



# Sustaining and Assessing University Research

A response from

The Council for Industry and Higher Education  
to the Consultation Documents

***The Sustainability of University Research (DTI/OST)***  
*and*  
***The Review of Research Assessment***  
*by Sir Gareth Roberts (the Funding Councils)*

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## 1. Background

The ability to develop and apply innovative products, services and processes is fundamental to future wealth creation in the United Kingdom and hence the generation of a more egalitarian society. Currently both businesses and the Government spend a low percentage of their income on R&D in comparison with our international competitors. Furthermore some 25% of business R&D spend is in the pharmaceutical sector and this is under threat as newer lower cost nations such as India and China develop their research base and clinical trials and testing capability.

Only in higher education institutions (HEIs) is R&D spending rising, partly from the welcome increases announced in the 2002 Spending Review and partly because business has confidence in the quality of much of what higher education can provide. In a globally competitive environment where businesses can locate their R&D and other investments anywhere, it is a tribute to UK higher education that they captured over £840 million of business and charity funds in 1999/2000. University research is also highly productive: every £1 spent in the UK is worth £1.80 to the economy compared to £1.42 in the United States of America<sup>(1)</sup>. We agree with the Government that “UK universities play an important role both as the primary source of scientific knowledge and as intermediaries between UK firms and science and technology worldwide”<sup>(2)</sup>.

## 2. Some Principles

The university research base has to be sustained and improved still further through additional investments in infrastructure and in staff and researcher salaries so that talent as well as contracts can continue to be attracted here. Equally, HEIs must operate within a system of pricing that is transparent and funding that encourages dynamism and innovation. HEIs have to be encouraged to move into new or cross-disciplinary areas. This applies especially to emerging sectors within the so-called “creative industries”; policies must not be bound by a “big science” view of research and of such science as the only source of future wealth creation in a hopefully increasingly entrepreneurial society. HEIs also have to remain at the cutting edge of research.

We also agree with the report by Professor Porter of Harvard University<sup>(3)</sup> that “at the centre will have to be a shift in the role of Government: Government led development must be transformed into private sector led development.”

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<sup>(1)</sup> *How important is business R & D for economic growth*, Institute of Fiscal Studies, 2000

<sup>(2)</sup> *Investing in Innovation*, DTI July 2002

<sup>(3)</sup> DTI Economic Paper No 3 *UK competitiveness: moving to the next stage* Porter and Ketels, DTI May 2003

### **3. “The Sustainability of University Research”**

It is against this general background that we first view the OST proposals in their document *The Sustainability of University Research*. The key proposals are:

“We intend to make explicit HEIs central responsibility for the sustainability of their research; they will be placed under a responsibility at institutional level to recover the full economic costs of the totality of the research that they undertake.

We are extending the Transparent Approach to Costing (TRAC) methodology to allow HEIs to calculate the full economic costs of individual research projects.

We will deploy additional resources of £120 million per year from 2005-06 so that Research Councils pay a larger contribution to the costs of the research they fund in HEIs. A key proposal is that in future Research Councils should meet a percentage of the full economic cost of each project. This change has many implications and we are consulting on the issues raised by different methods of implementation.

Others who commission research in HEIs will also have to play their part if the research base is to remain healthy, and this document sets out draft guidelines for HEIs to use when interacting with non-Research Council sponsors of research.”

### **4. Recovering Full Economic Costs**

We agree with the broad principle that HEI research should cover its full economic costs. Indeed we have urged that policy on the Government in the past.

However, the following considerations influence the timing of a change to full economic cost recovery:

- the TRAC methodology has not yet been tested at project level; it will, in our view, take some 3- 4 years before institutions and hence private sector and charity funding organisations can have confidence that costs (and central overheads in particular) have been appropriately assigned at the project level;
- businesses and charities do not just engage on a price and contractual basis with HEIs; they expend resources in a variety of ways in developing and sustaining a relationship; it would be unfortunate if the relationship descended simply to one of cost and price; if it were to, then businesses would want their efforts to be costed into the equation;
- ways will have to be found to ensure that there are efficiency pressures on institutions (including on central overheads that are not project related). Otherwise HEIs will become cost-plus organisations with no incentive to contain their costs rather than just pass them on; our member companies have experience of controlling costs in

their own research laboratories and of framework agreements covering cost recovery on third party work; this could help inform HEI approaches on this issue;

- if the costs to private and charity funders increase, those funders will expect to see increased value from the overhead;
- many corporate decisions as to whether an investment should be made in a particular country are finely balanced; the UK has been an attractive location for multinational company investment including in R&D; but all of this investment is mobile over time. Furthermore the advantages of the UK are being eroded as the overall personal and corporate tax bill increases and the financial incentives reduce. Indeed some 50% of foreign direct investment went to China last year with another 10% to India. If the price of research carried out in UK HEIs increase to any significant amount, then mobile investment in R&D will continue to move offshore;
- without international agreement (at EU level in the context of the development of a European Research Area) and including with the USA (our main competitor for mobile R&D expenditure) on TRAC-style methodologies, UK HEIs will be at a price disadvantage compared to other HEIs; our competitors may have less incentive to follow the full cost recovery proposals of the OST. It is therefore imperative that the Government (working with Universities UK and other organisations) ensures that parallel progress is made in Europe and with the USA – perhaps in the context of GATT negotiations; until a level playing field can be assured, the UK should not take unilateral action that could lead to private sector investment moving abroad;
- EU projects only provide for a 29% contribution to overheads and this is clearly incompatible with full cost recovery; negotiations with EU partners and the Commission will need to cover this aspect as well.

