



Research impact and its assessment: lessons from the UK Research Excellence Framework

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Open Evaluation Conference
24 November 2016

HIGHER EDUCATION *hefce*
FUNDING COUNCIL FOR ENGLAND

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The assessment of the broader impact of research is a **necessary component** of research evaluation...

...and the experience of the UK Research Excellence Framework suggests that it is possible to do so **robustly** through the assessment of case studies.

The UK assessment provides insights into research impact, providing new challenges for the future of research evaluation, around **interdisciplinary research**, the role of **co-production** and the questions of **societal legitimacy**.

The next iteration of the UK REF is likely to represent **evolution rather than revolution**.

“The strengths of the current research and innovation system are clear and Government is committed to retaining them. But we believe the system has the potential to become even more effective. The challenges facing the world are complex, and increasingly require multi- or inter-disciplinary approaches. Our ambition is to ensure that our research and innovation system is sufficiently integrated, strategic and agile to meet these challenges, and to deliver national capability for the future that drives discovery and growth.”

UK Government White Paper, 2016

The new production of knowledge

The
dynamics
of
science
and
research
in
contemporary
societies

Michael Gibbons
Camille Limoges
Helga Nowotny
Simon Schwartzman
Peter Scott
Martin Trow

‘Mode 2’ research

How it works

REF assesses the quality of research in all UK universities, in all disciplines. It is carried out by 36 expert panels, grouped into 4 main panels.

Main Panel A: **Medical and life sciences**

Main Panel B: **Physical sciences and engineering**

Main panel C: **Social sciences**

Main Panel D: **Arts and humanities**

2011-12

Preparation

Panels were appointed. Guidance and criteria were published.

2012-13

Submissions

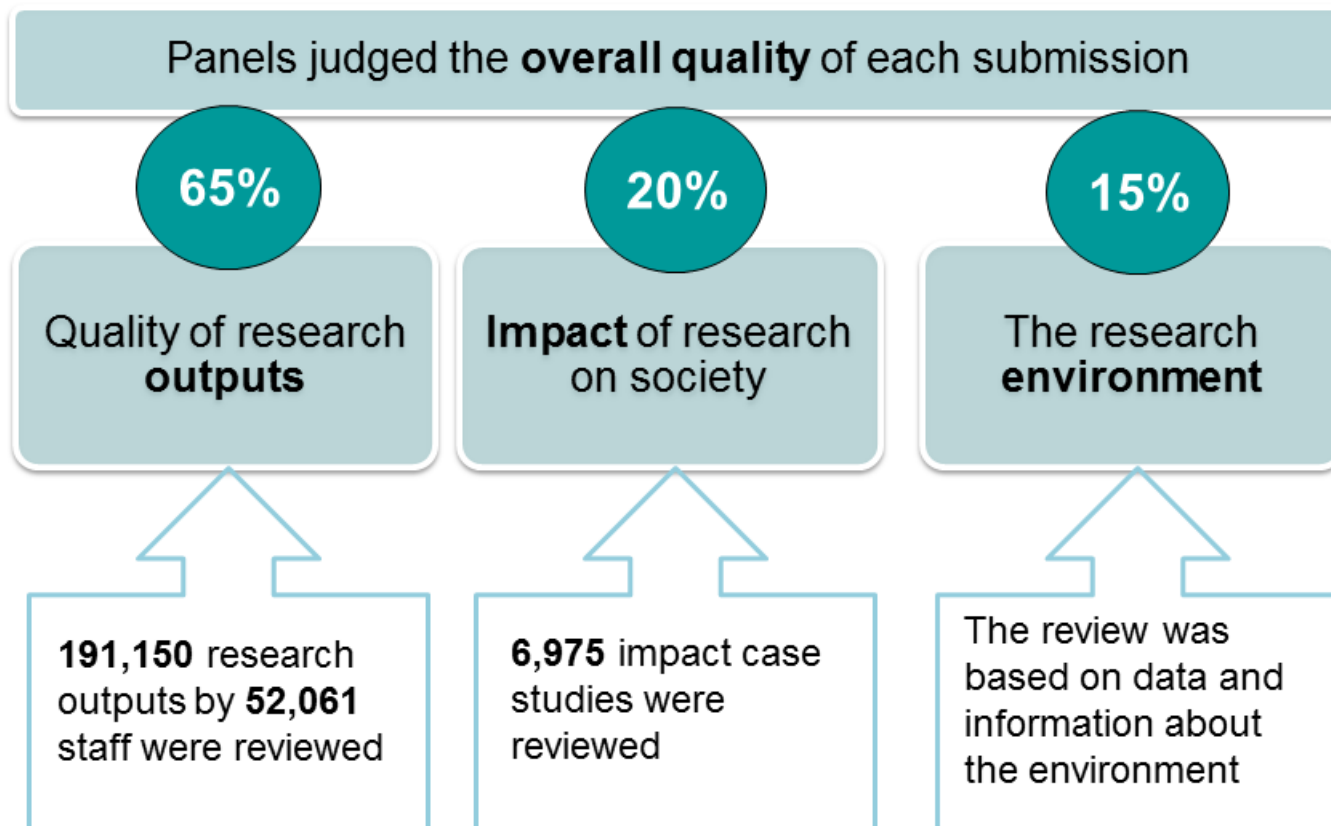
Universities made submissions in whichever subjects they chose to.

