

ENGINEERING AND PHYSICAL SCIENCES RESEARCH COUNCIL

Science and engineering – driving the global economy



David Delpy, CEO
May 2012

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A CHANGING LANDSCAPE



ROYAL CHARTER - 2003 (replacing Founding Charter of 1993)

The objects for which the Council is established and incorporated are:

- **to promote and support**, by any means, **high-quality basic, strategic and applied research** and related **post-graduate training** in engineering and the physical sciences;
- **to advance knowledge and technology (including the promotion and support of the exploitation of research outcomes)**, and provide trained scientists and engineers, which meet the needs of users and beneficiaries **thereby contributing to the economic competitiveness of Our United Kingdom and the quality of life**;
- in relation to the activities as engaged in by the Council under (i) and (ii) above and in such manner as the Council may see fit:
 - **to generate public awareness**;
 - **to communicate research outcomes**;
 - **to encourage public engagement and dialogue**;
 - **to disseminate knowledge**; and
 - **to provide advice**.

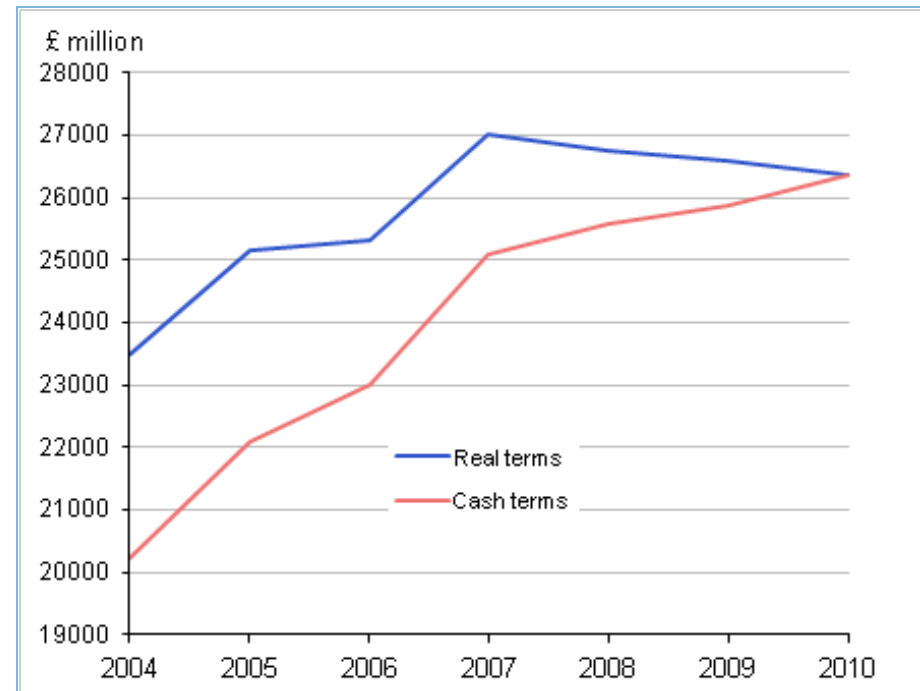
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CONTEXT

