

Russell Group input to the 2013 Triennial Review of the Research Councils

Summary

- The broad objectives for the Research Councils remain highly relevant and still need to be delivered.
- Any significant disruption to established funding structures for research at this particular time could have serious and wide-ranging consequences and should be avoided. The focus needs to be firmly on excellent research and strengthening our international competitiveness – a major reorganisation would be an expensive distraction.
- However, options should be kept open for considering some future restructuring and there are a number of areas in which the Research Councils could improve now.
- Consideration should be given to strengthening the objectives for joint working, where appropriate, to reflect the growing importance of interdisciplinary research and the value of international collaboration in delivering world-class research and training.
- Greater integration of research from different disciplines is required within major cross-Council programmes.
- RCUK can coordinate and work to create partnerships across the Research Councils, in particular: for the development of joint programmes; where it is sensible to have shared functions; to provide a collective voice, for example internationally; and where common approaches to policy would reduce bureaucracy and make the interface with academia more efficient.
- Where the Research Councils provide funding and other resources to support the development of best practice it is sensible to deliver these through standard cross-Council approaches overseen by RCUK. Funding should be linked to research excellence and be given in a way that allows institutions autonomy to deliver outcomes in the most effective way.
- A single shared specification document for all Research Council studentships should be a priority as an outcome of this Triennial Review.
- Similarly, it should be possible to develop a more coherent, and simple, menu of initiative types and processes that can be picked-up and used by different Councils as appropriate.

- The Research Councils must continue to focus firmly on basic research, but they should also provide routes to develop research further, eg with additional support for proof of concept funding, and should continue to build research partnerships with industry, charities, HEFCE and other funders and users of research.
- Research priorities must be established through transparent governance procedures and investment must be focused where it will have the most impact – creating the critical mass of research excellence that will allow us to compete.
- The scope for delivering research for other Government departments and agencies through RCUK-coordinated programmes could be widened.

1. Introduction

- 1.1 We welcome this opportunity to contribute to the Government's Triennial Review of the Research Councils.
- 1.2 This latest in a series of regular reviews comes 20 years after Sir William Waldegrave's *Realising Our Potential* White Paper¹ established much of the Research Councils' current form and function, and 11 years after Research Councils UK (RCUK) was created to enable the Research Councils to work together more effectively.
- 1.3 A Spending Review is expected later this spring and the Triennial Review is a timely opportunity to reflect on the operation of bodies that are responsible for delivering around £3 billion a year in research funding. However, this is also a period when all sectors of the economy are focusing on delivering growth while dealing with on-going economic uncertainty. **Any significant disruption to established funding structures for research at this time could have serious and wide-ranging consequences.** A major merger of the Research Councils would create substantial disruption, high transitional costs and a loss of focus on priorities when the UK instead needs to strengthen its competitiveness internationally and put the focus firmly on supporting excellent research. That said, there are opportunities to improve the operation of the Research Councils to make them more effective and we set these out below in relation to the main headings for the review.
- 1.4 The Russell Group represents 24 leading UK universities which are committed to maintaining the very best research, an outstanding teaching and learning experience and unrivalled links with business and the public sector. Our universities are no ivory towers but rather work hand in glove with businesses - they contribute £28 billion a year to the UK economy and much of this is founded on critical mass and high concentrations of excellent research.

2. Purpose of the Research Councils

Q1. Do the Royal Charter objectives for the Research Councils need to continue to be delivered?

¹ Cm2250- Realising Our Potential, A strategy for science, engineering and technology, May 1993.

Q2. How well aligned do you think Research Council priorities are with these Royal Charter objectives?

Q3. How closely are and should Research Council research objectives be aligned with those of government?