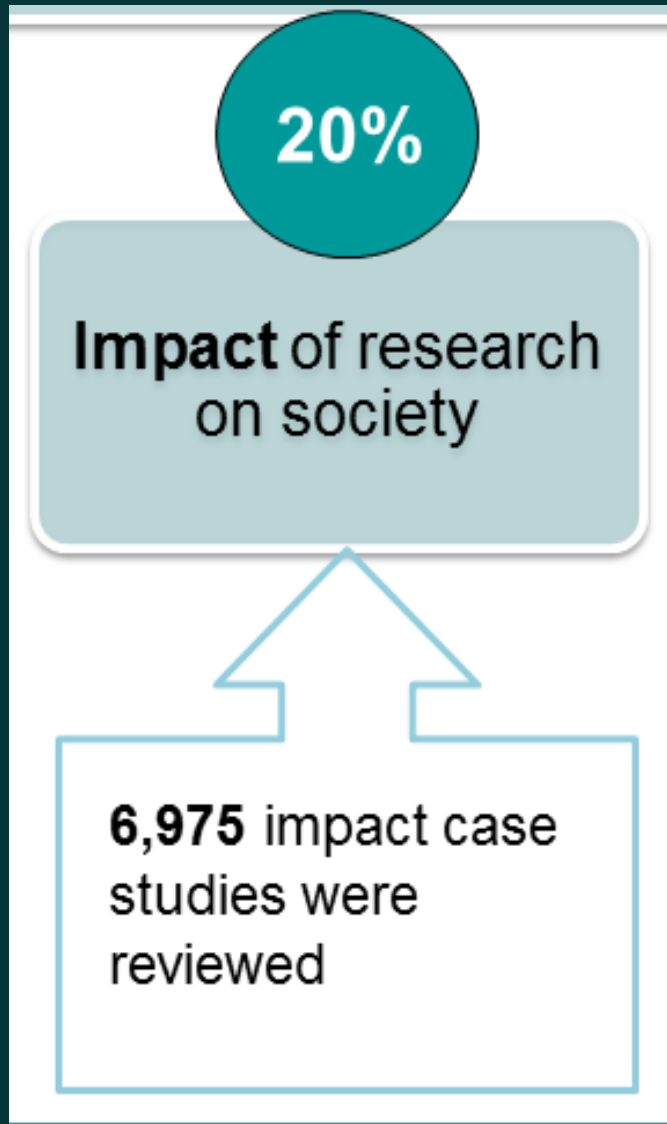
2014

Assessment

36 expert panels reviewed the submissions, guided by the 4 main panels.