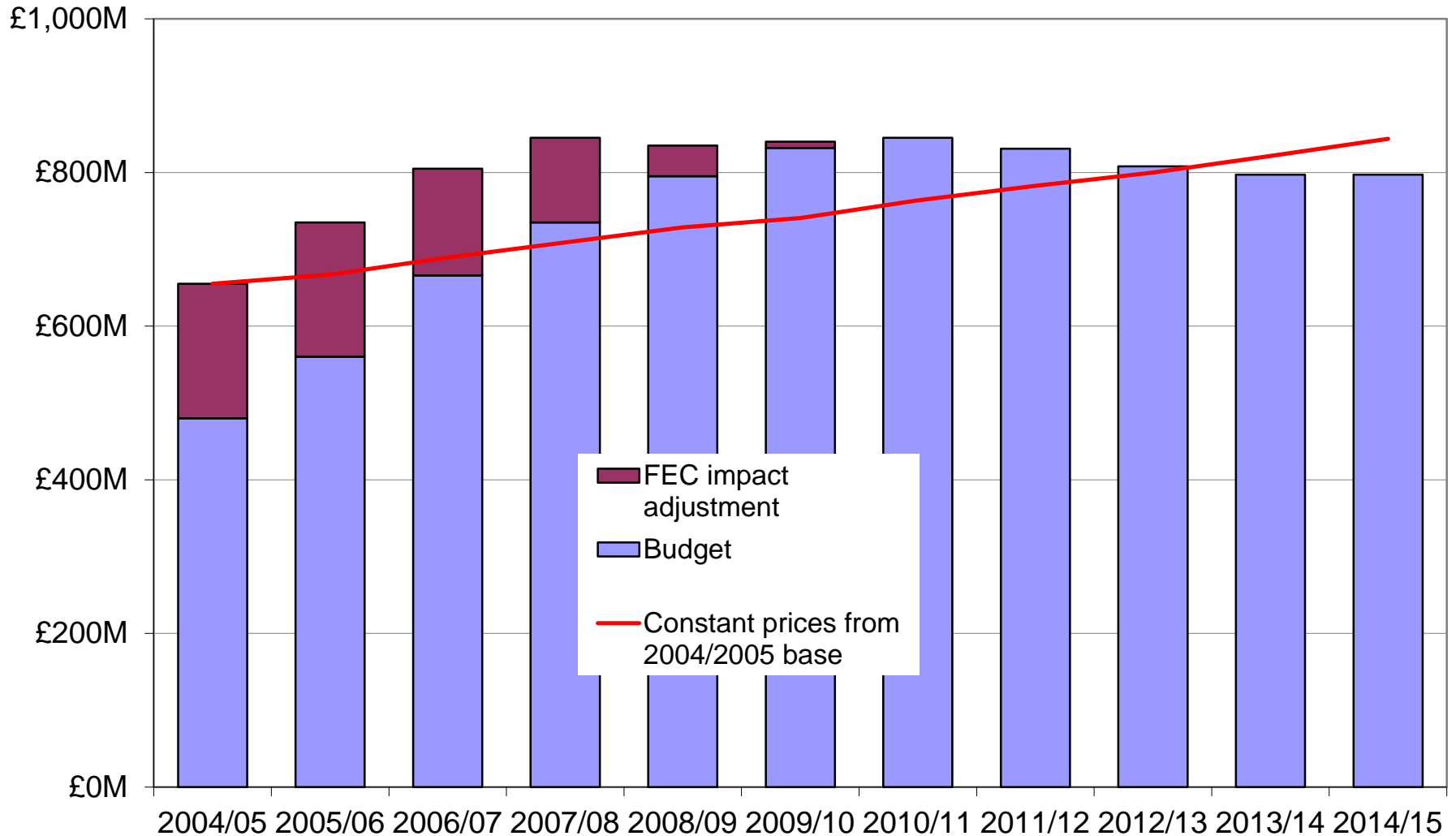
- Still having to do 'more with less'
- Business investment in R&D not rising in UK
- Impact of UK research is still high (per £ invested)
- Impact of UK Research on Growth needs to be made more clearly

Gross domestic expenditure on R&D 2004 to 2010

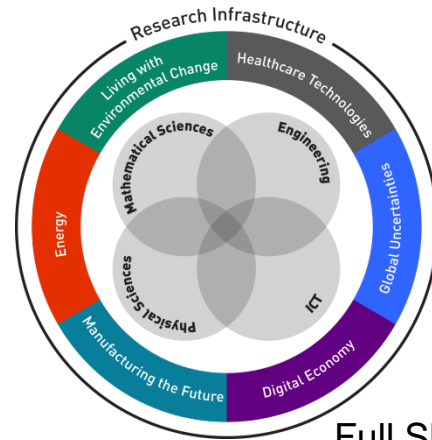
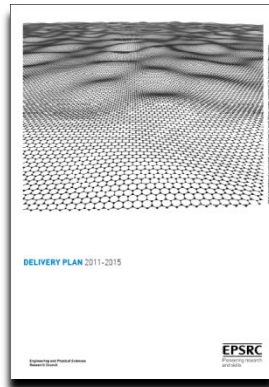


Source: Office for National Statistics (March 2012)

