

February 2006

Study to identify the costs  
of EU framework  
programme projects to  
UK higher education  
institutions

Executive Summary

**A report by JM Consulting to  
Universities UK and HEFCE**

# Foreword

1. The EU's Framework Programme is at present the primary supranational funding mechanism for supporting and encouraging R&D in the European Community, making it central to the implementation of the objectives of a European Research Area, and a vital element in helping universities to deliver their part in the laudable aspirations and objectives set out in the government's 10-year Science and Innovation Strategy. Traditionally the UK's participation in the Framework Programme has been strong, and under the 5<sup>th</sup> Framework Programme the UK received 25 per cent of all funding that went to universities throughout Europe.
2. The European Commission's proposals for the 7<sup>th</sup> Framework Programme (FP7), published earlier this year, set out a strengthened programme. It will be important, therefore, that UK universities can continue to succeed and engage in European funded research as FP7 develops, particularly given the new opportunities in for basic research presented by the proposed European Research Council.
3. Based on experiences in the 6<sup>th</sup> Framework Programme, this research report considers the issues, both financial and non-financial, that may influence UK HEIs' future involvement and highlights the challenges that UK universities and policy makers will face as we continue to strengthen this activity.
4. It is clear from the report that the benefits of UK universities' participation are significant. It ensures strong collaboration across Europe, with the free exchange of ideas that enables UK academics to experience and benefit from a broader perspective on their research. There are, however, important challenges. Significantly, with the introduction of full economic costing in the UK, the relatively low recovery for Framework Programme projects raises questions as to how sustainable this activity is in the long term. Universities will need to understand why they are doing EU work, and have a view of its place in their research strategy, and the particular benefits it brings, but also, as the report suggests, policy makers can do a lot to influence this process depending on the way that policy initiatives on research funding and sustainability are taken forward.
5. It is hoped that this report will help inform thinking on this, and other issues, as we move towards strengthening the knowledge generation and exploitation in the UK and across Europe.

**Professor Drummond Bone, President, Universities UK**

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# Executive summary

## Purpose and scope

1. The purpose of this study was to investigate the costs and benefits to UK higher education institutions (HEIs) of undertaking research projects funded by the EU within Framework Programme 6 (FP6). In particular, the study was intended to compare cost recoveries under the two main EU funding models and across a range of different types of project.
2. The work was commissioned by Universities UK and the Higher Education Funding Council for England (HEFCE) with support from the Office of Science and Technology (OST). It was conducted during the autumn of 2005. The main method of work involved looking at a sample of individual projects covering different project types ('instruments') and different disciplines at six case study HEIs. The HEIs covered a range of types of institution, and the projects covered five main instruments as follows:
  - Network of Excellence (NoE)
  - Co-ordination Action (CA)
  - Specific Targeted Research Project (STREP)
  - Integrated Project (IP)
  - Specific Support Action (SSA)
3. A profile of the institutions and of each of these types of project is provided in the report.
4. There are some other types of project under FP6 which were not reviewed in this study as they were not in the terms of reference. The institutions also had significant EU income both in other areas of FP6, and outside FP6, including for example projects from earlier research framework programmes. For convenience references to FP6 should be understood to deal only with the five instruments above, unless stated.

## Range of projects and importance to the institutional portfolio

5. The six institutions have a total research income of approximately £300m. The proportion of the institutions' research income from EU activity varies from 6% to 60%. Their total EU income is nearly £30m, with the five types of FP6 project listed above accounting for nearly one-third of this.
6. The study aimed to cover these five types of instrument equally. However, we found that the incidence of these projects varied significantly. The sample was therefore not chosen to be representative of the sector as a whole, or to include all types of instrument proportionately. It was chosen on a pragmatic basis to give a view of the costs and benefits of the most common types of project, across the three main discipline types (medical, physical sciences, social sciences/arts and humanities) and to include projects both where the institutions acted as co-ordinators, and where they did not.
7. Institutions participate in FP6 projects either as a partner or as a co-ordinator. Co-ordinators generally have a significantly larger role, and higher costs: they

act as the legal contractor, and usually as project manager for the consortium which normally has many partners spread across several countries. Although we understand that the number of partners is typically in the range 10 to 30, it is often much higher. This varies by type of project – IPs typically have the largest number of participants, and SSAs may have only one.

8. The size of individual projects, and of the FP6 project portfolio, varied greatly. For example at one Russell Group institution which had a portfolio of 42 FP6 projects, the scale of these varied from €15,000 to €1m with an average of just over €250,000 per project. At this institution, IP projects had the largest average budget at €400,000, and CAs the smallest at €50,000.