What was assessed





“an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”

- 4-page narrative
- ‘underpinning research’
- evidence and corroboration



Assessing impact submissions for REF 2014: An evaluation

Catrina Mamelle, Susan Guthrie, Marie-Louise Henham, Bryn Gamad, Sonia Sousa, Anne Kirtley, Sophie Costle-Clarke and Tom Ling



Evaluating the 2014 REF

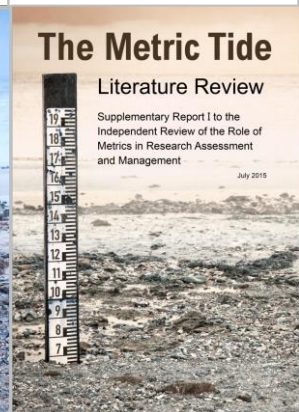
Feedback from participating institutions



SURVEY TOOL

July 2015

Report by Technopolis to the four UK higher education funding bodies



The Metric Tide

Literature Review

Supplementary Report I to the
Independent Review of the Role of
Metrics in Research Assessment
and Management

July 2015

July 2015

Correlation analysis of REF2014 scores and metrics

Supplementary Report II to the
Independent Review of the Role of
Metrics in Research Assessment
and Management

July 2015

The nature, scale and beneficiaries of research impact

King's College London and Digital Science

March 2015



The Polling lead stays at King's

Characteristics of high-performing research units

Carriana Manville, Saba Hinrichs,
Sarah Parks, Adam Kamenetzky,
Sali Gurashchik, Benedict Wilkins
and Jonathan Grant

November 2015



The follow-up tests on Kim's

March 2015

Research Excellence
Framework 2014:
Manager's report

January 2015

Research Excellence
Framework 2014:
Overview report by Main Panel A and
Sub-panels 1 to 6

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January 2015

Research Excellence
Framework 2014:
Overview report by Main Panel B and
Sub-panels 7 to 15

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January 2015

Research Excellence Framework 2014:
Overview report by Main Panel C and Sub-panels 16 to 26

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January 2015

Research Excellence
Framework 2014:
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Building on Success and Learning from Experience