EPSRC Budgets 2004/05-2014/15



STRATEGIC AND DELIVERY PLANS – WHERE WE’VE COME FROM



EPSRC Landscapes 2009

EPSRC Strategic Plan 2010

Comprehensive Spending Review

EPSRC Delivery Plan 2011-2014

First details of Our Portfolio published

Full Shaping Capability plans published

Implementation of changes to panel process

June 2009

March 2010

December 2010

July 2011

March 2012

Autumn 2012

Engagement



FROM FUNDER TO SPONSOR

We will work closely with our university, business and other user partners, and other stakeholders to further align the engineering and science base for the good of the UK as a whole. We will work more proactively with the researchers we support and users of that research to:

- Provide direction using strategic advice
- Obtain regular feedback from our sponsored researchers and use it to inform future funding
- Secure commitment and engagement from researchers in meeting our goals
- Advocate for engineering and physical sciences

This approach is a significant change to the existing relationship we have with those we support

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STRATEGIC PLAN GOALS



■ Delivering impact

Embedding impact throughout our portfolio by creating an environment in which it arises naturally, in whatever form, from the knowledge base

■ Developing leaders

Nurturing the visionary leaders who set research agendas and inspirational team leaders who act as role models

■ Shaping capability

Ensuring we have the right people, with the right resource, in the right place to deliver the highest quality long-term research in areas where the UK leads internationally and where there is current or future national need

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DELIVERING IMPACT

Long term science and engineering research is at the heart of discovery and innovation.

Progress against Delivery Plan:

- Supporting research through the challenge themes
- Pathways to impact funding
- A refined approach to business partnerships
- Announced plans for changes to the funding of equipment
- Rolled out Research Outcomes System

For the future:

- 'Impact Accounts' for activities outside of Pathways to Impact
- Visualising our Portfolio project

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DEVELOPING LEADERS

We will support and promote leadership role models who can inspire others and can integrate the efforts of their peers to deliver greater impact from our investment.

Progress against Delivery Plan:

- New approach to funding Fellowships
- Giving priority to PhD quality
- CDT Mid-term Review

For the future:

- New call for CDTs in 2013
- Evolution of DTGs
- Mentoring pilot



SHAPING CAPABILITY

Developing the shape of our portfolio

- Working with our major stakeholders we have mapped our current portfolio
- With the support of our SATS and Council we have made decisions about the **relative scale** of our investment and **strategy** for our 113 research areas
- We will continue to fund proposals in areas within a reduce category
- Strategy within areas identified as grow, maintain or reduce may encourage a particular focus
- We will continue to encourage the free generation of ideas, curiosity and research creativity
- We will monitor the shape of our portfolio and scale of investment as it evolves

SHAPING CAPABILITY

Changes to Peer-review

What hasn't changed:

- Research quality remains pre-eminent
- Principles of peer-review
- Panels will continue to advise on the rank ordering of proposals with EPSRC allocating funding in priority order based on this advice

What has changed:

- 'National Importance' introduced as a major secondary criterion
- Amendments to the Panel process from Autumn 2012:
 - Panels to receive contextual briefing
 - Panel scores to be received well before meeting
 - 3 speakers (not 2) to maximise quality of the discussion on each proposal

SHAPING CAPABILITY

What next?

What this means:

- Shaping decisions will act as a framework for peer review
- Applicants, reviewers and panel members all have an opportunity to give their opinions on how a research proposal complements the research landscape

EPSRC's long term shaping aims:

- To realign our support towards the published shape
- To maintain the international reputation, quality and competitiveness of UK research
- To continue to invest in creative and ambitious research that has a high-impact for the UK

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EPSRC will continue to work with the research community and other key stakeholders as we move forward.

