar exercise for FP7.

Taking into consideration the likely funding stream for basic research in FP7, and a heavy focus on Infrastructures, as discussed in Q3 and Q4, decisions on areas that should be funded could perhaps firstly be decided at a national level.

Within the current Framework there are clear critical areas which have been omitted from the programme, including:

1. Public Health
2. Veterinary medicine
3. Energy production
4. Education
5. Social Policy
6. Humanities

The 'Citizens and Governance' thematic priority offers little opportunity for social scientists to engage in the FP6 due to its very specific nature. A more bottom-up approach within such a future priority might help alleviate this problem.

**University of Glasgow:**

The S&T priorities should focus on areas that have the potential to lead to results that will have a substantial impact on Europe, in areas of research that would not generally be funded by industry alone and that naturally need (ideally cross-border) collaboration.

The role of social scientists in research projects should be expanded.

**Question 11:**

- What is the future role of EU funding in supporting links between Member State programmes?
- Which mechanisms are best suited for this purpose and how might they develop?
- Should European legal provisions allowing support for Member State collaboration be more widely applied in FP7?
- Is there a need for European aspects of regional programmes to be better coordinated?
- Should this be supported through the Framework Programme or are existing mechanisms at national level and through the EU Structural Funds sufficient?

**Scottish Executive Framework Programme Focus Group:**

There was general agreement with the section in the UK consultation document:

*53. The new Programme will need to build on the opportunities offered until now by COST, EUREKA, EUROCORES and ERA-Net. Their relative roles and effectiveness need to be addressed, and appropriate links made with existing joint activities on infrastructures and policy-led research. The new Programme will need to identify how shared European goals can best be addressed collectively by Member States and the Community – including the case for Community funding of joint activities. The case for improved coordination with regional research and innovation programmes should be examined.*

*54. The EU Structural Funds provide significant funding for R&D activities in less developed regions, including support for research infrastructure, projects, training researchers and university-business links. The Commission's proposal for the future Structural Funds (post 2007) includes a greater emphasis on support to research and innovation. At present, there are few formal links between activities supported by the Framework Programme and through the Structural Funds.*

**Universities Scotland:**

The European co-ordination of national research funding authorities has a clear rationale but issues of practicality and logistics arise. For example, the requirement for co-decision on Article 169 activities could stymie many worthy proposals. The ERA-Net scheme may overcome this issue, and has admirable objectives, but each network will take some time to establish new funding opportunities for researchers. The question of funding across borders and from various sources remains. Programmes such as Eureka and the European Science Foundation (ESF) should not be used as models.

The potential impact of the FP on regional economic development should be explored, particularly in terms of the technological and internationalisation opportunities for SMEs. However, the FP could play a complementary but distinct role from the Structural Funds by being universally applicable to all regions and not related to their existing level of economic development. Synergies should be explored between applicants to both

programmes i.e. providing European opportunities to regional collaborative research projects, maximizing benefits to the region emanating from local FP6 participants.

Other issues to be raised here are the potential to 'limit' excellence through exclusion of researchers from activities where, perhaps, their funder is not involved; and the funding of third country participation in ERA-net schemes.

### **IRC Scotland:**

As noted earlier, there is a need for some form of public funding that encourages trans-national co-operation to develop or transfer knowledge. National and regional programmes do not encourage and may even discourage companies collaborating with those outside the UK.

Following on from Q10 there is a need for entry level mechanisms to encourage new players to enter the field of trans-national knowledge/technology co-operation.

### **The Royal Society of Edinburgh:**

The EU R&D policy should recognise and respond to the creation of the ERA. However, in supporting links between Member States' programmes there is a danger of creating too many, sub-critical, co-ordinating European bodies. The EU needs to consult widely in advance of Framework 7 with existing European bodies such as ALLEA (All European Academies), European Science Foundation and discipline specific bodies such as the European Physical Society.

### **University of Strathclyde:**

We believe there to be a rationale for linking member state programmes where there are synergistic effects to be achieved, but re-echo our earlier thoughts concerning the need to bridge the theory-practice gap here, given the varying cultures of research funding. Making something happen here would be a major logistical exercise.

In terms of integrating research and regional policy, we would comment in relation to two possible developments. First, in terms of improving research infrastructure in Objective 1 or 2 regions, we would welcome this so long as the provision of funding was spread out based on considered need and not, for example, limited to the new member states. Second, if some kind of rationale or set of priorities for funded research were being introduced to existing areas having regional priority status, then care would be needed to avoid an untidy (and, perhaps, illogical) mixture of the existing criteria for research and for the Structural Funds – a sensible framework of support would have to be thought through.

### **University of Edinburgh:**

There are strong arguments for a continuation of EU funding to support links between the Member States. Using Article 169 it is hoped the creation of the 'EDCTP' will strengthen existing research platforms in the areas of malaria, HIV and TB.

Outwith the Framework programme, attention must be given, particularly due to recent conclusion of the EU enlargement programme, of the synergies between what the FP7 hopes to achieve and the structural funds. The question to be asked is whether both programmes can be used productively in order to create the ERA. The two are linked in terms of the creation of infrastructure and support of such infrastructure, to the engagement with SMEs and the creation of a more competitive Europe. FP7 funding could be used to compliment structural funds, and vice versa.

### **University of Glasgow:**

The idea of national research programmes being better coordinated makes a great deal of sense, as this would allow countries to focus on their strengths and to avoid a great deal of duplication. The practicalities of operating such a system may though lead to a great of extra bureaucracy and delays.

