

Science and Research Funding 2011/12 to 2014/15

The Foundation for Science and Technology

2nd February, 2011

**Professor Sir Adrian Smith FRS
Director General, Knowledge and Innovation
Department for Business, Innovation and Skills**

Science and Research Funding 2011/12 to 2014/15

“When money is short, we should ruthlessly prioritise those areas of public spending that are the most likely to support economic growth, including investments in our science base and the skills and education of our citizens.”



Chancellor of the Exchequer, House of Commons, 20 October 2010

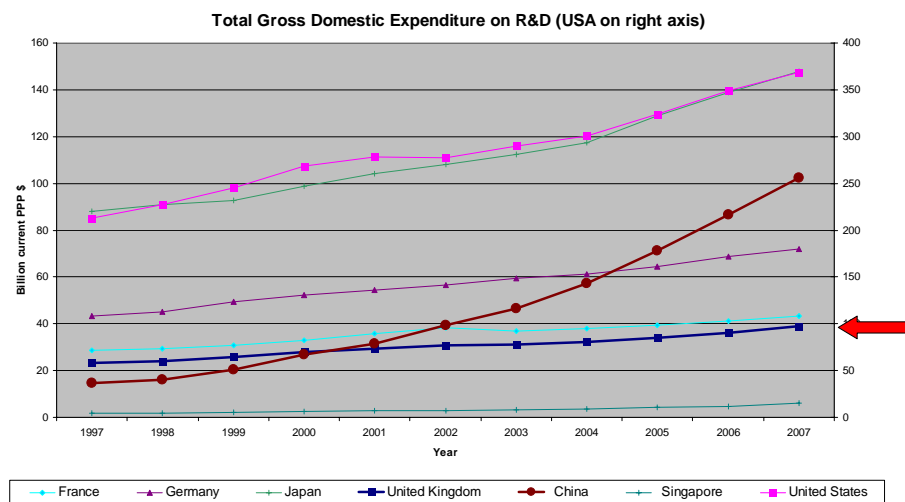
Bringing together

- HEFCE
- Research Councils and National Academies
- TSB, NPL and NMO

Working towards

- A strong and innovative economy
- World class competitiveness
- Strong links between universities and industry
- Supporting innovation and technology development