2.1 The Research Councils' original Royal Charters were supplemented in 1993 to reflect new missions outlined in the *Realising Our Potential* White Paper and were updated again after the creation of RCUK in 2002, making specific references to joint working with other Research Councils. Similar mission statements were then written for the Arts and Humanities Research Council on its establishment in 2005 and the Science and Technology Facilities Council on its establishment in 2007. The mission statements are specific to the disciplines covered by each Research Council, but all have three broad objectives:

- To promote and support high-quality basic, strategic and applied research and related postgraduate training
- To advance knowledge and provide trained researchers who meet the needs of users and beneficiaries, thereby contributing to the economic competitiveness of the United Kingdom, the effectiveness of public services, policy and the quality of life
- To disseminate knowledge, promote public understanding, communicate research outcomes and provide advice

2.2 These broad objectives align well with current Research Council priorities, remain highly relevant and still need to be delivered.

2.3 We value the work done by the Research Councils and, overall, believe that they have been effective in delivering against the Royal Charter objectives, even given that their funding has been constrained in recent years. However, consideration should be given to strengthening the objectives for joint working to reflect the growing importance of multi-disciplinary research and the value of international collaboration in delivering world-class research and training. These points are typically covered as follows²:

(2) The Council may pursue its objects in Our United Kingdom of Great Britain and Northern Ireland or elsewhere.

(3) Without prejudice to the fulfilment of the objects for which the Council is established and incorporated, in pursuing its objects, the Council shall use its best endeavours to identify and pursue opportunities for mutually beneficial joint working with any one or more of the other Research Councils.

2.4 To stay competitive, the UK needs to focus on cultivating excellent research and ensure that a critical mass of activity is created by concentrating research funding in areas with demonstrated excellence in breadth and depth of disciplines and where it can have the greatest impact. This also means tapping into international funding streams and research opportunities to maximise benefit for the UK. The Research Councils should be encouraged to take a strong lead on engagement with international public research funders including the European Commission, with the aim of delivering

² Source: articles 2.2 and 2.3 of the MRC Charter.

increased UK access to other funding streams and promoting international collaboration.

- 2.5 Within the Research Council 'family', greater emphasis should be placed on opening up any barriers between disciplines and encouraging multi-disciplinary research alongside the core disciplines. The development of RCUK's cross-Council Research Programmes that aim to solve big research challenges over the next 10 to 20 years is very welcome³. However, in practice, some of these programmes are more akin to a series of Research Council-specific sub-programmes held together loosely under a shared umbrella. For example, social sciences appears sometimes to be considered only as an 'add on' to programmes with a natural or physical sciences lead, or is absent from programmes (eg food security) where it could make a significant contribution to advancing our understanding of a research challenge and delivering better economic and quality of life outcomes.
- 2.6 To be effective, much greater integration of research from different disciplines is required within these major cross-Council programmes and, potentially, all Research Councils should be involved in each programme. Mission statements should be modified to encourage genuine multi-disciplinary research with research objectives and funding to match.
- 2.7 Joint working should also extend to other major public funders of research in the UK. Mission statements should explicitly encourage mutually beneficial joint working with other Government departments and agencies (eg the NHS, MOD, DCMS and the Environment Agency) to deliver joined-up research programmes with the critical mass to make a real difference. In this area, the Research Councils also have relevant best practice to share that could improve partnership arrangements.
- 2.8 As the ultimate budget provider, it is inevitable that Research Council objectives will align at least to some extent with government objectives. This is seen in particular with the large cross-Council programmes which tackle problems high on the political agenda, including energy security and healthy ageing. The same is true at a European level where the major challenges that will help to focus Horizon 2020 are also priorities for Member States' governments. Further overt alignment with Government objectives is neither necessary nor desirable.
- 2.9 Long-term curiosity-driven research produces the biggest economic pay-offs in the long run and the UK's dual support funding system is crucial to support this. Indeed, some of the most ground-breaking products have resulted from a research project which set out to explore something completely different. The more Research Councils are constrained to focus on perceived current needs in Government, the less likely they will be able to sustain the UK's leading edge in the long run. This goes against the Haldane Principle and, taken to its extreme, could deprive the UK of investment in up-coming areas of knowledge and competitive advantage arising from the research base. Universities provide the research, talent and ideas that can address tomorrow's problems not just today's and if excellent basic research starts to be squeezed out then this could leave the UK seriously challenged in 5, 10 or 20 years time.
- 2.10 As a current example, allocation of the £600 million of research capital funding announced in the Autumn Statement – while very welcome and absolutely necessary

³ The current cross-Council Research Programmes are: Sustainable energy systems; Living with environmental change (LWEC); Global uncertainties - security for all in a changing world; Ageing - Lifelong health and wellbeing; Digital economy; Nanoscience through engineering to application; and Food security.