The framework programme could be used as a way of bringing together national programmes on some key European issues. This should be considered in relation to what future role a European Research Council would have.

**Question 12:**

- Could the European Technology Platform concept be expanded to a wider range of technologies in FP7?
- What technologies would benefit from this approach and what criteria should be applied in the selection process?
- What level of funding would be appropriate for an ETP?

**Scottish Executive Framework Programme Focus Group:**

Renewable energy has been mentioned in the context of European Technology Platforms.

**Universities Scotland:**

Some difficulties are foreseen in establishing European Technology Platforms as public-private partnerships. The general policy approach across Europe has been to support university-driven innovation because of the reluctance of industry to define and invest in a strategic research agenda.

The experience of the Intermediary Technology Institutes in Scotland, which will commission market-driven pre-competitive research for the benefit of subscribing companies, should be followed closely as it may provide elements of best practice for the operation of technology platforms.

However, there still remain a number of questions that must be answered before the Scottish University sector can provide an informed comment on technology platforms. Additional clarity is required concerning the rationale, operation, and European Added Value of technology platforms.

**IRC Scotland:**

See Q10

**University of Edinburgh:**

It is difficult to comment on ETPs, information on how they will operate and the relationship that will need to exist between private-public partnerships is still in its infancy. With the information available it is not clear, in terms of selecting beneficial technologies, how duplication across Europe could be avoided, or what degree of involvement would be required from national governments to ensure all ETPs funded offered real European added value.

**University of Glasgow:**

The 'public-private' nature of ETPs could make their establishment difficult. Taking the example of NoEs, it has proven difficult to get industry involved and they may not fully contribute to an ETP.

**Question 13:**

- Which options would you support for funding collaborative R&D?
- What priority should this area be given?
- Could the number of instruments be reduced and how?
- How might alternative instruments function?

**Scottish Executive Framework Programme Focus Group:**

Most of the points raised in the UK consultation document are supported, in particular the suggestion that NEST be expanded. It is also suggested that there needed to be greater transparency in the decision making process:

*61. All calls under FP6 have been heavily oversubscribed so far, and there is a need for improved management of this including greater clarity in the calls to decide priority areas. Two-stage evaluation could play a useful role in managing over-subscription by reducing the administrative burden of applying in the first stage and increasing the success rate in the second stage. The first stage requirements should not be over burdensome and should operate against a significantly reduced set of criteria, and sufficiently quickly. A possible example of best practice is the Leverhulme Trust.*

*64. Options for the Seventh Framework Programme include:*

- *Continue with a mix of 'traditional' and 'new' instruments, but matching the choice of instruments employed to the objectives and needs of the relevant Programme area;*
- *Reduce and improve the number of instruments, learning from the best, drawing on the results of current reviews (such as a Commission-appointed panel chaired by Ramon Marimon, for example) to increase their attractiveness to industrial participants;*
- *Continue/expand specific SME measures: Introduce specific measures to engage SMEs in 'new' instruments, perhaps engaging more SMEs as subcontractors in projects and possibly reintroducing measures based on the earlier CRAFT scheme for SMEs;*
- *Develop new instruments to support basic research projects based on the scientific and technical quality of individual research teams;*
- *Expand the New and Emerging Science and Technology (NEST) programme to allow exploration of emerging topics.*

**Universities Scotland:**

FP7 calls should give a wider choice of funding instruments that can be proposed. Specific Targeted Research Projects (STREPs) should be retained and might be a useful format for responsive mode research, expanding the model of IST FET to other programmes.

Specific Support Actions (SSAs) and Co-ordination Actions have some similarities and could be merged.

SSAs often provide interesting and flexible opportunities to researchers but more information should be given about them in advance of calls.

There is a general feeling at present that the research community hasn't fully engaged with NoEs, since it remains unclear what the objectives and operation of these projects aim to provide. Hopefully, additional clarity will be available further to the production of the Marimon report in early July.

### **IRC Scotland:**

FP7 must be simpler. The complex mix of different instruments, work programmes, patterns of calls for proposals, etc. is baffling and discouraging to newcomers. Our role is to demystify it and help clients see the relevance to them.

Preferred instruments:

STREP –for collaborative research between organisations having research capability

SSA – for use as at present

Marie Curie actions (see Q5 and Q7) as an entry level activity to collaborative research for SMEs with research capability

CRAFT would be better with a smaller minimum consortium, e.g. SCORE - a Scottish variant.

Collective research – for use as at present

See also Q8 for funding to stimulate exploitation.

Greater emphasis on bottom up measures would strip out the complexity of needing to figure out where a particular subject fits into FP. See also Q10.

See Q2 for administrative procedures

### **The Royal Society of Edinburgh:**

The options of reducing and improving the number of instruments; developing new instruments to support basic research, and expanding the New and Emerging Science and Technology programme, should be the priorities, along with greater transparency in the decision making process.

### **University of Strathclyde:**

We should like to add to our earlier comments on funding instruments some remarks on costing models.

