



*hefce*

Higher Education Funding Council for England





# Impact and The REF

HEPI

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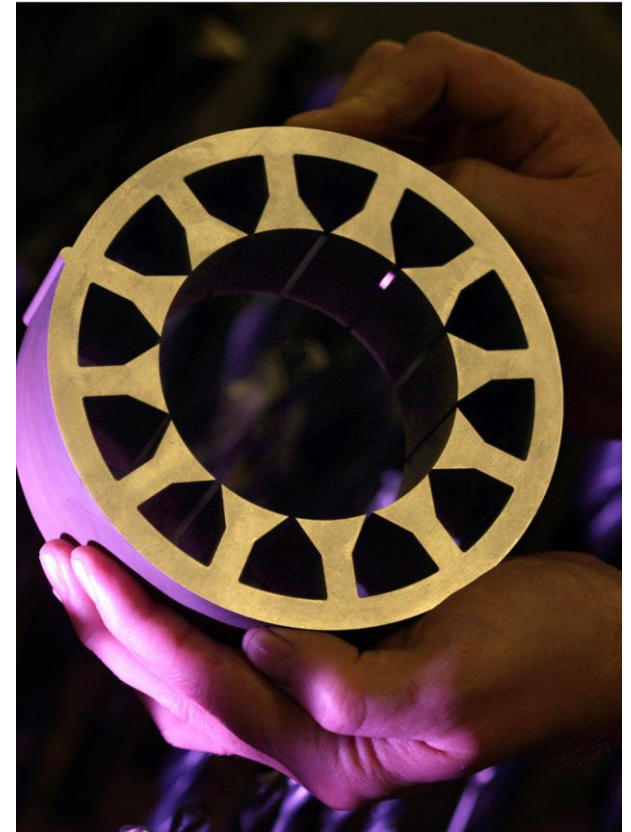
# Assessing research quality

*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 between applied and theoretical work but recognising only impact based on excellent research
- Encouraging institutions to achieve the full potential contribution of their research in future.

# National policy

- A strong and innovative national research base is essential to support national prosperity in a globalised knowledge based economy
- Need to strengthen links between undertaking research and developing new products and services
- Our strategic aim is to develop and sustain a dynamic and internationally competitive research sector that makes a major contribution to economic prosperity, national wellbeing and the expansion and dissemination of knowledge.



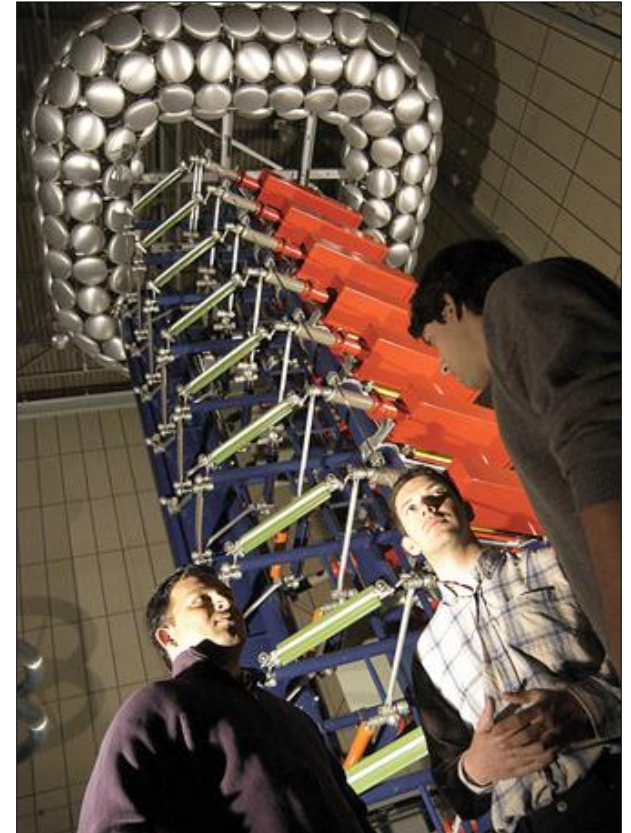
# Big ideas for the future



*“UK Research that will have a profound effect on our future.”*

# Challenge to universities

- Developing new knowledge is in the DNA of most academics and universities
- Matching mission and investment more difficult than with teaching
- Substantial public investment but can only do a fraction of the research which universities want to do and society needs
- Entrepreneurial and engaged universities, working with benefactions, business, Government and other funders.



# 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 knowledge exchange: number of academics with positive attitudes to KE has grown from 61% in 2001 to 76% in 2008.
- 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.

