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Higher Education Funding Council for England





Innovation, Impact and Excellence: Assessment in the UK

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The Aim

- to identify and reward the contribution that high quality research has made to the economy and society:
 - Making these explicit to the government and wider society
 - Creating a level playing field for applied and theoretical work but recognizing only impact based on excellent research
 - Encouraging institutions to achieve the full potential contribution of their research in future

University – Business Links

- in 2003 the CBI noted less than 20% of businesses had links with HEIs. In the CBI Education and Skills Survey 2010, 66% of businesses now have links with HEIs.
- Significant contribution to academic culture change towards KE: number of academics with positive attitudes to KE has grown from 61% in 2001 to 76% in 2008.
- Delivered benefits to research and teaching: 48% of academics judged that KE gave them new research insights; 38% of academics judged that KE had helped them improve their presentation style.

Kim Carr

‘Australia needs to lift its intensity of collaboration between universities and industry. We want to turn more of Australia’s research into new products, industries and jobs’

Kim Carr

‘Any system developed to assess research impact must be transparent and robust in order to have the confidence of government, the research community and the public who pays for it all’

Edith Schaeffer

‘Some of us (perfectionists, especially) fuss so much over making the 'right' choice, but in life, all that's really needed is to make any 'good' choice, believe in it, go through with it, and accept the consequences’

Context: Focus on the bigger picture

- supporting economic recovery and growth
- building education and research partnerships in the faster growing economies
- focusing research efforts
- maintaining our international reach
- preparing graduates with a 'global' outlook
- maintaining a rich diversity of higher education institutions

Tackling higher education reform



Excellence



- renewed commitment to a high quality student experience
- delivering internationally excellent and world leading research
- working with industrial, commercial, public and third sector partners to stimulate economic growth and build social capital through knowledge exchange

Excellence

An enviable record of knowledge exchange



- innovation key to economic recovery and growth
- embedding knowledge exchange as a central activity
- innovation funding targeted on measurable performance