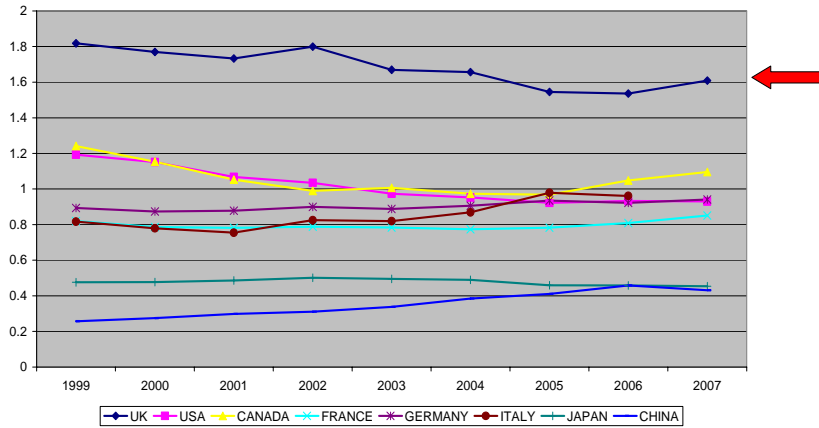
Spending



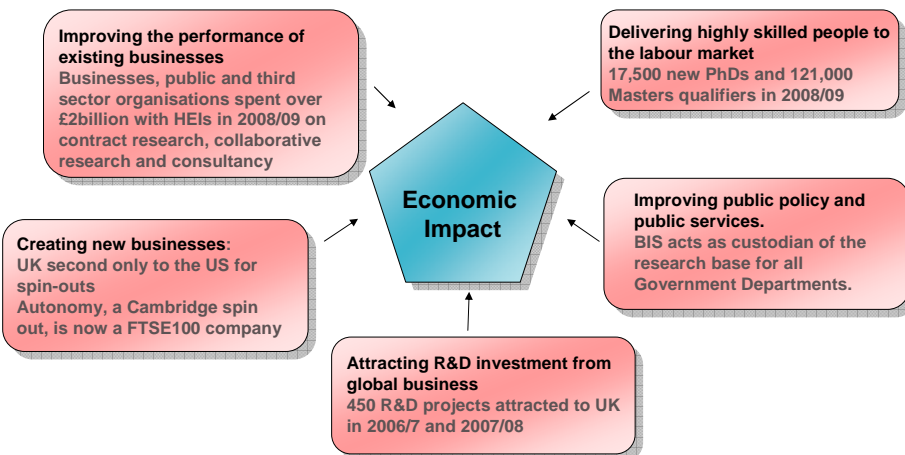
Excellence

The UK research base is second in the world for excellence and the UK is the most productive country for research in the G8

Citations per \$ spend in public R&D

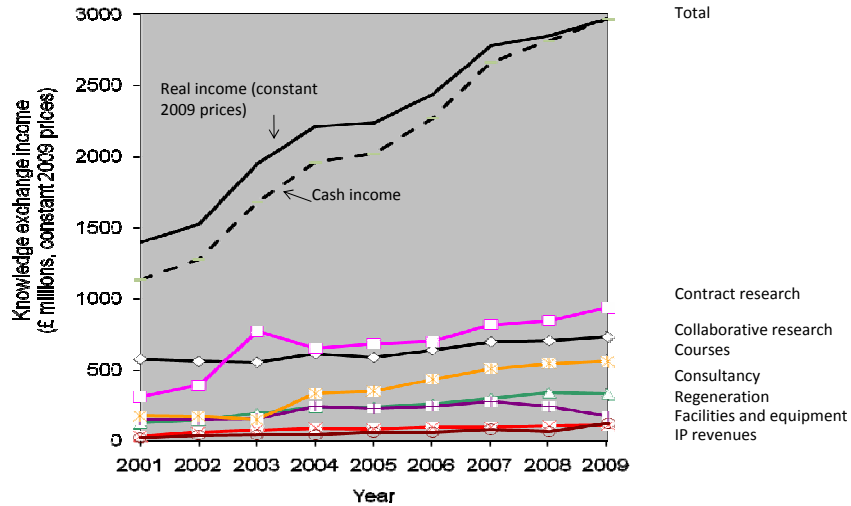


Why fund Science and Research?



Universities working with business

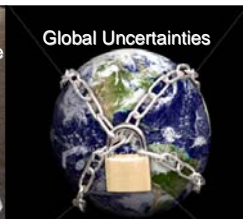
A period of growing government funding for universities has also seen universities do increasingly well at business interaction and attracting external income. Last year universities secured £3bn from external sources.



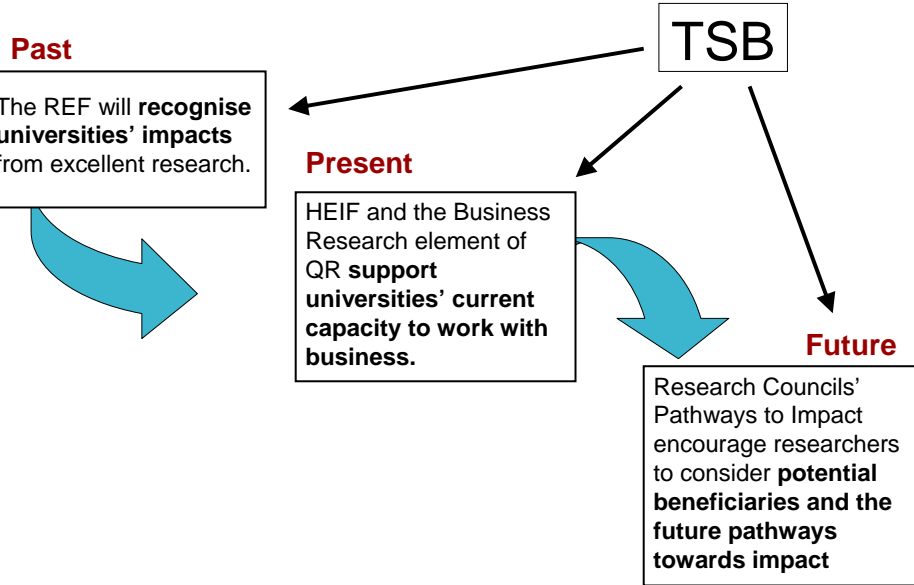
Sources: HEBCI surveys, PACEC/CBR analysis

