House of Commons

Science and Technology Committee

Government Response to the Committee's Third Report, Session 2003–04: The Work of the Biotechnology and Biological Sciences Research Council

Third Special Report of Session 2003–04

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The Science and Technology Committee

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Third Special Report

On 12 February 2004 the Science and Technology Committee published its Third Report of Session 2003-04, The Work of the Biotechnology and Biological Sciences Research Council. On 15 April 2004 we received a memorandum from the Government which contained a response to the Report. The memorandum is published without comment as an appendix to this report.

Appendix

Introduction

The Government welcomes the Committee's report on the Work of the Biotechnology and Biological Sciences Research Council (BBSRC). The Committee's scrutiny of the BBSRC provides a valuable assessment of the Council's strategy and administrative procedures. We welcome the positive comments that were made, for example about BBSRC's approach to interdisciplinary areas of research, the steps the Council has taken to reduce the number of staff on short term contracts, its implementation of the Roberts recommendations on student stipends, and its financial management. The report provides valuable input to the further development of BBSRC's operations and we note that BBSRC has started to address many of the recommendations.

The Government agrees with the Committee's view that there may be opportunities for greater sharing of ideas and approaches across Research Councils. The Government notes that RCUK will look at the recommendations from the Committee's reports on the work of all the Research Councils and consider the opportunities for the further sharing of ideas and best practice between Councils.

The note below sets out the Government's response to the Committee's recommendations.

List of Recommendations and Government's Response

1. Whilst we welcome BBSRC's realistic approach to funding priorities, we would encourage the Council to consult its community about those areas of science which are likely to see a decrease in funding and communicate the outcome of its decisions in a clear and transparent way. (Paragraph 11)

The Government welcomes the Committee's recognition of BBSRC's realistic approach to funding priorities. We will encourage BBSRC to ensure that sunsetting be an explicit element in future consultations.

Research priorities (and therefore sunsetting) are discussed by BBSRC Committees annually. BBSRC's Committees comprise representatives from universities, institutes and the private sector, with observers from other Research Councils and Government Departments as appropriate.

BBSRC's Council considered research priorities (and therefore the need for sunsetting) as part of its Ten Year Vision statement and current Strategic Plan. Consultation with Stakeholders including the research communities formed an important part of the development of these documents. The Strategic Plan is kept under review to ensure that the BBSRC's research priorities adapt to the changing environment.

BBSRC will include communication of sunsetting decisions as part of its dissemination of the research strategies to the community, an activity which is already being extended, for example through more meetings with heads of university bioscience departments.

2. In the interest of greater transparency we recommend that BBSRC publishes data on the proportion of responsive mode funding that it earmarks for special initiatives and its priority areas of science. (Paragraph 13)

The Government agrees that transparency of how Research Councils allocate their funds is important. At present BBSRC's annual Operating Plan and Annual Report give details of the amounts earmarked for special initiatives in that year. Published calls for proposals indicate the total amount available for the initiative over its duration.

Sums of money are not allocated to current priority areas in advance, as the final amounts allocated will depend on the number and quality of the applications received. BBSRC will consider making retrospective data available.

3. We recommend that BBSRC publish statistics on the proportion of its grants awarded in responsive mode to high risk projects. Such a step would serve to reassure its research community as well as providing a useful tool for self-evaluation. (Paragraph 16)

The Government notes this recommendation. In line with increasing common working between Councils, we will encourage BBSRC to consider the route taken by EPSRC.

4. We recommend that BBSRC take further steps to manage demand more effectively, including the introduction of University Interface Managers and mock peer review panels. (Paragraph 18)

AND

5. We understand the need for BBSRC to retain the confidence of its community but believe that it is being unduly reticent about taking the steps necessary to manage the demand for grants more effectively. We recommend that it lead the way for other Research Councils by publishing the success rates of individual institutions. We also recommend that BBSRC introduces a cap on the number of applications permitted to those university departments that have persistently low success rates. (Paragraph 21)

The Government agrees that BBSRC needs to manage the demand for grants more effectively. We will encourage BBSRC, in consultation with other Research Councils, RCUK and its research community, to determine how this might be best achieved.

