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CaSE
Campaign for Science and Engineering

Campaign for Science and Engineering Spending Review 2013 briefing paper

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Background: The 2010 Spending Review (SR10) and research capital funding

The SR10 resulted in a flat cash settlement (a real terms cut of approximately 10%) and a reconstituted the ring-fenced science budget – research capital was removed but Funding Council QR money and the UK Space Agency were included. Analysis by CaSE showed that as a result of this reconstitution by 2014-15 £1.7bn less will have been spent than if investment was maintained at 2010-11 levels, as planned by the previous Government in CSR07.

However, since SR10 the Government has made a number of additional commitments to research capital reducing the shortfall from £1.7bn to just over £300m:

Project	Amount (£m)	Announced in
Large Facilities Capital Fund, UKSA and science campuses	100	Budget 2011
National Graphene Institute	50	October 2011
High performance computing	145	October 2011
Science funding including large facilities capital	175	November 2011
UK Research Partnership Investment Fund	100	Budget 2012
UK Research Partnership Investment Fund	200	October 2012
Additional European Space Agency contribution	120	November 2012
Additional Research Council capital funding	464	December 2012
Total	**1354**	

The removal of research capital from the ring-fenced science budget impedes long-term planning by both public and private stakeholders in the UK science and engineering landscape. Research-active companies and charities have clearly stated that a long-term public investment framework is needed for them to maintain their vital investment in the UK research base. This shift towards allocating capital in media-friendly "announce-ables" has resulted in less funds being available for much-needed upgrades and ongoing maintenance and puts pressure for the Research Councils to spend money as it comes available, rather than strategically.

It's important to note that alongside the additional commitments to research capital, the Government has also made a number of additional commitments to innovation capital – the UK's ability to commercialise research:

Project	Amount (£m)	Announced in
Large Scale Demonstrator	25	November 2011
Open Data institute	6	November 2011
Innovation funding (including for SME R&D)	75	November 2011
Technology Strategy Board contribution to Biomedical Catalyst	90	December 2012
Autumn Statement 2012 (unallocated at present)	136	
Total (£m)	**332**	

What is CaSE calling for?

- The setting a positive trajectory for increased investment in science and research
- Articulation of a long-term (ten year) strategic plan and investment framework for UK science and research
- Demonstration commitment to the ring fence around the science budget and broaden the scope of the science budget to encompass elements such as capital that were excluded in SR2010

What about the UK's total spend on science?

The money the Government spends on science is part of the UK's total spend on R&D. This total spend is often referred to as GERD – Gross Expenditure on R&D and is often expressed as a percentage of a country's GDP. In 2011, the UK's GERD was 1.79% with a gross expenditure of £27.4bn – this is up slightly on 2010 when GERD stood at 1.77%. So, how does our GERD compare to that of other countries?

Figure 1: A comparison of UK's Gross Expenditure on R&D (GERD) as a percentage of GDP with other countries from 1995 - 2010

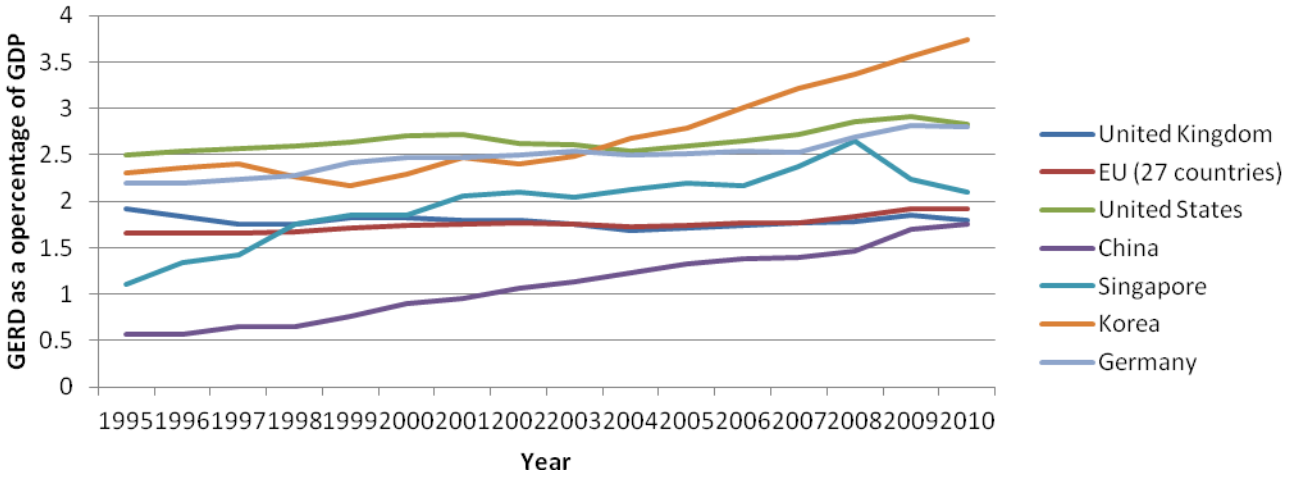
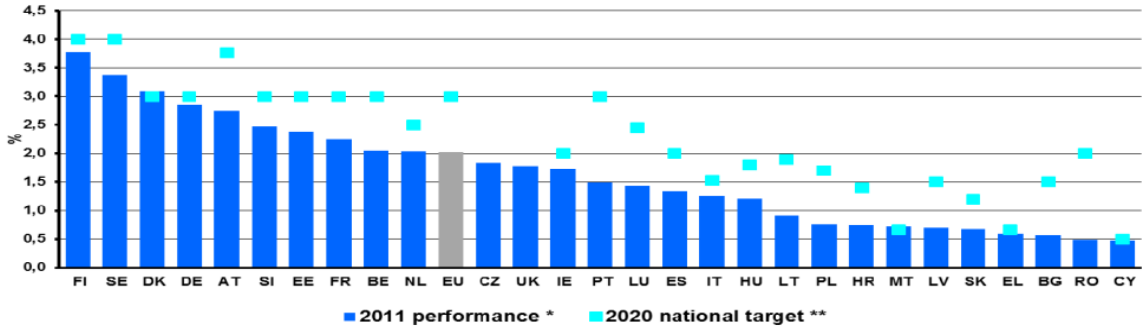