– has given rise to some concern about the level of top-down direction apparently involved. Research priorities must be established through appropriate governance procedures involving the research community, potential user communities and other key stakeholders as required. The process should be transparent to assure the relevant communities that competing priorities have been given due consideration. Capital funding should be a continual stream, rather than responsive mode, and provided in a way that promotes institutional autonomy and innovation.

3. Effectiveness and efficiency

Q4. How effective are the Research Councils at delivering their objectives?

Q5. Are the current disciplinary divisions appropriate to allow the Research Councils to foster excellence and innovation in the research base?

Q6. To what extent is there duplication between the functions of the Research Councils (from promoting and support research through to advancing and disseminating knowledge, generating awareness and providing advice) and other providers in the sector?

Q7. What is your view on whether seven Research Councils is the right number?

- 3.1 Any major reorganisation of the Research Councils would be a distraction. It is bound to be disruptive and likely to cost a significant amount of money at a time of shrinking budgets for research.
- 3.2 In terms of the amount of funding distributed per unit of overhead, the Research Councils are already relatively efficient. For example: staff and operating costs at the Technology Strategy Board amount to 8% of their budget; in the US similar costs at the NIH and NSF amount to 4.8% and 4.5% of their budget totals respectively; while the EPSRC's staff and other operating costs were only 2.6% in 2011-12, and ESRC's 5%.⁴ Staff and operating costs at the NERC are considerably higher because this includes costs for their four large research institutes.
- 3.3 Savings on back office functions have already been made through creation of the Shared Services Centre and overall administrative budgets have been cut by a third. In some areas this has left the Research Councils short of capacity to fulfill some functions – for example advising the government on the most important priorities for its emerging industrial strategy.

⁴ <http://www.nsf.gov/pubs/2013/nsf13002/nsf13002.pdf> - NSF agency operations, award management and other costs \$317m in Fy2012 out of \$7033m budget total;
<http://officeofbudget.od.nih.gov/pdfs/FY12/Volume%201%20-%20Overview.pdf> - NIH research management and support cost \$1538m in FY2012 out of \$31987m total;
http://www.innovateuk.org/_assets/pdf/Corporate-Publications/TSB%20Annual%20Report%20and%20Accounts%202010-11%20Web%20FINAL.pdf - TSB staff, programme support and other operating costs of £32.1m in 2010-11 out of £396.3m total;
<http://www.epsrc.ac.uk/SiteCollectionDocuments/Publications/corporate/EPsrcAnnualReportAndAccounts2011-12.pdf> -EPSRC staff costs and other operating expenditure of £21.4m in 2011-12 out of £816.2m total expenditure;
http://www.esrc.ac.uk/_images/ESRC_Annual_Report_2011_12_FOR_WEB_tcm8-22195.pdf -ESRC staff, council member costs and other operating expenditure £10.8m in 2011-12 out of £212.6m total expenditure.

