



Response

A Universities UK response on behalf of Membership
to a consultation by another organisation

Research Excellence Framework: consultation on the assessment and funding of higher education research post-2008

Key points in the response are:

- HEFCE are to be commended on the substantive evidence developed and work undertaken to date.
- Universities UK broadly supports the proposed discipline definitions, though we have concern over the implications for multi and interdisciplinary research across the proposed science/non-science divide.
- Development of the non-sciences will need to be brought forward and developed in concert with the science-based proposals. This should be overseen by an expert group including those with experience of inter and multi disciplinary research across the science and non-science areas.
- Although the assessment at the broad level can be used to provide an indicator of quality that will work for funding purposes, it will be important that the finer level data is made available for institutional management purposes.
- Experts will need to be included in the process, which will involve a moderation role, beyond selecting and weighting the metrics.
- HEFCE should explore options for automating the process for including staff and outputs.
- The outcomes of the assessment process should be presented as a graded profile.
- Currently there are no robust indicators that can effectively assess user and applied research. UUK would urge the funding council to develop measures in this area, building on work to date.
- Greater consideration should be given to promoting early stage researchers.
- The time frame for developing and implementing the REF should be revised by at least 18 months to allow further piloting and allow institutions sufficient time to plan.

For further information please contact:

Chris Hale

chris.hale@universitiesuk.ac.uk

02074195490



Introduction

1. Universities UK is pleased to respond to the Higher Education Funding Council for England (HEFCE) consultation on the Research Excellence Framework (REF). This submission follows extensive consultation with Universities UK members.

Sustaining and promoting excellence

2. We would firstly like to put this response in context by emphasising that the UK remains the second most important research power in the world. The UK produces nine per cent of the world's scientific papers with a citation share of 12 per cent, second only to the USA, and has continued to strengthen its share of the world's most influential papers, from 12.9 per cent to 13.2 per cent. The continued strength of UK research is present across the full range of disciplines from engineering and physical sciences through to the arts and humanities. The UK's Higher Education Institutes (HEIs), from across the whole sector, have underpinned this success, which has been achieved with relatively lower investment than competitors. UK research is not only strong internationally, but also relevant to business and public sector research users at regional and national levels. Any new research assessment and funding mechanism should seek to sustain and build upon this outstanding success.

The importance of QR within the dual support system

3. The success of the UK's HEI research has been underpinned by the dual support system. Dual support provides public funds to institutions in two streams, one as part of their block grant provided by the funding councils (known as 'quality related' or QR), and the other in the form of project based grants, provided by Research Councils and other funders such as the EU. A key strength of the dual support system is that as well as supporting the research infrastructure the funding council grant is unhypothecated allowing university leaders the freedom to take strategic decisions about the research activities of their own institutions. This means that risky or more innovative research can be supported, often before it comes onto the radar of the Research Councils. Universities UK's publication, Eureka UK, outlined some of the outstanding world-changing discoveries, innovations and research projects that have come out of UK universities over the last 50 years. Many of these evolved from individuals or groups supported through an institution's own funds and given time to evolve in supportive research cultures.
4. Dual support also means that there are multiple sources of funding for research, with multiple decision points about what research should be supported and where research resources should be concentrated. This creates the kind of healthy and dynamic research base needed to allow UK research to thrive and underpin innovation. Universities UK strongly supports the dual support system, particularly the role of QR, and welcomes the government's commitment that this should continue.



A UK wide system

5. Universities UK would like to take this opportunity to reiterate the importance of continuing with a UK wide system and would urge the UK's four funding councils to continue with open dialogue on the REF as the framework develops. Universities UK believes that the continuation of a UK wide assessment process, within which the different funding councils can pursue their own funding policies, is crucial to the reputation and recognition of the UK's research.
6. This response is focused on the HEFCE consultation. Universities Scotland and Higher Education Wales will be putting forward individual responses to their respective funding council consultations. It is worth stating, however, that points relating to the assessment process in those submissions have been informed by and are largely consistent with this response.

