



**Government Response to the  
House of Lords Science & Technology  
Select Committee Report  
“Setting Priorities for Publicly  
Funded Research”**

Presented to Parliament by the Secretary of State for  
Business, Innovation and Skills  
By Command of Her Majesty  
July 2010

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The Coalition Government welcomes the Committee's report and its focus on the allocation of public funds to support research. The Coalition Government supports the Haldane principle, and a stable framework for the science and research budget and the dual support funding system. Together these have created the environment in which the research base in the UK has flourished.

The Coalition Government agrees with the Committee's emphasis on the importance of making informed policy decisions on the basis of the best advice and the key role publicly funded research has in supporting this. The importance of independent scientific advice has been recognised by the Coalition Government in the new Ministerial Code which states that Ministers should have regard to the *Principles of Scientific Advice to Government*. The Principles set out the rules of engagement between Government and those who provide independent scientific and engineering advice.

The Coalition Government also welcomes the Committee's recognition of the importance of responding to 'grand challenges' and having adequate mechanisms in place to do so.

Throughout this response, the term "Committee" refers to the House of Lords Science and Technology Select Committee from the previous Parliament, except where the context requires otherwise.

## United Kingdom research base and the economic context

### **1. We recommend that the Government should make a clear and unambiguous statement setting out**

- **their current research funding commitments; and**
- **the periods of time over which those commitments will apply (paragraph 18).**

### **Response**

Government funding of science and research will be addressed in the forthcoming Spending Review. The Coalition Government agrees that the science and research budget needs a stable framework. This allows the research community to plan strategically and gives confidence to the businesses and charities which rely on the excellence of the UK research base.

# Overview of Government expenditure on research and development

## 2. We recommend that the Government Chief Scientific Adviser should

- **publish annually figures on all public spending to support research, including aggregated figures for categories the definitions of which have been agreed among Government departments and with relevant organisations; and**
- **make appropriate recommendations to the Prime Minister (paragraph 29).**

## 3. We further recommend that the Government Office for Science should have the appropriate resources to support that task (paragraph 29).

## Response

The Coalition Government agrees that it is important a) that accurate and transparent information on public research expenditure is available, and b) to be able to track this spend over time.

The Government publishes data on its R&D expenditure and that by other sectors of the UK economy (business enterprise, higher education, research councils and private non-profit) annually through the ONS Statistical Bulletin on UK gross domestic expenditure on research and development (GERD).

A more detailed breakdown of these figures is published annually by BIS in the Science, Engineering and Technology (SET) Statistics. These already include a breakdown of government funding of R&D by key sectors eg energy, environment, health. The Coalition Government is aware of some issues regarding the consistency of reporting of data on departmental expenditure on R&D, and supports work underway to progressively to improve this data.

The Government Chief Scientific Adviser (GCSA), working collaboratively with the network of departmental Chief Scientific Advisers (CSAs), advises the Prime Minister and Cabinet on the level and effectiveness of departmental investment in R&D, including the funding of cross-cutting research priorities. In addition, CSAs advise the BIS Director General of Science and Research on priorities for the UK research base before each Spending Review. In line with the Coalition Government's transparent approach, this advice was published on the Government Office for Science website during June 2010.

## Advice and consultation

4. **We recommend that, as part of his oversight role, the Government Chief Scientific Adviser should be present at meetings with the Treasury at which departmental budgets are considered (paragraph 34).**
5. **We further recommend that all departmental Chief Scientific Advisers should provide Ministers with timely information in advance of departmental budget negotiations (paragraph 35).**

### Response

The Coalition Government is committed to evidence-based policy and science and engineering evidence is a critical element of this. Departments are therefore expected to produce and publish high quality science and innovation strategies that link science and research to departmental objectives, and on which plans for future research investment should be based.

More generally, departmental CSAs and Departmental Directors of Analysis should be involved in their departments' strategy and budget decisions to ensure that they are evidence-based and that sufficient resources are dedicated to evidence and research.

In order that decisions about R&D budgets are taken in a strategic way, departmental CSAs should in turn keep the GCSA in close touch with current and planned R&D spend in their departments and are required to consult the GCSA and HM Treasury, in advance, on any potential cuts to research budgets or expenditure, including those that have implications for the funding of cross-cutting research.

It would not be appropriate or practical for the GCSA to be present at all Treasury meetings which consider departmental budgets. However, HMT is working with the GCSA to explore how his views can be reflected in the Spending Review.

## Improving mechanisms for responding to major cross-cutting policy Challenges

6. **We recommend that the Government should establish appropriate mechanisms for:**
  - **identifying major cross-cutting policy challenges; and**
  - **funding and co-ordinating appropriate responses to such policy challenges (paragraph 40).**

## 7. We further recommend that:

- **separate budgets should be made available for research programmes to respond to major cross-cutting policy challenges;**
- **each research programme to respond to such policy challenges should have one, readily identifiable, budget-holder who would be ultimately responsible for delivering the programme; and**
- **management and delivery of research programmes to respond to such policy challenges should feature prominently in budget-holders' performance appraisals (paragraph 40).**

## Response

The Coalition Government is committed to improving the ways in which departments work collaboratively to address the big cross-cutting policy challenges and to ensuring that the best scientific and engineering advice and evidence is brought to bear on these issues.

In making proposals for and managing research investment, departments should adopt an innovative joined-up approach on cross-cutting issues, consulting other Government Departments, and using the Cabinet Committee system, as appropriate, to ensure synergies.

The Minister of State for Universities and Science, the GCSA and the network of departmental CSAs all have key roles to play, alongside others in government, including the Heads of Analysis group and the network of Departmental Directors of Analysis, in ensuring that departments work closely together on cross-cutting issues and with other organisations, including the Research Councils and the wider science and engineering communities.

