

## **The Stern Review on the Research Excellence Framework – steady as she goes.**

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The UK continues to punch well above weight in terms of global research impact, with 0.88% of global population,<sup>1,2</sup> 3.2% of global R&D expenditure, and 4.1% of global researchers,<sup>3</sup> accounting for 9.5% of research downloads, 11.6% of citations, and 15.9% of the world's most highly-cited articles (top 1% in 2012).<sup>4</sup> We have the most productive science base amongst the G7 countries, now even topping the US in Field Weighted Citation Impact,<sup>3</sup> and even producing the most cited patents from research. We must protect this research eminence.

Thirty years of UK assessments ranking institutional research quality to guide government core investment have evolved processes but retained certain key elements, especially the use of peer review of submitted outputs. Peer review contributes much to the cost of exercises, but using more subjective outcomes data in the UK is reasonable<sup>5</sup> despite most other countries reliance on metrics. Since a (much) higher proportion of UK core research funding for institutions is dependent on this quality ranking, then our exercises need to be more rigorous. Indeed, as most research project funding in the UK is also awarded in competition, then peer review informs the majority of national research investment.

Costs were estimated at nearly £250 million for REF2014, up from £66 million in 2008, which seems absurd given that the exercise informs the distribution of 'only' £1.57 billion in 2016/17 to UK Higher Education Institutions<sup>6</sup>. However, these are estimated REF costs spread over 5 years, are opportunity costs mainly, and predominantly incurred by institutions, which will have got better at estimating costs (contributing to cost inflation). Furthermore, the rigours of REF returns are of considerable secondary value to universities in terms of strategic thinking and positioning.

The Stern Review<sup>7</sup> concludes that the UK economy and wider society benefits significantly from investment in research and that, relative to all other countries, we get value for money. Since the Review provides some indirect evidence that engaging in the REF process itself stimulates this global excellence<sup>8</sup>, in addition to the gearing of research-quality weighted investment, their conclusions that we should build on REF success seem undeniable.

So what of proposed changes? Four of the 12 recommendations relate to research outputs. Two are substantive changes. Stern proposes all research staff are included to provide a denominator for each unit of assessment (UoA), which remain unchanged, and sets the number of papers to be returned to that UoA as twice the staff denominator. That target to be delivered by some staff offering up to 6 papers and some none. Novel and interesting - the REF would capture all research staff but since you would never expect all staff to contribute papers, Stern would enable variation in the numbers of papers expected per researcher rather than the 2014 REF quota of 4 papers per research staff returned. However, since Stern argues the overall scale of the exercise remains unchanged, given that in 2014 around two thirds of researchers weren't returned, the number of papers in the group multiplier should probably be nearer 1.3 than 2.

A recommendation that seems less developed is that outputs would only be returnable by the institution of the researcher at the point of publication. This radical suggestion is 'justified' by suggestions of gaming (by researchers as well as universities) leading to salary inflation around

the timing of each REF and wasted strategic investment by universities on ‘stars’ who leave for pastures greener just when the investment was paying off. This represents eminence-based evidence. It would be interesting to determine what universities strategically invest in following REF results since the Review also suggests that the UK retains un-hypothecated block grants to universities i.e. no automatic incentives for successful UoAs in universities that do not devolve their budgets ‘as earned’. This represents virtually all UK universities which, counter to most successful businesses, operate as mainly top-down organisations with limited financial control and incentive at an operational level. Success, especially repeated success, in the REF should have automatic financial gain to the top research teams to further gear their success (which, after all the whole Report argues, is in the national interest). So the ‘problem’ of gaming may not be a problem at all and the ‘solution’ could create one – some high quality research outputs might not be returned at all if the lead author is not allowed to return it. This already happened in 2014 for some potential impact cases, since these were institutional level returns. As such if the leads of the high impact research had moved, their new home could not claim the impact but the prior institution would probably be unable to identify, and produce, the candidate case. The REF exercise does not want to exclude high quality UK research from the metrics for the overall REF exercise, especially when recommendation 11 is that the UK should use the REF outcomes more.

Some of the other recommendations are laudable but need some finessing: flexibility to showcase interdisciplinary research; case studies to be based on a body of work as well as specific research outputs (seems sensible); impact to encompass broader consequence, such as government policy; and simplification of environment statements to include institutional as well as UoA environment, and be more metrically derived.

Finally, the Report inevitably cautions that the proposed Teaching Excellence Framework (TEF) should complement and integrate with REF so that the combined burden of TEF in 2010 and REF in 2021 for universities and the Exchequer is similar to that of the current REF. Such integration presents significant challenge and given early TEF modelling, which suggests excellence in both Frameworks is unlikely, there is a risk that this will only drive further, higher level gaming by institutions.

Given the stormy seas ahead, our little island nation needs careful piloting and in terms of assessing and rewarding research excellence, we have a very strong steer from the Stern Review to refine REF rather than sink it.

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<sup>1</sup> <http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/mid-2014/sty---overview-of-the-uk-population.html>

<sup>2</sup> <http://www.census.gov/popclock/>

<sup>3</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf) (accessed 3.8.16)

<sup>4</sup> Elsevier (2013) International Comparative Performance of the UK Research Base, A Report by Elsevier for the UK’s Department of Business, Innovation & Skills (BIS). Available: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf)

[http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/The.Metric.Tide/2015\\_metric\\_tide.pdf](http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/The.Metric.Tide/2015_metric_tide.pdf) (accessed 3.8.16)

<sup>6</sup> <http://www.hefce.ac.uk/rsrch/funding/mainstream/>

<sup>7</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/541338/ind-16-9-ref-stern-review.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/541338/ind-16-9-ref-stern-review.pdf) (accessed 3.8.16)

<sup>8</sup> Funding Councils (2015) Evaluating the 2014 REF: Feedback from participating institutions. Available: <http://www.hefce.ac.uk/rsrch/REFreview/feedback/>