



Research Councils UK
Excellence
with impact

The Foundation for Science and Technology Debate

Bringing science to the heart of government: the Nurse Review of the Research Councils

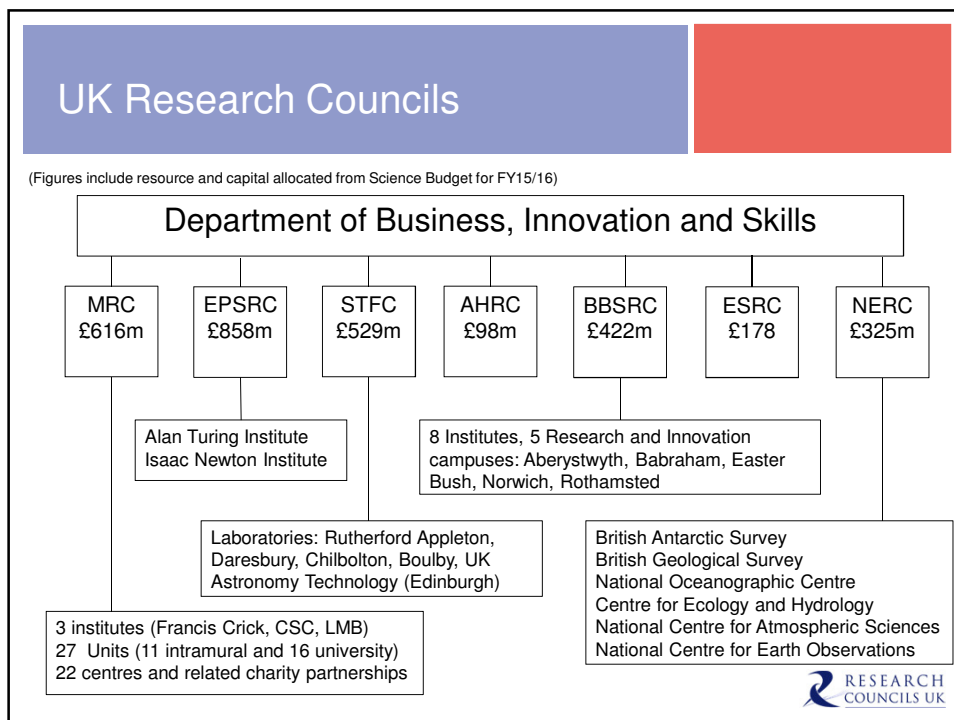
Professor Philip Nelson
RCUK Executive Group Chair



UK Research Councils

- Seven Research Councils, each with a mission defined by Royal Charter
- Total number of staff employed
 - ~770 Administration
 - ~450 Programme support
 - ~8000 Research delivery
- RCUK is the strategic partnership between the Research Councils





RCUK funded research covers the full spectrum of academic disciplines

£3 billion

in research funding per year

2,500

businesses collaborating on RCUK grants at any one time

at least

1,000

of which are SMEs

30,000

highest quality researchers at any one time

17,000

doctoral students

14,000

research staff & fellowships

2,500

+

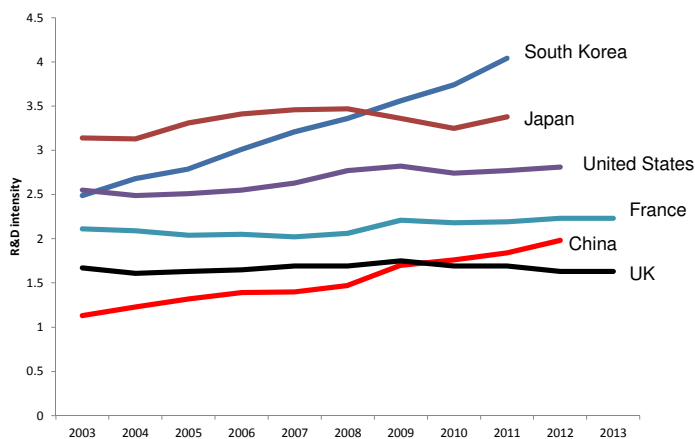
research grants awarded per year

6

major research & innovation campuses

International spending on R&D

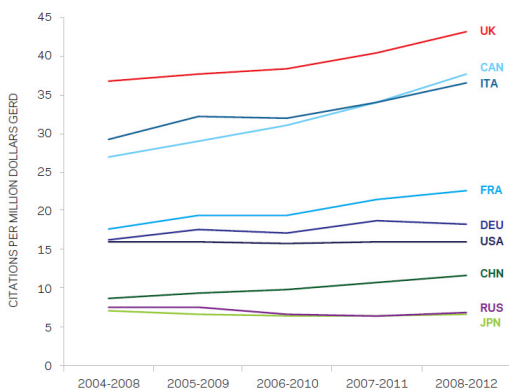
Gross Domestic Expenditure on R&D (GERD) as % of Gross Domestic Product (GDP)



