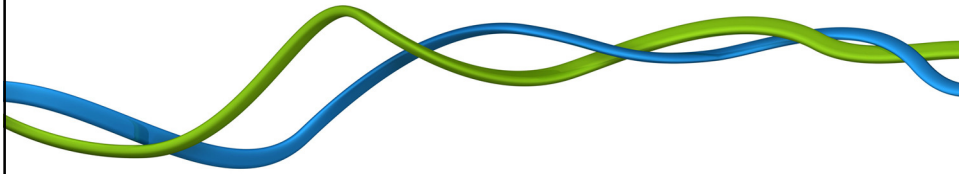




Science and Innovation Strategy

**Professor Dame Ann Dowling DBE FREng FRS
President, Royal Academy of Engineering**



*Foundation for Science and Technology
4 February 2015*



Business-University Collaboration

- 2014 NCUB - Growing Value
- 2014 Herman Hauser - Review of Catapult Centres
- 2014 House of Commons BIS Committee - Business-University Collaboration
- 2013 House of Commons S&T Committee - Bridging the Valley of Death
- 2013 Sir Andrew Witty - Encouraging a British Invention Revolution
- 2013 Lord Young - Growing your Business
- 2013 Lord Heseltine - No Stone Unturned
- 2013 IPO – Collaborative Research between Business and Universities: the Lambert Toolkit 8 Years on
- 2012 Enhancing Value Task Force – series of reports
- 2012 Tim Wilson - Review of Business-University Collaboration
- 2010 Hermann Hauser - The Current and Future Role of Technology and Innovation Centres in the UK
- 2003 Richard Lambert - Review of Business-University Collaboration

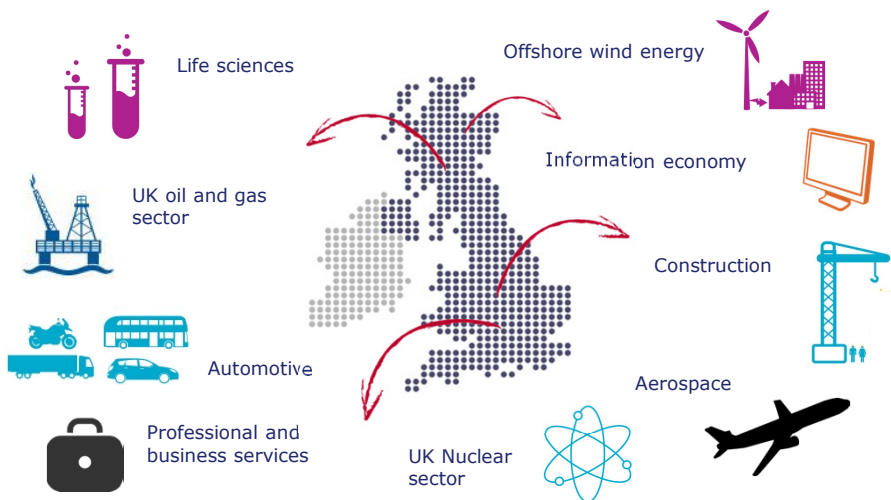


Dowling Review

- *How can Government support the creation of long-term, strategic research collaborations between academia and industry that deliver broad-based benefits to the UK?*



Industrial Strategy





Dowling Review

- Call for evidence - closes 6 March
- Academic workshop for practitioners – 9.30am-12.30pm, 19 February, London
- SME workshop – 9.30am-11.30am, 9 March, London
- Regional and sector-based engagement opportunities
- For more info, see: www.raeng.org.uk/dowlingreview or contact dowlingreview@raeng.org.uk



Capital Expenditure

- The Science and Innovation Strategy gave some more detail about how the £5.9bn (2016-2021) investment in science capital is to be spent
- Particularly welcome that £3bn is for 'well-found' laboratories and 'individual research projects'
- It is important that the £2.9bn of capital investment in major large scale new projects is supported by new funding for running costs



