



Universities UK

UK Policy and Strategy in Research and Development

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Universities UK



Universities UK

About Universities UK

- | 133 members- Principals and Vice-Chancellors.
- | 'Essential voice of universities.'
- | Raise awareness and seek to influence across a number of key areas (UK and EU).
- | Research policy- issues relating to the funding and management of research in universities.
- | Led by the Research Policy Committee (RPC) chaired by Professor Eric Thomas, Vice Chancellor, University of Bristol.



Outline of presentation

- | Overview of UK science and research system.
- | Funding of research in universities
- | World class outputs.
- | Policy issues.



UK science and research system- investment and context

- | In the UK R&D expenditure (public and private) as % of GDP= 1.8% (2007). Public investment increasing, but private investment remains a challenge.
- | EU 27= 1.88%
- | Japan (2006: 3.40 %), South Korea (2006: 3.00 %), China 2007 1.44%) United States (2007: 2.67 %),
- | Taiwan (2008, 2.77) (significant growth)



UK science and research system- public investment

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Science budget	2734	3087	3235	3382	3554	3715	3970
<i>of which:</i> Research Councils	2210	2433	2638	2834	3112	3239	3396
Funding Councils	1394	1575	1698	1797	1863	1945	1979
<i>of which:</i> HEFCE	1079	1249	1341	1413	1458	1571	1603
SFC	212	216	244	263	279	242	244
HEFCW	66	70	70	75	77	80	80
DELNI	37	40	44	47	49	52	52
Total	4128	4662	4933	5180	5418	5660	5949

Source, BIS, HEFCE, SFC, HEFCW and DELNI: capital allocations excluded for Funding Councils

Note: Research Councils fund research in their institutes, national and international facilities in addition to university research and postgraduate training.



UK science and research system- policy framework

- | 10 year science and innovation investment framework 2004-2014.
- | Launched in 2004 with aim of boosting the UK's R&D performance to underpin economic growth.
- | Aim to boost R&D capacity in the public and private sectors.
- | Increase the level of knowledge intensity in the UK to 2.5% .
- | Key challenge is to achieve substantial growth in the business R&D in the UK.
- | Requires growth in the underpinning investment in the public science base, specifically in universities, both to supply the skills and the research results to the economy.