Funding for research

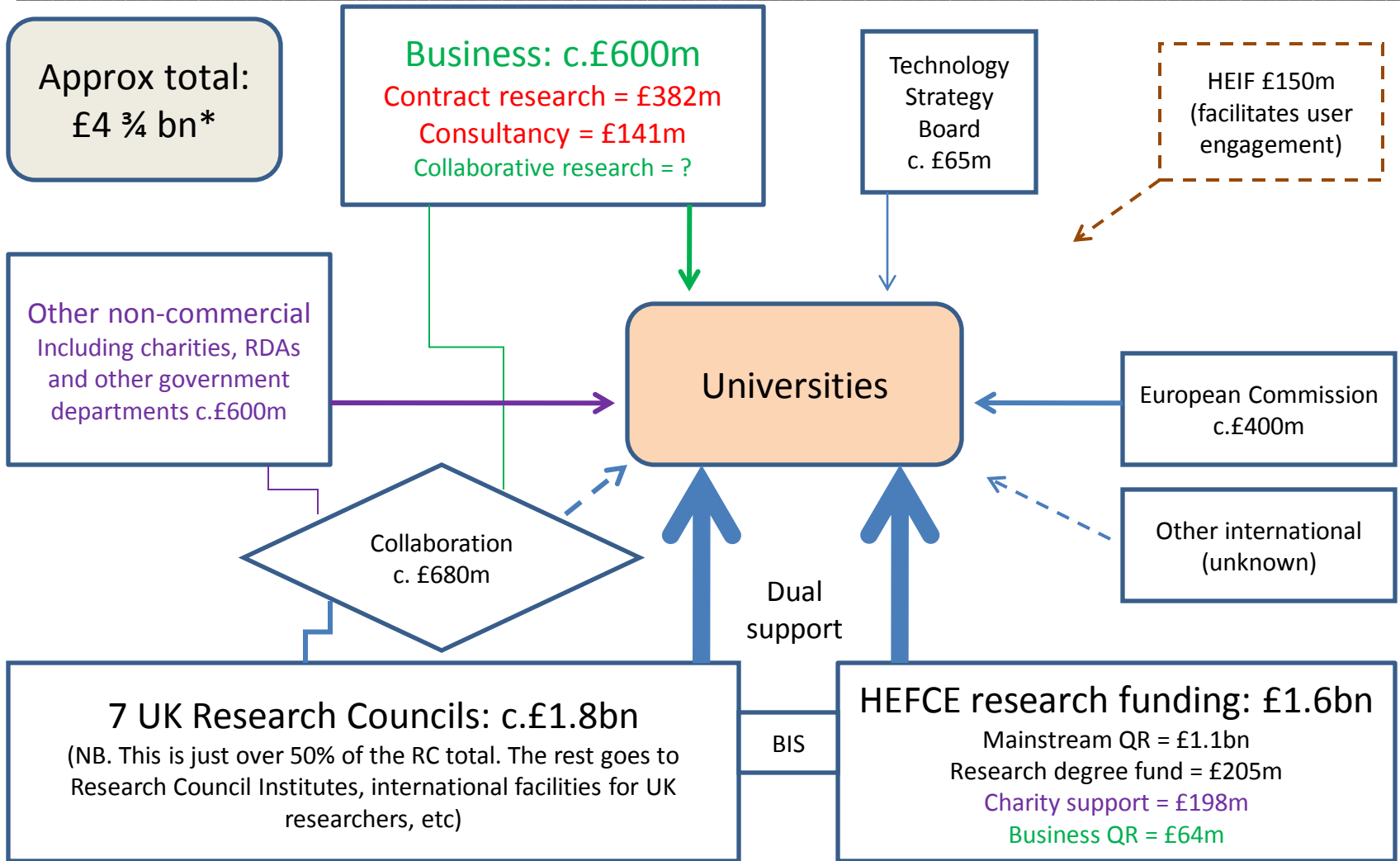


- More than 50 universities with a serious research mission, funded through a system called Dual Support
- investment in the UK research base enables innovation and commercialisation activities and is essential to the UK's economic success
- plurality of funding for university-based research is a major strength of UK

A successful UK research base

- 11 UK universities in the World universities ranking top 100 (second only to US)
- UK attracts 5% of all international doctoral students (second only to US)
- 3rd in G8 (behind US and Germany) for production of PhD qualifiers
- UK produces more publications and citations per pound spent on research than other G8 nations
- with 1% world population we produce 7.9% of world publications, receive 11.8% of citations and 14.4% of citations with highest impact

Research funding flows to HE



* This is an estimate. Excludes informal flows, funding in kind and other funding streams that universities themselves may channel into research.

HEFCE Research Funding

- Government request to *selectively funding on the basis of only internationally excellent research,*
- Mainstream quality related (£1,053M): allocated selectively to reward evidence of highest quality as best indicator of future performance
- QR charity support element (£198M);; is allocated in proportion to income from charity sponsored research
- QR business support element (£64M);; is allocated in proportion to income from business sponsored research
- PGR supervision funding (£205M): planning to increase cash value and allocate more selectively from 2012-13



HEFCE Allocations: selective allocation leading to concentration

HEI Group	2010-11	2011-12	Change
Top 5' in 2010-11	33.3%	34.3%	1.0%
Top 10' in 2010-11	49.3%	50.2%	0.9%
Top 20' in 2010-11	69.7%	70.4%	0.7%
Top 50' in 2010-11	91.8%	92.3%	0.5%

The Spending Review (England)

- £2.9bn (40%) reduction from £7.1bn Higher Education resource budget by 2014-15
- 44% reduction in capital by 2014-15
- flat cash protection for Science and Research
- other cuts in public spending that will impact on higher education

