

PROSPECT SCIENCE BRIEFING: CHANGES IN CRITERIA FOR ELIGIBILITY FOR RESEARCH COUNCIL FUNDING

Political 'tit for tat' could kill scientific collaboration

Most scientific research is best carried out on a collaborative basis drawing on the best skills and expertise available, rather than in a competitive relationship. So why on earth has the Office of Science and Innovation taken a step which threatens partnership between British scientists and could turn the clock back 20 years?

Background

The seven research councils in the UK (called Research Councils UK) are nondepartmental public bodies of the Department for Trade and Industry's Office of Science and Innovation. They provide funding for scientific research in their specific remit areas on a UK basis, mainly to higher education institutes and their own research council institutes.

Most public sector research establishments are currently unable to bid into all of the research council funding streams. However, until recently most PSREs and private sector research organisations were able to apply for funding through specific initiatives that were considered to require the widest participation/access to facilities (thematic initiatives).

Then in October 2006, the OSI, through RCUK, announced changes to the criteria for eligibility for research funding. These include changes to the way organisations are categorised and to the types of funding they may apply for. Use of the term 'academic analogue' has been discontinued and the new criteria define the status of an independent research organisation which can apply for research funding. The organisations that will now be excluded have been told that appeals against the RCUK decision have little chance of success.

Consequences

This policy has moved British science back by emphasising the divide between different research activities. Government and EU research is open to everyone, provided they have the expertise and capability to do the research. The RCUK step smacks of restrictive practices.

The research councils put great emphasis on 'quality of science' as the key driver for deciding research investment. But this move is not in the best interests of delivering that. The best way to release the potential of the UK research base is to allow all ideas to come forward for consideration. To close the door on research council funding for some research organisations, but not others, contradicts this central ethos.

Scottish science institutions and Department of the Environment, Food and Rural Affairs laboratory agencies (Central Science Laboratory; Centre for Environment, Fisheries & Aquaculture Science and the Veterinary Laboratories Agency) will be hit particularly hard. They will only receive RCUK funding as co-applicants in bids led by eligible organisations.

The decision to withdraw academic analogue status from Defra agencies and other public sector research organisations constitutes a clear breach of the Research Council Institute and Public Sector Research Establishment Sustainability Study (RIPPS) recommendation 4. This attempted to formalise the continuum of funding between basic and applied research, through explicitly seeking to encourage a widening of the science and engineering base to include government research establishments.

Research should be a continuum through to translation into practical solutions albeit in varying timescales. However, this translational process is where the UK is recognised by others as being weak. The RIPPS report tried to make it easier for basic research organisations such as universities and research institutes and more applied establishments to work together on a level playing field. Advances in bovine TB immunology and vaccinology are good recent examples of this seamless continuum working well at the Veterinary Laboratories Agency.

The RIPPS report also called on Defra to accept its responsibility towards sustaining the Biotechnology and Biological Science Research Council's institutes. Defra's failure to ratify RIPPS has put these institutes at risk. BBSRC's chief executive Professor Julia Goodfellow has said that failure to implement all the RIPPS recommendations damages UK science.

Defra's chief scientific advisor, Professor Sir Howard Dalton, has expressed concern about the status of its affected agencies as sub-contractors, and the potential impacts on intellectual property ownership and publication rights.

Members of Defra's science advisory council felt that the changes to funding criteria "undermined the capacity of Defra to coordinate research with other funders, with potentially far reaching and damaging impacts for the quality of UK science.

"There did not appear to be a clear rationale for differences in the way different research establishments were being treated, which was not confined to Defra and was affecting a range of organisations... the Northern Ireland AgriFood and Biosciences Institute was now not eligible for research council funding."

Source: Draft Minutes, Science Advisory Council, January 18, 2007. www.defra.gov.uk/science/how/advisory.htm

Veterinary Laboratories Agency

At the VLA, the agency has protested to RCUK, BBSRC and Defra about the withdrawal of academic analogue status.

It said the policy decision would have important future impacts on VLA's relationship with universities and research institutes, particularly the Institute for Animal Health. A recent review recommended that VLA and IAH remain two separate organisations but develop a much closer working partnership.

"The removal of a major funding plank jeopardises the great progress made in collaborative working and there is a danger that this will be replaced by mutual reticence and suspicion since a key funding option for collaborative projects, namely BBSRC funding, has been withdrawn," the VLA said.