## Study method

9. The study mainly focused on building up a picture of the full economic cost of each project to the institution using the Transparent Approach to Costing/full economic costs (TRAC/fEC) method which is now the standard method for costing UK research projects in higher education. We then compared these costs to the two main EU cost models - full cost (FC) and additional cost (AC) - and also looked at the benefits and other impacts of the projects.
10. TRAC is designed to determine the full long-run cost of research projects on a sustainable basis. So TRAC/fEC includes, for example, an element for risk and the cost of financing; a share of the cost of depreciating and renewing buildings and of non-estates indirect costs; the costs of the relevant time of permanent academic staff; as well as direct costs such as research assistants, equipment, consumables, travel etc. TRAC also includes support costs which, for example, cover the costs of activity such as preparing bids.
11. Certain TRAC indirect and estates costs are ineligible for funding under FP6 (see chapter 1) – these lead to a reduction in the indirect and estates costs that could be considered for reimbursement of 15-30% at the six institutions. The levels of reimbursement funding also differ between the two main EU funding methods. Notwithstanding these variations in funding, the TRAC/fEC costs are the real cost to the institution of running these projects.
12. The FC model allows contractors to be reimbursed for a proportion of all eligible costs, both direct and indirect. The proportion reimbursed varies according to the type of activities being undertaken: different instruments involve different activities, and therefore have different recovery rates. For example:
  - NoEs (with up to 100% of eligible costs reimbursed) provide the best recovery under the FC model.
  - Demonstration activities on an IP or STREP offer the worst recovery (with 35% reimbursement).
  - Research activities, which make up the majority of the work on most STREPs and IPs, are reimbursed at 50%.
13. FC is the default method and is used by industry and by many UK research institutes and establishments, but not by UK HEIs.
14. All UK HEIs instead use the additional cost model which allows institutions to charge 100% of additional direct costs, plus 20% of most of these direct costs as a contribution to indirect costs. The AC model is a derivation from the Full Cost model, and is used by certain legal types of organisation which do not have accounting systems enabling them fully to identify direct and indirect costs at the project level. Institutions which have systems that allow them to identify their full

costs must use the FC model – TRAC as it stands is unlikely to be acceptable, but we believe that it could be easily developed for this purpose.

15. If the use of the AC model was to change (e.g. in Framework Programme 7) it could be beneficial for UK HEIs to switch to the FC method (or its equivalent). We believe that TRAC, slightly developed, should make it possible for them to do so with little difficulty. But, it would be desirable to establish this through a UK-wide initiative in conjunction with the OST or Funding Councils, rather than on an institution-by-institution basis.

## **Findings on cost recovery**

16. FP6 is a cost-sharing programme, and cost recoveries of 100% are not to be expected under either the AC or FC models.
17. This report shows the average cost recovery for each type of instrument at each institution on the AC basis of funding currently experienced.
18. The unrepresentative nature of the sample means that an overall average cost recovery across all 47 projects should only be regarded as illustrative, but, at 55-60% under the AC model, is in line with national figures from informal calculations based on TRAC.
19. These recoveries vary widely due to a number of factors including the nature of the project and whether the institution is co-ordinating. At one institution, for example, cost recovery on an AC model, on the 10 projects we reviewed, varied from 26% (on an IP project) to 60% on two STREPs and an SSA. At one institution, it varied from 32% on a STREP, to 85% on an IP.
20. Looking across the project types, overall recovery across the six institutions on an AC basis varied from 26% to 85%. The average recovery for the different instruments ranged from 50% to 70% under the AC model, with STREPs and NoEs at the lower end, and SSAs at the higher.
21. If the FC model had been applied, the recoveries on individual projects would have differed quite significantly (for example, one institution's 26% recovery on an IP project would become 46%, but some other projects would recover less well). There is a marked difference between types of instrument, with the average recovery for IPs and STREPs being 45-50%; and that for NoEs, CAs and SSAs being 77% to 87%. IPs and STREPs make up three-quarters of the six institutions' portfolios of these instruments.
22. At the level of the aggregated 47 projects (with the reservations we have noted above) the overall recovery under FC would not be significantly different from that under AC (that is, also in the range 55-60%). So, at a high level, there is no material difference between the AC and FC cost models, in terms of cost recovery for institutions.
23. These levels of recovery if replicated across all EU activity at the six case study institutions would lead to deficits of about 43% of TRAC full economic costs on their EU portfolio. This implies that these six institutions would have made a financial contribution to their EU work of £12m in aggregate, varying from just under £1m to over £3m.

## **Benefits and other impacts**

24. The levels of cost recovery we have identified above are relatively low, and would not be acceptable, or sustainable, if they were maintained across an institution's whole research portfolio. However, it is only very recently that institutions have

become aware of the full economic cost of research, and it is only in the current academic year (2005/06) that the UK Research Councils have begun to fund research on an 80% of fEC basis. So, while the cost recovery on FP6 projects is relatively low, we would not expect this to be a major consideration for institutions as yet, and this was confirmed in our interviews.