Background to the development of REF and Universities UK policy to date

Key principles

7. On 16 October 2006 Universities UK submitted a full response to the consultation, published by the then DfES, on the proposals to reform the Research Assessment Exercise (RAE). In that response Universities UK fully supported the need for a fundamental reform of the RAE process, notably to reduce the burden on institutions, though expressed reservations over the models outlined in the consultation. The full response can be found at <http://www.universitiesuk.ac.uk/research/>
8. The Universities UK response was formulated on the basis of a set of agreed 'key principles', developed following full consultation with the sector, which we felt should guide further reform in this area. The key principles were:
 - Any new system should be consistent with the government's commitment to continuation of the Dual Support System.
 - Any new mechanism driving QR allocations should be appropriate to the uses that QR is put within a dual system.
 - Funding allocations should be selective and based on a judgement of quality, with peer involvement.
 - Any new system should continue to be UK wide and provide universal coverage across discipline areas.
 - An appropriate and effective mechanism is needed within any new system to ensure that applied and user focused research is recognised and supported.
 - Any new assessment system should seek to limit the deleterious impact on institutional behaviour.
 - The transition to a new system should be managed and moderated to avoid any destabilising effects. Any new system should also provide a sufficiently stable financial framework that allows



institutions to invest and plan on the basis of some reasonable assumptions about future levels of income.

- Any new system should seek to reduce the administrative burden on HEIs and the effort involved in transforming the system will need to be proportionate to the gains.
- There needs to be a more thorough understanding of how the government proposals for reform align with, and impact upon, other policy initiatives and objectives.

9. We are pleased that the framework going forward, as announced by the government in the 2006 Pre Budget Report following the prior consultation and developed further in the subsequent work undertaken by HEFCE, broadly meets these principles. Universities UK believes that the framework set out by these principles is still relevant as HEFCE's work progresses. Within this response we have taken the opportunity to highlight those areas where we feel there is any divergence from the principles and we urge HEFCE to use these principles as a guiding reference as further work on the REF develops.

General comments on the consultation

Significant progress

10. HEFCE should be commended on the substantial progress they have made to date in developing the REF proposals. The proposals include key operational aspects of the new framework, and are underpinned by a substantial evidence base that has been developed by leaders in the field.

Consultation and piloting

11. Universities UK welcomes the opportunity to comment at this stage, though it is apparent that significant developmental work is still required. As stated in the proposals, some of this is currently being undertaken in parallel with this consultation. We would like to stress the need for ongoing and open consultation as this work develops and for the funding councils to inform the sector of developments at every stage.
12. The pilots will be crucial for further developing, testing and validating different aspects of the framework. A large proportion of this response, therefore, focuses on those areas we feel the pilots can usefully explore and where further evidence is needed.
13. We do not feel that the current timescale for running the pilots is sufficient and would urge HEFCE to extend this by 6-12 months. This will require revising the timeframe for implementation of the framework as a whole, though it will be essential if a robust system is to be developed. Further comments on the timeframe for development and implementation of the REF are outlined in response to question 6.
14. It will be important that the pilots are not seen merely as an opportunity to 'dry run' work already undertaken, but are instead used to explore questions and issues arising from the consultation and



work to date. The outcome of the pilots will need to feed directly into the policy development process. This will mean publishing a thorough assessment and evaluation of the pilots and communicating this effectively.

Response to questions

Question 1a: Do you endorse our proposals for defining the broad group of science-based disciplines, and for dividing this into six main subject groups, in the context of our new approach to assessment and funding?

Question 1b: Are there issues in relation to specific disciplines within this framework that we should consider?

15. Defining boundaries in academia with well established, as well as shifting, discipline areas will always create issues and there is clearly never going to be a 'perfect' way to divide discipline groups at such an aggregate level. Also, Universities UK recognises that the broad subject framework outlined in the HEFCE consultation document has been informed largely by the requirements outlined by the government, following the prior 2006 consultation, in the pre budget report of December 2006. These requirements were driven by the need to reduce the burden of the assessment process and avoid reverting to the myriad of panels seen in the current system. Universities UK would therefore broadly endorse the approach taken, though would like to make the following four points.

