

# Future Research Assessment Programme (May 2022)



For more information about the enquiry please visit: <https://www.jisc.ac.uk/future-research-assessment-programme/consultation>

## Background:

The Physiological Society (The Society) is Europe's largest network of physiologists, at the forefront of science for 145 years. Physiology is the science of life, and research in physiology helps us to understand how the body works in health, what goes wrong in disease, and how it responds and adapts to the challenges of everyday life. The Society's membership is made up of researchers in all areas of this from neuroscience through to endocrinology, nutrition and sport and exercise science with the science ranging from the mechanistic to the applied, from molecular to whole body.

The Future Research Assessment Programme was launched in May 2021. It aimed to explore possible approaches to the assessment of UK higher education research performance and strengthen the emphasis on delivering excellent research impact by supporting a positive research culture. The current consultation seeks views the following features of a future assessment framework: purposes of a future exercise, guiding principles and priorities for system design, defining research excellence, and assessment criteria, assessment processes, including frequency, granularity and use of metrics.

The Society's response to the consultation is based on our Chatham House-rules workshop with leading physiologists in April 2022. As a result of this, the 'participants' referred to in the document are those senior physiologists that agreed to participate in the workshop. Additionally, our response is supplemented by a report that was co-sponsored with the National Centre for Universities and Business (NCUB) on the weakness of the current REF exercise in recognising the value of interdisciplinary research. With an increasing focus from central Government on mission-led research and the need for interdisciplinary research to respond to 'wicked' problems such as climate change and the ageing population, ensuring that physiology, an interdisciplinary discipline with researchers working in areas from basic to applied research, should be a key ambition for any future research assessment programme.

## Consultation response:

### Approach to Future Research Assessment Exercises

#### *Metrics vs qualitative approach*

There was a sense among the workshop participants that REF makes a huge difference to smaller HEIs to help them improve but had less impact for larger, more-established institutions.

While the workshop participants disagreed to the extent that metrics could prevent or facilitate conscious and unconscious bias, the group recognised that there was significant value to be gained in moving away from a REF which focused on the contribution of individual researchers. It should be noted that all those participants that spoke in favour of a solely or much increased metrics-based approach did not consider impact factor and citation rate to be sufficiently robust metrics to use in lieu of the current REF system. If a decision is made to increase

reliance on metrics, the chosen metrics should promote positive academic and institutional behaviours such as altruism and collegiality, and consider the impact that this could have on historically underrepresented groups.

Those participants that were more comfortable with an increased role for metrics also expressed concern that some suggested metrics would not produce the rational outcomes that had been identified to be included in the next assessment cycle. For example, it was felt that using grant income as a metric would be a challenge given that the size of a grant does not necessarily reflect the size of its impact.

Participants noted that current metrics encourage selfish behaviour among academics. A desperation to collaborate to survive and contributed to significant human resources (HR) problems related to attributing names to an institution's submission, muddy contract processes, salaries, career progression and institutions' commitments to equality, diversity and inclusion.

More extreme individually focused systems from comparators from around the world were identified, particularly the Australian and New Zealand systems where individual academics are 'graded' and benchmarked against one another. All workshop participants agreed that this would be among the worst outcomes for any future research assessment programme and should not be considered an improvement on the current model.

Participants also noted that the current system of six published papers to qualify for REF was a significant hurdle for those on part-time contracts and dissuaded academics from balancing their academic commitments with other professional examples of 'impact' (such as continuing to practice medicine). More broadly, a number of participants felt that an increased role for metrics in the assessment exercise would exacerbate existing inequalities within academia; with metrics being proved to disadvantage those with small networks, or those who had taken career breaks, this disproportionately affects women and minority groups. Many participants expressed a desire to see a move away from an emphasis on individuals as part of the REF process in an attempt to address these imbalances.

### **Interdisciplinary research within the REF assessment**

The role of interdisciplinary research to address research questions posed by global social, economic, ecological and political changes is widely recognised. Funding for research grants increasingly seeks interdisciplinary research teams, and there is significant overlap between mission- or challenge-led research and the need for interdisciplinary teams and approaches to address these challenges. The need for interdisciplinary skills and approaches is reinforced in the UK Government's recent *Innovation Strategy* and *R&D People and Culture Strategy*. Over time interdisciplinary research can re-shape the landscape creating new fields that build from interdisciplinary origins and combine skills that were previously disparate.

Participants echoed the recent report from The Physiological Society and the NCUB on the weakness of the current REF exercise in recognising the value of interdisciplinary research.

International links are not recognised or handled well under the current system and the current consultation document makes little reference to global impact.

Physiology is inherently interdisciplinary and collaborative, and this is poorly recognised by the REF, even within broad units of assessment (UoAs). More broadly, a system that relies on citation metrics would further disadvantage physiology and other interdisciplinary disciplines as 'team science' journals tend to have lower impact factors. For example, the *Journal of Physiology*, which is considered the premier journal for physiology, has an impact factor that was not high enough to be considered for a RAE 2008 return.

Additionally, challenges remain around finding panel members that are sufficiently expert to be able to review all the research that is submitted.

