

SETIEMBRE 2017

MES DE LA
INVESTIGACIÓN
PUCP



CONGRESO
NACIONAL
DE GESTIÓN
DE LA

IN
VES
TIGA
CIÓN

Evaluación
de la Investigación

FECHA

25 | 26 | 27

SETIEMBRE

HORA: 9:00 a.m. a 6:30 p.m.

LUGAR: Auditorio de Derecho
Campus PUCP

Making impact: the experience of UK universities

Steven Hill
Head of Research Policy

Pontificia Universidad Católica del Perú
27 September 2017



What is research impact?

- In short, the **difference to the world** that results from research
- Diverse: societal, economic, health, environmental, cultural, well-being, etc.
- Formal definitions:
 - “an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”
 - “the demonstrable contribution that excellent research makes to society and the economy. This occurs in many ways – through creating and sharing new knowledge and innovation; inventing groundbreaking new products, companies and jobs; developing new and improving existing public services and policy; enhancing quality of life and health; and many more”



Summary

- A short history of research impact
- The current policy environment for impact in the UK
 - Funding for impact
 - Assessing for impact
- Research impact and academic quality
- UK Universities' response to impact



Summary

- A short history of research impact

- The

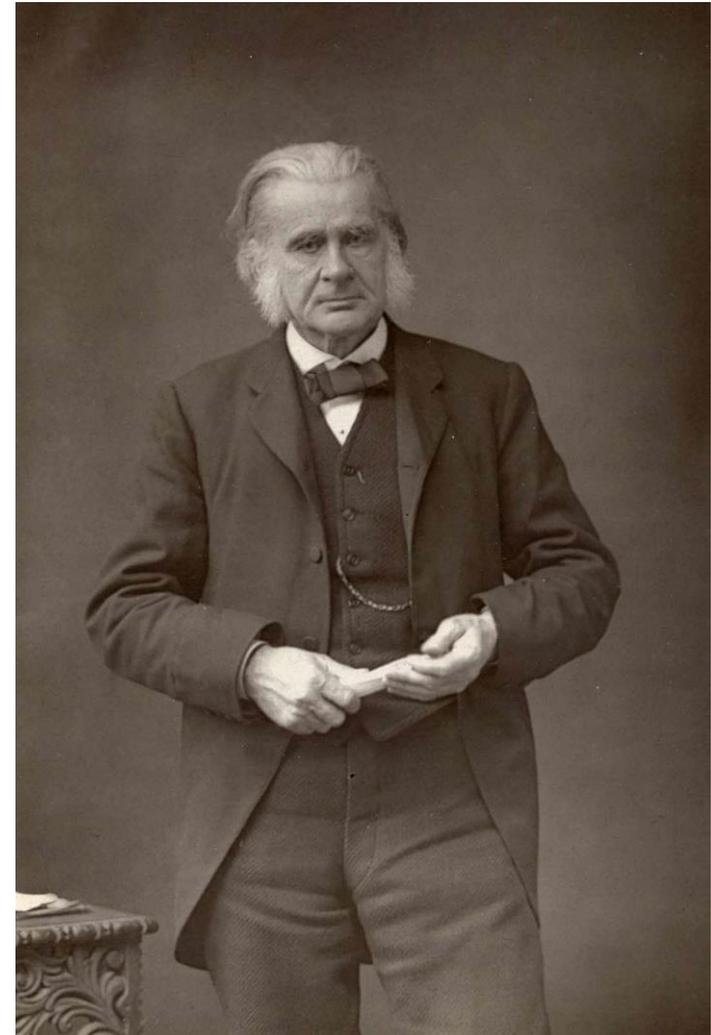
- F
 - A

- Res

Key message: delivering impact from research has long been an important role for universities.