Aggregation and identifying excellence

16. The level of aggregation will be sufficient for funding purposes, a key requirement of the framework. It is likely, however, that assessments will converge towards the average figure and provide little information about the strength of 'star' units or weaknesses within different discipline areas. This will have implications for the reputation of UK science and institutional management.
17. We note that the REF is to be based on bibliometric data built up from the finer discipline basis at the level of subject fields within the World of Science database (WoS), so that citation rates can be normalised against world/UK averages. We would therefore ask the funding council to consider providing this and other components of the quality score in a similar manner as the current Units of Assessment (UoA) within the RAE. This would not prevent funding from being allocated on the wider subject group basis.
18. This approach would have the advantage of providing universities with valuable management information and would assist with their own internal assessments of the quality of research being undertaken in their various departments. Whilst internal reviews are clearly a reasonable management expectation, the present UoA based RAE system provides, on a periodic basis, a highly valuable benchmark that each university would have to recreate were this level of detailed assessment to be reduced.



Science non-science divide

19. Although we are encouraged by HEFCE's stated desire to maintain a unitary system for the sciences and non-sciences, we are concerned that in practice the proposals could lead to the explicit development of two different assessment systems, based on different timeframes.
20. The separation of science and non-science areas is based on the recognition that different assessment processes will be required across these broad discipline groups. As stated in our previous response to the 2006 DfES consultation, a metric based approach would be largely unsuitable for a number of subject areas, particularly in the arts and humanities and social sciences. However, as currently presented the divide could prove operationally difficult for institutions, create barriers for collaboration, and potentially could have a negative impact on essential multi and inter-disciplinary research or research that straddles the divide.
21. HEFCE has already undertaken work to explore the impact of bibliometrics for interdisciplinary research within the science based disciplines, however, to date little exploration has been undertaken on the impact across science and non-science areas. We would urge HEFCE to undertake further work in this area as a matter of urgency. The pilots will provide a useful test bed.
22. Part of the problem, however, is that the development of the 'light touch' peer review system for the non-sciences will not take place until the framework for the sciences has already been largely developed. If the desire is to maintain a truly unitary system, the development of the light touch system will need to be brought forward and developed in concert with the science based proposals. This will be the only effective way of understanding, and developing ways to deal with, any issues for institutional management, collaboration, or inter and multi disciplinary research that arise from developing two parallel approaches. Universities UK therefore requests that developmental work on the non-sciences be started as soon as possible. The British Academy and the Arts and Humanities Research Council have already undertaken significant work in this area and it will be important to build on this.
23. We propose that HEFCE sets up an expert group to oversee the development of proposals for non-sciences, which should include those with experience of multi and interdisciplinary working across the science and non-science divide. As is recognised in the consultation document, there may be research that does not fit clearly on one side or the other of the boundary. We would prefer to see arrangements where a continuum approach is taken, rather than having a sharp divide that requires fitting subjects into one 'box' or the other.
24. HEFCE's intention is to develop definitions and criteria for determining eligibility for the science and non-science categories, though bearing in mind the comments made above, without a clear or indicative sense of how the system for the non-sciences will work, the effective development of this guidance will be difficult. We would recommend that there should be further development of the system as a whole before the development of guidance of this nature is embarked upon. It will of



course be important to develop any guidance in full consultation with the academic communities, informed by evidence.

Grouping disciplines

25. Universities UK notes that the consultation suggests further technical work will be undertaken on how the fields within the World of Science database (WoS) can be mapped on to the REF subject groups. We would suggest that a number of options are modelled, including, for example, how certain subject fields might naturally group in relation to database coverage.