LOOKING AHEAD

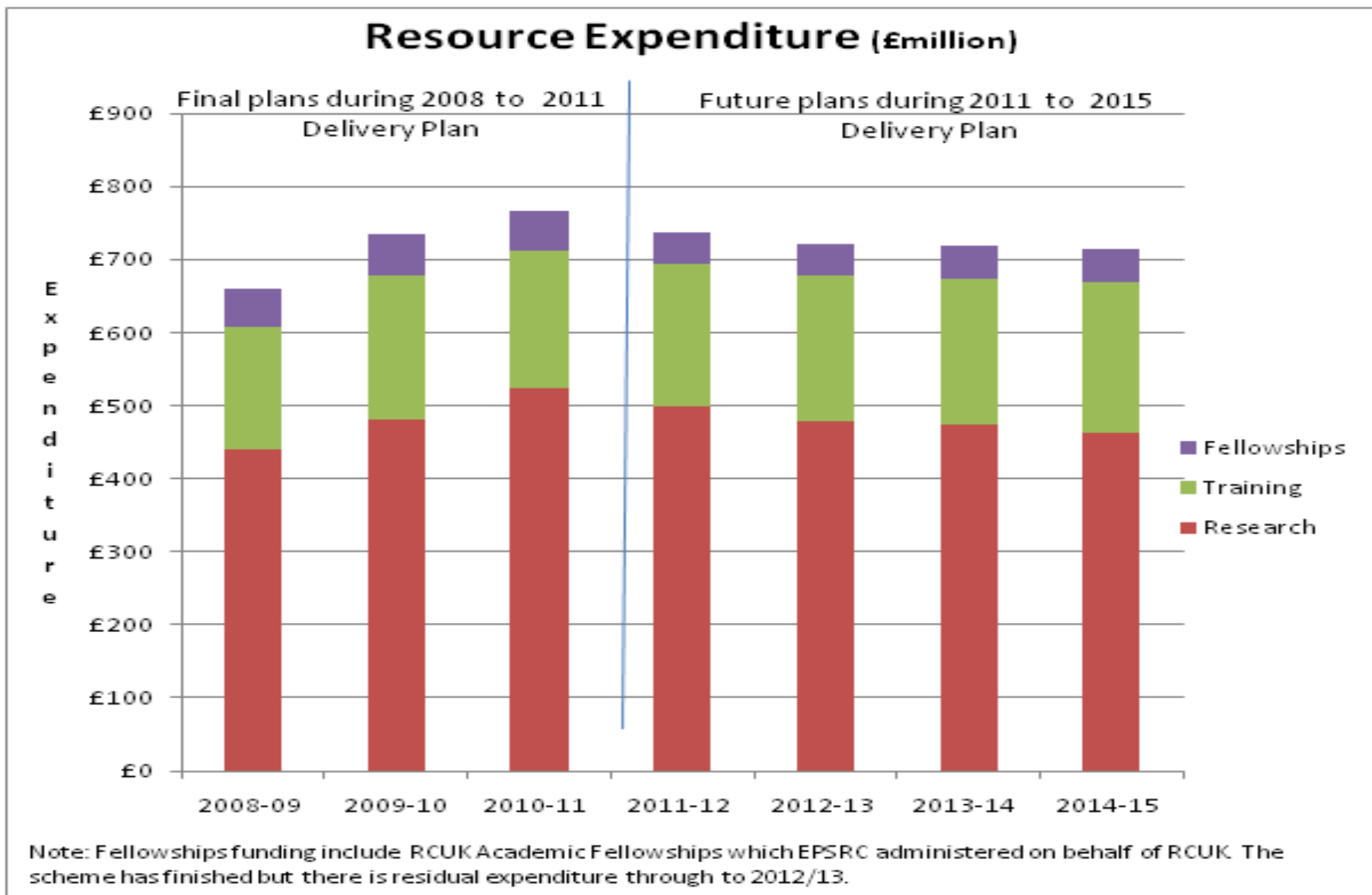
- Expenditure and Commitment Profiles
- Spending Review