Cross Council Programmes

- Major response to strategic challenges for the nation – and the world
- Coordinated impact greater than sum of the parts



Delivering impact to the economy and society



Allocating resources for Science and Research 2011-15

Key Themes of SR10

Consultation



**Chief Scientific
Advisors**



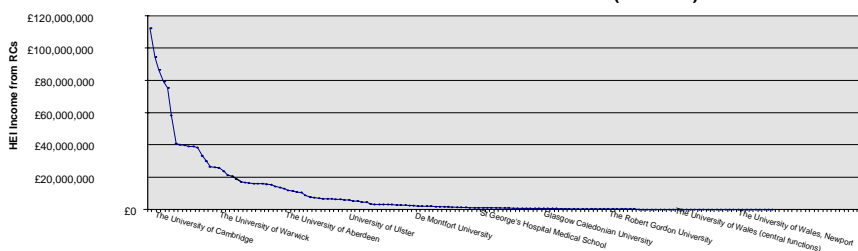
BIS strategic priorities for science and research funding

- Concentrating funding on excellence
- Protect leveraged funding from collaboration with business and charities.
- Flow of new researchers
- National capability to support other Government departments
- Access to large scale research infrastructure
- Research into strategic national challenges
- Research clusters for economic growth
- Stability of funding
- Financial sustainability through the full economic cost policy

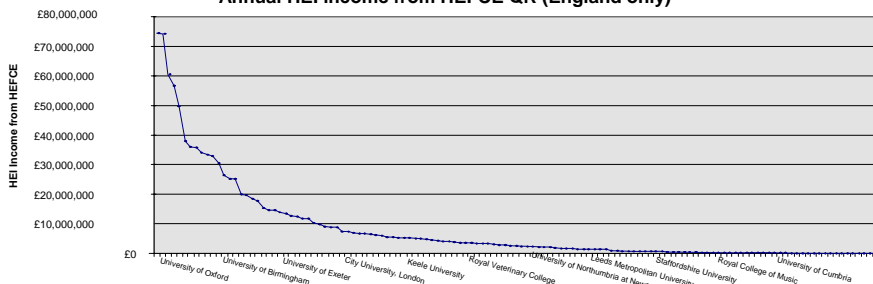
Concentration

- The UK has **excellent university research** capabilities with the critical mass to **compete globally** and the expertise to **collaborate with businesses**.
- Our policy is to concentrate funding further on research centres of **proven excellence**.
- The priority is to retain investment in these clusters and to strengthen engagement between the research base and industry.
- Top quality PhD students will be clustered in large centres that can provide the best training.

Annual HEI income from Research Councils (UK wide)



Annual HEI income from HEFCE QR (England only)



Collaboration

- Researchers will be encouraged to attract leveraged funding from external sources and to build stronger relationships between universities and business
- Significant collaboration among Research Councils and universities, tackling issues of national importance.
- Optimising the balance between competition and collaboration.

Efficiency

- The principles of the Wakeham recommendations will be applied as the core of the driver for efficiency savings in SR10.
- This - together with pay restraint - will deliver **£324m of efficiency savings** in 2014-15.
- These savings will be reinvested in science and research within the ring-fence.

