

UK Research and Development Roadmap

- The purpose of this paper is to note the publication of the UK Research and Development (R&D) Roadmap and to comment as appropriate.

Recommendations

- Members are invited to make high-level comments at this stage and to provide more detailed comments to the RKEC Clerk by 31 July. These views will be used to support SFC's response to the online survey (closing 12 August).

Financial implications

- There are no direct financial implications associated with this paper.

UK Research and Development Roadmap

Purpose

1. RKEC is invited to note the publication of the UK Research and Development (R&D) Roadmap. RKEC is invited to provide any high-level comments at this stage and to send any more detailed comments to the RKEC Clerk by 31 July. These views will be used to support SFC's response to the online survey (closing 12 August).

Background

2. On 1 July 2020 the UK Government's Department for Business, Energy & Industrial Strategy (BEIS) published a policy paper titled UK Research and Development (R&D) Roadmap¹. This paper outlines the critical role of R&D in the recovery from COVID-19 and reaffirms the UK commitment to developing R&D and to 'further strengthen science, research and innovation across the UK, making them central to tackling the major challenges we face, and taking advantage of opportunities.'
3. The R&D roadmap is broad and covers large areas, including recognition of some of the inter-dependencies and policy decisions which can impact on being able to deliver an effective R&D strategy. The document sets out a number of new initiatives and potential funding mechanisms whilst re-emphasising the existing commitment to reach 2.4% of GDP spending on R&D by 2027.
4. As SFC progresses with the review of coherent provision and sustainability, we will need to ensure that we are taking into account the activity and funding outlined in the R&D Roadmap and consider how we can ensure effective alignment, where appropriate, and develop our future strategy to maximise the opportunities to benefit.

Summary of key issues and options

5. The roadmap covers a significant amount of information, often at a fairly high level. In doing this it has been able to articulate a system-wide approach that looks across the R&D ecosystem, understanding a number of the existing challenges and beginning to outline potential new solutions.
6. The roadmap sets out several important themes and initiatives, some of these are newer approaches and some a re-commitment of existing initiatives. These include, but are not limited to:

¹ <https://www.gov.uk/government/publications/uk-research-and-development-roadmap/uk-research-and-development-roadmap#contents>

- Recognition of the need to invest in large-scale, longer term, experimental research. This includes funding teams and less on short-term research projects.
 - Government backed ‘moonshots’ defined in the paper as having ‘ambitious, measurable goals which could have a significant impact on an important societal issue – can galvanise actors from across disciplines, government, academia and industry.’
 - Investing at least £800M to set up an Advanced Research Projects Agency (ARPA) to back breakthrough technologies. Importantly the roadmap recognises that this should benefit all of the UK and there will be engagement with devolved administrations.
 - The creation of an Office for Talent to ‘take a new and proactive approach to attracting and retaining the most promising global science, research and innovation talent to the UK’.
 - Continued commitment to place-based strategies and ‘levelling-up’ across the UK through regional models and re-balancing the concentration of funding in the Golden Triangle compared to wider UK.
7. Each of these initiatives and other actions listed in the document will have an impact on R&D in Scotland. SFC will have an important role, working with the sector, to influence, align and prioritise activities to ensure that Scotland is well placed to maximise the opportunities presented in the roadmap. In the short-term there are number of questions posed in the roadmap (Annex A) which invite answers by 12 August. SFC will wish to respond to these. Longer-term, aligned to our funding review, we will consider the roadmap as another significant input which will help to drive our longer term plans.
8. RKEC should also be aware that the National Centre for Universities and Business (NCUB) has been invited by UKRI² to form a taskforce which will ‘consider how partnerships between universities and businesses can be strengthened and maximised to drive growth and prosperity.’³

Risk assessment

9. There are no immediate risks associated with this paper.

Equality and diversity assessment

10. RKEC is invited to comment on any equality and diversity issues. SFC would conduct an assessment when it is ready to develop any policy influenced or

² <https://re.ukri.org/documents/2020/taskforce-letter-to-ncub/>

³ <https://www.ncub.co.uk/latest-news/new-collaboration-taskforce-announced-to-aid-economic-recovery>

necessitated by the Roadmap.

Financial implications

11. There are no immediate financial implications associated with this paper. The UK R&D Roadmap will be relevant to the distribution of a significantly rising UK R&D Budget over the course of this UK Parliament.

Recommendations

12. RKEC members are invited to:
 - note the paper and comment as appropriate;
 - provide any more detailed comments, including views on the high level questions (annex A), to the RKEC Clerk by 31 July.

Publication

13. This paper will be published on the Council website.

Further information

14. Contact: Robin Lee, Senior Policy/Analysis Officer, email: rlee@sfc.ac.uk; or Keith McDonald, Assistant Director, email: kmcdonald@sfc.ac.uk.

Annex A – High Level Questions

The R&D roadmap invites responses to the following questions; responses are to be submitted online.

- How can we best increase knowledge and understanding through research, including by achieving bigger breakthroughs?
- How can we maximise the economic, environmental and societal impact of research through effective application of new knowledge?
- How can we encourage innovation and ensure it is used to greatest effect, not just in our cutting-edge industries, but right across the economy and throughout our public services?
- How can we attract, retain and develop talented and diverse people to R&D roles? How can we make R&D for everyone?
- How should we ensure that R&D plays its fullest role in levelling up all over the UK?
- How should we strengthen our research infrastructure and institutions in support of our vision?
- How should we most effectively and safely collaborate with partners and networks around the globe?
- How can we harness excitement about this vision, listen to a wider range of voices to ensure R&D is delivering for society, and inspire a whole new generation of scientists, researchers, technicians, engineers, and innovators?