Source: Eurostat 2015



The UK research base is highly productive and of high quality



1 1% of global population

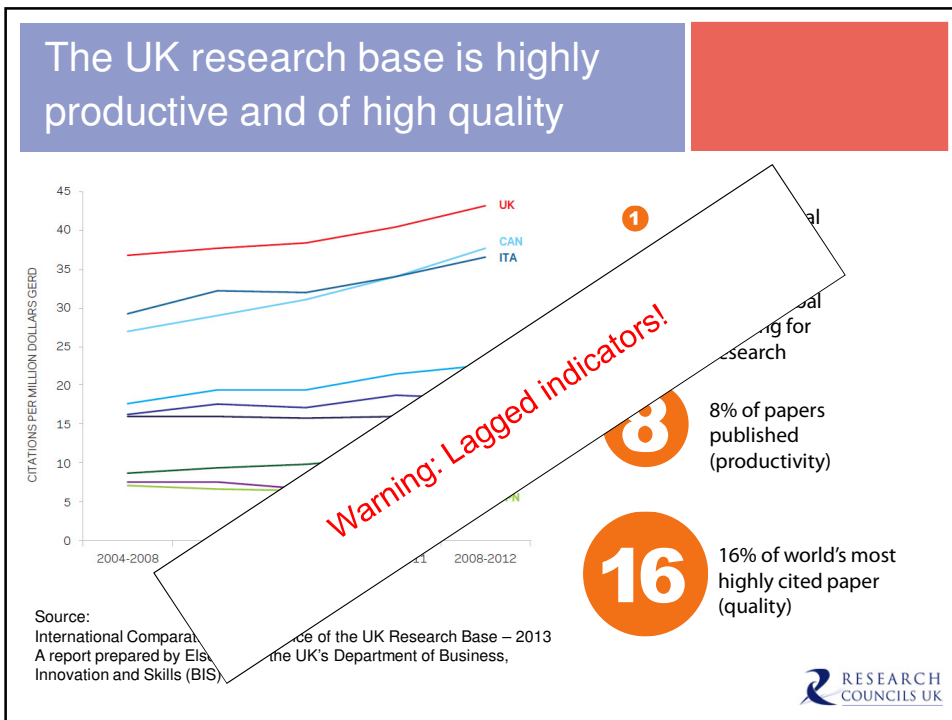
3 3% of global funding for research

8 8% of papers published (productivity)

16 16% of world's most highly cited paper (quality)

Source: International Comparative Performance of the UK Research Base – 2013
A report prepared by Elsevier for the UK's Department of Business, Innovation and Skills (BIS)





RCUK: Excellence with Impact

Creating new knowledge

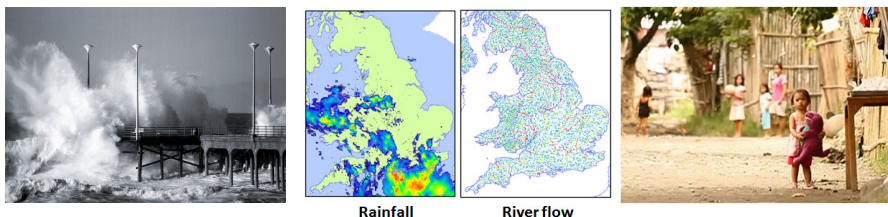
- Funding basic research excellence
- Responding to society's challenges
- Developing skills, leadership and infrastructure
- Leading the direction of UK research

Driving innovation

- Creating environments and brokering partnerships
- Co-delivering research and innovation with **2,500 businesses**
- Providing intelligence for policy making

Impacts are wide-ranging

- From flood prediction to policy alleviation



- Analysis of 6679 case studies from REF 2014: “...an inspiring read that outline changes and benefits to the economy, society, culture, public policy and services, health, the environment and quality of life”.

