HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND

Research Excellence Framework

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Background

During 2006 there were extensive discussions about reform of the research assessment and funding framework:

- DfES working group developed proposals for reform
- Consultation during autumn 2006 highlighted concerns with over-reliance on research grant income, and the need for more direct measures of research quality
- AHRC/HEFCE expert group advised on the use of metrics in the arts and humanities

Background (continued)

Following consultation the government announced that:

- HEFCE will develop a new overarching framework for assessment and funding, with distinct approaches for the sciences and for other subjects
- Assessment and funding in the sciences will be driven by bibliometrics, research income and research student data
- The other subjects will be assessed through light touch peer review, informed by ‘metrics’
- The framework will operate at the level of 6 or 7 broad subject groups for the sciences, and a larger number for the non-sciences

Proposals: Key features – a reminder

Sciences (Science, Engineering, Technology, Medicine)	**Other subjects** (Arts, Humanities, Social Sciences, Mathematics and Statistics)
Assessment and funding driven by: • Bibliometric indicator of quality • External research income • Research students	• Assessment through light touch peer-review, informed by indicators • Funding also informed by research income and students
• Overseen by 6 or 7 panels to advise on the use of indicators	• Peer review to be conducted by a larger number of panels

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Proposals: Timetable – a reminder

Sciences (Science, Engineering, Technology, Medicine)	**Other subjects** (Arts, Humanities, Social Sciences, Maths and Stats)
• New indicators to be produced during 2009	• Funding to be driven by RAE until 2013
• To begin to inform funding from 2010-11	• New light touch peer review to take place in 2013
• Increasing gradually	• To drive funding from 2014
• To drive all funding from 2014	

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Bibliometric indicators (1)

A key challenge is to develop new and robust UK-wide bibliometric indicators of research quality for the sciences

- Thorough scoping study by Leiden University
- Evidence Ltd study of the implications for interdisciplinary research
- Informal discussions with a range of contacts
- We conclude that bibliometric techniques can be used to produce robust indicators of research quality…

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Bibliometric indicators (2)

But we must ensure that:

- Advanced bibliometric techniques are used, based on the best available expert advice
- Data is accurate and of high quality
- Subject experts are involved
- The process is fully tested
- We understand the limitations

Potential concerns and limitations

- Potential impact on publication and citation behaviour
- Limited coverage of WoS in Engineering and Computer Science
- Citations do not reflect user-value; are there other quantitative indicators that can capture this?
- Implications for equal opportunities and early career researchers
- Implications for interdisciplinary research

Table 3.1:Internal coverage percentages of the Thomson Scientific/ISI Citation Indexes

Internal Coverage Percentage			
80-100%	***60-80%***	***40-60%***	***<40%***
Biochem & Mol Biol	Appl Phys & Chem	Mathematics	Other Soc Sci
Biol Sci – Humans	Biol Sci – Anim & Plants	Economics	Humanities & Arts
Chemistry	Psychol & Psychiat	Engineering	
Clinical Medicine	Geosciences		
Phys & Astron	Soc Sci ~ Medicine		

Responses: Aims

- Strong support for the dual support system and QR
- Support for REF to focus on research excellence wherever it is found
- Agreement that we must seek to reduce burden
- Different views about the purpose(s) of the REF:
  - To focus only on allocating QR (operating at a broad level)
  - Or also inform institutional research management, resource allocation, and provide public information (at discipline level)?

Responses: Key features

- Support for greater use of ‘metrics’ in the sciences, but reservations about a two-track system
- Desire for a more unified system, combining metrics and peer review as appropriate in different disciplines
- Recognition that bibliometrics can provide robust indicators, but:
  - Much further work is required
  - They should be used alongside other metrics, not the sole indicator of quality
  - Most say the outcomes will need to be moderated by expert panels
- Many – but not all – say that REF should capture user value and impact, but little consensus on how this can be done

Responses: Subject issues

- Recognition that broad subject groups are suitable for allocating QR, but:
  - They have limited use for research management and public information
  - And constrain panels' expertise
- Limitations of bibliometrics in Engineering and Computer Science: suggestions for developing and giving more weight to other indicators, and more input from expert panels
- Peer review more appropriate for Nursing and related disciplines
- Psychology fits better with a 'metrics' driven approach

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Responses: Bibliometrics

- General preference for automating the system if possible, without institutional selection
- Many issues require further work through pilots:
  - Scope and criteria for including staff
  - Data coverage, quality and verification
  - Technical issues including citation windows, multi-authorship and self-citation
  - Potential behavioural effects and scope for manipulation
  - Implications for early career researchers
  - Burden on institutions

Responses: Institutional implications

- Concern about transitional burden
- Reduction in burden in ‘steady state’ depends on how far the system can be automated
- Concern about the complexities of operating two systems in parallel
- For internal purposes, institutions will have to either:
  - Have access to ‘discipline-level’ data from HEFCE
  - Replicate the indicators themselves at detailed level
  - Or develop their own evaluation systems

Responses: Implementation

- Lots of interest in participating the pilots
- Keen for further consultation after the pilots
- Widespread concern that the timetable is too tight
- And want greater alignment in developing the two systems

What next?

- Analysis of consultation responses to HEFCE Board then published in April
- Development and piloting of bibliometric indicators until the Autumn
- Defining the other indicators and their relative weightings within the framework
- Identifying the scope for variation within the framework for subject groups
- Determining the role of subject experts
- Assessing the accountability and behavioural impact
- Developing a light-touch peer review process informed by metrics for the non-sciences