Issues relating to specific disciplines

26. Issues in relation to a number of specific disciplines have already been identified in the consultation document and fed back to HEFCE via the consultation events. We would like to raise the following subject related issues:

- Much of the research published by staff in Nursing and Midwifery, but also in other health professions, is social science based in approach, albeit on topics related to health. The proposals to measure these areas using the same mechanism for the sciences could therefore be problematic. We would support the Council of Deans proposal for an assessment process in these areas that similar to the non-science disciplines, though this could include some use of metrics and fit in with the continuum approach outlined above.
- Universities UK would support the inclusion of mainstream psychology (not just clinical psychology) as one of the six broad science based groupings.
- Engineering and computer science cause difficulties, as coverage in the World of Science database is not complete. In relation to Engineering, this would not, however, require classifying it in the non-sciences. In RAE2008 Engineering already maximises the use of metrics and it would appear sensible that a workable basket of metrics should be developed for this discipline. We welcome HEFCE's intention to undertake further work in this area, in consultation with the Engineering community.

27. It will be important that the appropriateness of approaches in these subject areas is tested in the pilots and that the impact on different discipline areas is kept under review.

Question 2a: Do you agree that bibliometric indicators produced on the basis that we propose can provide a robust quality indicator in the context of our framework?

Question 2b: Are there particular issues of significance needing to be resolved that we have not highlighted?

28. Universities UK welcomes the significant work that has been undertaken to develop a quality-based indicator for the science-based disciplines, notably by the Centre for Science and Technology Studies (CWTS) at Leiden University.



29. Based on the expert evidence provided by CWTS, Universities UK would agree that the proposed bibliometric indicators can be used to provide an indicator of quality¹ at an aggregate level, which can be used for the purposes of the REF, notably to drive the selective allocation of research funding. Universities UK's own advice, provided by Evidence Limited, suggests that 'at the grand level, there is sufficient evidence available from experience and analysis to justify the general use of bibliometrics as an index of research performance'².
30. We welcome the intention that the new framework will not use bibliometric data in isolation, also making use of income and research student data. We look forward to further dialogue on the use of other data within the framework. Universities UK would be hesitant about the development of a 'compound' indicator, as this would not allow the expert panels to moderate the use and weighting of different indicators.
31. Universities UK believes that further work will be required to explore the impact of using data at such an aggregate level on smaller institutions and smaller and emerging subject areas.

Limitations of bibliometrics

32. We are encouraged that HEFCE recognises that the development and application of bibliometric indicators on such a large scale will not be straightforward. In the consultation document many issues and problems have already been identified and further work is under way or is proposed to address these. Similar issues have been raised in Universities UK's own advice from Evidence Limited, which we would urge the funding council to consider carefully. We will not rehearse those issues that are already being looked at (a number of related issues have also been raised in response to questions 1a & 1b), though in response to this question we would like to make some key points regarding the proposals and issues raised in paragraphs 25-52 of the consultation and highlight a series of issues not identified or covered in any depth in the consultation.
33. Universities UK is reassured by the evidence and advice provided to HEFCE that suggests the scope for manipulation of citations is limited in practice. However, the use of bibliometrics to inform a funding process could present new challenges in this regard. It will be important that the funding council keep this under constant review. A number of the issues relating to behavioural issues are outlined in the Evidence Limited advice to Universities UK.

Expert input

34. Universities UK welcomes the recognition that 'experts' must be included in the process to compensate for the stated limitations of the proposed techniques. Further comments on the role of experts are outlined in response to question 5, though at this stage we would like to state that the

¹ It is important to note that bibliometric data can only ever produce a proxy for quality.

² *The use of bibliometrics to measure research quality in higher education institutions*, Universities UK, October 2007



role of experts should be extended to include some form of 'moderation' that looks at the outcomes of the metrics, rather than solely at the balance and weighting of the metrics used. Expert panels will also be able to help put the outcomes of the bibliometric exercise within a wider context. Universities UK would like to work with the funding council to explore options for the role of expert panels, bearing in mind the need to ensure burden is kept to a minimum.

Criteria

35. In relation to the issues on criteria outlined in paragraphs 34-35 of the consultation, Universities UK would favour an approach that minimised the burden for institutions. If the REF were to be run every 2-3 years the burden of constantly identifying and updating staff to be included would prove to be significant. We would therefore ask the funding council to examine, either through the pilots or through the development of further evidence, the possibility of developing an approach whereby all publications by all staff within an institution can be pulled out of the database for inclusion in the process. If this can be achieved automatically then it will represent a significant advance in reducing the requirements on institutions. The benefit of this approach is that it will also reduce the scope for 'games playing'. Universities UK would be pleased to work with the funding council to explore these issues further.
36. Universities UK would prefer that work taken into account is that produced by staff employed in an HEI at the time of publication. However, it will be important to use the pilot to test and explore issues raised by both approaches identified in the consultation. With regard to the question about how to assign a researcher and their work subject groups, where work falls across subject boundaries, the expert panels could play a key role. Please see further comments on the role of the subject panels in response to question 5.