On the specific issue of publishing success rates and capping those university departments with persistently low success rates, this is something that the Research Councils should consider collectively though RCUK.

6. Although BBSRC should continue to fund the best science, it cannot ignore the contribution of its policies toward increased research concentration in an ever smaller number of elite institutions. We recommend that BBSRC proactively work with other Research Councils and the Department for Education and Skills to support excellent science across a broad range of higher education institutions. (Paragraph 24)

The Government agrees that BBSRC must continue to fund the best bioscience research, to ensure that the UK maintains its high international standing in this area. The Science and Engineering Base Co-ordinating Committee, chaired by Sir David King would be an appropriate forum to discuss the need to maintain diversity of research institutions within the UK. We will encourage BBSRC, through RCUK, to raise this issue with them.

7. We do not understand why BBSRC continues to stand alone in its support of the peer review committee system, which has been abandoned or modified by other Research Councils. We recommend that it review the system in the light of changes made elsewhere, and consider introducing a peer review college in its place. (Paragraph 27)

The Government notes this recommendation. BBSRC's peer review is carried out by referees who provide advice to BBSRC's research committees, and by the committees themselves. BBSRC is currently reviewing its overall Committee structure and is considering widening the group of individuals it can call upon to attend meetings at which decisions on applications are taken. We will encourage BBSRC to consider your recommendation during this process.

8. We urge BBSRC to consider the introduction of a fourth grant round between the rounds in January/February and July, to distribute funding opportunities more evenly across the year and speed up the process for applicants. The measures we recommend for moderating demand for grants would also help this process. (Paragraph 30)

The Government welcomes this recommendation, which BBSRC is already working towards: the Council intends to announce arrangements to move to four rounds per annum shortly.

9. Whilst we applaud the flexibility of grant length that BBSRC has built into its application process, we are concerned that some sections of its community remain unaware of the full range of opportunities available to them. We urge BBSRC to do more to promote these opportunities, perhaps including prominent web postings, letters to interested groups and press notices. (Paragraph 31)

The Government welcomes this recommendation. BBSRC will clarify its message regarding opportunities for longer term grants in meetings with the community and in all relevant correspondence. In addition, BBSRC will review relevant material on its website with a view to raising the profile of this message. Since 2000 BBSRC has operated a free-to-users e-mail news system which has 2,000 subscribers who receive monthly updates from BBSRC. A quarterly magazine to BBSRC grant holders, postgraduate supervisors, postgraduate students and other stakeholders is also produced. Both mechanisms will be used to clarify the message on funding opportunities.

10. We recommend that BBSRC uses one consistent policy for the treatment of grant applications at the edge of its remit and desists from rejecting some applications on

remit grounds without referral to the appropriate Research Council. A more transparent system of feedback in such cases is required in order that applicants understand the reasons for the referral of their applications. BBSRC should also liaise with other Research Councils to ensure that their remits are mutually understood, clearly defined and well advertised. (Paragraph 34)

The Government accepts these recommendations. BBSRC is considering changes to its procedures which will ensure that all applications are referred to the most appropriate Council, and that applicants are made aware of the referral and the reason. The RCUK joint administration strategy aims to develop common practices across the Councils in many areas of activity. Significant progress has been made with the introduction by a number of Councils, including BBSRC, of a joint electronic system for handling grant applications and it is anticipated that this should improve the handling of applications at the edges of Council remits. The impending changes to dual support funding mechanisms will provide a further opportunity for the Research Councils to reduce differences in regulation and administration processes.

11. It is imperative that BBSRC and MRC work closely together to make the biomedical research community aware of the scope of their remits to avoid wasted applications. Calls for applications in specific areas should make clear exactly how the topic relates to the remit of the Research Council in question, and give details of initiatives sponsored by other Research Councils which may be more appropriate. (Paragraph 36)

The Government agrees that BBSRC and MRC must work closely together and with their communities. Calls for proposals for BBSRC initiatives already indicate how the initiative will help the Council meet its Strategic Plan. We will encourage BBSRC and MRC to take this recommendation into account when they advertise research initiatives.