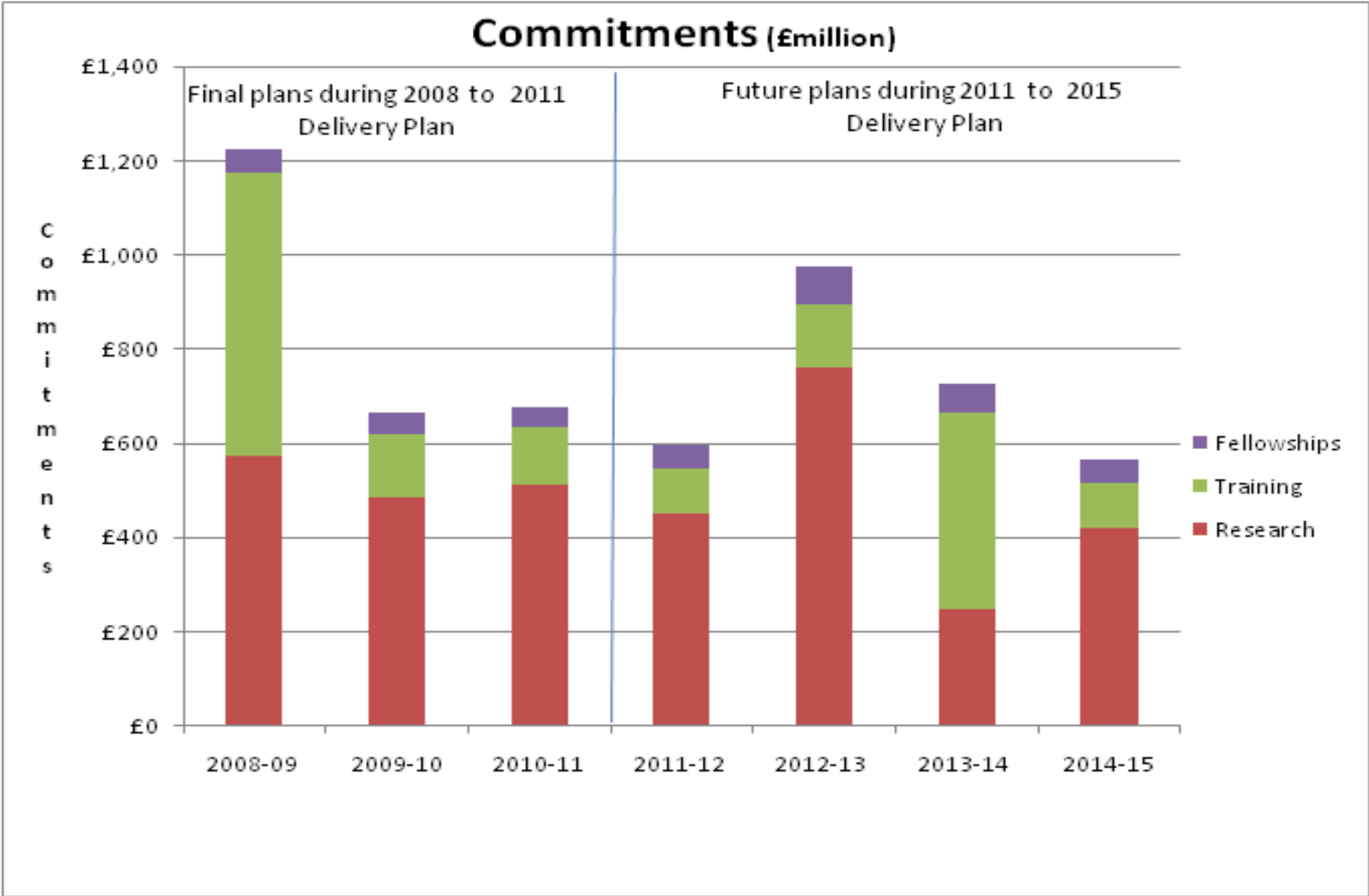
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EXPENDITURE PROFILE



COMMITMENT PROFILE



LOOKING AHEAD

■ Expenditure and Commitment Profiles

■ Spending Review

- Likely to be brought forward a year to 2013
- Details unclear (overlap with current CSR?)
- Case for increased funding for research needs all to work together to show the benefits of research for society, growth and rebalancing the economy



