| **Theme** | **Questions** |
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| **Purpose**  | 1. Do the Royal Charter objectives for the Research Councils (below) need to continue to be delivered?

In the context of economic, global and societal challenges we strongly believe in the need for the Royal Charter objectives of the Research Councils to continue to be delivered.1. How well aligned do you think Research Council priorities are with these Royal Charter objectives?

The Research Councils have aligned their priorities well with delivering Royal Charter objectives. Further commentary and evidence on how this has been achieved is included in response to questions outlined below.1. How closely are and should Research Council research objectives be aligned with those of Government?

We believe that the current relationship between government and the research councils works well. This is a two way relationship that seeks to strike an appropriate balance between independence of decision making about research funding (the so called ‘Haldane principle’) whilst ensuring accountability for public funds and a legitimate role for government in providing appropriate guidance on broad science areas that should be given priority. The Devolved Administrations receive regular visits and have representation on some Governing Councils. Research Councils have worked well with devolved administrations in providing Joint Infrastructure Grants (JIF) for example and Scotland has done very well in terms of its fraction of total RCUK grant income in comparison to its population. In addition those research Councils with Research Institutes (or former research institutes) in the devolved administrations have worked with the relevant authorities, such as the interaction between BBSRC and Welsh Assembly Government on the former Institute for Grassland and Environmental Research and, to a lesser extent, between STFC and the Scottish Government on the possibility of a research campus in Scotland. The interaction between RCUK and the devolved administrations on devolved research priorities has been less clear.An ongoing and strong dialogue between the Research Councils and government will be vital given the increasing significance and importance of research, and will ensure that conflicting demands of government policy can be interpreted, understood and managed effectively. Greater transparency in these dialogues would be beneficial in debates around the extent to which the Haldane principal is still functional today.  |
| **Effectiveness and efficiency** | 1. How effective are the Research Councils at delivering their objectives?

The Scottish research base performs excellently on the international stage, particularly in terms of productivity and impact. The Research councils have played a crucial role in this success through promoting and supporting excellent research, as judged by peer review.This research has also had a significant positive impact on Scotland’s growth, prosperity and wellbeing, and through RCUK the research council policies have been aligned to maximise the impact of this excellent research at every opportunity. Cross-council initiatives to support collaborative research have also ensured that Scotland’s research base is able to contribute to addressing grand multi-disciplinary challenges in a clear and coordinated way. The Scottish Government is involved in the Living With Environmental Change (LWEC) Governing Council, there is a major EPSRC digital Hub at Aberdeen and the EPSRC/STFC joint start-up funding of the Scottish Universities Physics Aliance International Max Planck Partnership helped leverage funding from the Scottish Funding Council for instance. As well as funding and promoting excellent research with impact the Research Councils have taken forward, through RCUK, a number of important cross cutting initiatives that seek to create an effective, sustainable and engaged research base. These include:* support for research careers and the next generation of researchers through skills development, doctoral training and ongoing researcher development
* promoting a culture of public engagement within the research community
* initiatives to promote efficiency and effectiveness and maximise usage and value of research infrastructure and assets
* encouragement of researchers to plan on providing impact by introducing Pathways to Impact sections in grant applications
1. Are the current disciplinary divisions appropriate to allow the Research Councils to foster excellence and innovation in the research base and an important reason for the success of the UK research base?

We believe that the current disciplinary divisions are appropriate and an important reason for the success of the UK research base. The current disciplinary framework ensures that the research base is able to address new and emerging challenges within broadly defined discipline areas and sits well alongside moves to ensure cross council collaboration and support for interdisciplinary working. There may be an increasing overlap among the work of MRC, BBSRC, STFC and EPSRC around the field of Bioengineering, Informatics, and Big Data and that greater alignment of programmes would be beneficial**.** We acknowledge however that EPSRC and STFC appear to work together in the area of Big Data.1. 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?