- UK Universities' response to impact

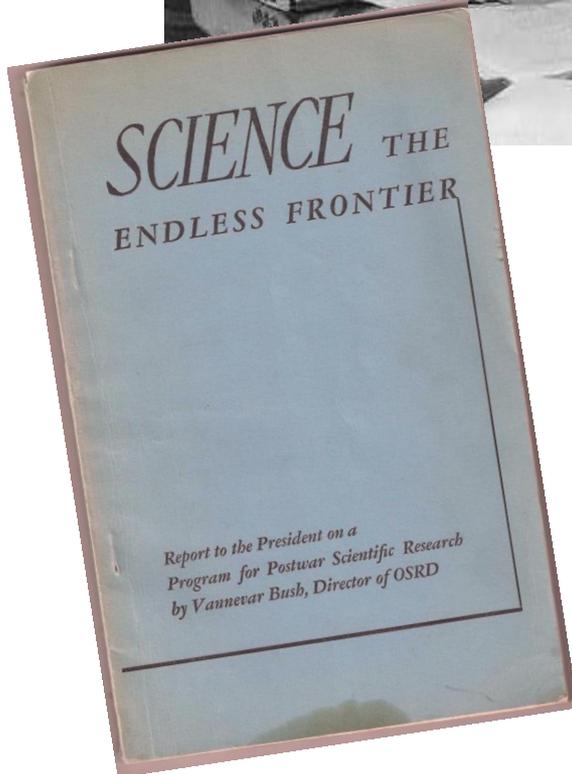
“We may take it for granted then, that, in the opinion of those best qualified to judge, the diffusion of thorough scientific education is an absolutely essential condition of industrial progress; and that the college which has been opened today will confer an inestimable boon upon those whose livelihood is to be gained by the practice of the arts and manufactures of the district.”



Thomas Henry Huxley
Speaking in 1880, at the opening of Mason College now the University of Birmingham



“As long as [universities] are vigorous and healthy and their scientists are free to pursue the truth wherever it may lead, there will be a flow of new scientific knowledge to those who can apply it to practical problems in Government, in industry, or elsewhere.”



"Vannevar Bush portrait". Licensed under Public domain via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Vannevar_Bush_portrait.jpg#mediaviewer/File:Vannevar_Bush_portrait.jpg

Government White Paper 1993

- *Realising Our Potential*

3.13 Excellence is very important; second-rate research is a poor buy.

Funders of research will need to apply rigorous standards and impose strong criteria to maintain quality whilst giving much greater emphasis to relevance.

There is no conflict between quality and relevance or appropriability. Indeed

Research Councils already take account of multiple criteria when allocating

funds. While the Research Councils should focus on the value of proposed

research in terms of scientific excellence and timeliness, they should take more fully into account the extent to which outcomes could be taken up by potential

users. When setting priorities and allocating resources, Councils will take account of the needs of their particular user communities - the relevant industrial or service sectors, private and public, as well as central and local Government. The Government will similarly expect research relevant to industrial and other users to be taken into account by the Higher Education Funding Councils in their research assessment exercises.



Research Budget Allocations 2014

Research excellence is a critical asset for the UK, providing a competitive advantage in the global race for prosperity. The UK's strong research base is vital in pushing back the frontiers of human knowledge, supporting the wealth and welfare of the nation, tackling current and future challenges and contributing to the cultural richness of the UK. World class research plays a key role in economic growth through creating new businesses, improving the performance of existing businesses, delivering highly skilled people to the labour market, and attracting investment from global businesses. It is also vital to the implementation of the Government's Industrial Strategy. The 8 Great Technologies, launched by the Government in January 2013, illustrate how UK strengths in key areas of research have the potential to drive growth and societal benefits and where the UK has a competitive advantage.¹



Summary

- A short history of research impact
- The current policy environment for impact in the UK
 - Funding for impact
 - Assessing for impact

