

## Imperial College response to Lord Stern's review of the Research Excellence Framework (REF)

**Q1: The primary purpose of the REF is to inform the allocation of quality-related research funding (QR).**

**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. The College disagrees that the primary purpose of the REF is to inform the allocation of quality-related (QR) research funding. REF has evolved to serve other important purposes, such as:
  - i. providing the only UK-wide assessment of the health of individual disciplines;
  - ii. yielding strategic intelligence about institutional and departmental performance through external scrutiny and benchmarking;
  - iii. giving valuable insight into the wider social and economic achievements of research;
  - iv. acting as a catalyst for setting up beneficial systems and procedures, which then continue beyond the lead-up to the assessment, so driving up quality.
  - v. providing an independent quality assessment of research which can be used by research funders to inform their funding decisions.
2. The REF is not overly costly or burdensome. According to Technopolis Accountability Review, the cost of running the REF is 2.4% of total QR funding, compared to the annual cost for peer review of grant allocations of 6% of funds distributed by the Research Councils. Taking into account the wider purposes of REF (above), it represents reasonable value for money.
3. We support steps to minimise the cost and burden of REF where its ability to recognise, assess and fund high quality research is not compromised. The simplest way of doing so is continuity with REF2014; even minor changes can be costly to implement. Radical changes increase the burden substantially – as the introduction of Impact in 2008 did.
4. In assessing outputs, panels should consider further use of peer review moderated bibliometrics for those disciplines that, in the panel's judgement, would suit such an approach. The methodology should be transparent and made known well in advance of the submission date. Equality concerns should be addressed by establishing appropriate benchmarks for metrics used.
5. We support a requirement for all academic staff to be included in the REF, as the current system of quality profiles can be misleading if only a subset of staff are returned.
6. Impact monitoring is now embedded in the sector, and so the cost of continuing to assess impact is not excessive, particularly if impact over the next assessment period can be partly demonstrated by existing case studies.
7. The existing definition of impact is broadly correct. Minor improvements could include recognition of the development of public/private sector partnerships based on research excellence of institutions and, for certain disciplines, reflection of a longer timescale associated with impact. Impact case studies should be underpinned by internationally excellent (3\*) research.
8. We support the current narrative approach to impact case studies. Given the diverse nature of impact, metrics would not provide a satisfactory assessment. In REF 2014, Intellectual Property issues sometimes made it difficult to evidence research impact in industry.
9. The value of a separate impact template (REF 3A) is questionable; the material could be included in the environment section.

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10. The environment section of submissions could benefit from increased and better use of existing metrics. A prescriptive template with word-limited response fields would also discourage 'essay writing'.

**Q2: 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?**

11. A strength of the current REF is that it is structured at a level of granularity that allows useful benchmarking of disciplinary performance and monitoring of the health of disciplines at a national level, and there is no other process that does this. Strength in core disciplines is essential to the maintenance of a strong research base, and is the foundation for excellent quality multidisciplinary research. Further consolidation of units of assessment could undermine this, and could lead to increased costs due to the difficulty of managing the larger sub-panels that would be needed to ensure comprehensive expertise.
12. Environment should continue to be assessed at UoA level: the immediate environment of an academic unit is critical to those working and studying within it, and an assessment cannot be replaced by a more generic, institution-wide exercise. However, for issues which are more appropriately addressed at an institution-wide level, for example career development or IT support, common text across a range of submissions from an institution should be encouraged. A template approach (see paragraph 10 above) would facilitate this.
13. Impact should similarly be assessed at UoA level and the number of case studies required per UoA in REF 2014 was appropriate.
14. A primary purpose of the REF is to drive up quality. This is helped by linking outputs to particular investigators; removing this link would risk shifting the focus away from quality of research to quantity of research.
15. The results of REF should continue to be published at an overall submission level; the reliability of an individual output assessment or impact case study is low, but when aggregated, the result is reasonably reliable.

**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.**

**Q3: 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?**

16. The REF assessment at a UoA level provides a highly valuable and independent check on the health of disciplines (at a national level), and the health of departments (at an institutional level). Moreover, REF outcomes are viewed as a reliable guide to research quality and are regularly used by our sponsors, particularly industry, as a benchmark.
17. Information gathered for REF facilitates and informs strategic planning and is a continuous process throughout the REF cycle, however, since the REF does not capture fully all institutional activity, it is not, and should not be, the main guidance for strategic planning. The REF does not significantly duplicate other management information and has been a significant factor in increasing levels of research quality and impact. While additional administrative activity is generated as a result of REF, it is likely that much of this work would occur within institutions regardless of the REF as these mechanisms are a part of good management practice.
18. The REF acts as a catalyst for setting up beneficial systems and procedures, which then continue beyond the lead-up to the assessment.

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19. The REF provides an independent quality assessment of an institution's/ department's research which itself is valuable in attracting funding from industry and other non-Government sources.
20. One limitation on the use of REF results is that the lack of substantive feedback on submissions, particularly at a research group/theme level, reduces the value of the exercise for internal decision-making, for example in developing UoA strategy.

### ***Q4: What data should REF collect to be of greater support to Government and research funders in driving research excellence and productivity?***

21. The information and data gathered by the current REF, at the current level of granularity, is broadly appropriate. Any additional information or data will likely have a marginal benefit outweighed by the increased cost of collection. Any decrease in granularity of current data and information will result in decreased usefulness to Government, Research funders and institutions.
22. The inclusion of impact in REF 2014 has been of enormous help to the Research Councils and other sponsors in demonstrating the wider benefits and impact of government funded research<sup>1</sup>, including the strategic relevance of research impact as the basis for supporting UK competitive advantage in national and international markets. REF has been a significant factor in driving up research quality nationally - productivity is much more difficult to assess.

