HEFCE response to Lord Stern's review of the Research Excellence Framework

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?

1. Allocating QR funding is only one of the purposes of the REF. The REF is also used to provide accountability for public investment in research and to provide benchmarking information and establish reputational yardsticks. In addition, HEIs use the REF outcomes for their own purposes, which have been articulated clearly in Professor James Wilsdon's recent article (wonkhe.com/blogs/time-for-a-stern-hard-look-at-the-ref/).

2. The REF is a UK-wide exercise, conducted jointly by the four higher education funding bodies, to assess the quality of research in UK HEIs. The primary purpose of REF 2014 was to assess the quality of research and produce outcomes for each submission made by institutions. Each of the funding bodies then uses the REF data in different ways to allocate their research funding. The process for allocating funding is a decision made independently by each funding body.

3. Following completion of REF 2014, as with previous exercises, the funding bodies commissioned a number of internal and external reports providing detailed information and evaluation of the exercise to inform the Government and funding bodies on future policy development:
   a. REF Manager's report
   b. Main Panel overview reports
   c. Equality and Diversity Advisory Panel report
   d. A two-phase evaluation of impact in the REF
   e. Feedback on the REF from participating institutions
   f. Feedback on the REF from assessing panels
   g. A review of multi- and inter-disciplinary research in the UK
   h. A review of the costs, benefits and burden of the REF
   i. Analysis of staff selection rates

4. In addition, other projects contributed to our policy development for a future REF. This included ongoing activity to support the implementation of our open access policy; an independent review of metrics; a review of HE research systems internationally; and the development and analysis of a searchable database containing the impact case studies.

5. In light of this evidence, and a number of consultation meetings attended by panel members, university management and broader stakeholders, we developed a draft consultation on a future REF.

6. Those consulted spoke highly of many aspects of the REF, but suggested areas for further refinements. A clear theme from those consulted was a desire for continuity in the next REF, particularly in recognition of the additional burden involved where new processes are introduced, as seen with the introduction in impact in REF 2014.

7. With a transactional cost of 2.4%, the REF is an efficient way of allocating performance-based research funding, in comparison with other approaches such as the Research Councils' grant awarding processes. Although delivering the REF may seem costly in comparison with other international systems, the percentage of research funding driven by the REF outcomes is very high, justifying the rigorous attention to the quality of HEIs' research performance. However there are a number of potential changes that could improve efficiency:

a. Removing the link between submitted staff and outputs. The number of outputs required could be determined by the number of eligible staff in the submitting unit, or to a number of staff identified through a selection process. Alternatively the number of outputs required could be determined by the average volume of staff employed by the submitting unit over the assessment period. These approaches would also remove the need for arrangements to account for individual staff circumstances, reducing the burden further. A possible additional benefit of this approach would be the reduced focus on individual members of staff and increased focus on the submitting unit as whole, removing the current consequences for morale of non-submission. However, we are mindful of the potential for unintended behavioural consequences and under-representation in submissions of research produced by some groups of staff.

b. When developing REF 2014 we proposed reducing the number of outputs required for each submitted member of staff. On that occasion the consultation proposal was rejected by the sector.

c. The impact template described the submitted unit's approach to supporting an enabling impact from its research. There is potential to merge the template with the environment template, to take account of the environment for impact within the context of the wider research environment.

d. Some consideration could be given to assessing impact at HEI level. The policy objective for REF 2014 was to describe impact in every discipline with the specific purpose of building the case for funding in all disciplines. If this policy objective remains, assessing impact at HEI level would present some challenges.

8. The Government asked us to develop a definition of impact that was sufficiently broad to capture the wide variety of impact arising from all types of HE research. To enhance complementarity of impact policies across the dual support system, and to underpin our work towards developing a whole system approach to impact, the funding bodies and RCUK have proposed alignment of our respective definitions.

9. The impact of research on teaching within HEIs was not considered an eligible impact in the definition developed for REF 2014. This reflected that when the definition was developed, teaching was relatively well funded. There have been many suggestions that this kind of impact should be captured and this could be considered for consultation on a future REF exercise.

10. For REF 2014, examples of impact had to be underpinned by excellent research. We are aware that this requirement prevented the submission of impacts arising from activities connected to wider expertise or reputation, resulting from a body of scholarship or academic career as a whole, rather than research specifically. For example, government-appointed advisers, who may be appointed on the basis of expertise and whose role is often to advise on the wider use of evidence beyond their own research outputs. Our consultation asked whether the guidance should be modified to incorporate such impacts.