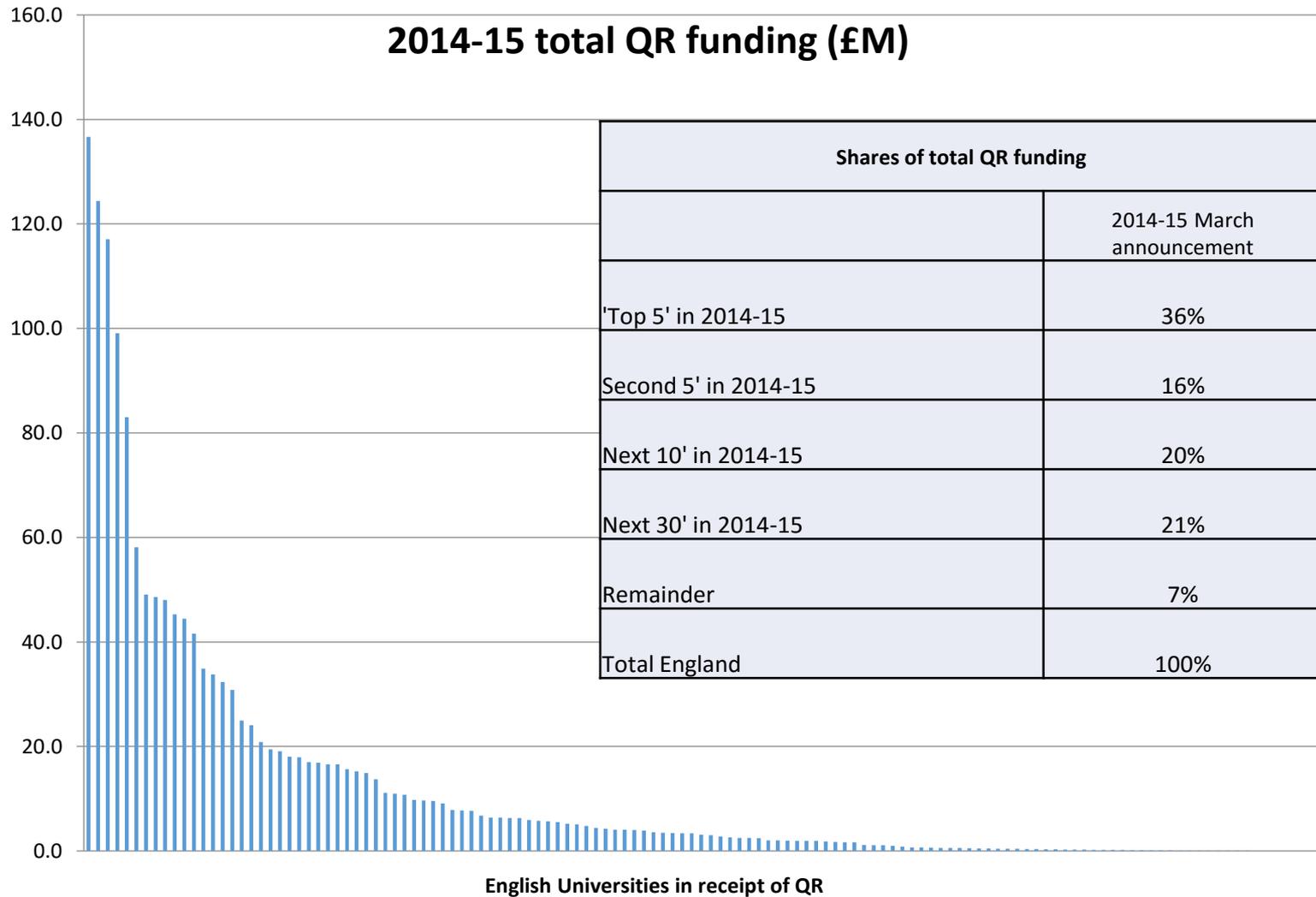
- Re
 - UK
- Key message: the UK policy environment sets the conditions for delivery of impact from research.