Period of assessment

37. We are pleased that the funding council is intending to undertake further work on defining the period for assessment. We note that there are different citation accumulation rates for different fields within the WoS database, and although with normalisation and aggregation this may 'smooth out' we would welcome further exploration of this issue.
38. A key issue to consider is that if the new system is implemented for 2009/10, as proposed, and the window for assessment is set for five or more years retrospectively, it is likely to reassess research already covered in RAE2008 (this covered 2001-2007). Significant time and effort has gone into RAE2008 and it would seem inefficient to reassess research covered under that process. However, the benefit of this is that it would allow the timeframe for the development and implementation of the new framework to be revised, an issue dealt with in more detail in response to question 6.

Other data sources

39. Universities UK is encouraged that the funding council recognises the limitations in coverage of the WoS database in certain discipline areas and is engaged in discussion with the respective subject



communities on how this can be compensated for. Expert panels will have a key role to play in assessing the extent of coverage in certain disciplines and deciding upon how this can be compensated for by the use of other indicators and contextual information.

40. Universities UK is encouraged that the funding council is exploring the potential for using other data sources, beyond the WoS database. It will be important that even after the final REF approach is agreed and fully operational data sources are kept under periodic review. Significant advances and innovations in research information management and scholarly communication have the potential to provide advanced solutions to the question of research assessment. The development of institutional repositories represents one such development and we would urge the funding council to explore the role and use of institutional repositories in relation to the REF.

Presenting outcomes of assessment

41. Universities UK would prefer to see the publication of a graded profile, akin to that proposed for RAE2008. The same profile approach should also be used for the non-science disciplines.

General points

42. Universities UK is not currently convinced that the burden of removing of self-citations is necessarily justified, though would welcome further work on this issue.
43. The use of bibliometrics within the funding and assessment process will mean that it relies heavily on the Thompson Scientific Web of Science. It will be important that the funding council undertake a thorough assessment of the risks involved in relying so heavily on this source.

Question 3a: What are the key issues that we should consider in developing light-touch peer review for the non science-based disciplines?

Question 3b: What are the main options for the form and conduct of this review?

44. As noted in response to questions 1a and 1b, Universities UK would urge the funding council to start developing the 'light touch' system for the non-science disciplines as soon as possible, so that it can be aligned with the science based approach. This work should be overseen by a group of experts, including those with significant experience of inter and multi disciplinary working across the science and non-science divide.
45. Substantial work has already been undertaken in exploring the issue of assessment in the non-sciences and we would urge that the funding council consider and build on this. We would stress the need for the approach in this area to be genuinely light touch and we stand ready to discuss the specific terms and conduct of the review.

Question 4: Is there additional quantitative information that we should use in the assessment and funding framework to capture user value or the quality of applied research, or other key aspects of research



excellence? Please be specific in terms of what the information is, what essential element of research it casts light on, how it may be found or collected, and where and how it might be used within the framework.

46. Citations, whether captured by Web of Science or other means, are a poor proxy for user impact, which typically lays outside the research base e.g. public policy advice or medical research being taken up by GPs and other practitioners. Recognising this impact presents a significant challenge for the REF, though it is crucial that it can form a part of the assessment process and the funding council should not shy away from this question.
47. There are a number of potential sources of information; for example, patents are one form of output. However, they are difficult to analyse and the information is not universally linked to origin. Furthermore, if patent applications or patents granted were used as metrics, this could rapidly lead to distortions of behaviour. Also, they will not be relevant for all discipline areas. Income is also an option, though as the consultation correctly indicates there are significant problems with using this. Given the limitations of current 'off the shelf' data in this area we would propose that HEFCE undertake developmental work to produce a suitable indicator. An expert group made up primarily of research users should oversee this work. This work could take into consideration data already available, such as those suggested above, and further suggestions arising from the consultation.
48. It is likely that the development of an appropriate indicator in this area may require significant time. We suggest, therefore, that this work runs in parallel with the development of the REF, to be incorporated at a later stage if necessary. This should not hold up the development of the REF in the interim. Even without an indicator in this area in place in the interim we would urge that the expert panels include research users, and that HEFCE continue the link between the HEFCE grant and research commissioned by business and industry in HEIs.