11. Informed by the Independent Review of Metrics, we have concluded that metrics should not replace peer review as the primary approach to the assessment in the next REF, but should be available more broadly to panels, to support their assessments. We would work with the Forum for Responsible Metrics to consider the quantitative data that may be used.

12. We intend to decrease the narrative elements of the environment template and increase the use of data which are already collected and held by institutions, to reduce burden on the sector. We would work with the Forum for Responsible Metrics to develop appropriate indicators for the research environment.

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?

13. The REF is not mainly a tool for allocation of QR funding, as discussed in response to question 1. One attribute of the exercise, as requested by the Government, is to recognise excellence wherever it is found. In 2008 we amended the exercise so that HEIs with pockets of excellence were rewarded, and HEIs that had broad strengths had areas of weakness identified. To decouple submitted staff from outputs would require some attention if those Government guidelines were to be met.

14. In addition it is widely recognised that the REF has two additional functions. Firstly the REF provides a way of implementing various policy changes desired by the Government, for example through the introduction of impact in REF 2014 and the open access policy for the next REF. Secondly, HEIs choose to use the independent evidence provided by the REF to assist managerial judgement about difficult issues such as selective investment. This provision of benchmarking data would not be well served by an exercise at HEI level.

15. Moving from RAE 2008 to REF 2014, significant efforts were made to increase the consistency of assessment across the exercise. One step was to reduce the units of assessment from 67 to 36, with the agreement of the discipline communities, which enabled greater consistency in assessment and reduced the tactical decisions made by HEIs about what work to submit in which UOAs. Feedback from panels and HEIs has suggested the 36 UOAs were broadly appropriate with scope to make some further minor changes. For example, Sub-panel 17: Geography and Archaeology raised specific concerns about the structure of the UOA in the panel overview report.

16. Although we sought to achieve greater consistency of assessment in the REF, the UOA structure allowed for valid differences between disciplines to be appropriately accommodated within the assessment process. The main panel/ sub-panel structure supported consistency in assessment across cognate disciplines.

17. We consider that, for the reasons outlined above, there is a requirement for at least the output element of the assessment to be considered at the level of UOA (or similar). However, there is scope to consider whether the assessments of impact or environment could be undertaken at a greater level of aggregation (such as at main panel level), given the more institutional-level focus on support for enabling impact and supporting the vitality and sustainability of the research environment. The desire to

reduce burden needs to be balanced against the need for granularity to recognise excellence wherever it is found.

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?

18. It is for HEIs to decide for themselves how to use REF information.

19. Extensive use has been made by HEIs, Research Councils, other funders, and disciplinary bodies of the information produced as a result of REF impact assessment. The impact case studies submitted to the REF demonstrated the wide-ranging and significant benefits that UK research brings to the economy and society. However, the creation of a searchable database (impact.ref.ac.uk) has made the case studies widely available and has become an invaluable source of information and evidence, beyond the requirements for REF assessment:

a. Digital Science[1] have explored the relationships between different fields of research and the areas of impact, finding 'no apparent limitation on what part of society or the economy any particular discipline might impact'.

b. EPSRC reported on how their investments over the last two decades have delivered benefits across many areas of the UK economy and society[2].

c. The Institute of Physics and the Royal Society of Chemistry held a parliamentary reception[3] to launch two reports demonstrating outstanding examples of innovation to address technological and societal challenges.

d. The Parliamentary Office of Science and Technology have used the database to identify how research feeds in to the parliamentary process.

e. The Russell Group have used the impact case studies to illustrate the positive impact their research has had on millions of people in this country and around the world[4].

f. The UK Collaborative on Development Sciences (UKCDS) has undertaken a package of work exploring UK research's impact on international development.[5]

20. Feedback on the REF from participating institutions, and in the institutional responses to the Green Paper, showed that a significant number of HEIs value the information which the REF provides on research performance, to support their internal knowledge and management. HEIs also noted the reputational benefits of participating which included; attracting excellent staff, influencing student recruitment and opening up opportunities for research collaboration

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[1] www.digital-science.com/resources/digital-research-report-the-diversity-of-uk-research-and-knowledge/
[2] www.epsrc.ac.uk/newsevents/news/refreport1/
[3] www.iop.org/news/15/jul/page_65917.html
[4] russellgroup.ac.uk/policy/publications/engines-of-growth-the-impact-of-research-at-russell-group-universities/
[5] www.ukcds.org.uk/our-work/24?tid=38

What data should REF collect to be of greater support to Government and research funders in driving research excellence and productivity?