BBSRC and MRC are already discussing ways they can improve the handling of proposals at their remit interface.

12. We look forward to the findings of the investigation into Research Council grant-awarding processes being carried out under the joint Council Electronic Research Administration programme, particularly if it is able to recommend a harmonisation of administrative practices across the Research Councils. (Paragraph 37)

The Government notes these comments, and also looks forward to the findings of this investigation. Research Councils UK has prioritised the need to harmonise administrative practices across the Research Councils. There is now work underway to develop a Research Councils UK administration strategy which aims to develop common practices across the Councils in many areas of activity. Significant progress has been made with the introduction by a number of Councils, including BBSRC, of a joint electronic system for handling grant applications and it is anticipated that this will be extended to other systems, including "back office" systems.

13. We commend BBSRC for the imaginative measures it has taken to encourage students to train in biomathematics and bioinformatics. (Paragraph 38)

The Government agrees, and commends the way that the BBSRC has worked with other Research Councils, the DTI and other government departments to drive forward bioinformatics in the UK.

14. We applaud BBSRC for its introduction of "Discipline Hopping Awards" and hope that it will work with other Research Councils to ensure that the awards later bear fruit in grants awarded for interdisciplinary areas of research. To this end, we recommend that BBSRC routinely appoints peer reviewers from other relevant disciplines to ensure that committees have sufficient expertise to assess interdisciplinary grant applications. (Paragraph 39)

The Government welcomes the Committee's recognition of BBSRC's work, jointly with other Councils, in developing "Discipline Hopping Awards". We are also keen that this initiative should lead on to the awarding of increased numbers of awards in interdisciplinary research. We will encourage the BBSRC to work with other appropriate Research Councils to ensure that interdisciplinary research is promoted and that peer reviewing procedures do not discriminate against such research. At present applicants are required to nominate referees and therefore have the opportunity to identify interdisciplinary experts, whose names will be retained on BBSRC's systems. BBSRC is currently considering the creation of new panels, which will give a strategic lead on cross-committee issues such as systems biology and bioscience for industry. This will ensure that the grant-awarding committees take account of the increasingly interdisciplinary science they support.

15. It is clear that BBSRC needs to co-ordinate with individual institutions to provide "joined-up" ongoing support and maintenance for equipment and facilities used to carry out BSBRC research. It also needs to ensure that these institutions are aware of their rights and responsibilities under "procurement best practice". (Paragraph 41)

The Government accepts these recommendations. BBSRC is about to announce the creation of a Tools and Resources Panel, one of the aims of which recognises the increasing needs for support and maintenance of equipment and facilities, as biology becomes "big science".

16. We are satisfied that the financial capping system, which limits the number of grant applications that can be made by each institute, is fair and we encourage institutes to continue submitting proposals for collaborative grants as part of their quota of grant applications. (Paragraph 45)

The Government agrees.

17. We encourage BBSRC to ensure that it actively maintains an effective dialogue with governmental funders of its institutes in order to determine long-term plans for institute funding. (Paragraph 47)

The Government agrees that there is a need for effective dialogue between BBSRC and governmental funders of its institutes. There are already a number of mechanisms in place to promote such dialogue, particularly with DEFRA: at the most recent bilateral meeting involving the BBSRC Chief Executive and the DEFRA Chief Scientific adviser the need for sustainable commitment to the institutes from both sides was agreed. The Government

expects that this agreement will be pursued vigorously in the light of the likely recommendations from the Research Institutes' and PSRE's Sustainability Study.