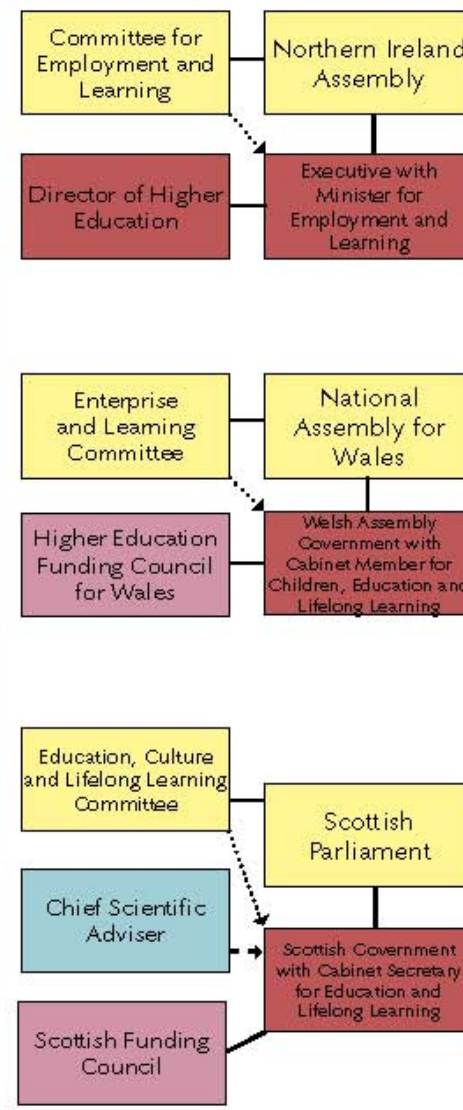
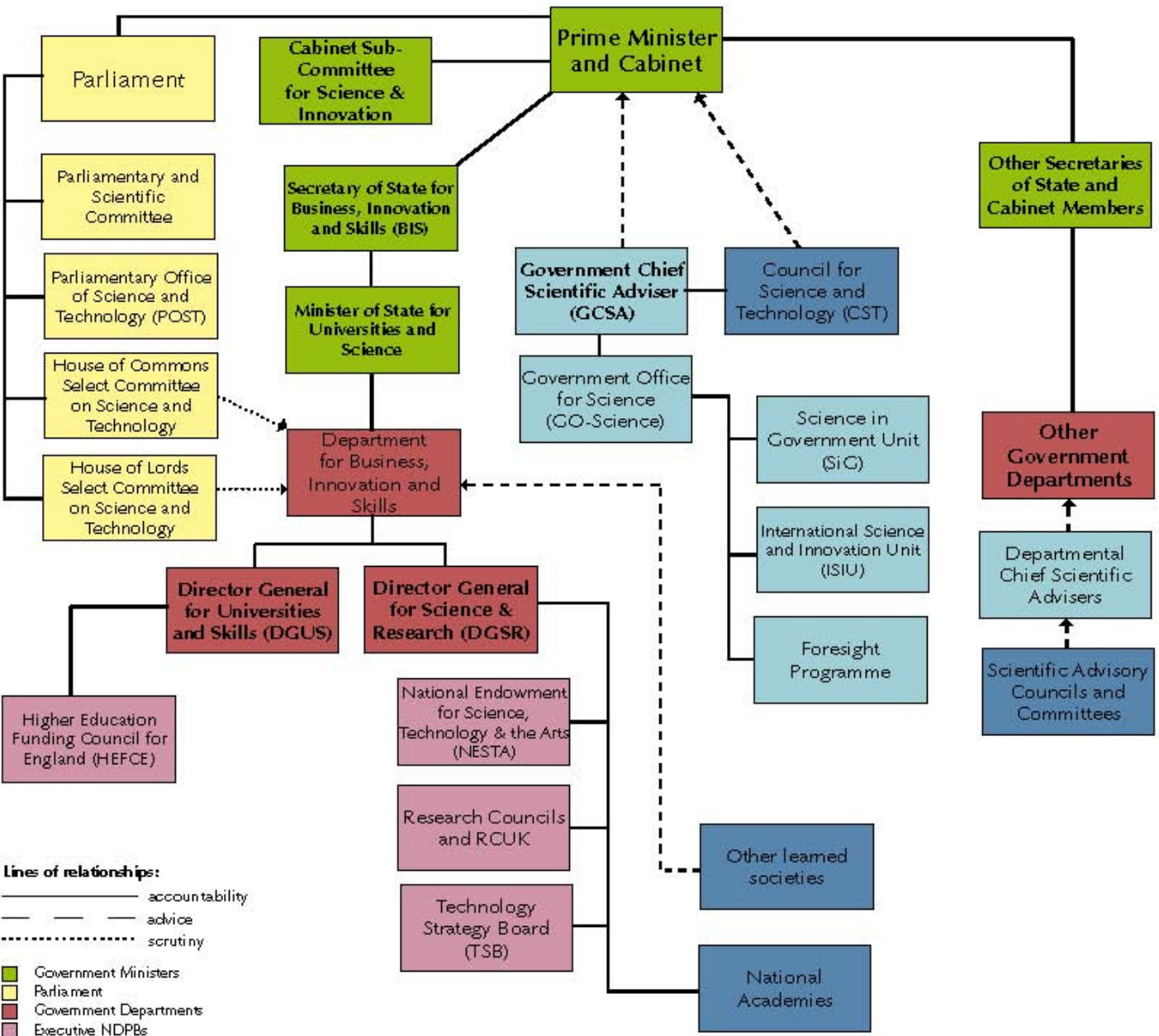
UK science and research system- policy framework

- | A number dimensions through which the 10-year framework acts, including:
 - Significant investment in the university research base.
 - Securing greater responsiveness of the publicly funded research base to the needs of the economy and public services i.e. knowledge exchange and 'impact'.
 - Increase business investment in R&D through mechanisms such as the R&D tax credits.
 - Strengthen the supply of STEM skills.