Source: The nature, scale and beneficiaries of research impact. Report for HEFCE by Kings College London and Digital Science (2015).



Evidence of economic impact

In comparison to other countries for which data is available the UK ranks

- 1st for invention disclosures per unit R&D expenditure
- 2nd for start ups and spin-offs per unit R&D expenditure
- 3rd for license revenue per unit R&D expenditure

Source: International Comparative Performance of the UK Research Base – 2013
A report prepared by Elsevier for the UK's Department of Business, Innovation and Skills (BIS)

Analysis of 1226 case studies from REF 2014:

- ~£80Bn of economic activity (2008-13) associated with £7.8Bn research investment (1993-2013)

Source: Investing in excellence, delivering impact for the UK, EPSRC (2015).

See also: Engines of growth: The impact of research at Russell Group universities (2015).



The RCUK International role

- Supporting excellent research that crosses borders and disciplines
- Ensuring that UK expertise contributes to the research needed to address global challenges.
- Building collaborative research partnerships with emerging economies.
- Funding collaborative research that meets ODA criteria.
- Promoting the UK's world leading research infrastructure



Future of the Research Councils: Core Principles

Factors agreed by Chief Executives and Executive Director of RCUK to be essential to the continuation of the success of UK research.
(*Letter to Rt. Hon. Jo Johnson MP, Minister of State for Universities and Science, dated 23rd October 2015*):

- The retention of the Research Council's seven strong science-and business-facing identities
- The Haldane principle¹ and a clear relationship with Government regarding research funding decisions, with funding administered via a non-departmental public body or bodies;

¹Specifically as expressed in Annex A of "Allocation of Science and Research Funding" BIS, December 2010



Future of the Research Councils: Core Principles

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- The retention of the Research Council's seven strong science-and business-facing identities
- The Haldane principle¹ and a regarding research funding d via a non-departmental public

Note that the legal identities of the Councils is currently defined by their Royal Charters

¹Specifically as expressed in Annex A of "Allocation of Science and Research Funding" BIS, December 2010

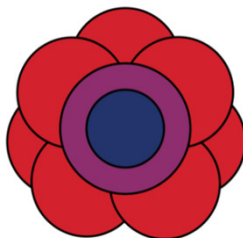


Future of the Research Councils: Core Principles

- Clearly delegated authority and accountability for the independent management of research funding that is transparent, that protects the breadth of support for key disciplines, and which is associated with stable, predetermined multi-year investment;
- The dual support system for funding research in UK Universities, and protection of the partition between these two funding streams; and
- The evidenced-based approach of peer review that identifies excellent research and provides the basis for funding decisions



Research Councils Together

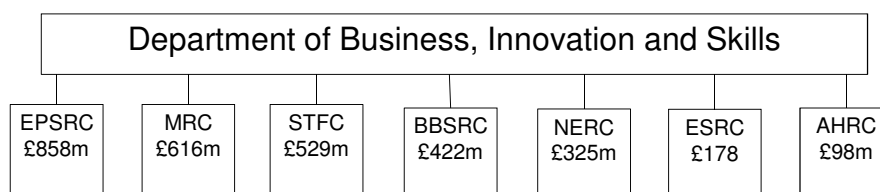


Focus agreed on delivering

- Operational efficiency: Operating and acting as a **single collective organisation** by building the capabilities of Research Councils UK.
- Multidisciplinary/interdisciplinary research and the new **Global Challenges Fund**