- 3.4 The Review must be cautious in offering up other significant savings and ensure where they are identified that they are real savings, rather than simply a mechanism for passing on costs to universities.
- 3.5 There are costs from having more than one Research Council in that interdisciplinary work and work motivated by societal goals rather than disciplinary imperatives are more difficult to encourage and fund. But these problems would not go away with a single NSF-like body, where the same problems are likely to arise at the boundaries of directorates, divisions, and programmes. It would be better to address the problem of how to support interdisciplinary and goal-oriented research explicitly by making cross-Council programs work better and introducing positive incentives for the Research Councils to collaborate more.
- 3.6 Diversity promotes innovation and experimentation. One of the keys to improving efficiency and effectiveness is to allow innovation in a way that is safe (eg piloting new approaches in one community willing to be part of an experiment) and then adopting the best new ideas across the Councils as their success can be demonstrated.
- 3.7 Any other number of Research Councils, rather than one super council or the current seven, implies a re-drawing of boundaries around disciplines. At this time, there is no obvious set of disciplines that would gain from such a reorganisation. Indeed we have concerns that interdisciplinary research might even be diluted in a merged council structure with one funding pot. In particular there is a danger that the strength of a community's voice would necessarily be determined by its funding proportion, with disciplines including arts, humanities and some social sciences likely to lose out.
- 3.8 There are also benefits from having more than one Research Council in that plurality provides protection from mistakes that any one organisation might make.
- 3.9 The third Royal Charter objective around dissemination of knowledge and promoting public understanding is where there is the most potential for duplication of effort. Each of the individual Research Councils produces its own impact, research highlights and other publications aimed at its own communities and external audiences. There is now some coordination of effort through RCUK – eg with collective initiatives and guidance material on reaching out to the public – but this should go further. For example, those consuming news do not necessarily align their interests with Research Council structural boundaries, so a single media bureau for the Research Councils could be more effective if manned with appropriate experts. This could also help to highlight the importance of interdisciplinary research alongside core disciplines.
- 3.10 Other areas where the Research Councils could align effort are highlighted below.

4. Interaction and co-ordination

Q8. How effective do you consider RCUK to be and why?

Q9. Are there any functions currently performed by RCUK that you think should be performed at Research Council level or vice versa?

Q10. Where do the Research Councils need to work in partnership and how good are the Research Councils at doing this?

Q11. How good are the Research Councils at challenging the status quo – both in the sectors they support and in government?

Q12. Do the Research Councils have effective ways to share best practice?

- 4.1 There is a balance to be struck between ‘challenging the *status quo*’ and providing stability. We would recommend erring on the side of stability in this review given the pressures the sector is already under and the need to deliver research excellence and impact as part of the Government’s growth agenda, when funding is already tight.
- 4.2 Major change now would be very disruptive, but many of the improvements set out below could help to make structural changes much less of a problem in the future. Many of the challenges around the creation of STFC resulted from the need to unravel different cultures and processes in the old PPARC and CCLRC which were not addressed prior to the merger. Government should learn from that experience and plan ahead, rather than rushing ahead.
- 4.3 It is important that individual Research Councils maintain a strong governance structure with Councils acting as the senior decision-making body, determining strategy and priorities. Councils should continue to be drawn from representatives of the academic, user and, where necessary, other stakeholder communities. The majority of members should be drawn from the research-intensive academic community to ensure the Research Councils focus on research excellence and international competitiveness for the UK.
- 4.4 RCUK can coordinate and work to create partnerships across the Research Councils, in particular: for the development of joint programmes; where it is sensible to have shared functions; to provide a collective voice; and where common approaches to policy would reduce bureaucracy and make the interface with academia more efficient.
- 4.5 We note that RCUK’s effective overhead on programmes delivered is much higher than any individual Research Council but this is because it does not fund major research programmes directly. By 2014-15 it is anticipated that staff costs for the RCUK Strategy Unit will be 25% of its total spending.

Joint programmes

- 4.6 As discussed above, the challenge is to ensure joint programmes are structured and operate as meaningful, coherent programmes rather than isolated silos of activity. This applies to cross-Council research programmes and to other major initiatives such as investment in shared infrastructure.
- 4.7 Joint programmes could also be used more extensively to bring external funding and other resources into a shared pool to address major research challenges. Some programmes such as Living With Environmental Change already do this effectively, but the scope for delivering research for other Government departments and agencies through RCUK-coordinated programmes could be widened.
- 4.8 Many Government departments and agencies have sums of money for *ad hoc* research or small programmes and may not be securing best value for money or access to the best researchers through their own commissioning processes. The Research Councils have greater expertise and ready access to the UK’s research base and could ensure public research money is used effectively and efficiently.