Figure 1 shows us that the UK is trailing in terms of its GERD with many countries either increasing their investments or maintaining their leading positions. Note that the UK is the only country which sees a decrease in GERD as a percentage of GDP over this period: -0.12%.
Source: OECD Main Science and Technology Indicators

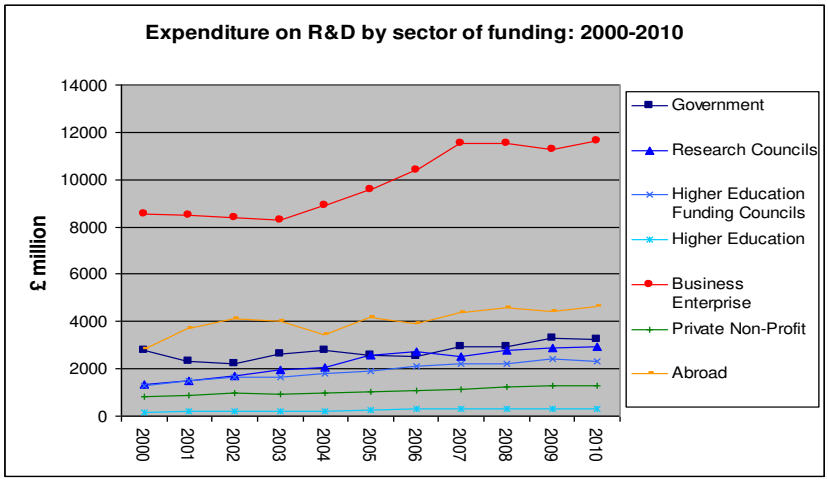
Figure 2: R&D intensities in 2011 and targets for 2020



Source: EC Europe 2020 Targets: Research and Development

Another way of comparing countries is to look at the extent of research and innovation activities undertaken in a given country in terms of resources input. The UK ranks 13th and has not currently set a target for 2020. In addition to the targets shown above, many of our other competitor nations have set ambitious targets: China is aiming for 2.5% of GDP by 2020, South Korea 5% by 2022, and Brazil 2.5% by 2022.

Figure 3: The UK's expenditure on R&D by sector of funding: 2000-2010



Looking at what makes up the UK's GERD – all the different sectors alongside public funding – we see that the UK is heavily reliant on business enterprise as a source of funding, more so than other countries. The proportion of the private and non-profit funding is also increasing. As an example, medical research charities have consistently contributed approximately one third of all public expenditure on medical research in the UK.

Useful resources

Comprehensive budget breakdowns by CaSE

Updated copy of the report earlier ahead of this year's budget - Public Funding of UK Science and Engineering (March 2013 update)
http://sciencecampaign.org.uk/?p=12407

CaSE Funding Report - Public Funding of UK Science and Engineering: Putting Government Rhetoric to the Test (Sept 2011)
http://sciencecampaign.org.uk/?p=7144

Capital spending – a closer look (December 2010)
http://sciencecampaign.org.uk/?p=2606

Spending Review documents

HM Treasury Spending Round 2013
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/209036/spending-round-2013-complete.pdf

HM Treasury Spending Review 2010
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/203826/Spending_review_2010.pdf