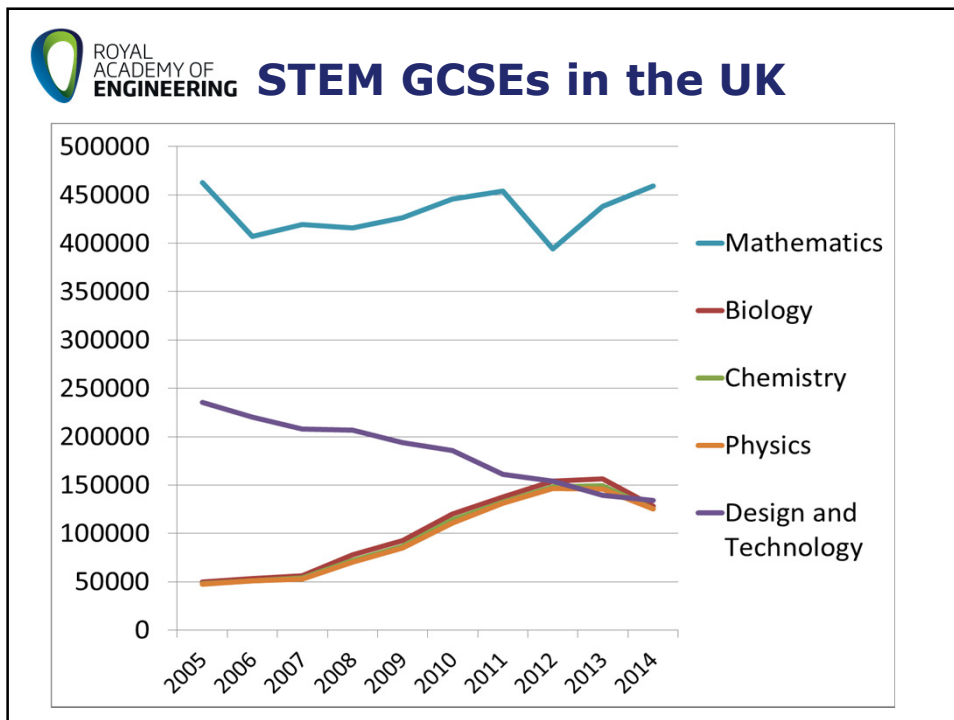
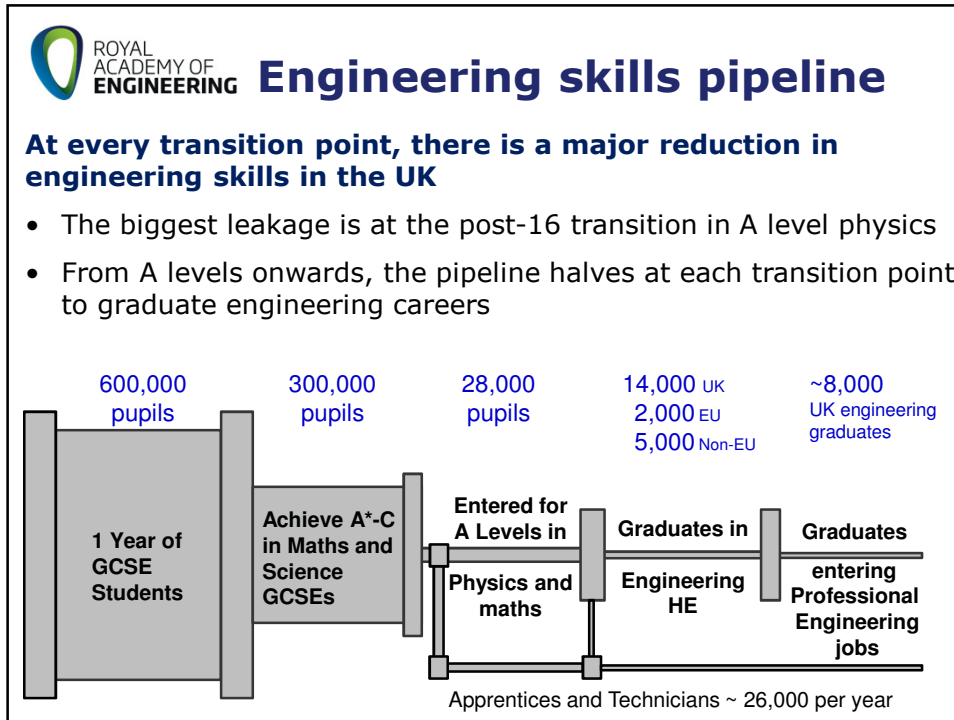
Demand for Engineers