18. The Pirbright Laboratory is to be commended for the remarkable effort it put into tackling the outbreak of foot and mouth disease. Whilst national contingency planning is the responsibility of Government, BBSRC has a role to play in making its institutes aware of their responsibilities in this area. We recommend that BBSRC work with Government and its institutes to identify future sources of concern and put in place pre-emptive research measures and contingency plans to cope with them. (Paragraph 49)

The Government agrees and supports the commendation of the exceptional effort by staff at the Pirbright Laboratory during the outbreak of foot and mouth disease. Areas of specific concern can be extremely difficult to predict. Nevertheless, BBSRC is currently working with the institutes on risk management frameworks relevant to each institute's remit. These will be kept under review and monitored by the Institutes' Governing Bodies and the BBSRC Audit Committee. In addition BBSRC is working with Institutes to identify where there is a need for further improvement of facilities. We will encourage BBSRC to work with appropriate Government Departments in their "Horizon Scanning" activities and Foresight work.

19. BBSRC is to be congratulated for the measures it has introduced so far to improve the status of contract researchers, both in its own institutes and in universities. It is clear, however, that very little further progress can be made in this area until universities adopt the same approach. We urge BBSRC to work closely with universities to promote its new schemes and persuade them to provide the complementary funding support necessary for such schemes to be a success. (Paragraph 54)

The Government is pleased to note the Committee's positive response to BBSRC's measures to improve the status of contract researchers, and welcomes the Committee's recommendation that the Council work closely with universities to promote its schemes. BBSRC is increasing the number of meetings it holds with heads of university bioscience departments and will use the opportunities this affords to pursue the issue of research careers. BBSRC will be active in pursuing the Research Careers Initiative agenda with the Funders Forum. The need for institutes to have career development strategies in place is also being emphasised: BBSRC will undertake a benchmarking exercise later this year across all its institutes, with a view to including a specific element on the assessment of institute performance in managing careers in the four-yearly Institute Assessment Exercise from 2009.

20. It is too early to judge the success of the pilot Doctoral Training accounts scheme but we are encouraged by BBSRC's introduction of a more flexible and realistic approach to studentship funding. (Paragraph 56)

The Government notes this recommendation.

21. BBSRC should not be complacent about the number of studentships it currently awards. We recommend that it review the balance between grants and studentships in

its overall budget, and consider funding more studentships to complement growth in the biosciences. (Paragraph 57)

The Government also notes this recommendation. In a recent survey (January 2004) of its community, BBSRC found strong support for both an extension of the duration of PhD awards and for an expansion of the DTA approach, in keeping with the Roberts recommendations. In line with the Committee's recommendation that studentship provision should complement grants in the biosciences, BBSRC is likely to implement incremental increases in the proportion of its DTA provision during 2004. BBSRC will continue to monitor areas of recruitment difficulty and will provide enhanced stipends as appropriate, including in biomathematics, and at interfaces with the physical sciences and engineering.

22. We recommend that BBSRC differentiates between public relations and public engagement activities when compiling and publishing performance indicators. (Paragraph 59)

The Government notes this recommendation. The Government would encourage BBSRC, and the other Research Councils, to differentiate between public relations and public engagement as much as they can. However, it recognises that they can be on a continuum, with statements about the more organisational aspects of the Councils, as opposed to news of the science funded by them, being important in providing the openness and accessibility needed to earn and maintain public trust. Around 40% of the 25 BBSRC media releases issued so far in this financial year report science of public interest. The Government agrees with the Committee's observation that for most people the media provide an important route to scientific research. It follows that media releases have a part to play in wider engagement. The indicators collected therefore reflect activity in public engagement including effort directed to public relations.

23. We recommend that some training in communication skills becomes a compulsory component of all BBSRC PhD studentships. (Paragraph 60)

The Government accepts this recommendation. BBSRC was the original driver of the Research Councils'/AHRB joint statement of skills training requirements (see http://www.bbsrc.ac.uk/funding/training/skill_train_req.html), which includes a significant element on communications skills training. All institutions in receipt of BBSRC PhD training funds are expected to meet the conditions set out in this statement. BBSRC, together with all Research Councils, has recently allocated additional resource to institutions to provide wider transferable skills training, including communications skills, to all Research Council-funded PhD students.