Shared functions

- 4.9 Building on the shared services centre for back-office functions, we welcome the RCUK’s work to integrate further public engagement, HR, Health and Safety, finance

and estates functions as indicated in the RCUK delivery plan 2011-15⁵. Consideration should also be given to creating:

- A single media bureau for the Research Councils
- A joint audit committee, taking on the audit functions for each of the individual Research Councils
- A joint infrastructure committee to ensure the most effective use of capital funding across the Councils' remit – including maintenance and upgrade investments.

Collective voice

4.10 RCUK should provide a strong collective voice for the Research Councils:

- To add weight internationally where a coordinated and coherent UK voice for research could help in securing funding for UK priorities, develop partnership opportunities for training and research and helping to increase the potential for international collaboration in Europe and elsewhere
- To ensure initiatives such as infrastructure sharing between Research Council Institutes and universities are taken forward by all Research Councils acting in-step.

Efficient common approaches

4.11 Where the Research Councils provide funding and other resources to support the development of best practice, it is sensible to deliver these through standard cross-Council approaches overseen by RCUK. These measures typically need to work across institutions rather than being restricted by discipline within an institution because one or more public research funder does not support an objective. Examples of areas where a more joined-up approach across the Research Councils would be valuable include initiatives on equality and diversity, development of research leaders, and schemes to accelerate research impact and collaboration with industry.

4.12 As far as possible, funding for such initiatives should be given on a formula basis linked to research excellence and, where appropriate, critical mass, and in a way that provides as much autonomy as possible for institutions to determine how it can be used. Universities are best placed to understand the specific challenges for training and research in different disciplines and need the freedom to deliver their own appropriately tailored solutions. It is right for RCUK to monitor how public money is spent, but compliance monitoring should be based on outcomes achieved rather than trying to micro-manage how those outcomes are to be achieved.

4.13 Our universities will not flourish if they are over-regulated. The UK would benefit from introducing a much lighter touch, risk-based regime for universities that have demonstrated a strong track record. The Research Councils could take the lead here, allowing compliance resources to then focus where problems of quality are most likely to occur.

⁵ http://www.rcuk.ac.uk/documents/documents/RCUK_delivery_plan_2011_15.pdf

- 4.14 One of the obstacles standing in the way of the efficient operation of the Research Councils is the ever-increasing complexity and diversity of regulations surrounding its application and award procedures. Time spent on streamlining and simplifying these processes as far as possible would be constructive.
- 4.15 On postgraduate training, each Research Council has slightly different requirements on the length of awards, how research activity should be reported and even on policies that clearly should be common, such as maternity, paternity and adoption leave. In many cases, the objective is the same, but the wording of requirements is different enough to add an extra level of complexity in how studentships are managed. A single shared specification document for all studentships should be a priority as an outcome of this Triennial Review. Again, this needs to be designed in a way that provides flexibility to universities to deliver a range of options to accommodate different career paths and other specific needs.
- 4.16 Similarly, the Research Councils should take common approaches on:
- Data sharing and open data requirements
 - Reporting research outcomes – which is currently done through two main systems in the UK: ROS and Researchfish, depending on the funder
 - Using two-stage grant application processes to reduce wasted effort when large numbers of applications are likely
 - Demand management in general
 - Managing competitions for large centres, grants and other programmes when the process of preparing a bid can be a substantial cost
 - Provision of translation/impact funding.
- 4.17 This should not rule out variation between the Research Councils as some approaches may be more suited to one discipline than another. However, it should be possible to develop a more coherent, and simple, menu of initiative types and processes that can be picked-up and used by different Councils as appropriate.
- 4.18 Individual Research Councils should also be encouraged to try out new approaches but in a managed way, allowing their effectiveness to be evaluated so that successful initiatives can be adopted widely, while the least successful are terminated quickly.

5. Dissemination and communication

Q13. How do Research Councils ensure that use of research is maximised, including by those in other Councils, the private, public and third sector?

Q14. How well do you think the funding mechanisms are understood by applicants (existing and new)?

Q15. How well do you think Research Councils communicate with the general public?

- 5.1 Dissemination and communication issues have been highlighted recently in our engagement with RCUK on open access (OA) publishing. We have commented

extensively on OA in our submissions to two Parliamentary inquiries this year, which we would be happy to share with the review team.