Unfortunately, this can be translated to most of VLA's other key UK collaborators, such as the veterinary schools and other university departments where VLA has worked tirelessly over a number of years to develop and foster collaboration. This change places a large obstacle in the way of developing sustainable partnerships to deliver the best scientific research.

Scotland

"It seems that someone down South is playing tit for tat – you can't have any of our funding if we can't have any of yours," Chris Finnerty, Prospect negotiator in Scotland.

Professor Maggie Gill, Chief Scientific Adviser to the Scottish Executive's Environment and Rural Affairs Department presented a paper to the Executive's Strategic Science Advisory Panel in January 2007. She pointed out:

SEERAD's major research providers have done reasonably well in winning BBSRC and NERC funding over the years the funding was open to them. But the Scottish Agricultural and Biological Research Institutes and the Scottish Agricultural College are no longer eligible to bid for research council funding and the Royal Botanic Garden Edinburgh's ability to do so has been significantly reduced.

SEERAD and the research councils, especially BBSRC and the Natural Environment Research Council, have built up a strong relationship over many years. SEERAD has worked hard to ensure that the research it funds contributes in a complementary way to the UK science base, is of international quality and is carried out in well-resourced facilities. The RCUK decision has serious consequences for collaboration between funders to provide a 'joined-up' approach to maximising the usefulness of the UK science base in informing policy development to all parts of the UK.

It is not just collaboration which is in danger, but the future sustainability of Scotland's major research providers. When SEERAD revised its research strategy in January 2005, predictions about the sustainability of the major research providers in the longer term were based partly on the assumption that more research council funding would be available to them, as suggested in the RIPSS report. If this is no longer the case, the future sustainability of the Scotland major research providers becomes more precarious.

The Scottish Crop Research Institute in Dundee is grant-aided by SEERAD, but it contributes to the science base for the whole of the UK. In the past, projects have been funded jointly by SEERAD and BBSCRC for scientific collaborations between SCRI and institutes in England and Wales.

A good example of UK-wide collaboration that has existed until now is the ongoing research on late blight in potatoes. This investigation recently received funding via the BBSRC crop science initiative. This cross-border relationship was focused on science first and foremost; it allowed for synergies and efficiency and was of benefit to the UK as a whole. It also recognised the UK-wide and indeed international spirit of scientific

endeavour. These qualities are in danger of being swept away by a preoccupation with internal, administrative structures. One example of collaboration which could be under threat is the Cross Institute Programme for Sustainable Soil Function. SCRI Dundee wants to participate in this BBSCR-inspired initiative, but cannot now apply for BBSRC money.

Nigel Titchen, Prospect SET group president, said: "We must find a way to ensure that the benefits of collaboration and co-ordination of our research strategies and programmes are not lost to the nation. The government, through its chief scientific advisor, must ensure that all public sector research providers are adequately funded."

Scottish Agricultural College

Directors and scientists at the Scottish Agricultural College feel particularly aggrieved about RCUK's change in policy. In March 2004, BBSRC, SEERAD and the universities of Edinburgh and Glasgow asked SAC to consider how it, with partners, might enhance the delivery of research in the animal biosciences in the UK.

Out of these discussions came the proposal to develop the Easter Bush Research Centre. This will bring some SAC staff, the University of Edinburgh Royal (Dick) Veterinary School, the Roslin Institute and the Institute for Animal Health's Neuropathogenesis Unit (both BBSRC institutes) together in a shared building with a shared research agenda.

EBRC hopes these partners will work closely together to win and use funds for research to deliver a truly outstanding programme of world class science. The research councils, through BBSRC in particular, will be a central and substantial part of the funding base to realise the potential of this exciting development.

But if SAC is not eligible to join its EBRC partners in competing for research council funds it will not be able to play a full part in the evolution of the EBRC that BBSRC invited it to do. To change SAC's funding eligibility status at the same time as BBSRC encouraged it to join forces with eligible partners within EBRC is wholly inappropriate and inconsistent with the vigorous development of the EBRC venture.

The problems facing EBRC are symptomatic of the decision's wider impact. Research council funding is a major strand of funding for UK science, but not the only one. A forward-looking nation should aim to join up its research base with the communities and industries that can exploit and benefit from new knowledge. That means softening the boundaries around different segments of the knowledge 'pipeline'. Research council funding should be used to draw out the best science from wherever it arises, and to use the funding as part of the glue that links different segments of that pipeline together. Rather than separating funded bodies through such stark eligibility criteria, funding should overlap so that there is true 'joining up' in research endeavour.

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