Efficiency saving per annum in 2014/15	Delivery
£131m	Research Council funding for HEIs
£104m	Block grant funding for universities (QR)
£89m	Research Council Institutes, facilities and subscriptions, and other programmes

2010 Spending Review Settlement for Science and Research

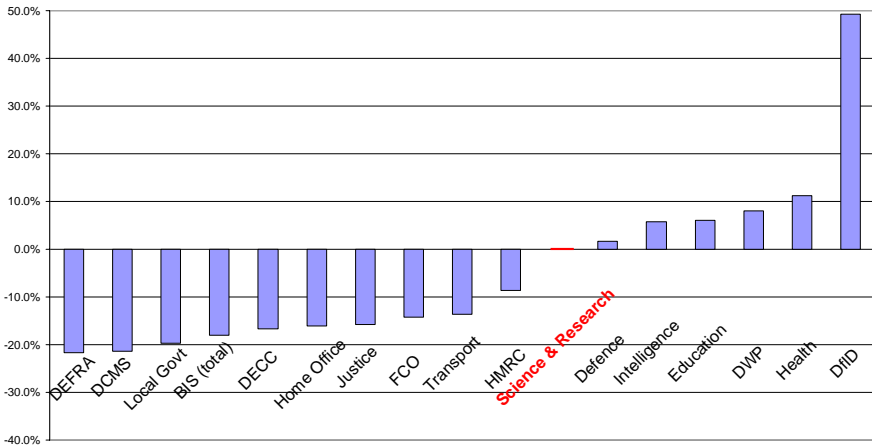
Resource

- £4.6bn p.a. for science and research programmes in each year to 2014-15
- No change from 2010-11 in cash terms
- Ring-fenced across the four year period

Capital

- Capital spending reduced by approximately 40%
- Announce during 2011 funding for projects from the 2010 Large Facilities Roadmap

Cash changes in programme spending for main departments over 2011/12 - 2014/15



Allocation of Science Funding

“Across the allocations we shall provide funding for outstanding researchers to pursue curiosity driven work, allowing them to define their own areas of work.”



David Willetts
Minister for Universities and Science
Department for Business, Innovation and Skills