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

### ***Q5: 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. Within the sector, there is increasing emphasis on collaborative research, with few if any institutions able to supply all of the expertise and resources required to tackle complex problems. The environment template offers an opportunity for universities to demonstrate what they are doing to support collaboration, with metrics used to evidence collaborative funding and publication. Collaboration outside of the organisation should be viewed as a strength rather than a weakness of institutional research environment.
24. The fact that interdisciplinary and collaborative work is assessed on an equal basis with other work is clearly set out in a number of REF publications, yet the perception within the community remains at odds with this. Further work should be undertaken to address this situation, e.g. through communication via learned societies. There is scope for improving the way different subject panels work together to assess research which spans their discipline boundaries, without necessarily using consolidated panels.
25. Community engagement, public understanding of science, and outreach play an increasingly important role in the work of universities. The environment template should invite comment on the ways in which the department engages with this agenda.
26. The introduction of impact assessment has driven this up the agenda, yielding useful insight into the wider social and economic achievements of research.

***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***

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<sup>1</sup> For example, see: <http://www.raeng.org.uk/news/news-releases/2015/march/uk-engineering-a-success-story-that-needs-sustaini>

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*interested in views on how it might encourage institutions to 'game-play' and thereby limit the aggregate value of the exercise.*

***Q6: 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?***

27. As noted above, the College is not convinced by the arguments that the REF is an overly costly or burdensome exercise, especially when taking into account the wider benefits of REF beyond its function of allocating QR.
28. The REF has positively influenced behaviour by encouraging institutions to recruit top quality researchers internationally, and to focus on quality rather than quantity. As a consequence it has raised the overall quality of UK research.
29. The REF can influence where individual researchers choose to publish, even though the guidelines indicate that journal ratings such as impact factors are not influential to the assessment.
30. It is generally not possible to entirely eliminate gaming from any system; changing the rules usually results in the disappearance of one type of game-playing only for this to be replaced by another.

***Q7: 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?***

31. Naturally UoAs which score highly subsequently attract higher quality staff and students.
32. In 2014, some UoAs were better than others at providing feedback at a greater level of granularity than the whole UoA (e.g. at a research group/theme level), and this has made it particularly difficult for institutions to understand their strengths and weaknesses in very large submissions such as Clinical Medicine, which may contain members from more than one academic department
33. Subjects that sit between units of assessment or are a small part of a large unit are disadvantaged in REF. This can be a particular problem for emerging disciplines e.g. Bioengineering, which is now widely recognised as a discipline in its own right and for which submissions increased significantly between the RAE and REF, does not have its own panel. We therefore suggest that submissions to cross-disciplinary panels be labelled to indicate the discipline covered so like-for-like comparison of results can be made.
34. Any further consolidation of sub-panels would undermine the effectiveness of the REF, both on the grounds of manageability of the larger sub-panels needed to ensure comprehensive expertise, and also because it would undermine the strategic function of the REF of providing a national overview of the health of individual disciplines.

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***Much of REF focuses on the retrospective analysis of success achieved by institutions either through output or impact. Yet the resources provided anticipate continued success based on that track record. Are there means of better addressing forward-looking institutional plans and priorities, and how these might feed in to national policy?***

***Q8: How can the REF better address the future plans of institutions and how they will utilise QR funding obtained through the exercise?***

35. The College does not believe the REF should address future plans of how institutions will utilise QR funding. The dual support system combines one stream of funding which is retrospective and based on track record with another which is prospective and based on research proposals. To include prospective plans in the REF should shift this balance and could be counterproductive.
36. QR funds blue-skies research, which by definition is curiosity-driven research often without an immediate goal. Such research leads to unanticipated breakthroughs (often more valuable than those from agenda-driven research), which cannot be foreseen, and may not even occur until significant time periods have passed.

***The Review is keen to hear of creative ideas and insights and to be open in its approach.***

***Q9: Are there additional issues you would like to bring to the attention of the Review?***

37. The credibility and effectiveness of the REF will be undermined if the results are not used to selectively fund in a way which effectively discriminates in favour of concentration of excellent research.
38. Grade Inflation has the potential to undermine the REF. Steps must therefore be taken to ensure that grade inflation does not take place. The descriptions for 2\*, 3\* and 4\* research should be reviewed. Cross-panel moderation should be strengthened to ensure that the same high standards apply across all subjects. Links between the performance of a UoA as a whole and the funding available for that UoA should be removed, as these represent an incentive for panels to support grade inflation. In England, HEFCE must remove the link between UoA performance and the 'quanta'.
39. The REF is also undermined if funding allocations do not take full account of the varying costs of research by discipline. In particular, the REF in England is undermined if HEFCE do not adjust the relative weightings applied to research in 'low' 'intermediate' and 'high' cost subjects to more closely reflect the consistent findings of research which they have themselves commissioned.<sup>2</sup>
40. Certain UoAs (such as Psychology, Psychiatry and Neuroscience) contain research of fundamentally different types with fundamentally different costs. The funding bodies should consider how they intend to fund disciplines with fundamentally different costs which are in the same UoA, recognising that averages across the nations are not necessarily reflected in the portfolios of individual HEIs.
41. The College is concerned by the current REF policy on open access, both in terms of the cost of compliance and the discrepancy with the Research Council's policy.
42. The panel structure for the next REF should recognise the role of REF in monitoring the health of research within core disciplines. To ensure a fair assessment process and meaningful results, outputs from each discipline need to be assessed by discipline experts. Within broad units of assessment and where multiple submissions are made, a mechanism should be found to publicly identify the specific discipline to which the submission relates.

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<sup>2</sup> Review of research costs relativities based on TRAC.  
<http://www.hefce.ac.uk/pubs/rereports/Year/2011/tracreviewrcosts/Title,92267,en.html>