Quality-Related (QR) Funding

- Universities are funded by Government to build and sustain baseline capacity of high quality
- Undertaking research often chosen by the priorities of the researcher – ground-breaking and innovative ‘blue-skies’ research
- Stable base on which to undertake research commissioned by other funders.
- Allows exploration of new areas of research, looking at connections between disciplines, support of early-career staff, doctoral students, support of staff between grants and research facilities
- Expenditure at discretion of senior university staff

UK System: Key Attributes

- Independent Funding Bodies, from government and universities but constructive relations with both
- Research Assessment is a shared responsibility but ultimately owned by the Panels who exercise judgement
- Selective assessment exercise, not an audit
 - In who is included
 - Only being interested in the best work
 - Only interested in impact arising from excellent research
- Covers all disciplines within a single framework (so limited use of metrics and predominant use of judgement)

Key Questions

- What are the objectives?
- Whose objectives?
- What incentives will the exercise provide ? Perverse incentives?
- Risk appetite?

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Research Assessment in UK

- Research Assessment Exercise – RAE
 - Periodically since 1986
 - Primarily a peer review exercise for all disciplines – metrics play a strictly limited part
 - Carries the confidence of academics and universities
 - A selective exercise, not an assessment of all UK research
 - The single most important driver for academics and universities in the United Kingdom.
 - Liked by Government as allows funding on the basis of quality, unlike teaching.
 - Now the Research Excellence Framework - REF

REF: a UK-wide framework

- Aiming to maintain the capacity of higher education to undertake world-leading research across a range of academic disciplines, **promote economic growth and national well-being and the expansion and dissemination of knowledge**
- Delivered by the REF team on behalf of the four UK funding bodies

The REF:

- Drives our selective allocations of research funding, supporting excellence wherever it is found
- Provides international benchmarks and reputational yardsticks
- Provides accountability and demonstrates the benefits of public investment in research

Impact: Initial Consultations

- Eventually...widespread acceptance of the principle of incorporating impact in the REF, and agreement that the impact assessment should:
 - Be based on expert review
 - Review historical impacts, not predict future impact
 - Focus on the impact of submitted units' research, not individual researchers
 - Be underpinned by high quality research
 - Take a wide view of impact, inclusive of all disciplines

The REF Framework

Overall excellence profile

Outputs (65%)

Maximum of 4
outputs per
researcher

Impact (20%)

Impact Template
& Case studies

Environment (15%)

Narrative
template +
income and
student data

The impact pilot exercise

- Tested and developed a case study approach to assessing the impact of research
- Five units of assessment (UOAs)
- 29 UK higher education institutions each submitting to 2 UOAs
- Each submission included:
 - An 'impact statement' for the submitted unit as a whole
 - Case studies illustrating examples of impacts achieved (a total of one case study per 10 research staff)
- Impacts that occurred during 2005-09, underpinned by research since 1993

The pilot panels

- Membership drawn from academia and research users from the private, public and third sectors
- The panels tested the methodology by:
 - Assessing the case studies in terms of ‘reach and significance’ of the impacts
 - Considering the wider ‘impact statements’
 - Producing impact profiles
 - Reflecting on the process, identifying issues and making recommendations on how to improve the process

Pilot reports

- Publications on www.ref.ac.uk:
 - The findings of the five pilot panels
 - Feedback from the 29 pilot HEIs (by Technopolis)
 - Examples of good practice case studies
 - A summary of workshops to explore impact in the arts, humanities and social sciences
 - Guidance documents used in the pilot exercise

Key findings

- The process made explicit a range of benefits that research in each discipline has brought to society

Benefits of research

Clinical Medicine

- Impacts on patient outcomes, health policy and practice, medical technology and the pharmaceutical industry

Physics

- Impacts on high-tech products and services, public engagement with science and defence and energy policy

Earth systems & environmental sciences

- Impacts on environmental policy, conservation, managing the environmental, utilities, risks and hazards, exploration of resources, public health