25. For the three research-intensive universities in our sample, EU FP6 research makes up less than 10% of their research portfolio, and arguably, even as sustainability considerations become more significant, the cost recovery will not become a major factor in decisions about bidding for projects.
26. For the three less research-intensive universities, the position is rather different. EU FP6 research makes up a more significant part of their total research portfolio, and in one case FP6 is in fact the major source of research funding. For these institutions therefore the level of cost recovery is likely to be a more significant consideration within their overall financial strategy and planning.
27. For all these institutions, however, the level of cost recovery will only be one factor to consider alongside the wider pros and cons of participating in FP6.
28. We discuss the benefits and other impacts of participation in FP6 in chapter 4.
29. The main negative aspects of collaboration in FP6 projects identified by those we interviewed were:
  - a. A high level of bureaucracy and administrative effort compared to UK Research Council projects.
  - b. Difficulties in managing fluctuations in exchange rates.
  - c. A tendency (especially in large consortium projects) to experience sometimes arbitrary and short-notice cuts in budgets.
  - d. Various difficulties around project management – which is often critical in FP6 projects. Some projects benefit from having a dedicated project manager, but where this is not possible, significant difficulties and risks can arise in large, complex, multi-institution projects.
  - e. The different natures of research work that the EU wishes to fund. There is a higher emphasis on research inputs (staff etc) and on specific deliverables compared to many UK-funded projects. However, not all those we spoke to regard this as a disadvantage – it is welcomed by some; others consider the work has less academic prestige.
30. There are also significant benefits associated with participation in FP6 projects. The main benefits identified to us fell into a number of areas as follows. The first four of these (*in bold*) were mentioned the most consistently by those we interviewed:
  - i. **Funding for different types of project, in particular:**
    - large, transnational, multi-disciplinary projects;
    - collaborative networks;
    - providing flexible funding for areas that other funders might not support;
    - non-elitist approaches;
    - an industry focus.

**ii. The European perspective**

- enabling UK academics to experience and benefit from a broader perspective on their research;
- from new ways of working and thinking;
- from access to a much larger pool of expertise.

**iii. Collaboration**

- the benefits of collaboration are also very significant, including access to up-to-date knowledge and techniques;
- free exchange of ideas;
- ability to make new contacts.

**iv. Providing research capacity**

- as a further source of funding, and one which arguably is more accessible to some of the less dominant research institutions, FP6 plays a significant role in building UK research capability;
- v. Diversification of funding and risk avoidance.
- vi. Contribution to the Research Assessment Exercise (RAE).
- vii. Career development for research staff.
- viii. Ability to work with the best in the field.
- ix. Opening up new opportunities, which as well as academic benefits, may offer higher cost recovery.
- x. Continuing work started under earlier framework programmes.
- xi. Higher success rates in bidding than with some other funders.

## **The future**

31. It was not part of the remit of this study to make recommendations. However, there are some obvious messages for HEIs and for the UK Government. We would highlight the following.

**For HEIs**, there are two main messages:

- a. If cost recovery overall continues to be lower in future than on most other publicly-funded research, HEIs need to understand why they are doing EU work, and to have a view of its place in their research strategy, and the particular benefits it brings. It will become even more important to operate with a balanced portfolio of research as sustainability considerations become more apparent.
- b. HEIs can significantly improve the ratio of benefits to costs by managing their research programmes pro-actively, and in particular by providing support to academics engaged in planning and managing FP6 projects. In particular all allowable costs should be included; bids and contract negotiations made professionally; and academics encouraged in good project management procedures, including management of their time input as well as costs.

**There is a message for the Government** that EU research delivers significant benefits to the UK economy and higher education, but that institutions and academics bidding for EU projects in the UK are significantly disadvantaged by being outside the eurozone compared to those who are inside. A further factor, which is outside the remit of this study, is that UK HEIs are expected to provide all the cost-sharing element of EU participation from their own research budgets – which are already in deficit.

**There are two additional messages for both the sector and for Government:**

- a. It is likely that the greater awareness of full economic costs and pressures to manage the sustainability of research will slowly act to make EU-funded research, if funded at current rates, appear less viable and less attractive to institutions. The OST and Funding Councils can do a lot to moderate (or accelerate) this process depending on the way they publicise and pursue the existing policy initiatives on research funding and sustainability. This may become even more pertinent with any growth in funding from the new European Research Council – if funded with current rates of recovery, this would undermine the plans of both HEIs and UK Government to move research activity onto a sustainable basis.
- b. Alternative cost models (such as AC if it is still allowed, or a new flat rate model) are likely to be less attractive than a model based on the FC method in future framework programmes. Therefore, all UK HEIs would be well advised to ensure they have systems that can support a model like FC. TRAC, slightly amended, could support this, but it would be difficult and wasteful for every HEI to have to manage this process on its own. Moreover, this transition could be inhibited or prevented if individual institutional auditors had an insufficient understanding of the issues involved, or took an unduly legalistic view. There would therefore be a very strong argument for a co-ordinated sector-wide approach to this.