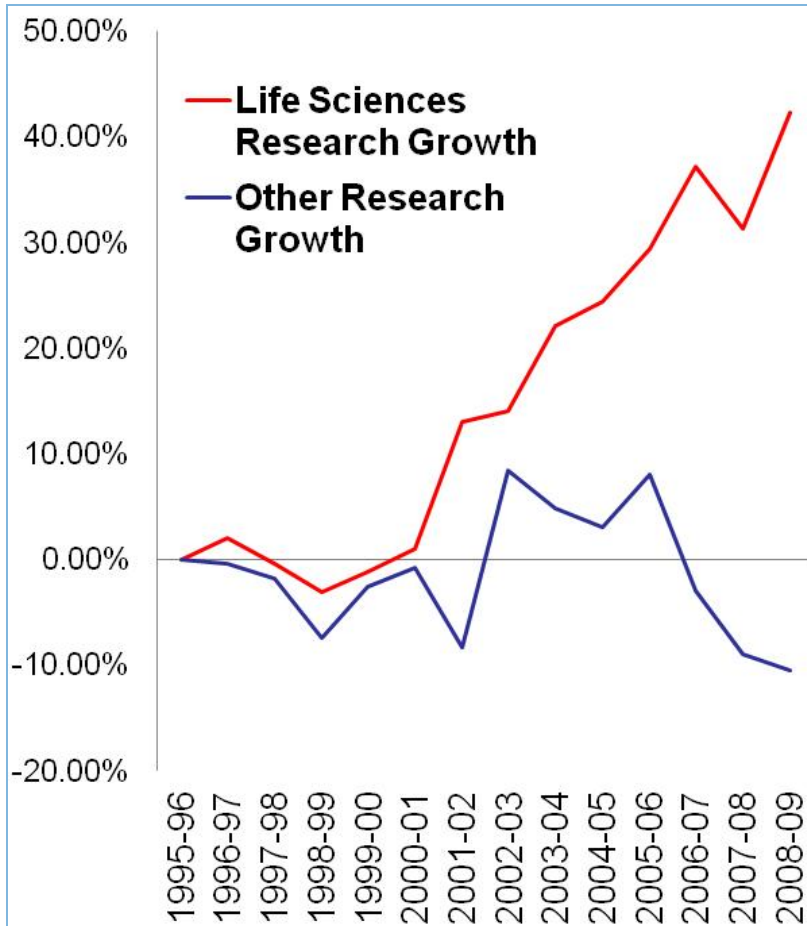
THANK YOU!

Questions?



Comparison of Research Growth in Engineering and Physical Sciences and the Life Sciences in the UK and USA

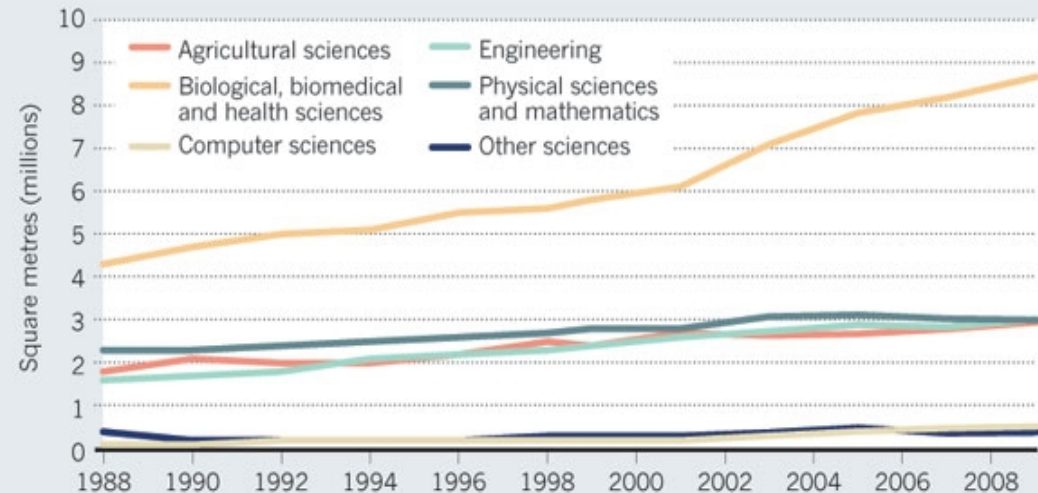
UK 1996 to 2009



USA 1988 to 2008

BIOLOGY'S RESEARCH FOOTPRINT

There has been huge expansion in laboratory space for the biomedical sciences since the late 1990s in comparison with other fields.



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