

## **Submission from Research Councils UK (RCUK) to the Scottish Government's Rural Affairs and Environment (RAE) Consultation on the Research Strategy for 2016-2021**

### **Introduction**

1. Research Councils UK (RCUK) is a strategic partnership of the UK's seven Research Councils who annually invest around £3 billion in research. We support excellent research, as judged by peer review, which impacts on the growth, prosperity and wellbeing of the UK. To maintain the UK's global research position, we offer a diverse range of funding opportunities, foster international collaborations and provide access to the best facilities and infrastructure around the world. We also support the training and career development of researchers and work with them to inspire young people and to engage the wider public with research. To maximise the impact of research on economic growth and societal wellbeing, we work in partnership with other research funders including the Technology Strategy Board, the UK Higher Education Funding Councils, businesses, the government, and charitable organisations. Further details are available at [www.rcuk.ac.uk](http://www.rcuk.ac.uk).
2. This evidence is submitted by RCUK and represents its independent views. It does not include, or necessarily reflect the views of the Knowledge and Innovation Group in the Department for Business, Innovation and Skills (BIS). The submission is made on behalf of the following Councils:
  - Biotechnology and Biological Sciences Research Council (BBSRC)
  - Engineering and Physical Sciences Research Council (EPSRC)
  - Economic and Social Research Council (ESRC)
  - Natural Environment Research Council (NERC)
3. This response focuses only on those questions or parts of questions relevant to RCUK or the individual Councils who have contributed to the consultation. The response was informed by Research Council funded research, debate and academic thought on research area covered by the Strategy.
4. The Research Councils welcome the opportunity to respond to the Scottish Government's Rural Affairs and Environment Consultation on the Research Strategy for 2016-2021.

**Question 1: Do the 2011-2016 strategic priorities remain robust and relevant for the period 2016-2021?**

The priorities are somewhat lacking in detail, and could show a clearer link to the need to manage the environment in a sustainable manner, whilst developing its ecosystem services, such that the rural economy benefits society in a sustainable manner. In particular, a clearer emphasis might be placed on the need for research to inform the balancing of agricultural and other production aspects of land use with the provision of other ecosystem services, and with the maintenance or enhancement of the natural capital on which both it and they depend.

The Strategic Priorities should further develop an outward focus, aiming to make Scotland a player on the international stage. As presented the priorities are rather inward looking.

“Resilience” can be a problematic concept; the focus on science resilience suggests welcome flexibility and strength but not necessarily the potential for transition and change to a new direction.

Furthermore, other components of the strategy focus on developing an ethos of collaboration. By phrasing this priority as “supporting scientific resilience” this would fit better with the enabling principles (knowledge exchange, inspiring innovation and maintaining national and international capability).

**Question 2: Do these ‘enabling principles’ set the right context or should additional principles be adopted?**

The enabling principles are generally suitable, particularly the emphasis on interdisciplinarity, knowledge exchange and ensuring both innovation and the maintenance of capability.

The “Exchanging Knowledge” principle could be more explicit in defining end users to be businesses, government, publics and the science base. This would create a stronger and more direct message. If businesses and residents/consumers are left out of the exchanging knowledge agenda the message of the strategy may be diluted.

RCUK recommend consideration of how these welcome but often time-intensive activities are going to be supported and nurtured. There should, for example, be further information on how the Scottish Government will support the science base to become better at carrying out such principles.

**Question 3: Are the high level outcomes sufficiently clear, if not, what changes would you propose?**

The outcomes are not clearly defined other than as a subset of the high-level research themes. If the ‘strategic high-level research themes’ are thus high-level outcomes in their own right, this ought to be made explicit.

Figure one shows priorities, themes and enabling principles, but it is not clear how these translate to outcomes, which are not included in the figure. It is important to make the high-level outcomes fit the strategic priorities, single purpose and wider objectives as well as the research themes.