Vince Cable
Secretary of State
Department for Business, Innovation and Skills

20th December 2010

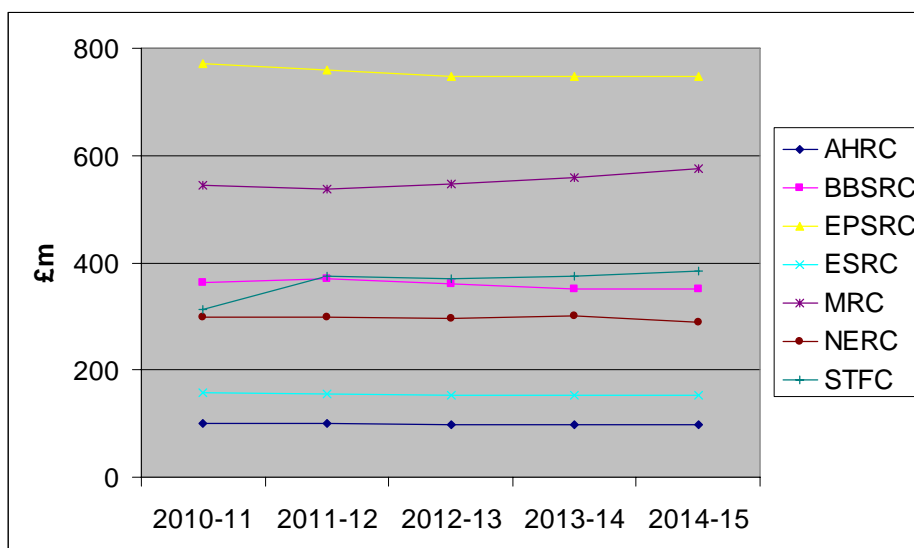
Allocations: Resource

	Baseline 2010-11	2011-12	2012-13	2013-14	2014-15	TOTALS	Final Year to Baseline
	£'000	£'000	£'000	£'000	£'000	£'000	
Research Councils	2,549,353	2,596,196	2,573,678	2,586,641	2,599,812	10,356,327	101.98%
AHRC	100,717	99,881	98,370	98,370	98,370	394,993	97.67%
BBSRC	362,341	370,306	359,471	351,471	351,471	1,432,718	97.00%
EPSRC	771,289	759,720	748,150	748,150	748,150	3,004,171	97.00%
ESRC	158,061	155,690	153,319	153,319	153,319	615,648	97.00%
MRC	545,585	536,172	546,243	559,894	574,641	2,216,950	105.33%
NERC	298,071	298,600	297,129	300,129	289,129	1,184,987	97.00%
STFC - Core Programme	177,519	190,060	172,200	172,200	172,190	706,650	97.00%
STFC - Cross-Council facilities	66,800	77,170	79,280	81,410	89,470	327,330	133.94%
STFC - International Subscriptions	68,970	108,598	119,515	121,697	123,071	472,881	178.44%
HEFCE	1,731,300	1,662,112	1,699,578	1,685,689	1,686,321	6,733,700	97.40%
QR Research	1,618,300	1,549,112	1,586,578	1,572,689	1,573,321	6,281,700	97.22%
HEIF	113,000	113,000	113,000	113,000	113,000	452,000	100.00%
National Academies	87,832	87,465	86,547	86,547	86,547	347,106	98.54%
Royal Society	48,558	47,830	47,101	47,101	47,101	189,133	97.00%
British Academy	26,448	27,001	27,005	27,005	27,005	108,015	102.10%
Royal Academy of Engineering	12,826	12,634	12,441	12,441	12,441	49,957	97.00%
Other Programmes	43,616	24,496	24,140	24,165	24,005	96,805	55.04%
Science & Society	15,441	13,000	13,000	13,000	13,000	52,000	84.19%
International	5,104	5,095	4,740	4,765	4,605	19,205	90.22%
Foresight	2,800	2,800	2,800	2,800	2,800	11,200	100.00%
Evidence & Evaluation	20,271	3,600	3,600	3,600	3,600	14,400	17.76%
UK Space Agency	163,805	205,637	191,963	192,864	179,221	769,685	109.41%
Total S&R Resource	4,575,906	4,575,906	4,575,906	4,575,906	4,575,906	18,303,622	100.00%

Allocations: Capital

Council	Baseline	2011-12	2012-13	2013-14	2014-15	Total	Final Year to Baseline
	2010-11						
	£'000	£'000	£'000	£'000	£'000	£'000	
Research Councils	393,438	239,821	199,393	181,430	180,967	801,611	46.00%
AHRC	3,150	0	0	0	0	0	0.00%
BBSRC	66,480	38,000	29,700	29,700	29,700	127,100	44.68%
EPSRC	49,261	31,000	35,000	25,000	25,000	116,000	50.75%
ESRC	20,600	18,700	13,700	12,700	12,700	57,800	61.65%
MRC	134,517	33,000	29,000	31,000	31,000	124,000	23.05%
NERC	34,183	32,200	17,800	17,800	17,800	85,600	52.07%
STFC – Core Programme		19,630	21,981	14,237	14,169	70,017	
STFC – Cross-Council Facilities		21,070	21,919	22,463	22,931	88,383	
STFC - International Subscriptions	85,247	46,221	30,293	28,530	27,667	132,711	75.98%
Large Facilities Capital Fund	103,380	115,279	61,307	47,769	128,132	352,487	123.94%
UK Space Agency	19,000	19,000	19,000	19,000	19,000	76,000	100.00%
HEI Capital HEFCE	166,952	75,170	90,970	90,160	101,500	357,800	60.80%
HEI Research Capital England	158,420	53,199	64,377	63,810	71,831	253,217	45.34%
HEI Research Capital Scotland	23,622	8,620	10,431	10,339	11,639	41,029	49.27%
HEI Research Capital Wales ⁵	6,031	2,113	2,557	2,535	2,854	10,059	47.32%
HEI Research Capital N. Ireland ⁵	1,778	798	965	957	1,077	3,797	60.57%
TOTAL	872,621	514,000	449,000	416,000	517,000	1,896,000	59.25%

Allocations: Resource



Allocations: Research Councils

After accounting for a number of financial pressures, including:

- additional costs of international subscription owing to exchange rate movements since the previous allocations
- to increase the allocation to MRC to a level which maintains expenditure at real terms
- providing for the increased running costs of the national facilities operated by STFC

All other Research Councils received approximately 97% of their 2010-11 budgets

Allocations: Research Councils

- The MRC resource expenditure is maintained in real terms.
- The Department of Health will provide £220 million of funding for the UK Centre for Medical Research and Innovation (UKCMRI)



STFC

- Lord Drayson reviewed the role and funding of the STFC in 2010.
- He recommended “**better management of pressures arising from international subscriptions (such as CERN), and longer-term planning and budgeting for large domestic facilities (such as Diamond)**”.
- That approach has been adopted in these allocations.