We, like many other universities, would like to be able to use a full cost model for the recovery of our costs in EU collaborative research, in particular because of the way in which this takes into account all costs and because of the flexibility which it offers. We have had several high level meetings with the Commission over many years in order to

try to achieve this. We would welcome a solution to the differences between universities and the Commission over the accounting principles involved in achieving a full cost model satisfactory to both parties. We are uncertain at the present as to whether the UK exercise in Full Economic Costing for Sustainability regarding Higher Education is going to help achieve this, and feel that UK Government, the Commission and UK Higher Education need to work together on this matter. If an acceptable FEC model cannot be achieved for universities for FP7, then we rely on the continued availability of the AC model or face the impossibility of participating.

### **University of Edinburgh:**

There is evidence to support the need for a greater number of instruments, indeed the similarity of some, for example Specific Support Actions & Co-ordination Actions, suggest there could be fewer. There is clear support for the continuation of IPs with little change to their current structure. There is also clear support for the continuation of STREPs. It will never be the case that areas of research, particularly some of those listed in Q10, will be able to operate and create critical mass on the scale that warrants funding at the level of IP or NoE. To enhance the function and scope of activities within a STREP, they could be broadened to include not only research and demonstration activities but also training.

The real effectiveness of NoEs remains to be seen, but generally it does appear that the research community has difficulty with engaging with them. The sustainability aspect of NoEs, and how this will be achieved post Commission funding remains unanswered.

### **University of Glasgow:**

The research community often still fails to fully understand the different instruments in FP6, and so the objectives of the projects they get involved in. There needs to be greater clarity regarding the purpose of the different instruments and this should be reflected in the structure of the work programme.

STREPs work very well and so should be continued. They seem to contain the right balance between being small and focused enough to be manageable, while large enough to attempt to tackle substantial problems.

NoEs still cause considerable uncertainty & confusion and the efficacy of these, in terms of achieving long-term integration, is not yet known. FP6 will create NoEs in most of the key areas and the EC expect that only one NoE will be necessary in most areas. FP7 funding in support of NoEs would be best channeled in support of existing successful NoEs. The effectiveness of NoEs created in FP6 should be investigated before any new NoEs are funded as part of FP7. New networks should also be limited to areas not covered by those created in FP6.

**Question 14:**

- Are there barriers facing business and the science base in effective engagement with EU research programmes?
- How can the UK more effectively influence and benefit from EU research funding and policies?
- How could management and administrative procedures be changed to make it easier for UK organisations to participate?

**Scottish Executive Framework Programme Focus Group:**

There was general agreement with the section in the UK consultation document:

*66. Some possible administrative improvements include:*

- *A revised two-stage application process for heavily oversubscribed instruments, with simpler requirements for first stage proposals – in line with emerging practice in some areas of the current Programme;*
- *Reduced number of instruments and simplification of the rules;*
- *Improved guidance from the Commission for proposers, evaluators and project managers on the application and scope of the new instruments;*
- *Further clarification of the Commission’s guidance on intellectual property rights (IPR) assignments and application and possible modification of instruments to reflect differing IPR requirements;*
- *Simplification and shortening of negotiation procedures, including provision of negotiation timetables, including minimum notice periods for attendance at meetings and document generation;*
- *Significantly greater transparency of process, including publication of information on Programme management, proposal evaluation, and the work of advisory groups. This would improve participants’ confidence in the selection and management procedures.*

*74. EU support is allocated on a shared cost basis, whereby some of the full economic costs of projects are covered by participating institutions. This principle is intended to align EU R&D projects with the organisation’s wider aims. As the UK moves towards funding a greater proportion of costs directly, it is necessary to consider whether the different approaches might create unintended barriers to international collaboration. This issue was also raised as part of the consultation on the ten-year science and innovation investment framework. For academic institutions and public bodies, higher proportions of Community contribution would reduce these disparities and place EU funding on a more equal footing with national support.*

**Universities Scotland:**

Certain disincentives to FP participation should be addressed in FP7. 2-stage proposals should be ubiquitous, with the first stage short proposal evaluated simply on the scientific excellence and impact of the proposal. Management should not be an initial evaluation criterion. This could significantly reduce the entry cost for participation.

Perhaps some sort of 'Exploratory Award' scheme could be used to help in the development of IPs and NoEs, thus reducing the initial co-ordination costs of such activity. This could have the effect of encouraging more eminent researchers to participate in the FP.

Although a certain level of bureaucracy and complexity is inevitable in applications and consortium agreements, this should always be reviewed.

It would be useful if UK members of the FP programme committees were able to consult with the research community on the content of work programmes. This seems to happen in other Member States as a matter of course, leading UK researchers to feel disenfranchised from the process.

Regular data on approved FP projects and participants should also be made available to the research community to enable benchmarking and sharing of FP expertise.

There should be some clarification for the EC that lobbying is not a feature of the evaluation process. This would improve the perceived transparency of the process.

Funding support for the preparation of applications by Scottish research/higher education institutions (the PACER fund) is useful to the research community. It should be extended to enable Scottish institutions that are not co-ordinating applications to benefit.

Despite significant training and electronic knowledge dissemination by UK Research Office, there are still too many misunderstandings on FP6 amongst the research community. UK National Contact Points should focus on consistently effective training delivery.

In order to deliver Framework more effectively, there should be a review of the NCP system. The system for FP7 should be more coherent and comprehensive, issuing advice on all aspects: not just calls for proposals. Specific considerations – particularly to increase industry participation – could include advice on financial and contractual matters and intellectual property management, assistance with dissemination, and specific support for regional or sectoral fora.

The NCPs could also co-ordinate a system of training in such aspects proposal writing, consortium agreements and IPR, and project management and reporting.