Priority and investment setting- key actors and how it works

- | Complex process of setting priorities and allocating investment, large number of interests and stakeholders in the system.
- | Haldane principle 'decisions about what to spend research funds on should be made by researchers rather than politicians'
- | Haldane applies to priority setting and funding through the Research Councils. Grant awarding decisions rest with Research Councils, with primacy of excellence criteria
- | In reality public investment strategy is set through interaction and process with government through Director General of Research about setting priorities and broad themes.
- | Other funders and interests-government departments; HE funding councils; EU; charities; industry; national academies and learned societies. Increased coordination being seen. System partly devolved (=additional complexity!).



Lines of relationships:

- accountability
- - - advice
- scrutiny

Legend:

- Government Ministers
- Parliament
- Government Departments
- Executive NDPBs
- Government Advisers
- Advisory NDPBs and learned societies



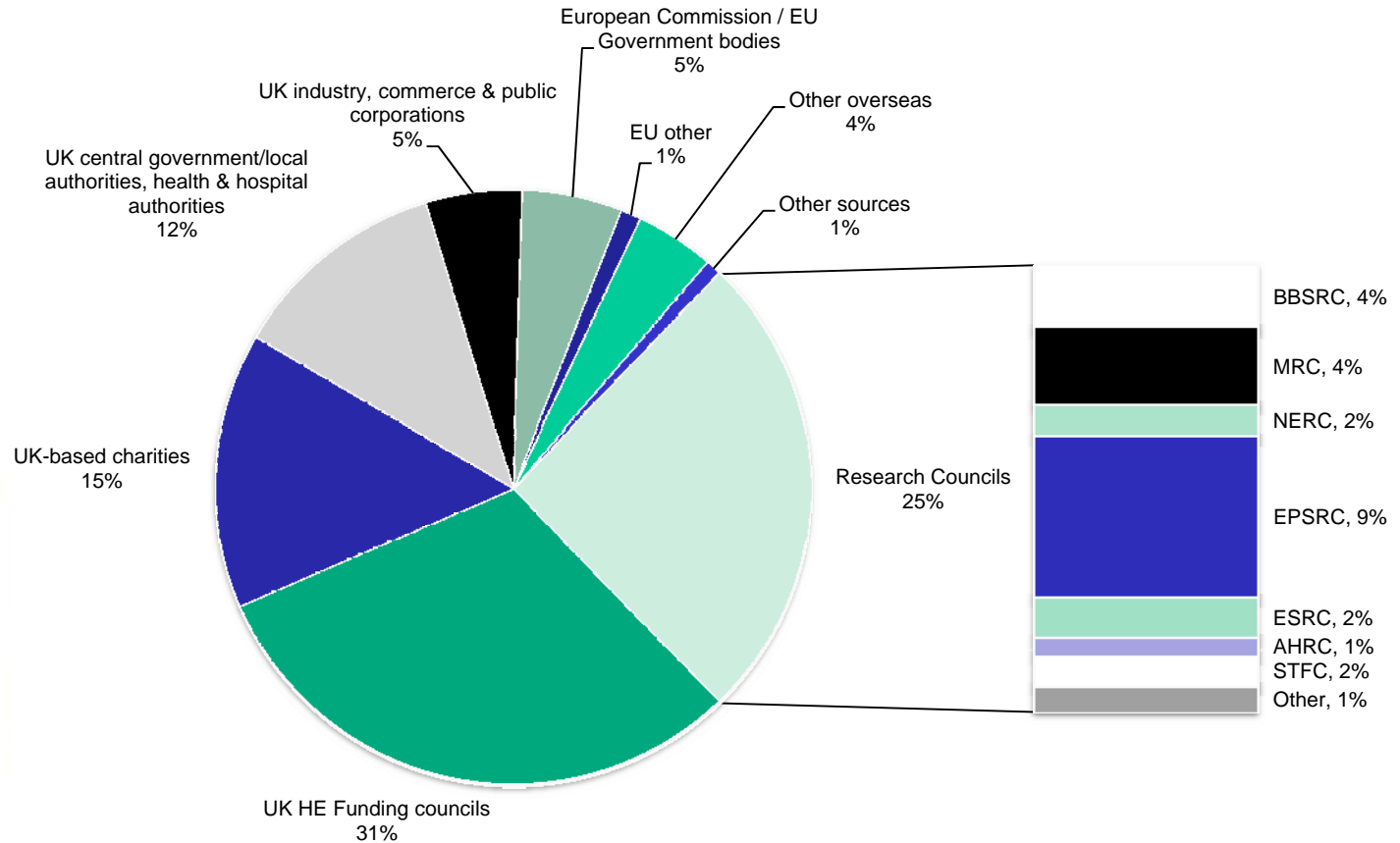
Funding of research in UK HEIs

- | Most research in the UK is undertaken in universities- central to delivering government objectives for knowledge economy and driving competitiveness.
- | c£6billion total research funding (income) in UK HEIs 2008/09 (all sources).
- | Diverse system- c60% of total research funding comes from UK government or EU sources. The rest comes from UK based charities, business, or overseas.