Further work is needed to appreciate better the implications of a full economic cost recovery model and its potential impact on the academic sector in the UK.

## **5. Research Council Cost Contributions**

We support the proposal that Research Councils should pay 60-70% of full costs rather than the variable amounts currently paid. However, we see this as only a first step towards a system where the Research Councils and all external funders pay the full costs of all research projects. This proposal is based on the following arguments:

- Enterprise, innovation and diversity will not be encouraged if all HEIs have to find the remaining 30-40% of costs from their own resources; some smaller or less research intensive institutions do not have the funding capacity;
- to rely on the RAE for the missing funding is to rely on historic peer group evaluations; furthermore these are made on certain criteria that may not fully reflect

the value businesses attach to the research; the RAE and associated funding council funding tends to reinforce existing patterns of funding;

- despite our support for many of the proposals in the Roberts review of research assessment (see below), we doubt if his reforms will enable currently low intensive institutions or departments to build capacity and capture significant RAE funding; indeed, they may even entrench a two-tier system in research;
- important research should pick itself in a more dynamic and market driven approach (as Porter envisages) where costs are fully transparent; there could also be incentives on researchers to drive down the costs of internal overheads to ensure they can offer best value for money (as happens in the USA) rather than expect the centre to pick up overhead costs;
- we also fear that the RAE will always encourage game-play and the construction of largely spurious league tables based on ratings whether they are of individuals or departments. It continues to distort individual missions sometimes to the detriment of teaching and of the essentially iterative rather than linear relationship between research and knowledge transfer.

We therefore also propose that the allocation of the additional £120 million per year to help HEIs achieve an increase in overhead recovery should be supplemented by a further substantial and ever increasing amount from the Funding Councils for each of the next 3 years. We recognise that a move to full cost recovery from the Research Councils will not be possible or desirable in the very short-term. It could produce unacceptable volatilities in the system. Further discussions will be needed before a final decision can be made on the timing for a total withdrawal of RAE funds and their replacement by full cost recovery system. We also recognise that our proposal would spell the end of the dual support system at some time in the near future. A careful study is needed of the system wide impact this might have on quality and volumes.

The change proposed will place greater reliance on the judgements of the Research Councils. This makes it particularly important that business views are more fully taken into account on such issues as:

- the distribution of funding between the Research Councils;
- the priority and funding of multidisciplinary research;
- specific research proposals and their proposed linkages with business and other organisations;
- a greater co-ordinated research effort behind the key industrial challenges.

The R&D Employers Forum, the Research Base Funders Forum and Research Councils UK will have relevant views on these issues. CIHE will inject its thinking into these fora. We would also want to see an injection of additional and forward looking business people onto Research Councils. A danger of peer group evaluations has been that conservative

forces could be over-influential. A balanced academic-industry partnership culture has to be developed better.

We also recognise that the move to full cost recovery on all projects will place additional pressures on charities which will have to negotiate appropriate arrangements or be prepared to see the overall volume of the research they fund reduce. Maintaining high quality and preventing a return to cross-subsidy and the under funding of infrastructure has to be a priority.

## **6. Review of Research Assessment**

We have previously regretted how the RAE can distort the missions of institutions. The amount of funding that can follow specific ratings can lead to pressure on staff to undertake research of a particular kind, not necessarily that most valued by businesses. It can lead to the primary teaching and learning functions of institutions being undervalued.

The RAE has served an excellent role in raising the quality of UK research. But now that this has been achieved, it has become a rather unwieldy creature and the proposals from Professor Gareth Roberts, while mostly welcome in themselves, will only add to the bureaucracy as tiers of peers review the vast range of research undertaken and attempts are made to reduce the inevitable game-playing.

We recognise that the proposals for profiling represent a loosening of the current system and are less formulaic. We also appreciate the aim of reducing the burden on those institutions that are less research intensive through making the intensiveness of the process proportionate to the likely benefits. Equally, we are against any move that could lead to institutions being typecast and, as noted above, want to encourage innovation, flexibility of response and a more direct and forward looking customer driven basis of research funding. We would like to see much stronger incentives for multi-disciplinary and inter-institutional teaching.

We give our more detailed response in the form asked in the following pages. In particular we stress the importance of assessments being at the team rather than institutional level and that 100% of staff should be covered in those departments being submitted for more intensive evaluation.

We would be pleased to discuss our views with both the DTI/OST and Funding Councils and in particular the phasing of the proposals we have made.