The Research Councils play a critical role within the research ecosystem in the UK. Recognising the need to avoid duplication and maximise synergies the councils have built strong relationships with other parts of the research system including research charities, funding councils, higher education institutions, the Technology Strategy Board and subject based learned and professional societies. There are many mechanisms and processes to ensure and support dialogue. RCUK has really expanded this role. The very welcome development of Science Europe, Chaired by Professor Boyle, was led by RCUK. The councils have also demonstrated the importance of collective action at an international level. The longstanding joint presence in Brussels (which pre-dates RCUK) through the council sponsored UK Research Office has ensured that the UK is able to help shape and engage with European programmes effectively, and get the most out of these programmes 1. What is your view on whether seven Research Councils is the right number?

We believe that the current disciplinary divisions are about right and the objectives are discharged effectively through the current research council configuration and appropriate coordination of cross council themes through RCUK. |
| **Interaction and coordination** | 1. How effective do you consider RCUK to be and why?

We believe that RCUK is a very effective body providing appropriate strategic coordination and support for cross council initiatives. In the relatively short time of its existence, RCUK has grown impressively to be the voice of the research base on many cross-cutting agendas. RCUK plays an increasingly important role within the research council ‘family’ and we would strongly support the continuation of this function. Particularly notable has been the development of the RCUK International Group and the establishment of three RCUK Offices in China, India and the United States, as well as its role in Europe. The development of the RCUK Shared Service Centre has provided back-office efficiency gains while maintaining focus on the specific remits of the individual Councils. 1. Are there any functions currently performed by RCUK that you think should be performed at Research Council level or vice versa?

We believe that the balance is currently about right with RCUK providing strategic direction and coordination to cross council initiatives.1. Where do the Research Councils need to work in partnership and how good are the Research Councils at doing this?

The Research Councils need to work in partnership in making their case jointly to BIS for funding – and we think they are now good at this. But also in working together to respond to initiatives that may damage the research base like the current consultation on changes in the VAT rules which have serious implications for collaborative and applied research and research training.One further area for partnership working would be the delivery of impact where technical push originating in, for example EPSRC, is not adequately connected to end-users whose research is associate with another RC. Examples may be found in sensors technologies for healthcare and environmental sciences. There have been good examples of individual RCs that aim to make these links, but further linkages using smaller projects would be beneficial.1. How good are the Research Councils at challenging the status quo – both in the sectors they support and in Government?

Research Councils have been effective in challenging the status quo in a wide range of areas, for example: many grand challenges in new areas; research impact and its measurement; research careers; simplifying international collaboration; ethical issues. There are however, continuing debates amongst the community around the balance of funding between strategic and ‘blue skies’ research which need careful presentation and on-going dialogue. 1. Do the Research Councils have effective ways to share best practice?

Yes, the Research Councils have been exemplary in working with a broad range of stakeholders not only to share best practice but to embed it in policy.  |
| **Dissemination and communication** | 1. How do Research Councils ensure that use of research is maximised, including by those in other Councils, the private, public and third sector?

There have been significant improvements in relation to economic impact by:* making research findings easier to access
* promoting open access of results
* working more closely with industry to develop joint funded programmes
* ensuring the requirement for impact pathways to be part of the application process
* supporting the development of impact case studies into the REF

The support for maximising and demonstrating research impact has been significant and we believe that the Research Councils need to be encouraged to further develop these joint schemes and initiatives to fully maximise the benefits of research base.1. How well do you think the funding mechanisms are understood by applicants (existing and new)?

The funding mechanisms are understood well and all Research Councils put a lot of productive effort into communicating across all the UK geographies.1. How well do you think Research Councils communicate with the general public?

Research Councils communicate with the public in a number of ways. For example, through the excellent public engagement coordinated by RCUK; by open meetings; by the encouragement of research in all disciplines to engage with the public – for example RCUK’s leadership of the “Beacon in Public Engagement” initiative; EPSRC’s Researchers in Residence; STFC’s Public Understanding grants and Science and Society Fellowship. |
| **Funding mechanism** | 1. Is the funding mechanism appropriately open to a range of institutions/researchers, including new entrants as well as incumbents?