Funding for impact

- Support for research
- Focus on research excellence

Focus on research excellence

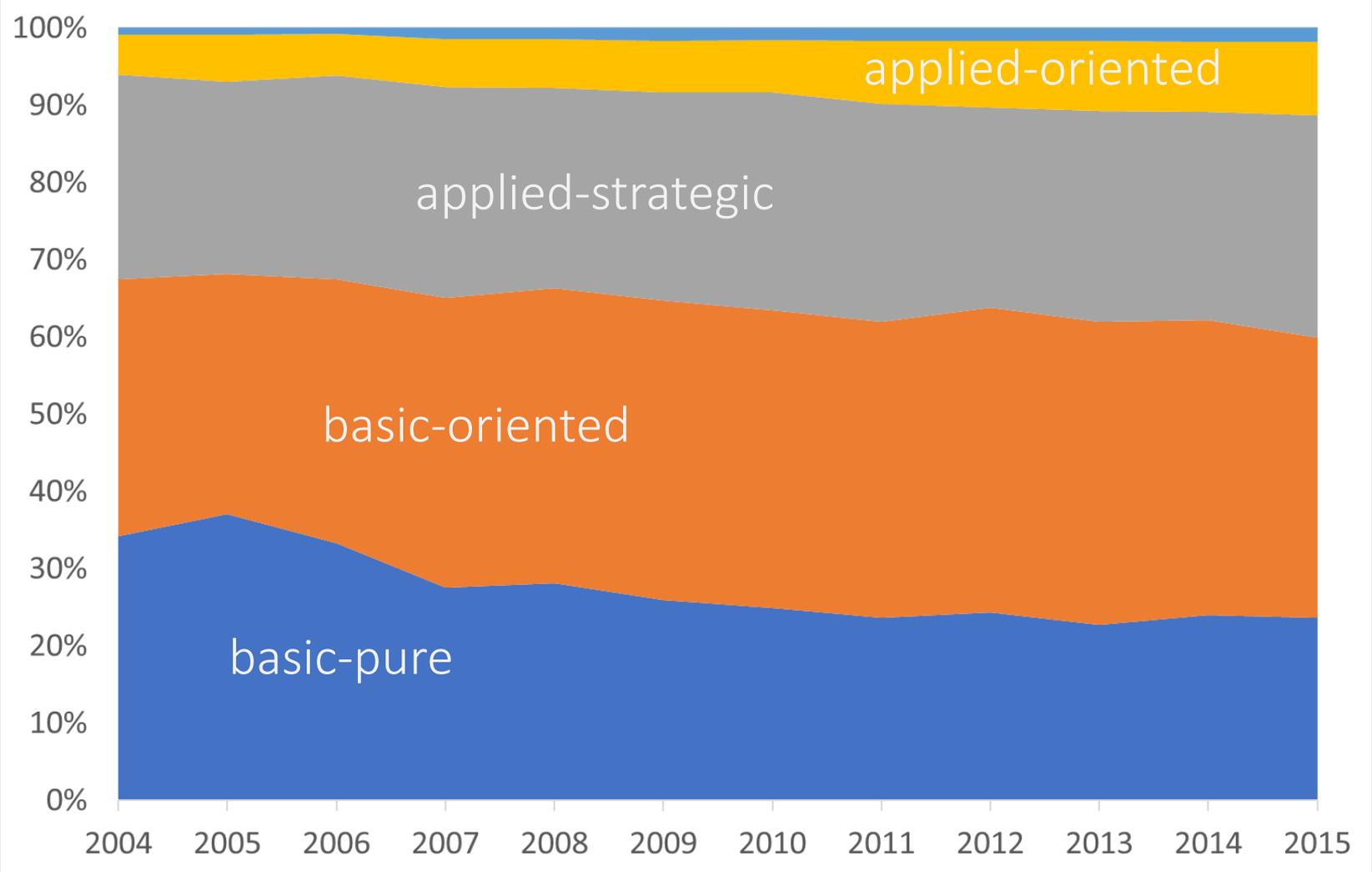




Funding for impact

- Support for research
- Focus on research excellence
- Balanced research portfolio