21. Any data collected that is not already held, in the correct format, by the HEI would represent an increased burden for the sector. It is therefore important to consider whether the data is required as part of the REF assessment or if it could be collected through other sources.

22. However, there are opportunities to improve data linking and integration. For example:
    a. Including information within impact case studies that would allow better linking to research investments (e.g. ORCIDs, grant IDs)
    b. Potential integration with ResearchFish, especially on impact evidence.

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?

23. HEFCE is very keen to encourage interdisciplinary research. Indeed, REF 2014 demonstrated success in this area with interdisciplinary outputs scoring just as highly as other work and over 80% of impact case studies included interdisciplinary underpinning research. However, perceptions remain about the less favourable treatment of interdisciplinary research. The funding bodies have developed a number of suggestions to be included in the REF consultation addressing interdisciplinary and collaborative research and welcome any further suggestions

24. An underpinning principle of the REF was that all types of research and all forms of research output would be assessed on a fair and equal basis. To support this principle, significant efforts were made to ensure that interdisciplinary research was not disadvantaged. This included the configuration of broader UOAs; the appointment of additional assessors on the panels; an interdisciplinary identifier for outputs; arrangements for cross-referral of outputs across sub-panels; recognition of the impact arising from all types of research; and recognition of the support provided for interdisciplinary and collaborative research in the environment template.

25. A comparison of the scores awarded to outputs flagged as interdisciplinary with outputs that were not flagged, found no statistically significant difference in the scoring. However, we are aware that there continue to be concerns about the incentives for and assessment of interdisciplinary research in the REF. There is also some evidence that a lower proportion of the most interdisciplinary publications were submitted to the REF than was observed for the UK as a whole.

26. A future REF could include the appointment of interdisciplinary ‘champions’ on the sub-panels. These individuals would have specific duties for ensuring the equitable assessment of interdisciplinary research and a role in supporting consistency of assessment.

27. If the submission of outputs remain linked to submitted staff, it would be possible to share outputs across the sub-panels. This would allow a staff member’s individual outputs to be submitted in the most relevant UOA. The corresponding fraction of the staff member’s FTE would travel with the output.

28. The ‘interdisciplinary identifier’ field could be mandated, to improve consistency of use, and to better enable the identification and monitoring of interdisciplinary research outputs in the assessment.

29. An explicit section in the environment template would provide increased visibility to the structures in place within the submitting unit in support of interdisciplinary research.

30. Assuming the link between submitted staff and outputs were to remain for a future REF, it would be possible to encourage collaborations between academia and organisations beyond HE, by making allowances in the required number of outputs. This would enable staff members moving in to academia from other sectors or who have taken time out of academia to work in a non-HE sector to be submitted with a reduced number of outputs.

31. It would also be possible for the assessment of the research environment element to give greater recognition to universities’ collaborations beyond HE. This could include asking for data about staff mobility between the submitting unit and other organisations outside HE, which would increase visibility of this activity and may further incentivise behaviour.

In your view how does the REF process influence, positively or negatively, the choices of individual researchers and / or higher education institutions? What are the reasons for this and what are the effects? How do such effects of the REF compare with effects of other drivers in the system (e.g. success for individuals in international career markets, or for universities in global rankings)? What suggestions would you have to restrict gaming the system?

32. The table below shows the academic staff starter numbers (full-time and part-time) on Teaching & Research or Research only contracts at UK HEIs. The data presents HESA staff starter numbers between 2004-05 and 2014-15, who came from another UK or overseas HEI.

	2004-05	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Full-time headcount	4,525	5,170	5,710	6,705	5,040	4,980	5,255	5,525	6,805	8,175	6,535
Part-time headcount	560	670	865	1,010	1,080	1,035	920	990	1,030	1,310	845
Total	**5,085**	**5,840**	**6,575**	**7,715**	**6,120**	**6,015**	**6,175**	**6,515**	**7,835**	**9,485**	**7,380**
% of total from an overseas HEI	26%	28%	30%	31%	26%	27%	25%	25%	28%	32%	33%

Staff mobility in the academic sector is not high and would be lower without incentives to hire good staff. It is appropriate that rewards are driven by recognition of good performance. The independent evidence of the REF provides a framework for this.