An Independent Review of the Research
Excellence Framework

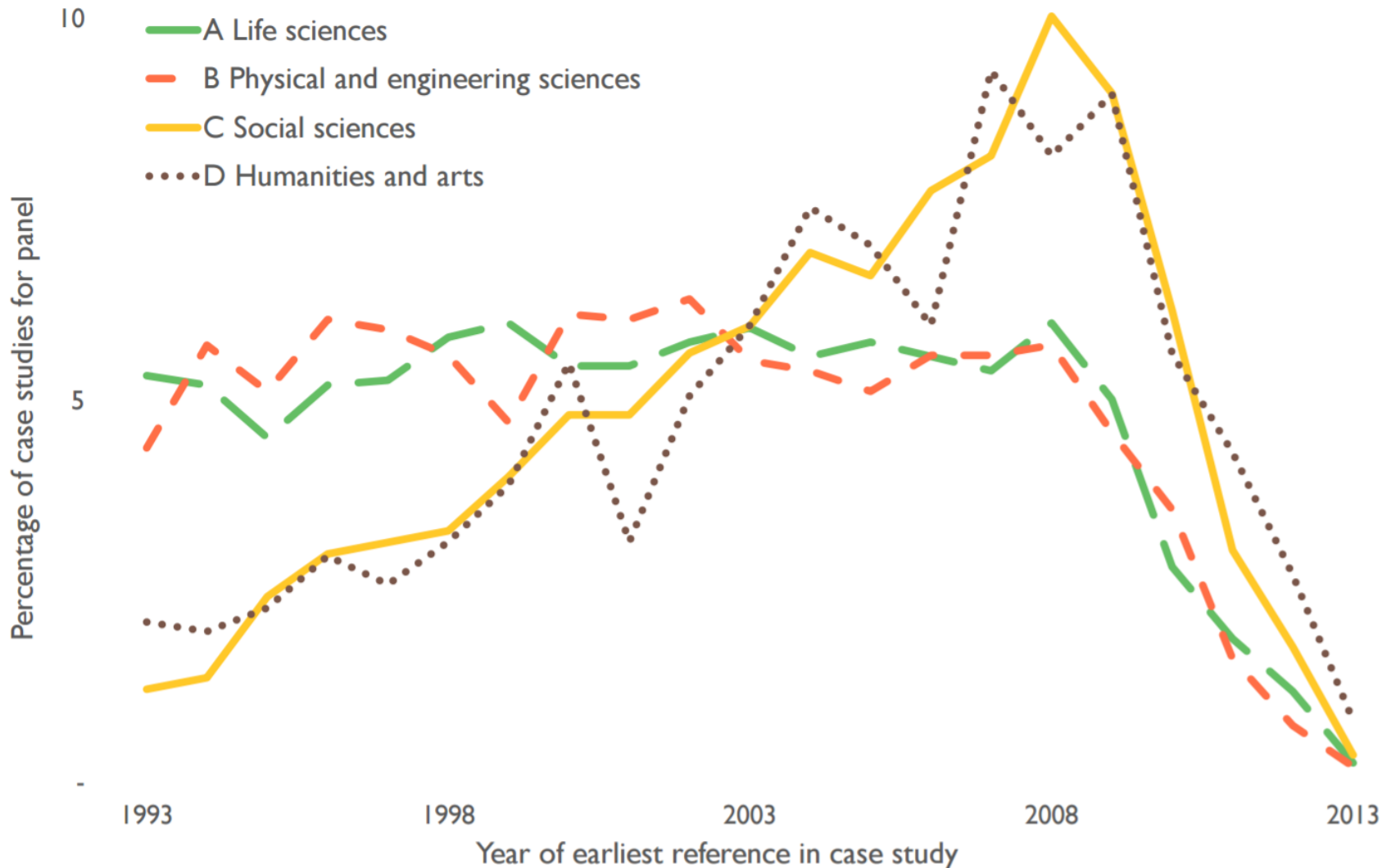
July 2016

- Review by Lord Stern
- Published July 2016
- Evolution not revolution

“By a large majority, panellists felt the process enabled them to assess impact in a fair, reliable and robust way”

