THE FOUNDATION FOR SCIENCE AND TECHNOLOGY

DINNER/DISCUSSION SUMMARY

Is a fundamental review of university funding required?

Held at The Royal Society on Wednesday 25th February 2004

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Engineering and Physical Sciences Research Council
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In the Chair: The Rt Hon the Lord Jenkin of Roding
Chairman, The Foundation for Science and Technology

Speakers:
The Lord May of Oxford OM AC Kt PRS FMedSci
President, The Royal Society
Professor Sir Graeme Davies FRSE FREng
Vice-Chancellor, University of London
Dr Mark Walport FMedSci
Director, The Wellcome Trust
Professor Nick Cumpsty FREng
Chief Technologist, Rolls-Royce

LORD MAY outlined the content of the recent Royal Society Policy Document[1]. The UK had a very strong science base, outstanding internationally. Dual funding had served it well, but the existing RAE (Research Assessment Exercise) structure was now inflicting serious damage. It had become highly bureaucratic, inhibited collaboration, discriminated against new enterprises and rewarded inertia. It exhibited structural pathology; playing to the rules had become a real burden on innovation and research. What was the point of having dual systems when there was a correlation of 95% in the outcomes? The contrast with the US was marked. Change would be difficult, because the existing system was the only one that researchers knew, and there were certain elements of infrastructure funding, such as flexibility, which must not be lost. He welcomed Sir Graeme Davies' Research Forum, and agreed the 2008 RAE should go ahead. But we should start now looking at the whole of research funding afresh.

SIR GRAEME DAVIES welcomed the Royal Society document and endorsed Lord May's comments. He stressed the multiplicity of funding channels which fed into HEIs (Higher Education Institutions) – the funding councils, charities, tuition fees, overseas students (increasing, as the US becomes more difficult to enter), industry and endowments. The health of the sector meant cultivating all these sources. Any review should seek to maintain and enhance UK's world class research; build on a dual system, which supported projects but enhanced flexibility, and result in financial sustainability. Two vital questions - what was the right balance between the two legs of the system and was there sufficient finance? Note that you got £62.50 of research for every £1 of RAE money, while only £21 of research from every £1 of Research Council money. RAEs were flawed because of the way practitioners used them, not because the system itself was inherently wrong. The problems referred to by Lord May could be overcome; e.g. the Scottish project of subject strategies could enhance collaboration. But he was confident that, whatever we did, good researchers would come through.

DR. WALPORT noted that the gap between research and funding had grown much bigger over the last decades. This gap, and the RAE itself, had had some serious unintended consequences – short termism, heavy burdens on both infrastructure and people, the appointment of lecturers at the expense of support staff, and the devaluing of teams and teaching. There should be a recognition of the importance of teams, a continuous grading scale, the implementation of full economic cost and transparency, a review of HEFCE (Higher Education Funding Council for England) funding methodology and a 10 year science plan. The start should be a strategic review of Universities, which should establish what a first class research and teaching department should look like - its infrastructure and support staff as well as its students and academics. Charities can help, but must work in partnership with government; an assessment should be made of the charitable contribution and there could be a formulaic award (to central university administrations) related to charitable funding.

[1] www.royalsoc.ac.uk/files/statfiles/document-236.pdf

PROFESSOR CUMPSTY outlined Rolls-Royce's approach to university research. It supported university research for hard headed commercial reasons – such research gave the company the technology it needed; it could not have been successful without it. It was the commercial application of the results which mattered to the company. Their interest was in medium term research, and encouraged universities to get funding from other sources as well as the company. They had set up 26 University Technology Centres (UTCs) to work in various universities on specific problem areas. Their success was dependent on firm direction from within the university: close partnership with, and frequent visits by, the engineers in the company; work on really interesting problems; and full trust so that confidential company information could be shared, with no problems over IP (Intellectual Property). Rivals in the US had emulated this scheme. Dangers were that concerns over IP endangered universities' responsiveness; and that industry failed to find the research profitable. But Universities needed industry as well as vice versa. But government underpinning of the research in UTCs was essential. Outstanding questions were: did the Rolls-Royce scheme have lessons for others; can the IP dilemma be resolved; were there other examples of good practice from which Rolls- Royce could benefit; and what should the role be of government.

A number of speakers in the following discussion were concerned that, by concentrating on the problems of research, the overall function and purpose of universities was being overlooked. What were universities for? What was the right balance between research and teaching? We had developed a one-size-fits-all system, which might well not be appropriate for divergent demands in Higher Education. It had led to the requirement that any institution, no matter what its strengths, should seek to become a university with a demanding research role. When it failed to reach the highest research standards it was promptly labelled as dull, or failing. Inevitably, teaching was devalued, and it was doubtful if the growing use of teaching fellows would make much difference. Why had not the junior college system, widespread in the US, and which produced large numbers of graduate students, emerged here? A specific question – was teaching as good as Lord May claimed for research - received a mixed response. Some thought that, because of major investment in structures and the recognition of the importance of research led teaching, it was; others disagreed, citing the heavy teaching loads, the lack of equipment, and the desire of good researchers to escape teaching. There were calls for a more fundamental review of the whole function of universities, which would stress the centrality of student learning, and consider how the government's policy of widening participation, which was expensive, and drained funds from the sector as a whole, could be effectively implemented. But Dearing had already said much about the function of universities; was there anything more to be added? How could such a review be set up? Who would do it? And was there any likelihood that its recommendations would be implemented? But it might be possible to get a more holistic feel for how individual institutions were working, if one went back to the old UGC (University Grants Commission) system where institutions were visited quinquenially and their output teaching and research - assessed as a whole, and funding then delivered as a total package.
Participants in the discussion generally endorsed the speakers' criticisms of the RAE, and their hope that the 2008 RAE would be the last. But the consultation exercise had shown that 98% of respondents had wanted to retain peer review and dual funding, so it was clear that practitioners would want essentials of the present system retained. But it must be recognized that RAEs were now modifying behaviour so significantly, and responding to them had become such an end in itself, that they must change. The danger was that, unless work started now, 2008 would not be the last RAE, but merely signal a call for a review by 2014. Perhaps discipline-specific matrices might help to encourage partnership and collaboration, but there were dangers here of undervaluing individual pockets of excellence. It was important not to assume that the balance between the two streams was the same for all disciplines – in the arts and humanities, for example, QR funded research was more important than in other areas.

The adequacy of funds inevitably came up in discussion. In spite of significant funding increases, some thought that it was wrong that the budget for science, the basis of our whole economy was still so small – no bigger than the legal aid budget. But others stressed the need for universities to be more proactive in seeking funds from other sources – the taxpayer would never pay for all that was needed. Endowments were crucial in allowing Vice Chancellors sufficient flexibility to ameliorate the inevitable deficiencies of any funding system – as, in the present one, the bias against disciplines which demanded large buildings or expensive equipment. But science or research funding must not be looked at in isolation. The bulk of HEFCE funding was related to student numbers, and Universities had large discretion on how to spend it. RAEs were invented as a method to distribute funds selectively, as part of an overall funding mechanism. With the great changes over the last decades in the numbers of students, institutions and research projects, some speakers urged that the time was ripe to look at the whole philosophy and mechanism of university funding.

Sir Geoffrey Chipperfield KCB

Background information can be found at:
www.hefce.ac.uk/news/hefce/2004/rae.asp

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Tel: 020 7321 2220
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