To address some of the challenges facing interdisciplinary research within the REF2021 structure, our report into recognising interdisciplinary research made the following recommendations:

- We recommend that the next REF adopts a structure which explicitly identifies and rewards interdisciplinary research. The structure of a future assessment exercise should provide the flexibility for universities to submit coherent evidence of their interdisciplinary research against themes relevant to the strengths and priorities of that university. A future REF should introduce flexibility to allow individuals, whose research and outputs straddle discipline-based assessment structures, to be returned to multiple units. This recognises the breadth of the research teams in which they operate, and the outputs generated from this.
- We recommend that REF forms contain an option for an additional context narrative to explain the interdisciplinary context of research outputs.
- We recommend that professional and learned societies develop activities to support and facilitate the development of interdisciplinary collaborations with a broad array of different disciplines (“near” and “far” disciplines).
- We recommend further work to establish how greater understanding and characterisation of interdisciplinary research can be applied into wider practical use via a future REF exercise. In particular, the cultural and linguistic distance between disciplines which are ‘far’ apart is a major factor in researchers’ perceptions of risk to the success of the research, including the difficulties in developing research collaboration, in accessing funding and in dissemination of the research.
- We recommend addressing trust and confidence in peer review. Funders should work with publishers to identify specific measures to enhance capacity and capability for interdisciplinary peer review across all areas.

### **REF and its impact on research culture and research conducted**

REF has had a significant influence on sector wide changes in approach and values through policy levers and decisions such as the inclusion of Impact Case Studies in REF 2014. This demonstrates the significance of REF as a policy vehicle to affect sector wide changes in perceptions, priorities and approaches.

A number of participants highlighted the unintended consequences of REF on academic behaviour and incentives. At an operational level, participants noted that collaborations became more fraught as academics vie to be named authors on papers that they could use as part of their REF return. At a more structural level, the REF process has been described as divisive, anti-diversity, toxic and heavily biased. Some participants argued that a simpler system might be to divide the money proportionately among HEIs; this might prevent the current challenge within the existing assessment of encouraging HEIs to keep hiring and supporting existing areas of excellence within their institution, thereby threatening the diversity of research within physiology.

#### *Does the REF process capture academic excellence across the research landscape?*

Participants suggested that more focus could be on ‘knowledge advancement’ rather than ‘impact’ given that academic outputs have already been extensively assessed for excellence through the peer review process.

Participants noted that applied research is often poorly dealt with within the current REF system given that its outcomes are often considered ‘impact’ and therefore given a lower weighting as part of an institution's submission. The FRAP should ensure that research excellence is recognised equally wherever it falls on the research spectrum. However, participants also noted that impact is much easier to demonstrate for applied research than basic research, but that REF compels research into either ‘outputs’ or ‘impact’ rather than the system recognising excellent science regardless of its outputs.

Participants also noted that lower value grants were disadvantaged within the current system; low investment but high return projects do not benefit from REF because departments are less interested in lower value grants. It was also noted, however, that smaller grant projects are overrepresented in institutions' impact case studies. Participants also noted that the current 'REF returnable' criteria would exclude a number of Nobel laureates given a Nobel Prize takes on average 22 years to incubate from inception to published research.

#### *How can the REF support other policy ambitions for central Government?*

A number of policy and review activities are ongoing within the UK research landscape. Interdisciplinary research will be at the heart of delivering the impact identified in the *Innovation Strategy* along with the increased Government focus on mission-driven research and the Government's commitment to R&D investment rising to 2.4% of GDP by 2027. This will require the higher education institutions to demonstrate value for money to the electorate, raising the importance of demonstrable impact. Similarly, an increased focus on team science and interdisciplinarity, with a likely increase in reporting within a future research assessment programme, requires greater thought on how these activities should be encouraged and assessed within an institutional research ecosystem.

This consultation response has already highlighted that interdisciplinary research will be required to address the 'wicked problems' facing the world but is poorly served by the current REF system. Participants discussed whether the money and resource currently spent on the REF process should be redistributed to lesser profile institutions while ring-fenced money is available for higher profile institutions. This was on the basis that more research-intensive universities will often rely less on public funding via higher education funding bodies for their overall income compared to those institutions with more balance between teaching and research.

Participants also suggested that there could be an opportunity to make different funding streams within the dual support model serve clearer, more distinct purposes in the research funding environment. For example, research councils could concentrate on funding 'excellent science' while the higher education funding bodies, via a REF-style assessment exercise, can then focus on funding based on the consequences/impact of that research.

### **Ranking sections from the consultation response form**

#### *FRAP guiding principles*

1. Impact of the system on research culture
  - a. Impact of system on research careers
  - b. Impact of system on research integrity
  - c. Impact of system on Equality, Diversity and Inclusion
  - d. Ability of the system to promote collaboration (across institutions, sectors and nations)
  - e. Impact of system on Inter- and transdisciplinary research
  - f. Impact of system on open research
2. Robustness of assessment outcomes
3. Impact of the system on the UK research system's international standing
4. Comparability of assessment outcomes
5. Ability of the system to promote research with wider socio-economic impact
6. Ensuring that the bureaucratic burden of the system is proportionate

7. Impact of the assessment system on local/regional development
8. Providing early confirmation of the assessment framework and guidance
9. Maintaining continuity with REF 2021