RAND Europe Evaluation report

Time lags

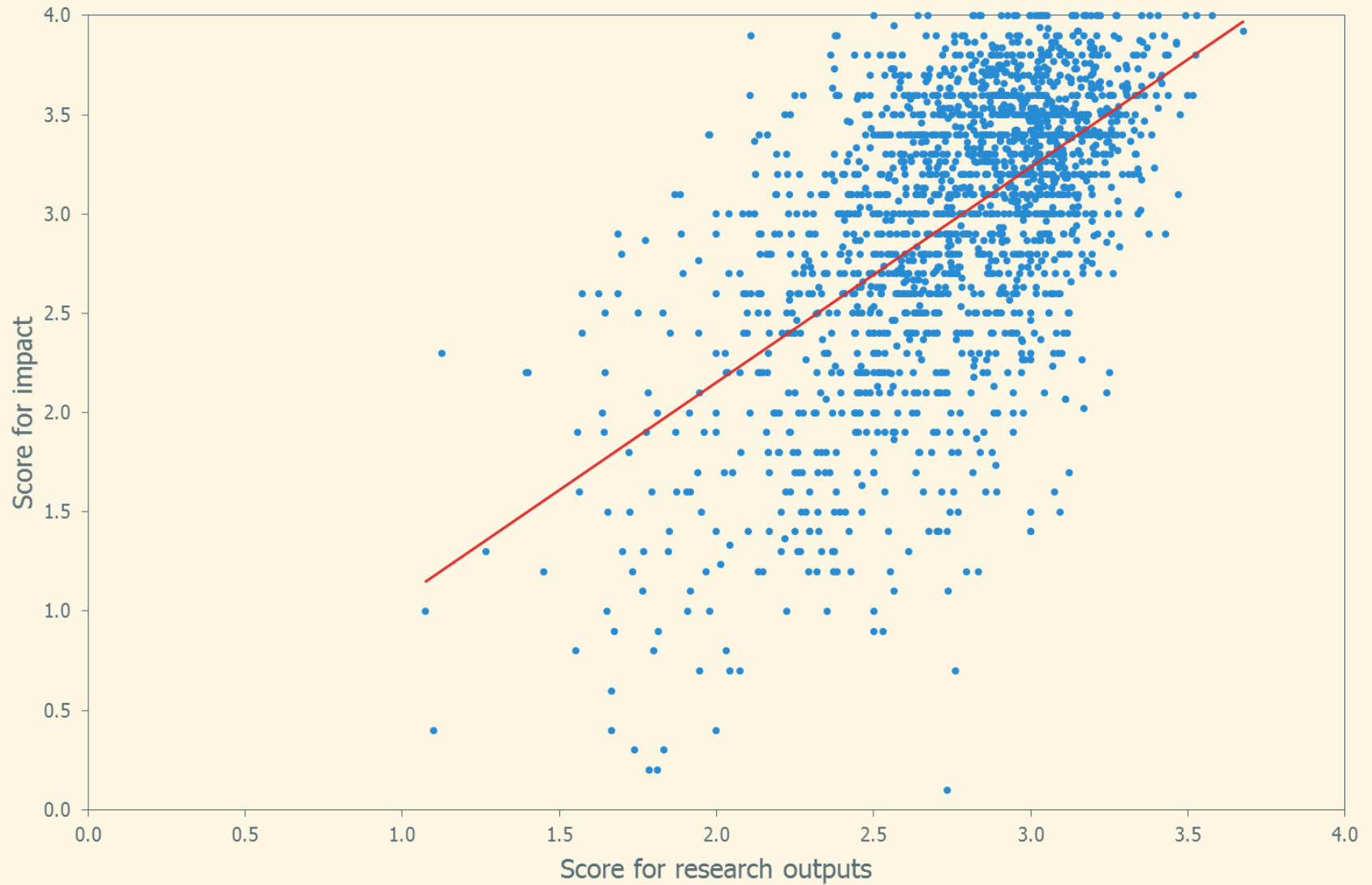


Evidence and attribution

“Evidence was the most difficult element of creating the [impact case study] document and as a result, you ended up thinking more about the evidence rather than the impact. The question was, can I evidence this?”

HEI representative
[quoted in RAND Europe Evaluation report]