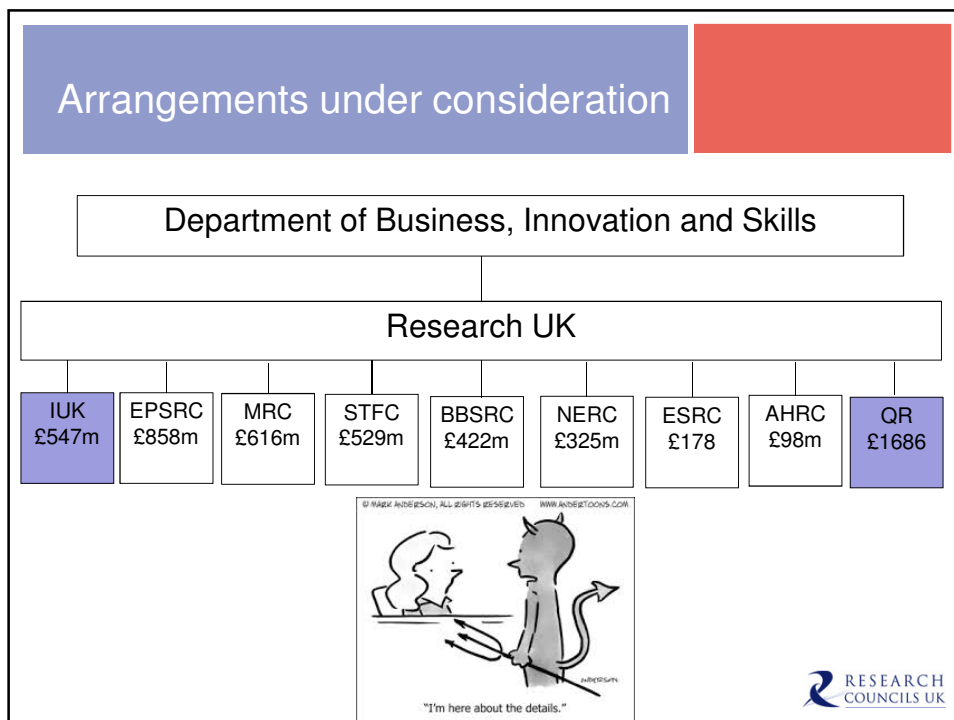


Current arrangements



- Royal Charter defines Research Council mission (3 pages)
- Relationship with BIS defined by Management Statement (54 pages) and Financial Memorandum (28 pages)
- Corporate responsibilities of Council Members defined in Code of Practice (26 pages)





Risks to be mitigated

- Strengthened strategic thinking and better engagement with policy makers ←
- Operational policies that are common where possible
- Strengthened support for multidisciplinary research
- Mechanism of resource re-distribution in emerging fields
- Strengthening research council leadership through better support, reduction of bureaucratic interference
- Better coordination with other stakeholders across research landscape

Possibility of too great a shift towards “top-down” strategy to the detriment of “bottom-up” discovery science

(In agreement with those identified in the Nurse Review!)



Risks to be mitigated

- Strengthened strategic thinking and better engagement with policy makers
- Operational policies that are effective, optimised, simplified and common where possible ←
- Strengthened support for multidisciplinary research
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Potential for operational policies that stifle innovation

(In agreement with those identified in the Nurse Review!)



Risks to be mitigated

- Strengthened strategic thinking and better engagement with policy makers
- Operational policies that are effective, optimised, simplified and common where possible
- Strengthened support for multidisciplinary/interdisciplinary research
- Mechanism of resource re-distribution among Councils to support emerging fields
- Strengthening research council leadership
reduction of bureaucratic interference
- Better coordination with other stakeholders

An overly strong emphasis on interdisciplinary research to the detriment of the strength of basic disciplines

(In agreement with those identified in the Nurse Review!)



Risks to be mitigated

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Adjustment of individual council budgets that hinders long-term planning and investment, flexibility and agility

(In agreement with those identified in the Nurse Review!)




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Risk to currently strong governance arrangements and risk of increased bureaucracy

(In agreement with those identified in the Nurse F




Risks to be mitigated

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Risk of separation of HE research and teaching (?) and risk to IUK mission beyond the HE sector (?)

(In agreement with



Risks to be mitigated

- Strengthened strategic thinking and better engagement with policy makers
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Risk to business continuity through a period of significant change (e.g. disruption caused by changing employment of research council staff, including scientists and technologists)



Next steps¹

Need to assess potential benefits, opportunities and risks of change.

Focus on ensuring the current excellence of the UK research base is not inadvertently compromised by organisational change.

Work with BIS to consider factors including:

- How policy is informed through engagement with stakeholder communities
- Clarity and accountability for providing advice to government
- Funding to RCs that maintains scale, stability, agility *and* flexibility
- Nature and levels of delegated authority and flexibility for RUK and the individual RCs (especially those with Institutes and Centres)
- The legal and governance instruments used to define and regulate RUK/RC relationships
- Ability to utilise the individual identities of the RCs
- Governance for interdisciplinary research funding managed by RUK/RCs

¹Points made in the RCUK response to the Green Paper consultation