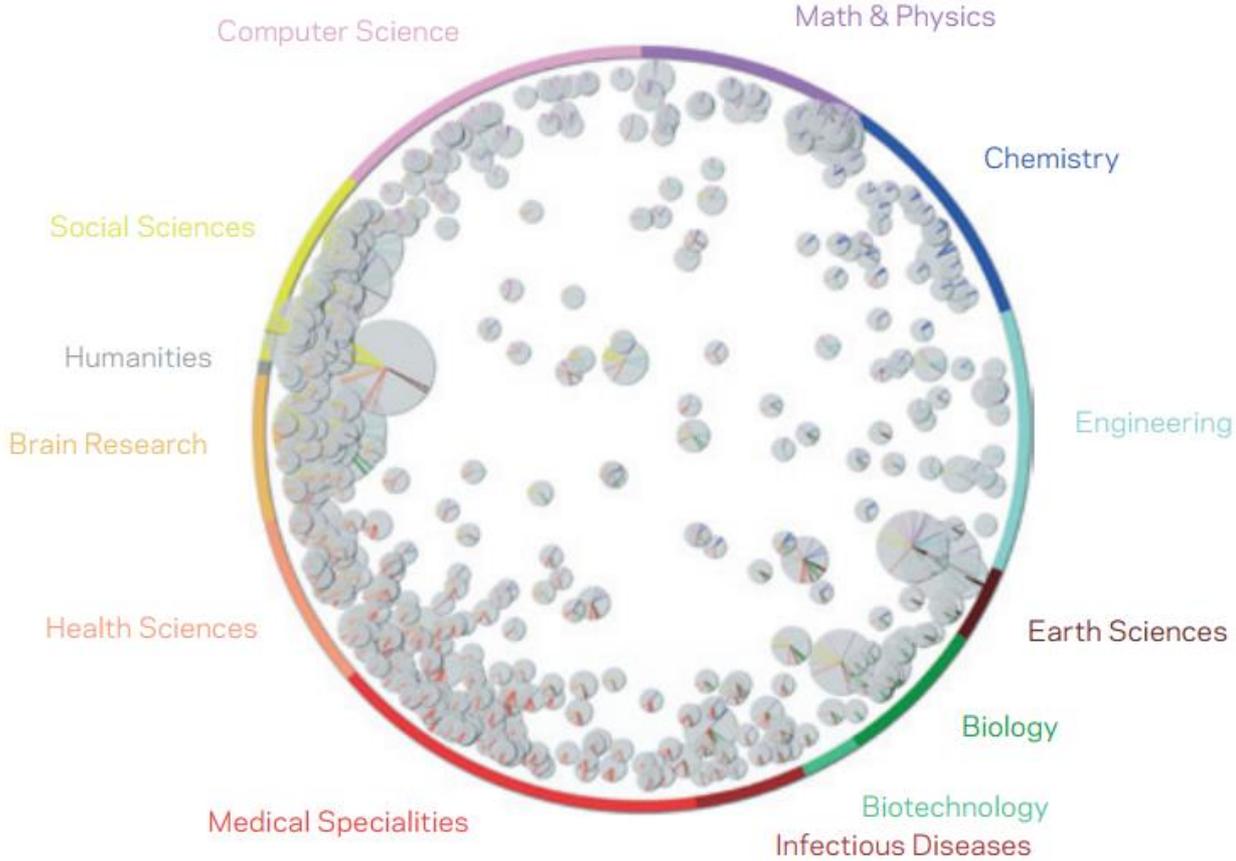
Balanced research portfolio



Source: Office for National Statistics, SET statistics 2015
<https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/datasets/scienceengineeringandtechnologystatisticsreferencetables>

Balanced research portfolio

United Kingdom
2012



Source: BIS/Elsevier (2013) International comparative performance of the UK research base.
<https://www.gov.uk/government/publications/performance-of-the-uk-research-base-international-comparison-2013>



Funding for impact

- Support for research
- Focus on research excellence
- Balanced research portfolio
- Targeted programmes:
 - Global Challenges Research Fund
 - Newton Fund
 - Industrial Strategy Challenge Fund
- Support for knowledge exchange activities



Support for knowledge exchange activities

- Higher Education Innovation Fund - £160M per annum, formula allocation, all aspects of knowledge exchange
- Connecting Capability Fund - £85M over 3 years, projects, focussed on research commercialisation
- Impact Acceleration Accounts – from Research Councils, block grants linked to Research Council funding



Assessing for impact

- National research assessment process

Overview of the Research Excellence Framework (REF)

How it works

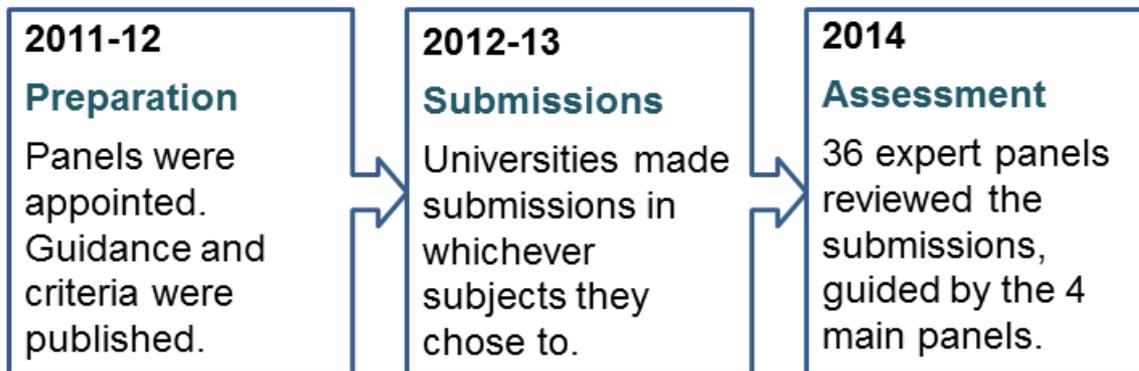
REF assesses the quality of research in all UK universities, in all disciplines. It is carried out by 36 expert panels, grouped into 4 main panels.