Impact and academic quality

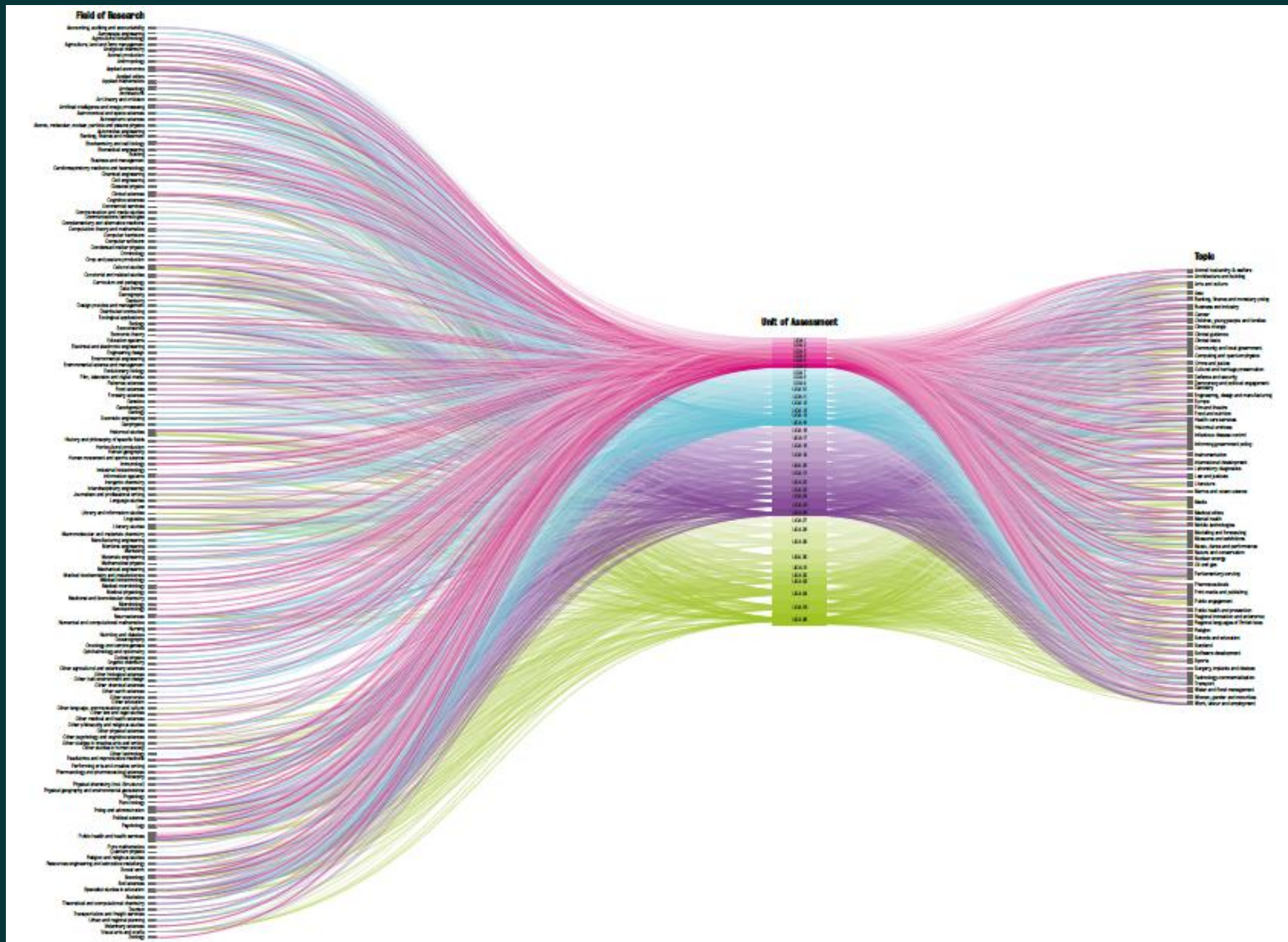


Metrics for impact

“The quantitative evidence supporting claims for impact was diverse and inconsistent, suggesting that the development of robust impact metrics is unlikely.”

King's College London/Digital Science report

Impact and interdisciplinary research



Source: King's College London/Digital Science (2015) The nature, scale and beneficiaries of research impact
https://is.gd/hefce_KCLDSreport



A Review of the UK's
Interdisciplinary Research using a
Citation-based Approach
Report to the UK HE funding bodies and MRC by
Elsevier
July 2015

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technopolis^{group}

US
UNIVERSITY OF SUSSEX
SPRU
SCIENCE POLICY
RESEARCH UNIT

Landscape Review of Interdisciplinary Research in the UK

Report to HEFCE and RCUK by Technopolis and the
Science Policy Research Unit (SPRU), University of
Sussex

September 2016

www.technopolis-group.com

technopolis^{group}

Case Study Review of Interdisciplinary Research in Higher Education Institutions in England

A report for HEFCE by Technopolis
Published on the HEFCE website September 2016

www.technopolis-group.com



Improving recognition of
team science contributions
in biomedical research
careers