24. We suggest that BBSRC review its administrative spend to ensure that there are sufficient resources available for important non-research activity. In addition, we recommend that BBSRC work with RCUK to create a harmonised public engagement strategy that makes maximum use of the resources available and prevents duplication of expenditure. (Paragraph 61)

The Government agrees that BBSRC should ensure there are sufficient resources available for important non-research activity. Staffing resources within BBSRC's External Relations

Unit, established earlier this year, have been reviewed and staffing is being increased. BBSRC seeks opportunities to work within RCUK when appropriate. BBSRC meets regularly with public engagement teams of other Research Councils and they are increasing the amount of joint working, for example the RCUK guidelines on "Dialogue with the public". BBSRC works with partners within RCUK to share best practice and to avoid duplication, and where appropriate undertakes public engagement collaboratively. For example, BBSRC has worked with NERC on a consultation web site on gene flow, a public discussion meeting and exhibition on the future of the countryside (first Cheltenham Science Festival, 2002), and a public and stakeholders meeting at DTI on agriculture and the environment. The Council has also worked with NERC, MRC (and the Wellcome Trust) on a public exhibition on genomics (Tomorrows World Live, 1999), with MRC and NERC on a DTI meeting on genomics, and in 2001 with MRC and EPSRC on a DTI exhibition on nanotechnology. BBSRC participates in RCUK-supported schools activities e.g. Researchers in Residence, CREST awards and with other Councils in an annual presentation to the Association for Science Education. The Council works with MRC and others on a range of schools events e.g. Genetic Futures, part of the DNA50 celebrations. BBSRC has opened some of its small grants schemes for public engagement to scientists funded by MRC and EPSRC where the schemes address research of mutual interest.

25. BBSRC's decision not to provide institutes with specific resources for compulsory public engagement activities is a false economy. We recommend that BBSRC consider appointing a media officer at each of its institutes to ease the burden on research staff. (Paragraph 62)

The Government notes this recommendation. BBSRC-sponsored institutes receive significant funding through their core strategic grants (CSG). It would not be appropriate for BBSRC to prescribe the amount of CSG that institutes should invest in public engagement activities, because each institute's commitments and requirements are different. However BBSRC expects at least some of the costs (including staff costs where appropriate) of activities related to public engagement to be met from the CSG. The institutes differ considerably in the scale of staff resource that they allocate to public engagement, to some extent reflecting their research sector. BBSRC does not prescribe the staffing for these activities; while most institutes have a dedicated press officer, some combine the post with Knowledge Transfer or other activities, and some have additional science writers or exhibitions staff.

In addition to CSG funding institutes are able to compete for funding under BBSRC's small grants scheme, these grants could be used for specific public engagement activities. BBSRC also provides some sponsorship for institutes' activities, e.g. support for the John Innes Centre displays at the Royal Chelsea Flower Show, and provides its own displays/events at which institutes are invited to participate.

26. There are difficult lessons to be learnt from the failure of BBSRC to win public trust in its ability to determine a socially acceptable agenda for GM research. BBSRC must use these lessons to inform its future public engagement policy to prevent any repeat of the stalemate which has hampered research in this field. In particular, BBSRC needs to engage more in public dialogue, not simply public education, activities. (Paragraph 65)

The Government accepts the need to learn lessons about public trust from the debates on GM and we agree that early public dialogue in potentially controversial issues such as GM crops is important. BBSRC's Consensus Conference in 1994 was one of the first dialogue events on the GM issue in the UK. Other BBSRC led public dialogue events include the Council's more recent focus group work on bioremediation and animal health research and web consultations. In 2001, BBSRC sponsored a public meeting in Edinburgh, which was reported by the Business Scotsman as "a welcome move towards reasoned discussion on the pros and cons of genetic modification."

With specific regard to the GM debate, BBSRC focused throughout on the science. The Government recognises that this is only one element in public attitudes to the technology, but it is this element on which BBSRC is qualified to comment. BBSRC is not in a position to address public concerns about issues such as product development, food labelling, consumer choice, regulatory procedures and perceived consumer benefits and disbenefits from subsequent GM crops and products.

In the "Narrow-But-Deep" study within the GM Nation public debate, results suggest "that the general population does not share the unconditional opposition to GM of many active debate participants." (Key Messages Section 3). The Government recognises the challenge to BBSRC to provide the information required by the public, but on the basis of the above the Government would question whether public trust has been lost in research: the GM public debate indicated that the public wanted more research.

