



Clarifying the role of different parts of the science base

Response to the inquiry into Research Council Institutes by the House of Commons
Science & Technology Committee

1. The Campaign for Science & Engineering is pleased to submit this response to the Committee's inquiry into Research Council Institutes. CaSE is a voluntary organisation campaigning for the health of science and technology throughout UK society, and is supported by over 1,500 individual members, and some 70 institutional members, including universities, learned societies, venture capitalists, financiers, industrial companies and publishers.
2. Research Council Institutes serve to conduct the kinds of research that cannot be readily achieved through the Councils' normal procedure of awarding of grants to external bodies, primarily the universities. The kind of research that falls into this category might include studies that rely on data from long-term monitoring or some areas of science required to inform Government policy.
3. Such work is not distributed evenly among subjects, which is why the Natural Environment, Medical and Biological & Biotechnology Research Councils (NERC, MRC and BBSRC) have always had their own Institutes while the Engineering & Physical Sciences Research Council (EPSRC) has not.
4. Setting the balance between the investment in research through Institutes and investing through other mechanisms can never be an exact process, and it depends in large part on what is expected of the Research Councils. The Government has recently argued that, as science becomes more interdisciplinary, it is more appropriate to channel resources into universities than into Institutes, because universities by their nature cover a wide range of disciplines, while Institutes are inherently specialized¹.
5. However, this argument appears to ignore the fact that Institutes can bring together the specific sets of skills needed to build a multidisciplinary team to work on a particular problem, rather than relying on a university to have departments covering all the necessary fields. This is particularly relevant following recent changes to university structures and funding, which have led to several institutions abandoning parts of the science base altogether by closing some departments, especially in the physical sciences. There is no longer any guarantee that a university, even an established one with a track record in

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research, will have researchers in all of the core scientific disciplines, let alone the range of individual subjects that might be needed for a major multi-disciplinary study.

6. CaSE believes that the changes currently driving closures and mergers of Research Council Institutes are not primarily to do with the inherently multi-disciplinary nature of modern research, but rather with the need to clarify who is supposed to pay for what in the British science base, and the boundaries between different parts of the system. It is no longer possible to assume that the Research Councils will pick up the tab for any piece of science just because another part of Government wishes to see it performed but is not prepared to fund it.

7. The introduction of a system of 'full economic costs' for Research Council grants is part of a wider process by which politicians and civil servants are taking a greater interest in how and where taxpayers' money is spent on research. The justification for this interest is that as public funds for research have increased massively in recent years, so should the level of scrutiny on the part of those people charged with ensuring that the taxpayers are getting what they pay for. As a consequence of this harder-nosed approach, blurred edges in the funding mechanisms are being sharpened up.

8. Thus, when the Science Minister said that Institutes were becoming less important because of increasing multi-disciplinarity, he was referring specifically to 'basic research or blue-sky research'². But the high-profile criticism of NERC's decision to close parts of the Centre of Ecology & Hydrology (CEH) has been largely based on concerns about specific policies on climate change, particularly the Government's ability to achieve its targets in this area³. In other words, the two sides are talking about different things.

9. While new investment has gone into the science base, the Government has (rightly) pressed for the highest quality basic research and the maximum economic benefits from spin-off companies, licensing, and other forms of exploitation. It has not simultaneously clarified how it intends to ensure that it can procure the policy-driven science it needs, given that individual departments are not always in a position to commission it and given that it is no longer possible to blur the edges between what the Research Councils pay for and what ministries must pay for.

10. If the UK needs more climate change research to inform its policies, the Department for the Environment, Food & Rural Affairs should have a sufficient budget to pay for it (and may choose to do so in through the CEH). Financial comparisons are difficult because of changes in departmental responsibilities, but DEFRA's budget for research and development is currently 33% lower than the combined budget in 1997 of the old Ministry of Agriculture and Department of Environment⁴. In other words, as Research Councils are more reluctant to invest in work that does not meet the agenda of basic research and its exploitation, the relevant ministry does not have the facility to take up the slack. That is no doubt why the Minister at DEFRA with responsibility said the cutback at CEH "does not make sense"⁵.

11. Much of what the current Government has done in the field of scientific research has been admirable. Notably, it has substantially increased investment in the Science Budget and has sought to put public funding for some parts of the science base on a sustainable footing. But the role of Research Council Institutes is in danger of being something of a casualty in the process. Historically, they had a mixed, somewhat unclear function. They were partly funded on the basis of excellent curiosity-driven research that was for some reason not suitable for more conventional funding routes and partly funded on the basis of the need for background research that might very well prove useful in developing Government policy but which was not necessarily concerned with a single, easily identifiable political question.

12. If the scientific community considers that the first of these roles is now better done in other ways, then it may be appropriate to divert Research Council resources into universities. But unless a clearer distinction is made about who should continue to pay for second kind of research, it seems probable that it will largely disappear. By its nature, it is unlikely to be missed immediately, but sooner or later, the nation will lose (and regret the loss of) capacity in areas of research such as long-term environmental monitoring or into diseases that it happens to be unfashionable to study.

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Notes and References

¹ *Minutes of Evidence before the House of Common Science & Technology Committee*, 26 January 2006, Questions 59 and 60.

² *Minutes of Evidence before the House of Common Science & Technology Committee*, 26 January 2006, Question 59.

³ *Hansard* [House of Commons], 1 February 2006. Column 312.

⁴ *SET Statistics*, Table 3.2, available at <http://www.dti.gov.uk/files/file22027.xls>.

⁵ *Hansard* [House of Commons], 1 February 2006. Column 312.