### **IRC Scotland:**

For greater SME participation it needs to be simpler, quicker and with higher success rate. Solutions are suggested in previous answers.

### **The Royal Society of Edinburgh:**

### *Barriers to engagement*

Figures from participation in the Framework 5 programme in 2000 showed the UK to be doing reasonably well, with UK participants in more than 50% of all funded projects and a 16.54% participation rate (slightly higher than nearest competitors Germany and France) and with total income to UK participants amounting to 17.7% of FP5 spending, against a 'juste retour' of 15.8%.

However, this is not a straightforward issue. In a purely financial sense, universities do poorly from European framework funds, since almost all universities utilise the marginal cost contract approach rather than the shared cost contract. Marginal cost contracts offer only a small contribution to the indirect costs incurred by universities in carrying out research, and on a purely financial basis undoubtedly require subsidy from the universities' core income. A difficulty here is the different way in which university research is funded in different parts of Europe; in many European countries, the state makes available matching funding for EU framework contracts, effectively to compensate universities for the indirect costs of support. This does not, however, happen in the UK. The 20% overhead figure imposed on framework contracts is, therefore, a compromise which leaves UK universities substantially out of pocket and the full economic costs or a high percentage of them should be paid by the EU instead.

Most UK universities, however, have taken the decision to subsidise Framework research contracts on the basis that the strong and worthwhile collaborations and research networks that have developed throughout Europe have immense intangible benefits. Examples of this are raising the level of research performed, enhancing the research capacity, developing some genuinely 'European' young scientists and collaborations of continuing character, and leveraging additional funds from other research funders. These intangible advantages outweigh the poor financial rewards from earlier Framework programmes, but will come into conflict with Government proposals to move to a full cost model of university research funding. In addition, discussions with the EU Commission should be undertaken on the use of the UK's proposed Transparent Approach to Costing (TRAC) methodology for use in the Full Cost model in their Framework Programmes, as the original TRAC methodology was unacceptable to the European Commission as being far too broad-brush in nature.

Both the Universities and the private sector speak often of the disincentives to taking up Framework Programme research. These are partly bureaucratic: too much form-filling, and lots of delay. This is exacerbated by a tendency to late payment by the Union institutions. Smaller private sector bodies may find it too risky to take up projects with European funding because of possible acute cash-flow problems. On the issue of time-frames, the RSE believes that the main criticism has related to the time between submitting an application and signing of a contract. However, in the time frame of a project itself, it is often the need to change a workplan according to the evolving field which has caused delays, sometimes necessitating lengthy contract amendments. The Commission appears to be trying to address this problem in FP6 through autonomy for consortia to evolve workplans within the new instrument projects. Nevertheless, obtaining information on the progress of an application can also be very difficult and

frustrating as Commission staff often seem overstretched. Although the EU Commission has formalised processes, the approach taken both by different scientific areas and by different desk officers can vary substantially.

Another special difficulty in the UK results because of currency fluctuations between the Euro and the Pound. The 20% overhead provided is too small to cover this risk, given that it is also needed to pay overhead and infrastructure costs.

### *UK support*

The Government has promoted a fair amount of public activity in the UK, involving its own officials and invited representatives from the European Commission, in respect of raising awareness of the opportunities in FP6, as has happened with previous Framework Programmes. However, within the university sector there is widespread concern over the lack of a clear strategy for Higher Education Institutions with regard to UK priorities in the bidding process and as a result the UK may see its role diminished especially with regard to the co-ordination of Integrated Projects and Networks of Excellence. A Scottish FP6 Focus Group was formed in November 2001 with the aim of developing and implementing a Scottish framework for FP6 promotion and support in order to maximise Scottish involvement in FP6 projects and has launched two support programmes aimed at SMEs and universities respectively. These are the Scottish Proposal Assistance Fund, through the Innovation Relay Centre, IRC Scotland, and the Proposal assistance for co-ordination of European Framework Programme VI research projects (PACER), through the Scottish Higher Education Funding Council.

The UK could also drive up the UK share of applications, by considering instituting some incentives. For example, if the EU will not provide full economic costs, then the Government should consider making up the full economic cost of successful proposals for UK participants.

### *Additional Information*

In responding to this consultation the Society would like to draw attention to the following Royal Society of Edinburgh responses which are of relevance to this subject: *UK Science and Europe: Value for Money* (January 2003); *The Sustainability of University Research: A consultation on reforming parts of the Dual Support system* (September 2003) and *Science and innovation: working towards a ten-year investment framework* (April 2004).

Copies of this response and of the above publications are available from the Policy Officer, Dr Marc Rands (email: [mrands@royalsoced.org.uk](mailto:mrands@royalsoced.org.uk)) and from the RSE web site ([www.royalsoced.org.uk](http://www.royalsoced.org.uk)).

### **University of Edinburgh:**

There are many complexities and issues facing participation in the Framework Programme.