# *An Overseas Perspective*

‘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’



# *Research Assessment*

‘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’

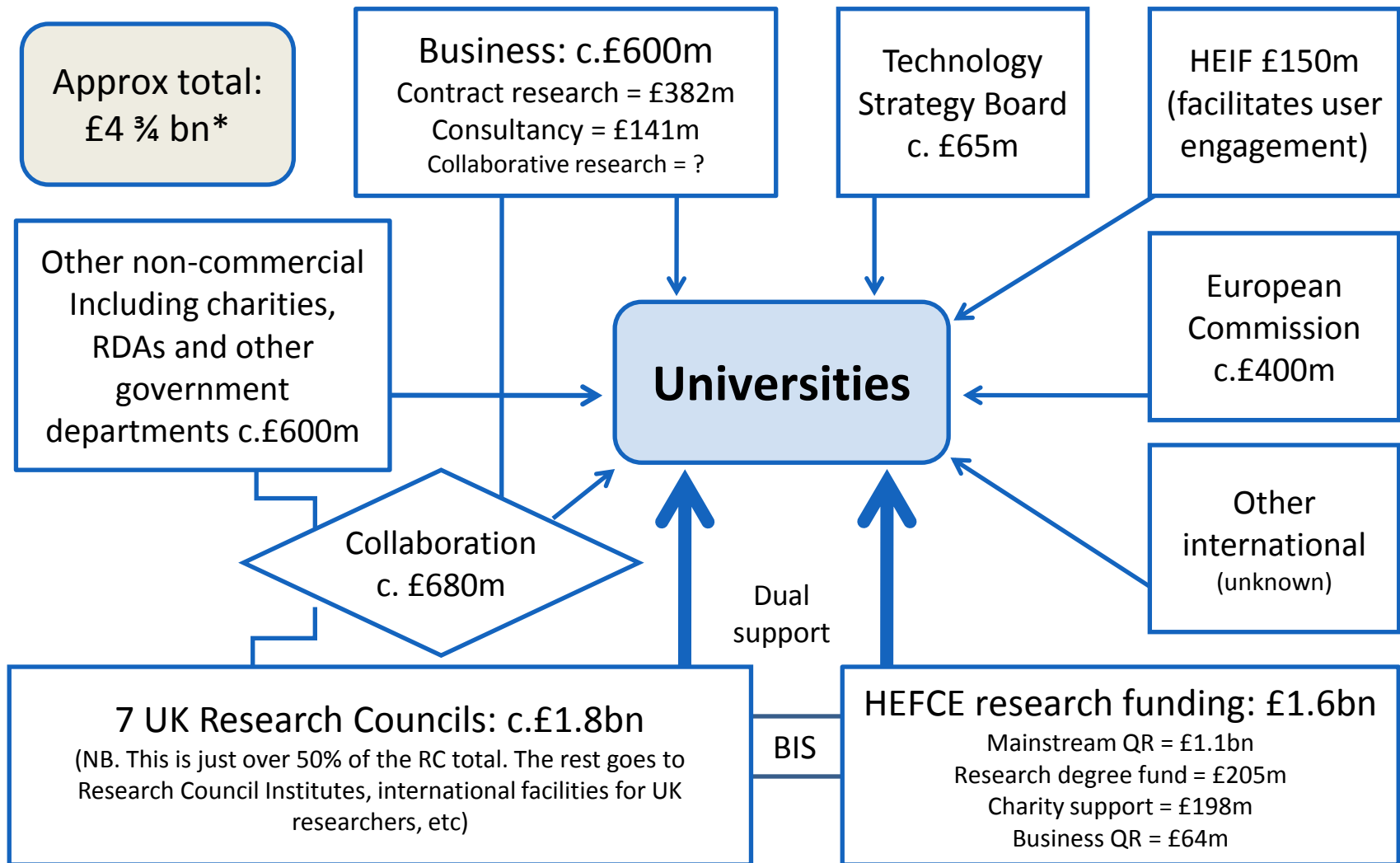
# *Edith Schaeffer*

‘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’

# A successful UK research base

- 11 UK universities in the World universities ranking top 100 (second only to US)
- UK attracts 15% 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 6.9% of world publications, receive 10.9% of citations and 13.8% 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 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)*

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- £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

# HEFCE Research funding (QR)

- Government request of: *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 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.

# Investing QR for success

- Universities are funded 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 the university.



# *UK System: Key Attributes*

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- 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)

# *Research Assessment in UK*

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- 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*

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- 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*

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- 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*

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## 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*

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- 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*

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- 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*

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- Publications on [www.ref.ac.uk](http://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*

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- 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

# 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

# Societal contribution (1)

- **Economic & commercial** – creating wealth, for public good and private gain
- **Public policy and services** – stimulating public sector innovation as a contribution to growth and quality of life
- **Society, culture and creativity** – enriching and expanding lives, imaginations and sensibilities while challenging cultural values and social assumptions
- **Health and welfare** – saving lives and enhancing the quality of life.

# Societal contribution (2)

- **Production** – increasing production, yields or quality; reducing waste
- **Practitioners and services** – changes to professional standards, guidelines or training; influence on workforce planning
- **Environment** – influencing the policy debate on climate change or other environmental policy issues
- **International development** – influencing international policy development or international agencies or institutions; quality of life improved in a developing country
- **Education** – influencing the form or the content of the education of any age group in any part of the world.

# Impact: Criteria

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

<b>Four star</b>	Outstanding impacts in terms of their reach and significance
<b>Three star</b>	Very considerable impacts in terms of their reach and significance
<b>Two star</b>	Considerable impacts in terms of their reach and significance
<b>One star</b>	Recognised but modest impacts in terms of their reach and significance
<b>Unclassified</b>	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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