Social work & social policy

- Impacts on social policy, public services, third sector, practitioners and public debate

English language & literature

- Impacts on creative industries, cultural enrichment, civil society, English as a global product, policy development

Impact profiles

Clinical Medicine					
	4*	3*	2*	1*	U
UOA average	17	25	34	12	12
Institution A	0	40	35	25	0
Institution B	25	10	30	15	20
Institution C	0	40	40	10	10
Institution D	0	55	45	0	0
Institution E	20	45	25	0	10
Institution F	25	25	25	0	25
Institution G	25	30	45	0	0
Institution H	20	25	25	10	20
Institution I	0	0	75	25	0

Key findings

- The process makes explicit the benefits that research in each discipline brings to society
- It is possible to assess the impact of research, through expert review of case studies
- A number of refinements are needed for full implementation
- A generic approach is workable, with scope for REF panels to tailor the criteria as appropriate to their disciplines
- The weighting should be significant to be taken seriously by all stakeholders, and needs careful consideration

Impact: Criteria

The criteria for assessing impacts are **reach and significance***

Four star	Outstanding impacts in terms of their reach and significance
Three star	Very considerable impacts in terms of their reach and significance
Two star	Considerable impacts in terms of their reach and significance
One star	Recognised but modest impacts in terms of their reach and significance
Unclassified	The impact is of little or no reach and significance; or the impact was not eligible; or the impact was not underpinned by excellent research produced by the submitted unit

* Each main panel provides a descriptive account of the criteria

Impact: Definition for the REF

- An effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia
- Impact **includes** an effect, change or benefit to:
 - The activity, attitude, awareness, behaviour, capacity, opportunity, performance, policy, practice, process or understanding
 - Of an audience, beneficiary, community, constituency, organisation or individuals
 - In any geographic location whether locally, regionally, nationally or internationally
- It **excludes** impacts on research or the advancement of academic knowledge within HE; and impacts on teaching or other activities within the submitting HEI

Impact: Submissions

Impact template (REF3a)

- Sets out the submitted unit's general approach to enabling impact from its research
- One template per submission – with a page limit depending on the number of staff submitted
- Covers the period 1 Jan 2008 to 31 Jul 2013
- Contributes 20% to the impact sub-profile

Case studies (REF3b)

- Specific examples of impacts that were underpinned by the submitted unit's research
- The number of case studies required depends on the number of staff submitted
- Impacts during 1 Jan 2008 to 31 Jul 2013; underpinned by research since 1 Jan 1993
- Contributes 80% to the impact sub-profile

Impact: Template (REF3a)

- The unit's approach to enabling impact from its research:
 - Context for the approach
 - The unit's approach during 2008-2013
 - Strategy and plans for supporting impact
 - Relationship to the submitted case studies
- Provides additional information and context for the case studies, and can take account of particular circumstances that may have constrained a unit's selection of case studies
- To be assessed in terms of the extent to which the unit's approach is conducive to achieving impact of 'reach and significance'

Impact: Case studies (REF3b)

- In each case study, the impact described must:
 - Meet the REF definition of impact
 - Have occurred between 1 Jan 2008 and 31 July 2013 (can be at any stage of maturity)
 - Be underpinned by excellent research (at least 2* quality) produced by the submitting unit between 1 January 1993 to 31 December 2013
- Submitted case studies need **not** be representative of activity across the unit: pick the strongest examples

Impact: Case studies (REF3b)

- Each case study is limited to 4 pages and must:
 - Describe the underpinning research produced by the submitting unit
 - Reference one or more key outputs and provide evidence of the quality of the research
 - Explain how the research made a 'material and distinct' contribution to the impact (there are many ways in which this may have taken place)
 - Explain and provide appropriate evidence of the nature and extent of the impact: Who/what was affected? How were they affected? When?
 - Provide independent sources that could be used to verify claims about the impact (on a sample audit basis)



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