Some of those are listed below with possible solutions to remedy such problems:

1. Difficulties in understanding the policy behind chosen thematic priorities, yet an understanding is essential in order to submit a well-rounded proposal. National Contact Points could play a more pivotal role in steering applicants to relevant EU policy.
2. Higher profile of NCP and how they can assist in process of applying.
3. Reduction of entry cost for participation by two-stage proposal submission, which should also help with over-subscription. First-stage application should also be based on reduced criteria to further simplify the process.
4. Continuation in the reduction of Commission monitoring experienced in FP6 to avoid the Commission micro-managing projects.
5. Stability in the oversight of projects would be more helpful. Projects can experience several changes of project officers, each having less knowledge and commitment to the project than their predecessor, their involvement offering very little substance to the project as a whole.
6. Consistent and unambiguous guidance from Commission project officers would assist the process of application to contract signature enormously.
7. Faster turn around of contract after final submission of contract preparation forms. Delays cause problems in project scheduling and recruitment plans by consortia.
8. Simplify provision of model contract around Pre-Existing Know How (PEKH). Requirement to list PEKH prior to start of the project proves to be difficult and complex.

### **University of Glasgow:**

There are a number of barriers to entry currently facing the UK science base. These are:

- 1) Concern over the initial start-up costs, particularly with the low chance of gaining funding.
- 2) Contamination or entanglement of background intellectual property and the expectation that the exploitation of foreground will be difficult.

- 3) The risk of financial loss from a project. This particularly relates to 'carrying the can' for your partners and also that if some projects fail, the Commission can demand for their money back.
- 4) The poor funding model, were participants fund 50% of the costs.
- 5) The limited funding available for the research, particularly when desk officers attempt to reduce the budget further during negotiation.
- 6) The increasing level of administration and bureaucracy related to European projects.
- 7) The different attitude taken by desk officers during negotiation, compared with that of the auditors, leading to incurred expenditure being rejected and further financial loss.
- 8) Full-Economic Costing will be introduced to UK HEIs shortly. This should lead to a move to the Full-Cost Model with European funding. HEIs will have to become more selective about the European projects they get involved in and commit the required resource to. Other funders may well often be seen as a higher priority for their limited resources.

The application process needs to be changed in order to increase the chances of success, so ways of reducing the number of applicants should be investigated and the cost of preparing an application need to be either part funded or greatly reduced. One option for this would be the use of a two-stage submission process.

Aside from possible exceptions, research projects should be of a more manageable size. Sometimes there is a trade off between the number of partners involved (integration achieved) and the success of the actual research. Fewer partners, fulfilling larger roles, could lead to more effective research results.

The European Commission needs to devote more resources to both promoting the FP, particularly to industry and key research institutions, and also to the education of the research community. The current lack of understanding leads to fewer organisations being keen to participate and many problems within projects.

Transferring management to the consortia has just led to increased costs for participants as well as increased bureaucracy. The extra freedom consortia have, combined with the lack of education relating to FP6 instruments, has also led to further problems.

One option could be the management of the programme being taken over by a 3<sup>rd</sup> party, but some of the burden needs to be removed from participants in order to encourage their participation. Alternatively, funding could be given to cover these costs.

**Conclusion:**

**Scotland Europa submission to 2004 European Commission consultation on European research policy**

The following submission was made in September 2004 by Scotland Europa to the *IPM online consultation on the Communication "Science and Technology, the key to Europe's future - Guidelines for future European Union policy to support research"*: <http://europa.eu.int/yourvoice/forms/dispatch.jsp?form=330&lang=EN>.

It is based on contributions to the Scotland Europa Paper *Response of stakeholders in Scotland to the UK FP7 consultation* (September 2004).

**1. Creating European centres of excellence through collaboration between laboratories**

Importance of this objective?	Very important
Do you agree with the views stated in the text?	Mostly agree
If European centres of excellence are created through collaboration in specific research areas, the overall impact on the quality of European research compared to the current situation will be:	Don't know

**Additional comments:**

Scotland is committed to maintaining a diverse, high-quality research base, complemented by initiatives in support of technology transfer applicable across many scientific domains. This recognizes that excellence can be found in different types of research institutions and organizations, and also provides the flexibility to adapt to scientific and technological developments. Increased levels of public and private sector investment in promising fields identified by technological and market foresight is equally necessary, as shown by Intermediary Technology Institutes in Scotland ([www.itiscotland.com](http://www.itiscotland.com)), which will commission market-driven pre-competitive research for the benefit of subscribing companies. However, these two approaches are not mutually exclusive but indeed complementary, and EU policy should reflect this.

The principles and new opportunities presented by IPs have generally been embraced by the research community. However, some examples have had excessive numbers of partners given the funding available, leading to project management difficulties and a significant co-financing burden upon participants. This can be particularly acute for universities as commercial return on project IP is often only realistic in the medium to long term.

The general feeling is that it is still unclear what NoEs should involve. This uncertainty dissuades industrial as well as academic participation, particularly as it is necessary to commit to joint activity beyond the duration of the EU contract. There is a perception

that there is serious overlap between IP and NoE activities, and that aspects of NoEs should be used to supplement IP activities, rather than be a separate instrument in their own right.

STREPs are by far the most preferred instrument for collaborative research both amongst the academic and business community, mainly as they are suitable for the collaborative needs of many types of organizations with research capability. SSAs remain useful instruments but clarity could be increased by combining them with CAs.

New and Emerging Science and Technologies (NEST) and IST Future and Emerging Technologies STREPs and SSAs open to cutting-edge proposals within general thematic guidelines are popular and could be expanded.

## **2. Launching European technology initiatives**

Importance of this objective?	Important
Do you agree with the views stated in the text?	Don't know
If European technology platforms are launched in specific industrial research areas, the overall impact on the quality of applied research compared to the current situation will be:	Don't know

### Additional comments:

More information is required on how the initial European Technology Platforms operate and their impact before extending the concept as a pillar of FP7. Industry in the past has been reluctant to invest in the development of a strategic research agenda for Europe, as shown by the limited take-up of NoEs by companies. Working with competitors is often cited as a reason and Technology Platforms would need to overcome this.