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**



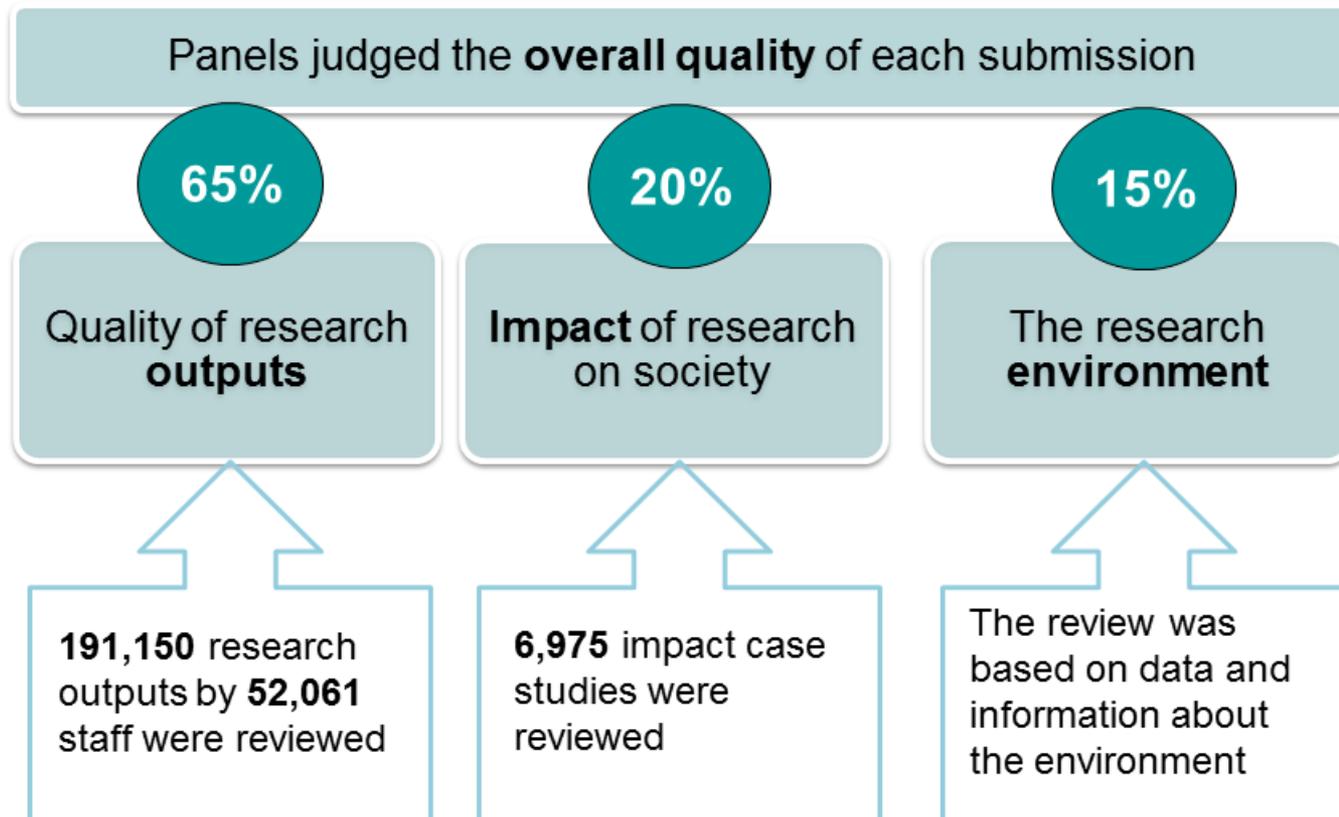


Assessing for impact

- National research assessment process
- Balanced criteria of excellence

Overview of REF

What was assessed





Summary

- A

Key message: academic quality

- The and research impact go hand-in-hand. UK

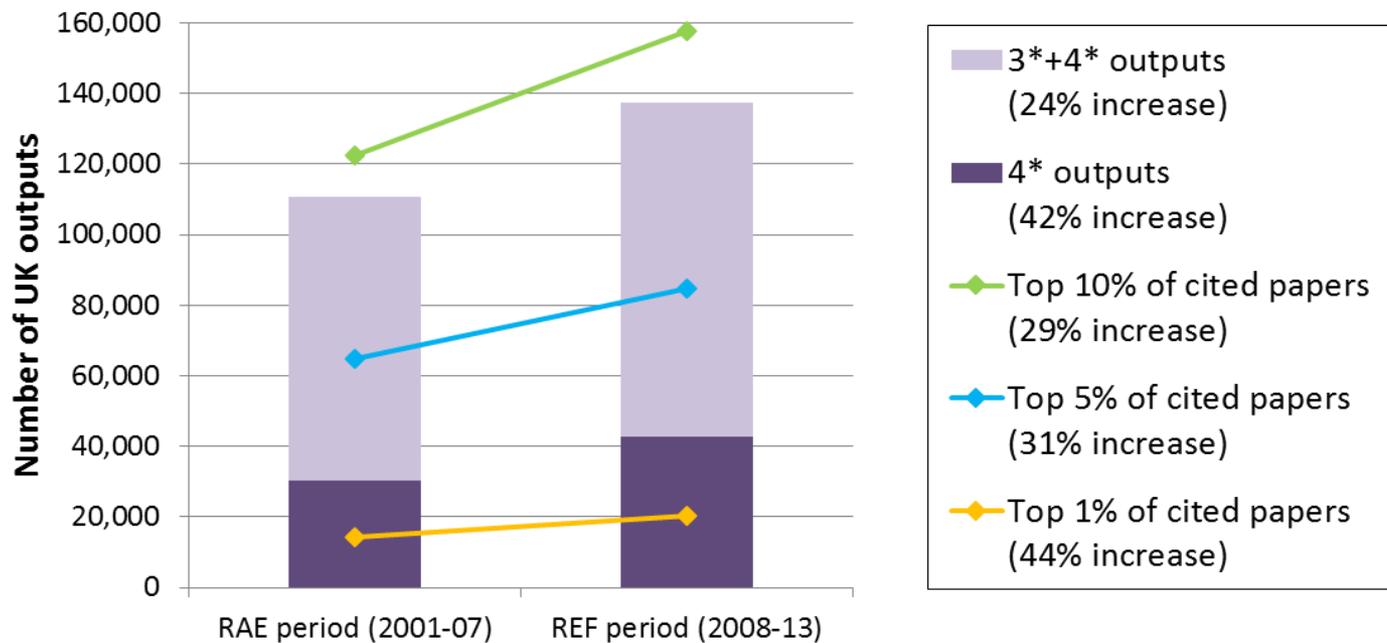
- hand.

