

Lord Stern's review of the Research Excellence Framework - response form

The call for evidence is available at:

www.gov.uk/government/consultations/research-excellence-framework-review-call-for-evidence

Questions

Name: **Alexandra Macaskill**

Email: **macaskilla@rsc.org**

Address:

Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF

Name of Organisation (if applicable): **Royal Society of Chemistry**

Please check the box that best describes you as a respondent to this consultation

	Respondent type
	Alternative higher education provider (with designated courses)
	Alternative higher education provider (no designated courses)
	Awarding organisation
	Business/Employer
	Central government
	Charity or social enterprise
	Further Education College
	Higher Education Institution
	Individual (Please describe any particular relevant interest; teaching staff, student, etc.)
	Legal representative
	Local Government
	Professional Body
	Representative Body
	Research Council
	Trade union or staff association
	Other (please describe)

About us

With over 54,000 members and a knowledge business that spans the globe, the Royal Society of Chemistry is the UK's professional body for chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world.

A not-for-profit organisation with a heritage that spans 175 years, we invest in educating future generations of scientists, we raise and maintain standards and work with industry and academia to promote collaboration and innovation. We advise governments on policy and we promote the talent, information and ideas that lead to great advances in science.

Executive Summary

The Royal Society of Chemistry welcomes the opportunity to respond to the above consultation, and would be pleased to continue working with the Government as plans

REF impact on strategic planning and decision making

- Information captured in the REF can be useful in demonstrating the value of research to society and has been used by the Royal Society of Chemistry to demonstrate the impact of chemistry research. There is no particular need for additional information to be captured as part of the REF exercise.

REF influence on constructive behaviours

Section 1

The primary purpose of the REF is to inform the allocation of quality-related research funding (QR).

1. What changes to existing processes could more efficiently or more accurately assess the outputs, impacts and contexts of research in order to allocate QR? Should the definition of impact be broadened or refined? Is there scope for more or different use of metrics in any areas?
2. If REF is mainly a tool to allocate QR at institutional level, what is the benefit of organising an exercise over as many Units of Assessment as in REF 2014, or in having returns linking outputs to particular investigators? Would there be advantages in reporting on some dimensions of the REF (e.g. impact and/or environment) at a more aggregate or institutional level?
4. What data should REF collect to be of greater support to Government and research funders in driving research excellence and productivity?
9. Are there additional issues you would like to bring to the attention of the Review?

The costs of the REF should be reduced where possible, but a balance will need to be struck to maintain the quality and effectiveness of this exercise. REF2014 was estimated to have cost the Higher Education community £232m and HEFCE and other funding bodies £14mⁱⁱ. Any efficiencies should ensure the positive qualities and benefits of the REF are retained and further load is not placed on research staff and HEIs.

Peer review underpins the REF and, while this is a labour intensive process, it is still well regarded within the wider academic community. Analysis produced in the *Metric Tide* reportⁱⁱⁱ concluded that a wholly metrics-based approach would not provide a like for like replacement for peer review. The introduction of any metrics-based assessment would need to be in addition to the current requirements so it is difficult to see how this will reduce the cost or net administrative burden of the REF.

Any changes to the REF should be considered in light of impact on the continuity and clarity of the process. Major changes to the assessment process will have administrative and therefore financial implications for the institutions involved. Ensuring universities are clear on all aspects of the assessment criteria of the REF from an early stage will allow them to monitor and record successes in the run up to the next research assessment.

We would welcome the opportunity to work with HEFCE to develop any changes to the assessment process and report some initial points to consider in relation to output, impact, research environment and UOAs.

Outputs

There are well established metrics for assessing some forms of outputs; some of these could complement but not replace peer review, so their introduction is unlikely to reduce the total burden of the REF. Journal papers were overwhelmingly the largest category of output submitted to Main Panel B: UOA 8 (Chemistry), accounting for 99.8% of submissions. A detailed correlation analysis of REF2014 scores^{iv} completed alongside the *Metric Tide* report looked at how well different metrics

increase attempts to “game” the REF, for example by trying to artificially inflate citation counts.

- **Metrics-based assessment may not be as applicable to other REF Panels.** Our members recognised that increased metrics-based analysis might not be suitable for disciplines where a significant number of submitted outputs do not have a DOI. This means that metrics might not be suitable for inclusion in assessments by all panels. The possibility of having different assessment processes for different panels would increase the complexity of the REF and could make comparisons between different disciplines less reliable.
- **Any metrics-based assessment would need to account for differences in sub-fields within a discipline.** Basing assessments on citation data may be difficult to apply across the board due to the different citation patterns found even within a UOA. For example, the citation pattern within physical chemistry is markedly lower than, for example, biochemistry but this does not reflect the relative quality of research in the two areas.
-

society in a wide range of different professions". The training of PhD and post-doctoral researchers with outstanding analytical and problem-solving skills as well as the ability to design and deliver complex scientific research

Section 2

While the primary purpose of REF is QR resource allocation, data collected through the REF and results of REF assessments can also inform disciplinary, institutional and UK-wide decision making.

3. What use is made of the information gathered through REF in decision making and strategic planning in your organisation? What information could be more useful? Does REF information duplicate or take priority over other management information?

Information captured in the REF can be a valuable source of information to demonstrate the value of research. Economic evidence captured in the impact case-studies has been used by the EPSRC^{vi}

Section 3

The incentive effects of the REF shape academic behaviour, such as through the introduction of the impact criteria.

5. How might the REF be further refined or used by Government to incentivise constructive and creative behaviours such as promoting interdisciplinary research, collaboration between universities, and/or collaboration between universities and other public or private sector bodies?

The balance of weighting between Outputs and Impacts should be maintained to ensure that fundamental research is not disadvantaged. The Dowling Review of Business-University Research Collaborations^{viii} recommended that the rating given to Impact should be maintained or increased to stimulate collaboration with industry. Some of our members commented that the requirement to demonstrate impact is already

Section 4

Previous studies have focused on the costs of REF with respect to the time and resources needed for the submission and assessment processes. The Review is also interested in views and any associated evidence that the REF influences, positively or negatively, the research and career choices of individuals, or the development of academic disciplines. It is also interested in views on how it might encourage institutions to `game-play' and thereby limit the aggregate value of the exercise.

6. In your view how does the REF process influence, positively or negatively, the

research; and in many strong cases it was clear that there had not been a linear path

Thank you for taking the time to let us have your views. We do not intend to acknowledge receipt of individual responses unless you tick the box below.

Please acknowledge this reply

IND/16/1a

ⁱ *HCUK is an independent, self governing body that represents the interests of departments engaged in chemical research, education and scholarship in 70 universities and similar institutions throughout the United Kingdom and Ireland.*

ⁱⁱ *REF Accountability Review: Costs, benefits and burden*, Technopolis (2015)

http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/REF,Accountability,Review,Costs,benefits,and,burden/2015_refreviewcosts.pdf

ⁱⁱⁱ *The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management*, Wilsdon et al (2015)

http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/The,Metric,Tide/2015_metric_tide.pdf

^{iv} Correlation analysis of REF2014 score and metrics, Supplementary Report II to the Independent Review of the Role of Metrics in Research Assessment and Management

http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/The,Metric,Tide/2015_metrictideS2.pdf

^v Research Excellence Framework 2014, Overview report by Main Panel B and Sub panels 7 to 15

<http://www.ref.ac.uk/media/ref/content/expanel/member/Main%20Panel%20B%20overview%20report.pdf>

^{vi} Engineering and Physical