The criteria for the selection of appropriate technology fields for these platforms would need to be clearly defined if their European added value is to be made evident. It would be necessary to avoid a 'top-down' selection exercise that is perhaps inflexible given that the research priorities of industry will be market-driven. The experience of ITI Scotland in working with member companies to define a strategic research agenda in life sciences, energy and techmedia could be useful in this respect.

### **3. Stimulating the creativity of basic research through competition between teams at European level**

Importance of this objective?	Important
Do you agree with the views stated in the text?	Agree
If creativity of basic research is stimulated through competition between teams at European level, the overall impact on the quality of basic research compared to the current situation will be:	Greater

#### Additional comments:

There is a strong case for a European funding stream to support fundamental research. This is principally because the scientific and technological goals of the EU cannot be achieved by an exclusive focus on applied research. Basic research often leads to more market-focused science at a later date. It should also prove an attractive option to top-class scientists who cannot participate in the existing FP.

As suggested in the Communication, funding must be allocated by an autonomous and eminent grouping on the basis of scientific excellence, wherever it is found i.e. not exclusively in prestigious, research-intensive universities. Full-cost funding is essential given the timescale of potential returns, perhaps in the form of a grant over a longer period of time than traditional FP projects.

#### **4. Making Europe more attractive to the best researchers**

Importance of this objective?	Very important
Do you agree with the views stated in the text?	Mostly agree
If actions are taken to make Europe more attractive to the best researchers, the overall impact on the quality of European scientific careers compared to the current situation will be:	Substantially greater

##### Additional comments:

Marie Curie has been a highly useful and largely successful element of FP6 for both academia and industry. The reasons for its success are its 'bottom-up' approach, and the fact that it supports initiatives in which the scientific community are strongly in favour (e.g. PhD training). It requires a substantial increase in budget in FP7 to avoid the current situation where certain fellowships do not receive a sufficient EU contribution.

A further justification for a budgetary increase for Marie Curie is the usefulness to (especially new hi-tech) SMEs of programmes such as Transfer of Knowledge, Early Stage Training and Excellence Grants for Teams. They serve as well-structured programmes that can introduce such firms to international collaboration.

An increase in opportunities for post-doctoral researchers (especially in the EST and RTN schemes) is advised. Mobility opportunities should not be restricted to (or even be obligatory upon) young scientists, particularly as many research staff in industry have significant experience and may be more likely to remain in Europe afterwards as they return to their career in the private sector.

## 5. Developing research infrastructure of European interest

Importance of this objective?	Important
Do you agree with the views stated in the text?	Mostly agree
If research infrastructure are developed in Europe through the use of trans-European networks, the overall impact on the performance of these research infrastructure compared to the current situation will be:	Don't know

### Additional comments:

There is a role for the EU to play in providing a an overall strategy and programme for research infrastructure provision, since European priorities in this field can differ from national ones (e.g. a range of High Powered Computing machines are required in Europe, but member states often invest in the same type). A European Research Council could provide expert advice on the subject.

The four-year duration of the FP is not the best mechanism for providing the long-term (8-10 year) funding that infrastructures generally require. Support of this duration would also enable such issues as maintenance to be better resourced.

## 6. Improving the coordination of national programmes

Importance of this objective?	Important
Do you agree with the views stated in the text?	Mostly agree
If the coordination of national research programmes is improved, the impact on the efficiency of the overall EU research system compared to the current situation will be:	Don't know

### Additional comments:

There is a rationale to supporting the co-ordination of national research programmes in so far as it would introduce trans-national opportunities to more research and innovation actors, a key element in the realization of the ERA. However, if this begins to necessitate jointly-funded programmes for researchers, significant organizational and financial complexity will ensue (as shown by EUREKA and the European Science Foundation), with possible negative impacts.

## 7. Excellence and innovation, the key to European industrial competitiveness

Importance of activities to support research in SMEs and for their benefit?	Very important
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### Additional comments:

The CRAFT programme is of high potential value to SMEs but suffers from a low budget and irregular deadlines. There are also disincentives for universities to participate because they cannot recover indirect costs and cannot obtain commercialization revenue as they have no ownership of resulting IP. There should be a return to the arrangements in FP5 where the university was a subcontractor of the CRAFT project, or the SME-University co-operation under ERDF and ESF could be used as a model. A formula should be found that reassures participating SMEs that their IPR will not be 'leaked' by universities, but that enables universities to retain some potential income from the CRAFT project.

A key disincentive for SMEs in all elements of the FP is the delay between application and contract, which prevents the business from planning effectively and reduces the impact upon competitiveness.

The co-financing that is necessary in nearly all FP actions is a significant burden for SMEs in terms of a proportion of their overall turnover, even if the nominal amounts seem relatively small. The financial risk of including an SME in the contract is currently borne in practice by others in the consortium under the joint and several liability provision of FP6. The financial risk of SME inclusion in a contract should be underwritten by the EU or national governments, not by project participants or the SMEs themselves.