-

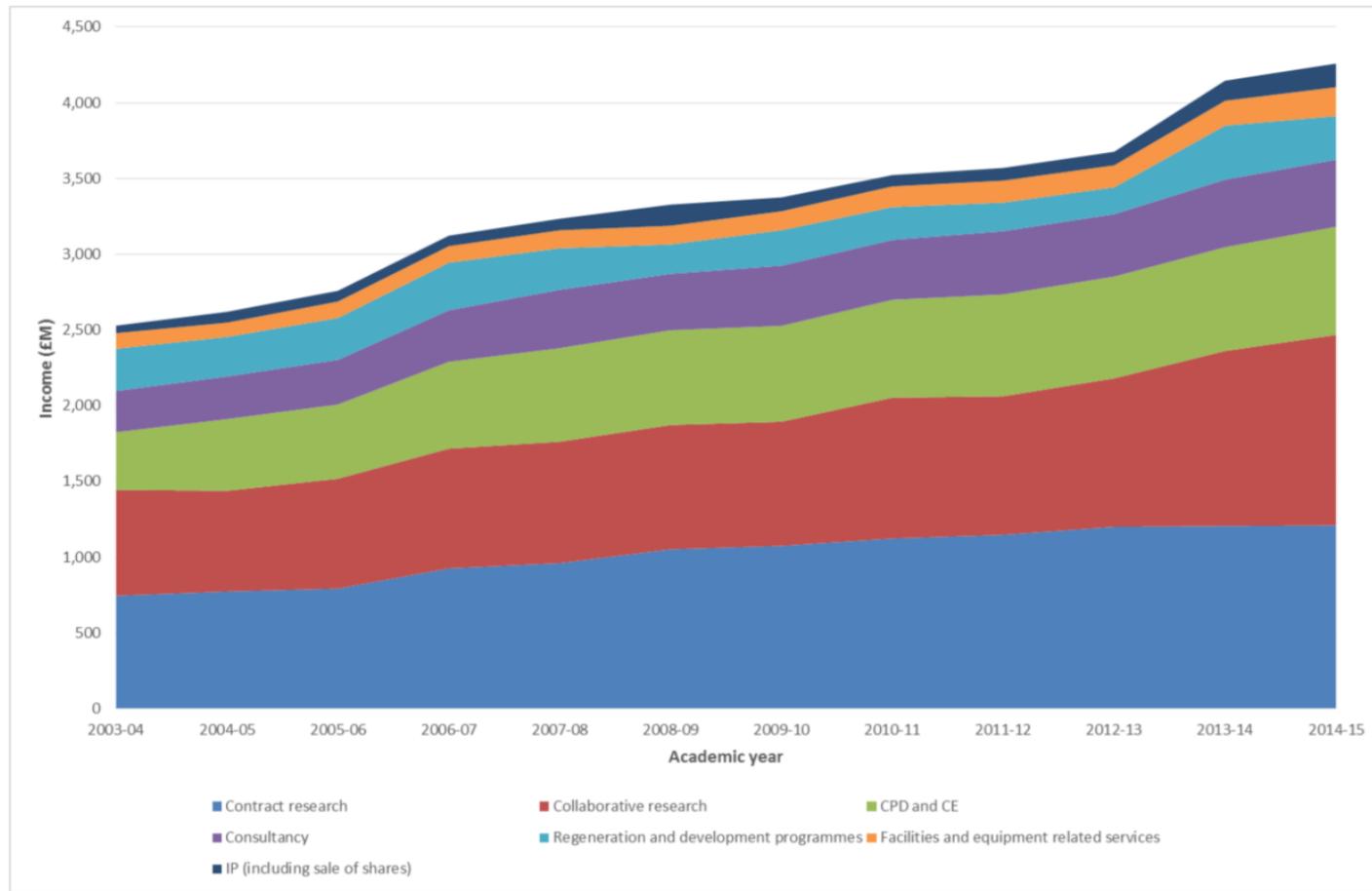
- Research impact and academic quality

- UK Universities' response to impact

Academic performance and impact performance



Academic performance and impact performance



Academic performance and impact performance





Summary

- A

Key message: UK universities are supporting impact in a diverse range of ways.

- The
-
-
- Research impact and academic quality
- UK Universities' response to impact

UK

University of Liverpool: Polymer and Materials Chemistry

“The flexibility of block grant funding has allowed the University of Liverpool to invest in the area of Polymer and Materials Chemistry, and since the early 2000s this has leveraged co-investment from Unilever in automated high-throughput technologies.”



Block grant funding:

- Establishment of successful research group
- Securing RC and industry funding
- Catalysed significant additional investment:
 - Centre of Materials Discovery (£10M)
 - Materials Innovation Factory (£90M inc. £22M from Unilever)

York University: The Conservation of the Great East Window, York Minster

- Major contribution to the conservation and restoration of the East Window; impact on cultural heritage, visitor experience etc.
- Significant and long-term concentration of research expertise at York University
- Research informed method statement for successful £10.5 HLF bid
- Interdisciplinary collaborations (art history, stained glass history, glass composition, architectural history, 3D modelling)
- Joint appointment: Lecturer, York University and CEO of York Glaziers Trust



London School of Hygiene and Tropical Medicine: Control of Insects that Harm Human Health

HEIF funding used for business development and innovations incubator

- Arthropod Control Product Test Centre: consultancy, testing and evaluation (inc. clinical trials) of arthropod pest control technologies
- Vecotech Ltd: commercialises novel arthropod attractant and repellent technologies from research at the School



Goldsmith's: Supporting Afghan music in the post-Taliban era

- Major contribution to preservation of Afghan musical heritage, both in Afghanistan and in the wider diaspora (UK, Germany etc.). Contribution to community cohesion
- Built on 4 decades of research by Professor John Baily, Goldsmith's (since 1990)
- Diverse array of research outputs – books, performance, documentary film etc.
- Community partnerships within Afghanistan and UK central to delivering impact