Funding research in UK HEIs

Research Income at UK higher education institutions, 2008/09

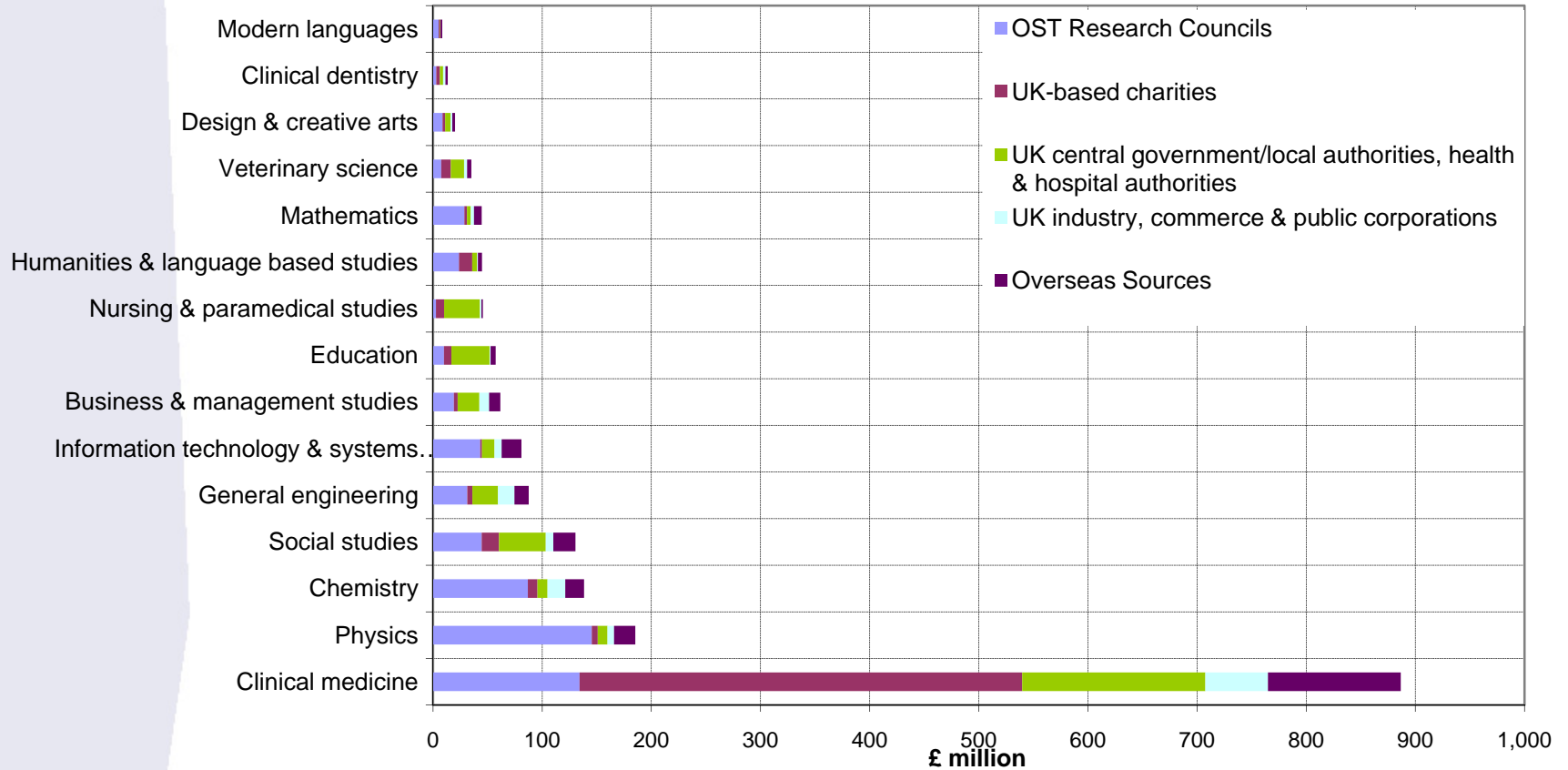


Total (2008/09): £5,978 million



Funding research in UK HEIs

Research grants and contracts income by source for selected subjects, 2005/06





Funding research in UK HEIs

- | Dual support:
 - | Grant and contract income on a competitive basis;
 - | Quality related (QR) funding through a block grant to universities based on the outcomes of the Research Assessment Exercise (RAE), soon to be REF.
- | Two arms equal in importance, but different in purpose.
- | Importance of QR within this- supports research base and allows universities the flexibility to invest strategically, supporting emerging, blue skies or risky research that might not be supported else where.
- | Dynamic system underpinning success of UK research.
- | UUK very supportive of Dual Support (UK wide).



World class outputs- bibliometrics

- | UK share of world citations has risen to 11.8%.
- | UK share of world citations is second only to US in Clinical Sciences (12.7%), Health sciences (13.8%), biological sciences (12.4%), environmental (13.6%), social sciences (13.2%) & business (%13.7).
- | UK has 14.1% of most highly cited 1% of papers (2nd to US overall, but ahead in clinical sciences, health sciences, biological sciences and environmental sciences.
- | High levels of output productivity. 1st in G* for publication productivity relative to GDP investment.



World class outputs- RAE outcomes

- | 54% of the research is either 'world-leading' (17% in 4*) - or 'internationally excellent' (37% in 3*)
- | 1,258 of the 2,363 submissions (53% of total) had at least 50% of their activity rated in the two highest grades. These submissions were found in 118 institutions
- | All the submissions from 16 institutions had at least 50% of their activity assessed as 3* or 4*
- | 84% of all submissions were judged to contain at least 5% world-leading quality research
- | 150 of the 159 higher education institutions (HEIs) that took part in RAE2008 demonstrated at least 5% world-leading quality research in one or more of their submissions
- | 49 HEIs have at least some world-leading quality research in all of their submissions.



Policy challenges for UK HE research base

- | Future of investment and strategy
 - | Efficiency and effectiveness
 - | Refocusing on strategic priorities and grand challenges whilst maintaining dynamism
- | Dual support: maintain and continue to take longer term perspective on research investment.
- | Costing and pricing and financial sustainability & future of full economic costing (fEC).
- | Quality and volume
- | International partnerships (serious player and worthwhile partner, collaborate rather than compete)
- | People/attractiveness of a research career
- | Impact
- | Research in context of European Research Area



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Questions?

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