Importance of activities to support innovation (i.e. innovation related action within projects, transnational networking between providers of innovation support services such as technology transfer, intellectual property management, incubators, regional clusters, etc.)	Very important
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### Additional comments:

It is necessary firstly to consider why and how industry participates in FP projects. By definition, FP research will be some distance from the market, in areas in which industry is unwilling or unable to risk investment. Nevertheless, given the co-financing requirement of the FP, enterprises can only be expected to participate (i.e. contribute) on the basis of likely commercial return.

Administrative burdens and the complex IP arrangements (including access to pre-existing know-how) of FP projects cause delays and costs that diminish the potential return to both companies and universities. The balance can be made more favourable

by public funding to cover pre-application costs, as shown by the success of the Scottish Proposal Assistance Fund ([www.ircscotland.net](http://www.ircscotland.net)) in stimulating SME involvement in FP6 project development.

In addition, companies and industrial bodies have less understanding of the FP and its potential benefits than the academic community. Additional information and support measures (perhaps funded as Economic and Technological Intelligence projects or using Structural Funds) would therefore be valuable.

(See also comments on NoEs under the section above 'Creating European centres of excellence through collaboration between laboratories' and on Technology Platforms in the section 'Launching European technology initiatives'.)

In respect of FP activities in support of innovation, it is difficult to specify and budget for exploitation activities before a FP project has started. All sectors in Scotland see the value of a separate funding stream for exploitation that is open to running, and especially concluding, FP projects. Such a fund should be available for organizations to obtain specialist advice on which items of potentially valuable IP they own as a result of an FP project, and the method of exploitation that should be employed. This is a detailed and complex (and therefore expensive) task for a transnational project given the continued diversity of patent rules across the EU. There remains a need for this to be addressed at Community level.

**8. Realising the potential of Europe of 25 and more**

Importance of this objective?	Important
Do you agree with the views stated in the text?	Agree

Additional comments:

None

## **9. Taking full advantage of complementarity with the EU Structural Funds**

Importance of this objective?	Very important
Do you agree with the views stated in the text?	Agree

### Additional comments:

There is a need for a mechanism that enables appropriate projects to make the transition from Structural Fund-supported activities in support of regional economic development to FP supported-work that contributes to European scientific excellence. In this way the regional partnerships formed by Structural Fund programmes can serve as an entry mechanism for organizations to collaborate on the European stage as part of an established regional consortium. Research infrastructure projects in particular might develop in this way, but only if the FP and Structural Funds jointly provide a holistic funding option and can be better related to project development.

## **10. Identifying topics of major European interest**

Importance of this objective?	Don't know
Do you agree with the views stated in the text?	Don't know

### Additional comments:

Europe cannot achieve world-leading competitiveness in every scientific field. FP7 resources should be concentrated to further target areas of European research strength. However, funding for non-proscriptive fundamental research should be available in parallel.

## **11. Supporting the union's political objectives**

Importance of this objective?	Very important
Do you agree with the views stated in the text?	Agree

### Additional comments:

Most FP-funded projects have a strong relevance for policy-makers, given that in practice most proposals emphasize their contribution to EU policy goals as evidence for European added value. Yet FP results are not significantly taken-up by public authorities beyond those involved as partners in the project, a role which has become much more difficult in FP6 for local authorities in particular. City administrations have previously led FP projects, but the increased size of consortia and a lack of focus on urban issues in FP6 has removed this opportunity. The participation of such actors must be considered if the transfer of FP research results into policy-making is to be achieved.

Furthermore, as with exploitation activities, planned dissemination elements of FP projects do not have a ring-fenced budget and may require adjustment in the later stages of the research work. One solution could be a separate funding stream available to policy implementers to support engagement and demonstration activities with concluding FP projects.

## **12. Supporting two new areas: Space and Security**

Importance of helping to implement European space policy?	Not important
Importance of placing research at the service of security?	Important
Do you agree with the views stated in the text?	Mostly agree

Additional comments:

None

### **13. Doing better to do more**

#### Comments:

The frequency of deadlines should be increased to enable more time for proposal preparation and to address oversubscription.

The time taken to decide upon proposals to be funded should be reduced, as this creates a 'dead period' in which no work can be done while science and markets continue to evolve. Delays in contract negotiations and payment are also harmful.

A two-stage decision process is necessary across the board in FP7. This should improve on the current two-stage procedure in FP6 in order that the first stage has substantially different criteria (e.g. scientific proposal, European impact, and composition of the consortium) to the second. Consistency of evaluation panels at each stage is also important.

It would be useful if UK members of the FP programme committees were able to consult with the research community on the content of work programmes. This seems to happen in other Member States as a matter of routine, and is no doubt valuable in developing appropriate research priorities. This arrangement should be formalized for all Member States to enable UK researchers to contribute to the priorities of the programme.

#### **14. Science and society**

Importance of this aspect?	Very important
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##### Additional comments:

The research community and technology-based industry in Scotland fully recognizes the importance of public awareness and engagement with science. The Royal Society of Edinburgh ([www.royalsoced.org.uk](http://www.royalsoced.org.uk)) has particular experience and expertise in this area.