Other structures for ensuring that this happens include the Council for Science and Technology (CST), the Prime Minister's independent advisory body on science and technology issues.

Where there are issues that cannot be resolved in relation to co-ordinating and agreeing resources and funding to support cross-cutting areas of research that are of benefit to more than one government department, departments should alert the GCSA so that he can consult the Chief Scientific Advisers Committee (CSAC) and the Heads of Analysis group, as appropriate. If necessary the GCSA would then raise such issues with relevant Ministers, either individually or through the responsible Cabinet Committee. The Coalition Government believes the most important research capabilities and programmes should be financed at levels which allow them to be sustained at effective levels. Against this background the Government is considering how major cross-cutting research challenges are managed and funded across government departments within the overall context of wider research funding issues as part of the Spending Review.

Under the Haldane Principle, the scientific goals of the cross-Council activities and the funding allocated to them, are decisions for the Research Councils themselves, taking account of overall government priorities. The Research Councils consult widely, including with colleagues in government departments, to identify funding priorities for both research and people. The Research Councils focus on where the UK can make an internationally competitive contribution in terms of new knowledge and understanding to address major societal challenges.

The delivery of cross-Council programmes is a significant part of Research Council chief executives' annual performance appraisal.

There are a variety of successful approaches to how major cross-cutting research challenges are managed and funded. The LWEC programme is a good example of successful collaboration.

## Strengthening the role of independent external expert advice

### 8. Departmental commissioning of research

**We recommend that the departmental CSA should be consulted as an integral part of the department's commissioning process, in particular in helping to identify the nature of the advice sought and the relevant expertise (paragraph 46).**

### Response

The Coalition Government agrees the importance of evidence based policy and science and engineering evidence is a critical element of this. A key part of the GCSA's role is to ensure that Government policy makers have access to, and use the best science and engineering advice and that policy decisions are effectively informed by science and engineering.

In line with the principles laid out in the GCSA's *Guidelines on the Use of Scientific and Engineering Advice in Policy Making* published in July 2010, departments should have effective advisory processes in place to ensure that decision makers have access to high quality, relevant and wide-ranging evidence.

Departmental CSAs, working alongside the other analytical professions, play a crucial role in ensuring that these systems are appropriate, robust and are embedded effectively within departments.

# Council for Science and Technology

- 9. We recommend that the Government commission an independent, external review of the role, responsibilities, objectives and reporting arrangements of the CST and the use made of its advice (paragraph 48).**

## Response

The Coalition Government does not consider that an independent external review of CST would be helpful as this would take time and would lead to a hiatus in the Council's operations. With the agreement of Ministers, GO-Science has conducted an informal review of CST in consultation with key stakeholders and recommendations for improving its operation are being developed for the Prime Minister's consideration.

The GCSA will write in due course to Select Committees of both Houses setting out any new arrangements.

## "Responsive-mode" and "targeted" research

- 10. We urge research councils, in determining the appropriate balance between the different types of research, to give due consideration to the role and importance of responsive-mode research in meeting the broader objectives of research (paragraph 54).**

## Response

The distinction between responsive and directed-mode grants is not always as sharp as is sometimes implied. Some Research Council funding schemes incorporate both modes. Similarly, 'direction' in programmes may be at a high level only. There is a perception in some parts of the research community that Research Council funding is increasingly channelled towards the directed mode, which is perhaps explained by the high profile and visibility of directed research compared to the responsive projects. However, over recent years the balance has not changed greatly, with the exception of the MRC, which increased directive mode programmes reflecting the budget increase it received to meet the challenges identified in the Cooksey review. Two recent studies by the Research Councils found that responsive mode and directed programmes generated comparable levels of citations from other researchers (the *NERC Citations Study 2008* showed that the scores were 1.93 and 1.84 respectively while the *EPSRC Citations Study 2009* showed that the scores were 1.62 and 1.65 respectively).



# Impact

**11. We propose that, when the relevant funding organisation considers "impact" to be a material factor in funding research, it should make an explicit statement of the nature and quantifiability of the expected impact of the research in question (paragraph 64).**

## Response

Research Councils do not ask researchers to predict the outcomes of their research, or its impact when they are applying for grants.

RCUK has introduced the 'Pathways to Impact' section in grant applications to support researchers in exploring from the outset who could potentially benefit from their research.

The main criterion for funding research remains scientific excellence. Impact is one of several existing secondary criteria. Introducing pathways to impact to the application forms does not signal a shift in the type or topic of research that Research Councils are funding.

**12. We understand the wish of the Higher Education Funding Council for England (HEFCE) to take account of the wider impact of research, but are yet to be convinced that a practicable and fair way of doing so has been found. We therefore recommend that, in HEFCE's proposed new retrospective assessment, the weighting given to impact should be significantly less than the 25 per cent proposed (paragraph 65).**

## Response

The Coalition Government with the UK's HE funding bodies has announced the delay by 12 months of the introduction of the Research Excellence Framework (REF) to allow the concerns of the Committee and others to be taken into account. Excellent research of all kinds has a major impact on the economy, society, public policy, equality, culture and quality of life. It is right to recognise the contribution that researchers are making through the impact of their work and it is important to have a robust methodology to assess that benefit. The Coalition Government has noted the outcome of the recent consultation on the REF, which was announced by the four UK higher education funding bodies on 26 March. The Coalition Government recognises that work is underway to develop a methodology for assessing the impact of research across all disciplines. The next stage will be consideration of the outcomes of the pilot impact assessment exercise to review whether the concerns of the committee and others can be addressed.



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