- Collaboration with media organisations (e.g BBC World Service Persian Service)



University of Cambridge: Maxwell Centre

- This project was awarded £21 million UKRPIF to focus on “blue skies” research in areas such as efficient energy generation, storage and use
- The project attracted £42m co-funding, £20m of which was provided by philanthropist David Harding
- The Centre provides facilities for the University of Cambridge’s Science and Technology campus as well as collaborators from industry, with offices, laboratory and meeting spaces for more than 230 people
- The co-location of academics and industry supports a two-way flow of ideas and translational activity



London School of Economics and Political Science: International Inequalities Institute

- LSE was awarded £32 million in funding for the International Inequalities Institute supported by a £64m gift from The Atlantic Philanthropies
- The International Inequalities Institute aims to become the world's premier centre for interdisciplinary research on inequalities. It will pool and facilitate research, creating a generation of scholars with the complex social science tools necessary to understand current and future inequalities
- The new building will be opened in 2019



University of Surrey: The 5G Innovation Centre

- This project was awarded £11.6 million UKRPIF to help deliver a specialised fifth generation or '5G' mobile technology innovation centre on its main Guildford campus. The project researches advanced technologies for a future 5G network. It will aim to establish a world-leading position in mobile broadband communications and internet innovations.
- It included the development of a 5G 'test bed', based on the university campus, on which to test technologies in a real-world environment.
- The 5GIC accommodates 170 researchers and has already attracted £70 million in investment.
- The initial private sector leverage was £23m. Original partners included: Aeroflex, AIRCOM International, BBC, BT, EE, Fujitsu Laboratories of Europe, Huawei, Ofcom, Rohde & Schwarz, Samsung, Telefonica and Vodafone but the initial investment has since attracted many more partners.





Summary

- A short history of research impact
- The current policy environment for impact in the UK
 - Funding for impact
 - Assessing for impact
- Research impact and academic quality
- UK Universities' response to impact

Thank you for listening

s.hill@hefce.ac.uk

[@stevenhill](#)