**Question 4: Are the three broad themes identified an appropriate way of structuring our work? If not, what alternatives should be considered?**

To better encapsulate the focus of the first research theme at the community level, the Scottish Government might wish to broaden the name of the high level research theme to ‘Societal Health and Wellbeing’.

Furthermore, the use of the phrase ‘Ecosystem Services’ does not imply a strategic direction and is not sufficiently specific; it does not encapsulate the variety of policy outcomes within the field. Alternative wordings of this concept, such as “environmental services”, may make the concept more accessible.

Productive and Viable Land Use can be seen as one of many ecosystem services. The Scottish Government should give consideration as to why they consider these two research themes as separate and whether the wording of the research themes addresses this distinction. For example, changing ‘Productive and Viable land Use’ into Sustainable Land Use sets a different tone and an implication of longevity of land use and support.

A possible impact of the focus of this consultation on the strategic priorities of RESAS and not the wider SG portfolio, including the CAMERAS partners, is a focus on, as outlined in paragraph 2.1, the “land based investment” of RESAS. As a consequence, there is a danger that the wider Scottish Government priorities for research into Rural Affairs do not sufficiently take into account that the countryside is both a place of consumption and leisure and a place where people live and work, increasingly in occupations not directly situated in agriculture and land management. Consequently, across the wider portfolio, there is not enough emphasis on consumers of countryside in tourism, leisure, creative industries, the IT sector and related business other than agriculture.

To address this, across the wider Scottish Government portfolio there could also be more focus on the desirability of the countryside as a place to live and work. This may include: enhancing digital communications enabling people to work from home and businesses to operate; delivering access to services in imaginative ways, including transport (for example lift share schemes) and energy in remote areas; and recognition of tourism as a key industry. There are already many excellent initiatives around Scotland in this respect that would benefit from being recognised in the SG strategy more generally.

Priorities that recognise the diversity of rural residents and users also need to look at potential conflicts between these uses, such as questions of aesthetics and access to the countryside.

“Healthy and Vibrant Communities” and “Resilient Communities” are not completely interchangeable terms. It may be worth considering whether ‘healthy and vibrant communities’ may be an outcome in its own right. Resilience could be more explicitly defined to incorporate social, economic and/or environmental resilience as appropriate. The strategy should further address what kinds of resilience are considered priorities.

**Question 5: How can the SG maximise the benefits of on-going investment in the MRPs to build and benefit from connectivity with the wider science base?**

The Research Councils have been engaging with research providers for a considerable time, and recognise that higher education institutions (HEIs) and other research providers are specific entities with different and overlapping skills and capability sets. The Research Councils have found that targeted research calls focussing on interdisciplinary research and networking events and activities can help create the required linkages between research providers of different types.

The SG could maximise its connectivity with the wider HEI science base through exercising its 'knowledge exchange' enabling principle in a way that HEIs are actively consulted in activities such as this. There are a range of knowledge exchange activities that can boost connectivity between research institutions, and between research and other sectors. For example, the SG may want to consider the adoption of internships or placements that work across MRPs and HEI as well as the SG. This will help to foster knowledge exchange and bring closer those in the 'science base' that may not necessarily be engaging with evidence relevant to policy and national objectives.

Other mechanisms for promoting collaboration involve open calls for proposals and consultations. RCUK would also suggest involving rural residents in the research proactively.

**Question 6: What are your views of the performance and operation of the CoEs to date, are there any additional areas that would benefit from such support?**

The Centres still appear key to the research needs to Scottish Government, however it is not clear how the wider provision of ecosystem services are aligned to these centres.

As stated above, there are wider "Rural Affairs" concerns not captured by the RESAS consultation because of the land-based research focus of RESAS. Additional areas of enquiry that would benefit from support include tourism, leisure and consumption, views of rural residents, digital and other communications.

**Question 7: Do you agree with the SG's proposal to end support for SPs and to explore alternative mechanisms to strengthen engagement between its investment in research and the business sectors it aims to support?**

Business needs, requirements and sectors change over time and so an appraisal of the mechanisms to engage with sectors is sensible.