33. In REF 2014, as with previous exercises, some concerns were raised by the panels about the submission of staff on fractional contracts. In the main, this concern relates to members of staff submitted at 0.2 FTE who held substantive research posts outside of the UK and whose research was not primarily focused in the submitting unit. Although it is not possible to provide a definitive analysis we would expect that such approaches would have a minimal impact on the overall outcomes of the REF. It should be noted that it can be entirely valid for staff to be submitted on fractional contracts, and is common in particular subjects (for example, arts-based disciplines). The draft REF consultation invited comments on the proposal to require the submission of a short statement outlining the connection of such staff to the submitting unit. This could then be used to determine eligibility.

34. It is a fundamental tenet of the research grant and REF systems that decisions are made on the basis of peer review. For REF 2014 we attempted to capture a broad range of panel members to undertake the peer review, including additions made in response to requests from the sector. Nevertheless the review process relies on peer judgement and there will always be ideas that are not well recognised by a peer review system. We look forward to suggestions on how this could be addressed. The block grant funding provided by HEFCE has the flexibility to enable research to be taken in new directions and resulting excellent outputs can be recognised by REF panels.

35. For REF 2014, up to four outputs, produced over the six year publication period were required for each submitted member of staff (or two outputs, if both were double-weighted). Consultations on the development of the REF confirmed that this was an appropriate maximum volume of research outputs for the purposes of assessment, but we would welcome suggestions for adjustments to this. In addition, as a key measure to support equality and diversity in research careers, individuals could be returned with fewer outputs where circumstances had constrained their ability to produce four outputs. HEFCE's QR funding is currently linked to the number of research-active academics producing high-quality outputs. Breaking that link would produce very different funding outcomes.

36. In any funding allocation system, HEIs will attempt to adapt their behaviour to achieve the best outcome. In developing REF 2014 we worked with the community to ensure fair play, and intend to continue this discussion in developing a future REF.

In your view how does the REF process influence the development of academic disciplines or impact upon other areas of scholarly activity relative to other factors? What changes would create or sustain positive influences in the future?

37. We undertake an extensive panel selection process, involving consultation with the community so that panels are representative of different areas of activity within each discipline. The Main Panel reports published after the conclusion of the REF include useful summative comment on the breadth of the submissions. We have seen this information used by some subject communities to discuss research areas which require future attention.

38. It may be appropriate to consider a more systematic approach to get maximum benefit from this REF data on disciplinary areas. For example, open meetings hosted by Panel Chairs and augmented with additional international input could review how the body of REF submissions might further inform future directions.

39. The reduction from 67 UOAs in RAE 2008 to 36 in REF 2014 was an attempt to minimise the silos of disciplinary working and to encourage all types of research to be submitted. The discussions we have with subject communities around panel configuration is itself a constructive way of looking at disciplinary structure and their potential for interdisciplinary alignment.

40. We have seen that the inclusion of the assessment of impact in the REF is having a positive impact on interdisciplinary research. We have already noted that over 80% of impact case studies included interdisciplinary underpinning research. The inclusion of impact in the REF has provided a strong incentive to focus on addressing challenges which require an interdisciplinary response, bringing people together across the disciplines.

How can the REF better address the future plans of institutions and how they will utilise QR funding obtained through the exercise?

41. There is a forward-looking component of the REF. The assessment of the environment element of REF 2014 considered the vitality and sustainability of the research environment of the submitting unit, requiring the unit to provide details of future strategic aims and goals and how these would be achieved.

42. However, the REF is primarily a retrospective assessment which drives funding on one half of the dual-support system. One of the attributes of the REF is that it is based on evidence, rather than aspiration. The QR funding distributed by HEFCE is therefore based on what has been achieved, supporting excellence wherever it is found. The Research Councils' prospective funding requires forward-looking commentary and funding is provided based on what will be achieved.

43. In addition, QR funding is an un-hypothecated funding stream and its value is the ability it gives HEIs to respond flexibly to emerging areas and priorities. It would be a major change of direction to expect HEIs to account for this funding in advance and run counter to the purpose of the funding.