## 15. Overall questions

Do you agree that the support for research at a European level should be strengthened?	Agree
Do you agree that a strengthened European level research support will have an important impact on Europe's research capacities and capabilities?	Agree
Do you agree that a strengthened European level research support will contribute significantly to Europe's competitiveness, social welfare and sustainability?	Agree

Are there research domains where no European level action should be undertaken?:

No comment

Do you have comments on any other aspects which are not covered in the above questions and which you consider to be important?:

Budget lines available for FP actions should be significantly increased to avoid the current situation of the rejection of many proposals that are evaluated as excellent. The current tendency to use budgets to fund as many projects as possible, particularly when this leads to across-the-board cuts at the contract negotiation stage, leads to a dilution of the effectiveness of all projects and can make some project tasks impossible without additional cost absorption by participants. This dissuades the leading players that the FP is the best route for their R&D, particularly in areas expected to lead to large commercial returns. It can also reduce the funding available for project management as proposers are under pressure not to claim up to the 7% limit in order to maximize resources available for the main activities.

The problem of oversubscription will only become worse as more actors in the new EU member states seek and obtain increasing amounts of FP money. There is therefore no simple correlation ensuring that doubling the present FP budget (€19bn) for the EU 25 will reduce oversubscription by 50%.

Reference has already been made to the burdens placed on particularly SME participants by the co-financing requirements of the FP. However, universities are also affected by the fact that indirect costs are not covered by the additional cost model beyond the nominal 20% flat rate. The proposed Transparent Approach to Costing (TRAC) methodology to be introduced in the UK is likely to oblige British universities to fully recuperate the indirect costs of their research. Therefore FP7 must provide universities with a financial framework that enables them to fully cover their indirect costs associated with FP participation. If this does not occur, (i.e. if universities remain obliged to use the existing additional cost model), there will be a disincentive to universities to participate in the FP in comparison with other funding sources. Some

institutions are now already on the verge of discouraging applications to the FP for this reason.

## **Annexe:**

### **About the Research, Education and Training group of Scotland Europa**

The Scotland Europa Research, Education & Training Group was established to promote the interests of Scottish education in Europe and to offer strategic and practical help to the education sector in building European partnerships and in accessing EU programmes.

The Group comprises of six of Scotland's universities, the UHI Millennium Institute, Queen Margaret University College, Universities Scotland, the Royal Society of Edinburgh, the Scottish Crop Research Institute, the Association of Scottish Colleges, the West of Scotland Colleges' Partnership and the Scottish Qualifications Authority.

Scotland Europa actively carries out a variety of support measures, including disseminating information about education, training and research developments across the EU, maintaining and developing links with other European regions and organisations working in the field of education and advising on policy, legislation and funding opportunities at European level.

Scotland Europa provides an important link between education establishments in Scotland and the European institutions. This is important in raising the profile of Scottish education, research and training, influencing the EU's decision-making process and optimising the potential benefits of EU policies and programmes in this field.

The Group has focused on developing capacity to access the funding available in the 2002-6 EU Sixth Research Framework Programme, including the production of a CD-ROM in advance of the launch of the programme. Furthermore, the Group has held a series of useful meetings on key issues including the new generation Community education and training programmes in the context of developing lifelong learning in Scotland. The Group is currently pro-actively engaged in several initiatives as a management board member of the EU-funded European Regions Research and Innovation Network in Brussels (ERRIN).

The Group has produced several Scotland Europa papers:

Paper 24: May 2003

**The Role of the Universities in the Europe of Knowledge: Response from Scotland Europa to the European Union Consultation**

Scotland Europa Research, Education and Training Group

Paper No. 21: March 2001

**Glasgow the Learning City: Lifelong Learning & Regeneration**

Jonathan Clark, Scottish Enterprise Glasgow

Paper No. 20: March 2001

**A New Institute for the New Economy: The Institute for the Knowledge Economy**

R. Nigel Kay, Deputy Director Information Strategy, University of Strathclyde

Paper No. 17: June 1999

**The European Employment Strategy: Implications for Scotland**

Kirsty Macdonald, Development Executive, Scotland Europa

Special Paper: April 1996

**Learning From Scotland:** The Scotland Europa Education and Training Group

**Members of the Research, Education and Training group**

Association of Scottish Colleges	<a href="http://www.ascol.org.uk/">http://www.ascol.org.uk/</a>
Royal Society of Edinburgh	<a href="http://www.royalsoced.org.uk/">http://www.royalsoced.org.uk/</a>
Scottish Crop Research Institute (SCRI)	<a href="http://www.scri.sari.ac.uk/">http://www.scri.sari.ac.uk/</a>
Scottish Qualifications Authority	<a href="http://www.sqa.org.uk/">http://www.sqa.org.uk/</a>
The Robert Gordon University	<a href="http://www.rgu.ac.uk/">http://www.rgu.ac.uk/</a>
UHI Millennium Institute	<a href="http://www.uhi.ac.uk/">http://www.uhi.ac.uk/</a>
Universities Scotland	<a href="http://www.universities-scotland.ac.uk/">http://www.universities-scotland.ac.uk/</a>
Queen Margaret University College	<a href="http://www.qmuc.ac.uk/">http://www.qmuc.ac.uk/</a>
University of Edinburgh	<a href="http://www.ed.ac.uk/">http://www.ed.ac.uk/</a>
University of Glasgow	<a href="http://www.gla.ac.uk/">http://www.gla.ac.uk/</a>
University of Paisley	<a href="http://www.paisley.ac.uk/">http://www.paisley.ac.uk/</a>
University of Dundee	<a href="http://www.dundee.ac.uk/">http://www.dundee.ac.uk/</a>
University of Strathclyde	<a href="http://www.strath.ac.uk/">http://www.strath.ac.uk/</a>
West of Scotland Colleges' Partnership	<a href="http://www.woscop.co.uk/">http://www.woscop.co.uk/</a>

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