**Question 8: Do you have any proposals for how the research portfolio can better link to the business community to deliver the desired outcome?**

If SG does not feel the strategic partnership (SP) mechanism delivers links between business and research sectors, some of the Research Councils use a 'Clubs' model that appears to work well in delivering wide engagement with sectors that have limited funding for research support. The "SARIC" club is being developed in the agricultural research area between NERC and BBSRC,

and is particularly relevant.

It is important that the research portfolio involves rural residents and business proactively in the research from the start; there needs to be a movement towards research with rather than on local communities and businesses. The SG may consider placing a condition on suitable projects carried out by MRPs that business and community stakeholders/end-users are critical friends from the onset of the research agendas.

To engage a wider set of businesses needed to make research benefit rural communities, there needs to be recognition of leisure, tourism culture and the arts (creative industries), including festivals, as important features of the Scottish countryside industries. A good start on these aspects has been made through the work of the dot.rural Hub funded by the RCUK Digital Economy Theme (led by EPSRC). This £12M research Hub of over 80 researchers based at Aberdeen University has an innovative Partnership model to bring in a wide range of users from areas including healthcare, transport/accessibility and the environment/conservation in a rural context.

A more detailed strategy on engaging small rural businesses in research would be a strength – small businesses often are very time and resource-poor which can be a barrier to effective engagement.

The strategy could consider the possibility of supporting environments for research and engagement in areas beyond those defined by MRP's research agendas.

**Question 9: Is the purpose and value of underpinning capacity sufficiently clear, if not how can it be improved?**

The purpose of underpinning capacity seems clear, although the description could have benefitted from further expansion. Leaving to one side possible constitutional developments it would seem prudent to look at overlapping and aligned capacity throughout the UK and beyond to improve leverage and reduce duplication.

**Question 10: Do you have any views regarding the performance and use of the Contract Research Fund including how it could be improved?**

This Fund seems appropriate provided it includes user-driven research.

**Question 11: Could the overall delivery model be further simplified in a way which still enables SG to meet its strategic priorities for the portfolio, if so how?**

No comment

**Question 12: Do you have specific suggestions as to how the RESAS research strategy can contribute to the delivery of the objectives of the CAMERAS partnership?**

No comment

**Question 13: Do you have any suggestions for developing the partnership with other research funders?**

It would be wise to develop further links with European funding and this may be done via Scotland Europa.

**Question 14: Do you have any particular suggestions as to how greater engagement with the HEI sector might be achieved?**

If the SG rural strategy is to engage with wider rural business concerns beyond land use and agriculture it will need to broaden its portfolio of experts and projects rather than narrowing them. Existing expertise in Scottish Universities is widespread, although it should be noted that the RCUK Digital Economy Theme (led by EPSRC) has supported a large £12M research Hub of over 80 researchers from a range of academic disciplines at Aberdeen University called dot.rural. This has created a critical mass sized centre of expertise in the transformational aspects of Digital technology with a focus on rural activities in healthcare, transport/accessibility and the environment/conservation. The industries can be disjointed leading to difficulties in coordinating innovation to date. The SG could take a more proactive role in facilitating partnerships and collaborations in these wider areas.

**Question 15: Are the research outputs from the RESAS portfolio of research readily accessible or can this be further improved, if so how?**

The list of access and communications seems suitably wide ranging; however the list does not explicitly identify social media activity. Furthermore, the Research Councils provide a web system for searching the portfolio of past and current research ([Gateway To Research](#)), which was developed primarily for use by SMEs and is valuable to both scientists and the media. The Scottish Government may wish to consider a similar system.

Thought should be put into how to engage business organisations such as FSB and Scottish Chamber of Commerce which represent many rural businesses. Additionally, it is important to consider how to engage with diverse rural communities around Scotland including the Islands.

**Question 16: Is the current performance management approach fit for purpose or can it be improved, if so how?**

No comment.