- 5.2 At least some of our concerns around OA could have been allayed with an early and full consultation involving key stakeholders most affected, allowing an opportunity to comment on policy not just the guidelines on how policy will be implemented.
- 5.3 We are grateful for the clarification RCUK has now been able to provide on its publication targets, OA compliance and other matters, and its willingness to review policy implementation in 2014. We welcome that RCUK describes the implementation of its OA policy as a journey over at least five years rather than being a 'day 1' requirement. This will allow much needed breathing space for universities to make further steps towards open access. Ultimately, moves in the direction of OA will probably take longer than five years.
- 5.4 We now look forward to confirmation of the position RCUK will take as it finalises its guidance notes on implementing OA policy. We hope that the final guidelines will reflect our concerns and give universities significant flexibility in how they use their block grant to achieve open access in a manner which is appropriate to them and which reflects their research strengths.
- 5.5 Green models with sustainable embargo periods would be much more cost effective at delivering open access. We would like to see a wider acceptance and financial support for Green OA routes as a valid option by the Research Councils.

6. Funding mechanism

Q16. Is the funding mechanism appropriately open to a range of institutions/researchers, including new entrants as well as incumbents?

Q17. Does Research Council funding work well alongside block grants to institutions?

- 6.1 The US has always enjoyed much higher levels of investment but now emerging economies and some of our European competitors are pumping billions into their universities and are reaping the benefits in performance. They are concentrating funding on their leading universities rather than spreading funds too thinly across too many institutions. Similarly, if the UK is to remain a global leader then Government investment must be focused where it will have the most impact – creating the critical mass of research excellence that will allow us to compete.
- 6.2 Research Council funding works well alongside the QR block grant and the balance of funding between these two streams remains about right.
- 6.3 As discussed, the Research Councils could be better at supporting interdisciplinary research as this is one of the key areas where new groups and whole new branches of research are likely to emerge. Research Council funding mechanisms must be open to this: encouraging innovative approaches and new areas of work (within and between disciplines), while still ensuring excellence is the overriding criteria for funds to be awarded.
- 6.4 The Research Councils have been very helpful in their support for equipment sharing, with financial support made available to initiatives focusing on the N8 in the north of England and the M5 universities in the Midlands.

- 6.5 A further area the review should consider is the role of Research Council institutes, which could be considered as incumbents somewhat protected from the competitive pressures faced by both universities and commercial research organisations. A variety of different models operate for these institutes, but all should be expected to produce internationally excellent research and should be judged against the standards of our world-leading universities as they bid for research funds.

7. Economic impact

Q18. How good is the UK at attracting private investment and human talent into research in comparison with other countries? What factors influence this?

Q19. How effective is the funding mechanism at delivering value for public money and deciding the best targets for new research?

Q20. How easy is it for UK businesses, individuals and policy makers to access the research base?

- 7.1 The Russell Group recognises the importance of demonstrating the immense impact that our research has had on the UK's economic prosperity and quality of life. But it can be hard to predict the exact benefits of individual pieces of research and the role of serendipity in scientific discoveries has been shown throughout history.
- 7.2 So while it is absolutely vital for the UK to attract private investment in research, which is becoming increasingly mobile internationally, we should be aware that much of that investment will be for applied and more downstream R&D activities. The Research Councils must complement this with a focus firmly on excellent basic research, but also provide routes to develop research further, with or without private investment.
- 7.3 Additional support for proof of concept funding and other mechanisms to take research ideas closer to commercialisation within universities would be welcome – but this must not be re-purposed from research budgets as that would be counterproductive. Research Councils should also continue to seek opportunities for research, training and knowledge exchange partnerships with industry, charities and other funders and potential users of research. The EPSRC in particular has best practice in this area.
- 7.4 The Research Councils, working with our world-leading universities, are fundamental to the UK's research and innovation landscape. Research excellence and the funding to support it are what attract the best talent and private investment. If funding does not keep pace with investments internationally and/or if the focus on funding excellence slips then the UK will be in danger of losing its place in the premier league of research nations.

28 February 2013