We believe that there is appropriate breadth to funding eligibility in the main. There are several schemes to ensure that new entrants to research have opportunity to establish funding, for example there are special provisions for new entrant grants in both EPSRC and STFC. There are also now mechanisms in place between funders (e.g. Research Councils and Scottish Government) to ensure collaboration between eligible and non-eligible institutions.1. Does Research Council funding work well alongside block grants to institutions?

In addition to Research Council funding, higher education institutions will be in receipt of quality related (QR) funding which is selectively allocated through the funding councils on the basis of performance in the periodic research assessment exercise. These two streams of public funding for research are equal in importance, but different in nature and work together to ensure the excellence of the research base in the higher education sector can be effectively supported. This ensures a dynamic and responsive system where decisions about investment and support for research are distributed across the system. For example, institutions may use QR funding to invest in the development of new and emerging areas that will then access research council funding.  |
| **Economic Impact** | 1. How good is the UK at attracting private investment and human talent into research in comparison with other countries? What factors influence this?

The UK is similar to other countries in attracting private investment and human talent into research – an exception is private Universities in the USA where wealthy alumni provide funding. The keys to both private investment and human talent are excellent facilities; top class research colleagues already in situ; and a strong and long term funding base permitting reasonable success rates. In recent years the facilities have improved and the UK currently has a top class international human infrastructure. Its continued health requires a constant commitment for funding and to the development of facilities. Both private investment and human talent may be jeopardised by over-stringent application of border controls and difficulties of funding non-UK students.1. How effective is the funding mechanism at delivering value for public money and deciding the best targets for new research?

The Research Councils deliver value for money by having low administration costs and by working together in administration and procurement. They regularly revise their strategic plans both individually and, through RCUK, collectively. In addition, through the response mode grants they are able to monitor and track the new research coming from the UK’s excellent base.They have also traditionally maintained a strong value-for-money ethos at the level of individual grant funding, and typically seek full justification for funding, while ensuring that a research programme is properly budgeted. The footprint of UK funded research per unit of investment is higher than anywhere else in the G8.Targets for new research are decided in two ways: through agreed consensus of boards and committees fed through the Research Councils to Government for large scale initiatives, and through the disruptive ideas of innovative researchers for single grant applications. Both mechanisms are extremely effective, and the latter mechanism may well give rise to major future initiatives.Although practice varies across RCs, this ensures a good range of methodologies that capture the majority, if not all, essential work. Value for money is derived from managed risk in the portfolio whilst diversity aids foresight and target setting. Although again, the balance of funding between strategic and blue skies research has an effect on deciding the best targets for new research1. How easy is it for UK businesses, individuals and policy makers to access the research base?

In many respects it has never been easier with Universities being wide open and welcoming to industry and stakeholders. UK businesses and policy makers are represented on Research Council committees and boards, and there are specific schemes to bring research outputs to businesses. For instance through University Industry Days and TSB/RCUK calls for collaborative grants such as Knowledge Transfer Partnership grants. As the Research Councils may routinely devolve IP to the research institution, access to the research base often occurs at institutional level. This potentially makes access easier and more personal. The Scottish universities are establishing ‘one-stop’ mechanisms for interactions with industry sectors to increase ease of access. University research group websites also tend to be informative in the majority of research areas.For Policy Makers the RCUK partnering of researchers with Members of Parliament is very constructive, as are the responses to consultations by the Learned Societies and Professional bodies. The proposed RCUK open access publication strategy will give individual access to the outputs of the research base. While this increases access to the research base there is concern in some quarters that this may lead to exploitation by international competitors unless the mechanism is truly international. Despite all the above examples, SMEs still often struggle and the volume of information may be overwhelming at an individual level.We would also like to note that often too much emphasis is put on using the research base to generate income in terms of licensing, spin outs etc for the individual research institutions rather than to generate economic benefit for the wider community. |

**Royal Charter objectives:**

* Promote and support research
* Advance knowledge, understanding and technology and provide trained researchers to meet needs and contribute to UK competitiveness, effectiveness of public services and policy, and to enhance quality of life and creative output of the nation
* In relation to this: (i) generate public awareness; (ii) communicate research outcomes; (iii) encourage public engagement and dialogue; (iv) disseminate knowledge; (v) provide advice.