	Baseline 2010-11	2011-12	2012-13	2013-14	2014-15	TOTALS	Final Year to Baseline
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STFC - International Subscriptions	68,970	108,598	119,515	121,697	123,071	472,881	178.44%

The Government will support world-class science and research and increase the focus on excellence.

- QR will fund internationally excellent research and institutions which attract leverage funds from business and charity
- HEIF will provide greater incentives to HEIs to increase interaction with business and other users.
- HEFCE is making major progress with the REF, in partnership with many academics.

Allocations: National Academies

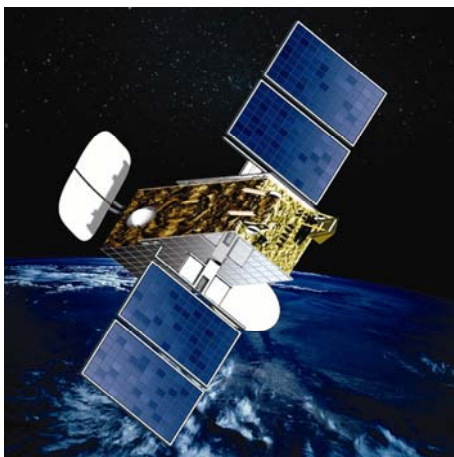
British Academy

- Will implement a new programme supporting languages and quantitative methods in the humanities and social sciences.
- This programme reflects the Academy's concerns about deficits in language and quantitative skills in UK education and research.



Allocations: Space Agency

Keeping the UK the forefront of scientific excellence in space, as well as in the exploitation of space infrastructure, products and services.



HYLAS

- The Highly Adaptable Satellite (HYLAS) will bring **high-speed broadband services to remote rural areas**.
- Serving hundreds of thousands of internet users across Europe.

Allocations: TSB

- Details of the Technology Strategy Board's core budget will be announced in the near future.
- An additional £200 million will be provided to the Technology Strategy Board to establish a network of Technology and Innovation Centres.
- These centres will complement the Technology Strategy Board programmes it will take forward through its core programme budget
- Research Councils and the TSB will be working together to deliver effective Technology Innovation Centres.

Letter to The Times 22nd Oct 2010

*We warmly welcome the settlement in the Comprehensive Spending Review for the ring-fenced science budget and university research funding. **This is a strong signal from government and will boost the confidence of researchers and investors alike.... we are confident that research will make a full contribution to the economy and to society.***

Sir John Bell, Academy of Medical Sciences; Professor Colin Blakemore, Former Chief Executive, Medical Research Council; Dr Mark Downs, Society of Biology; Sir Martin Evans, Nobel Laureate Professor; Hugh Griffiths, Campaign for Science and Engineering; Sir Tim Hunt, Nobel laureate; Sir Harry Kroto, Nobel laureate; Sir Howard Newby, Academy of Social Sciences; Sir Paul Nurse, Nobel laureate; Professor David Phillips, Royal Society of Chemistry; Professor Martin Rees, Royal Society; Professor Marshall Stoneham, Institute of Physics; Sir John Walker, Nobel laureate; Sir Mark Walport, The Wellcome Trust; Harpal Kumar, Cancer Research UK; Professor Glynis Breakwell, Vice-Chancellor, University of Bath; Professor Antony Hewish, Nobel laureate; Professor Simon Gaskell, Principal, Queen Mary University London; Professor Malcolm Grant, President and Provost, UCL; Professor Tom McLeish, Pro-Vice-Chancellor (Research), Durham University; Professor Guy Orpen, Pro-Vice-Chancellor (Research), University of Bristol