March 2016

The Academy of
Medical Sciences

CROSSING PATHS: INTERDISCIPLINARY INSTITUTIONS, CAREERS, EDUCATION AND APPLICATIONS

BRITISH
ACADEMY
for the humanities and social sciences

RESEARCH
COUNCIL FOR
THE ARTS

GLOBAL
RESEARCH
COUNCIL

NSERC

djs
research

Interdisciplinarity

Survey Report for the
Global Research Council 2016
Annual Meeting
May 2016

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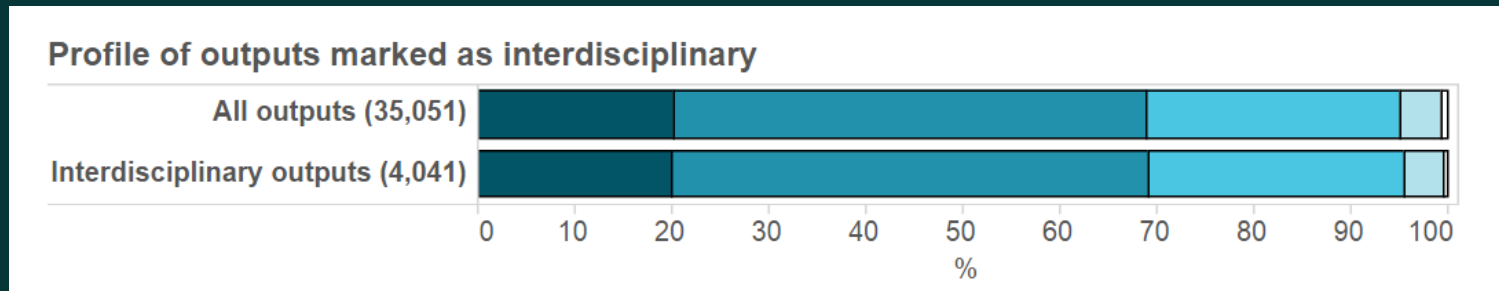


- System level conditions
- Institution level conditions
- Academic culture

- System level conditions
- Institution level conditions
- Academic culture

In REF:

- Impact assessment incentivises interdisciplinary research
- Interdisciplinary outputs are ranked as highly as others



Sources:

1. Technopolis/SPRU (2016) Landscape Review of Interdisciplinary Research in the UK. https://is.gd/hefce_IDRlandscape
2. HEFCE analysis. <http://www.ref.ac.uk/results/analysis/outputprofilesanddiversity/>

But...

- Strong perception that submitting IDR outputs is a risk...
- ...which leads to lower than expected rates of submission

Sources:

1. Technopolis/SPRU (2016) Landscape Review of Interdisciplinary Research in the UK.
https://is.gd/hefce_IDRlandscape
2. Elsevier (2015) A review of the UK's Interdisciplinary Research Using a Citation-based Approach.
https://is.gd/hefce_IDRcitation

Co-production and engagement

“[in the REF case studies] Public engagement is nearly always focussed on changes to understanding and awareness.[...] many researchers default to a paradigm of public engagement as ‘dissemination’, and in the process limit its potential to contribute to all stages of the research cycle.”

National Co-ordinating Centre for Public Engagement,
unpublished analysis

Co-production and engagement

“Qualitative and participatory research designs were rare, and only one case study described a co-production model of impact [of 162 analysed in Public Health, Health Services and Primary Care panel].”

Greenhalgh and Fahy, 2015

Source: Greenhalgh and Fahy (2015) Research impact in the community-based health sciences: an analysis of 162 case studies from the 2014 UK Research Excellence Framework. BMC Medicine 13:232
<https://doi.org/10.1186/s12916-015-0467-4>

Which impact?

Who decides?





Impact in the next REF:

- Case studies
- Link to research outputs
- (some) Institutional-level
- Engagement

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...and the experience of the UK Research Excellence Framework suggests that it is possible to do so **robustly** through the assessment of case studies.

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The next iteration of the UK REF is likely to represent **evolution rather than revolution**.



Thank you for listening

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