Question 5: Are our proposals for the role of expert panels workable within the framework? Are there other key issues on which we might take their advice?

49. At present there is very little detail on how the expert panels would be constituted and how they would operate. It will be important to consider what is meant by 'expertise'. Experts in a particular field may not necessarily be experts in understanding and interpreting bolometric data, or experts in how this can be combined and weighted against other indicators.
50. Panels will need to be constituted to recognise the diversity of discipline areas within each of the broad subject groupings and, as stated above, include representatives of the user communities.

Moderation role

51. As noted above in response to questions 2a & 2b, Universities UK proposes that the role of experts should be extended to include some form of 'moderation' that looks at the outcomes of the metrics, rather than solely at the balance and weighting of the metrics used (though this role will of course



differ across the broad discipline areas). Expert panels may also be able to help put the outcomes of the bibliometric exercise within a wider context and assist with the question of applied and user research, at least until sufficient indicators in this area can be developed.

52. Universities UK would like to work with the funding council to explore the options for the role of expert panels, bearing in mind the need to ensure burden is kept to a minimum. Universities UK would not want to see the role of the current RAE panels duplicated, so it will be important that expectations on what the panels could and should do are kept in check.

Question 6: Are there significant implications for the burden on the sector of implementing our new framework that we have not identified? What more can we do to minimise the burden as we introduce the new arrangements?

Reducing the burden

53. Universities UK believe that the REF has the potential to be less burdensome on institutions particularly if, for example, requirements for selection of staff and output can be largely automated (see response to questions 2a & 2b). It is likely that there will be significant start up costs for institutions, for example setting up systems to verify data on staff and outputs, but costs are likely to fall in the longer term. It is important that the pilot is used to get a better understanding of the costs to institutions and the funding councils.

Implementation timetable

54. The proposed timeframe for the implementation of the new system is likely to prove problematic for institutions. It is proposed that early 2009 will see the launch of the full bibliometric exercise for science-based disciplines. In November 2009 the output of the bibliometrics exercise will be available for use in funding. Decisions on the new funding approach are to be phased in gradually from 2010.
55. If the new system is to be run in early 2009 this will leave institutions very little time to adapt systems and prepare for the assessment. It will also come only one year after the conduct of RAE2008. It is acknowledged that funding based on the new system will be phased in gradually, though this will not reduce the problems outlined above, as a full assessment will still be needed to inform this. Having QR funding driven by RAE outcomes and the new system could initially prove destabilising and burdensome.
56. Bearing in mind these points and the suggestion above to extend the pilot, Universities UK would recommend that the proposed date for the implementation of REF is put back by at least 18 months.

Question 7: Do you consider that the proposals in this document are likely to have any negative impact on equal opportunities? What issues will we need to pay particular attention to?



Universities UK

57. Universities UK would like to point HEFCE to the issues raised in relation to equal opportunities in section 4.6 (pg. 26) of the advice provided to us by Evidence Ltd.

58. We are particularly concerned that any new system should not disadvantage early stage researchers. Indeed, the new system should proactively work to ensure that the careers of early stage researchers can be promoted, and that institutions are encouraged to invest in their development and support mobility (both geographical and inter-sectoral). We would welcome further work and dialogue with the community on how this can be achieved.

59. The Equality Challenge Unit have submitted a separate response and we would urge the funding council to consider the issues raised by ECU very carefully.

Question 8: Do you have any other comments about our proposals, which are not covered by the above questions?

60. We refer to the general comments at the beginning of the document.