27. We recommend that BBSRC give its collaborative research grants an identity that makes them easily recognisable, and that it actively promotes the scheme to individual researchers and SMEs in its literature and publications. (Paragraph 67)

The Government accepts this recommendation. BBSRC has developed significant links with SMEs in many of its knowledge transfer (KT) activities, including the Small Business Research Initiative and the Cooperative Awards in Science and Engineering scheme, and will take steps to ensure that that group of stakeholders in made more aware of the Council's scheme for supporting collaborative responsive mode grants with industry. During 2004 BBSRC intends to support industrial liaison functions to promote outreach to its user communities.

28. We recommend that BBSRC work with universities to ensure that all its researchers have adequate access to commercialisation support facilities such as well resourced technology transfer offices. (Paragraph 68)

The Government notes this recommendation. We have provided support for "third leg" activities via HEIF funding and other routes, including provision for the professional training of KT staff in universities. Furthermore, in the biosciences sector, the DTI's Biotechnology Exploitation Platform initiative has, over recent years, developed the capacity of universities to manage IP arising from bioscience research both in universities and in research institutes. BBSRC plays its part in facilitating KT in universities by ensuring that the bioscientists it supports: are aware of the importance of recognising, protecting and managing IP (through IP workshops, the BBSRC Exploitation Guide and the BBSRC Young Entrepreneurs Scheme); have access to proof-of-concept funding to demonstrate the commercial potential of ideas developed through BBSRC grants (the

BBSRC Follow-on Fund); and have support for the creation of start-up companies when appropriate (the Bioscience Business Plan Competition).

29. We recommend that the performance indicators used in the IAE are adjusted to better reflect attainment in the area of knowledge transfer. (Paragraph 69)

The Government notes the Committee's comments on the performance indicators used in the IAE, but believes these are already comprehensive, covering both the "harder" aspects of commercialisation and the "softer" measures, such as staff exchanges with industry and less formal interactions. The present indicators have been developed over a number of years with significant consultation with the institutes, and currently cover: postgraduate training; user involvement (industrial, government and other) in institute decision making; published outputs (including collaborative publications); income won competitively from a variety of sources; collaborative research projects (volume and diversity); staff exchanges; industrial consultancy; previous employment of staff joining and destinations of those leaving; commercialisation indicators, including patents, other IP, licensing, income generated; and start-up companies. In addition, within the IAE, institutes are invited to submit qualitative statements setting out their achievements and future plans for KT. Institute directors receive specific feedback from the KT exercise and overall feedback on the IAE as a whole. Nevertheless, in view of the Committee's comments, the independent panel assembled to assess KT in the institutes will be invited to consider whether the performance indicators currently collected require adjustment. In addition, as part of the commitments made in DTI's Innovation Report, BBSRC and all other Research Councils, will agree with the Director General of the Research Councils plans and goals for increasing the rate of knowledge transfer and of interaction with businesses.

30. We agree that the number of spinouts should not necessarily be the prime indicator of commercialisation activity. (Paragraph 70)

The Government agrees.

31. Until DTI are able to provide adequate support for new business ventures spun out of research institutions, the number of unsuccessful spinouts will remain unacceptably high. We commend BBSRC for its support of research up to the proof of concept stage and hope that its follow on fund will be used efficiently to maximise the commercial potential of new technologies, particularly through licensing agreements. (Paragraph 71)

The Government welcomes the Committee's commendation of BBSRC's support for research to proof of concept stage. The expectation is that BBSRC's follow-on fund will contribute significantly to the maximising of commercial potential of new technologies emerging from BBSRC support for bioscience research and will allow fuller consideration of the most appropriate exploitation route, be that through licensing or start-up company formation.

The Government has already provided significant start-up funding for new companies arising from the science base through the University Challenge initiative and PSRE Fund. It is in the nature of business that a number of companies will fail, although the cyclical

nature of the private venture capital market has presented difficulties in companies securing second round funding.

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