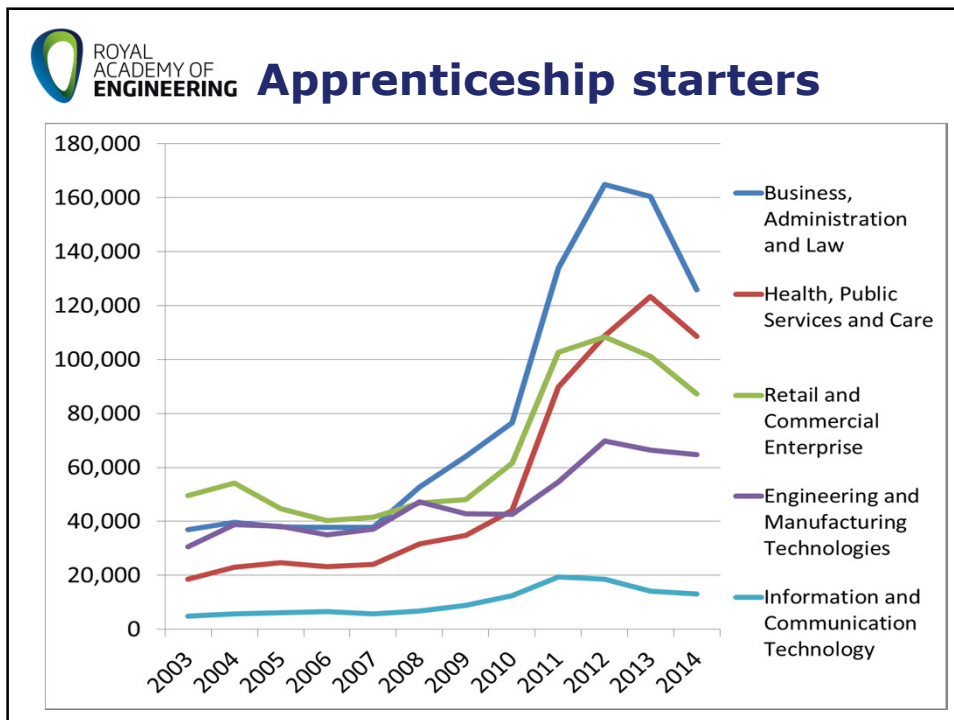
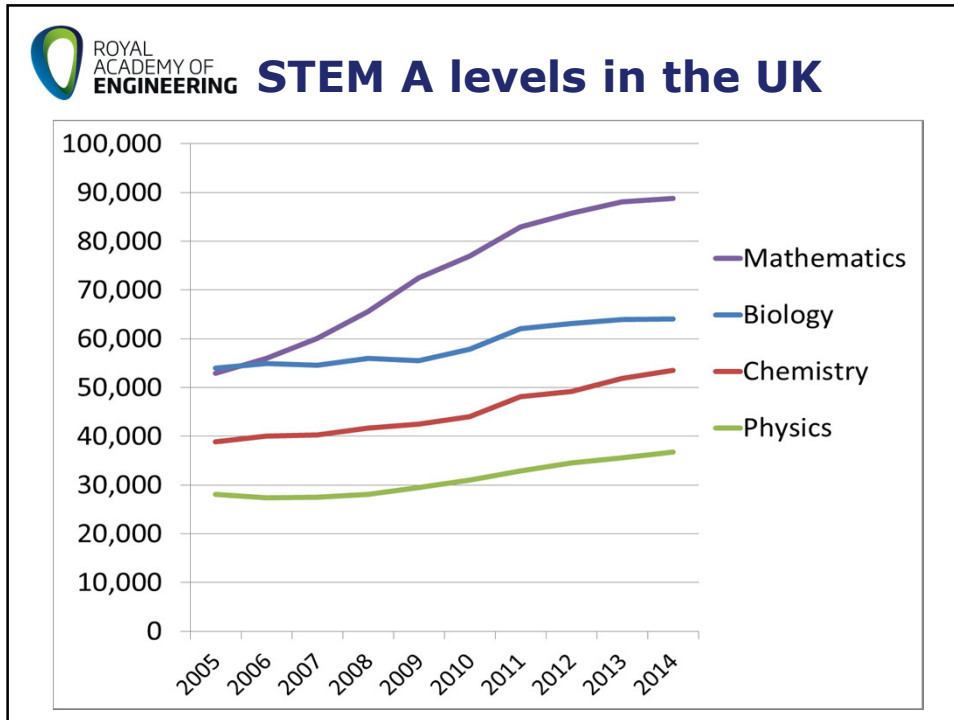
- Engineering UK report that we need an 1.82 million new people to go into engineering during 2012-22 (based on predictions of economic and employment growth from UKCES)
- These new recruits are predicted to generate £27bn per annum from 2022 for the UK economy

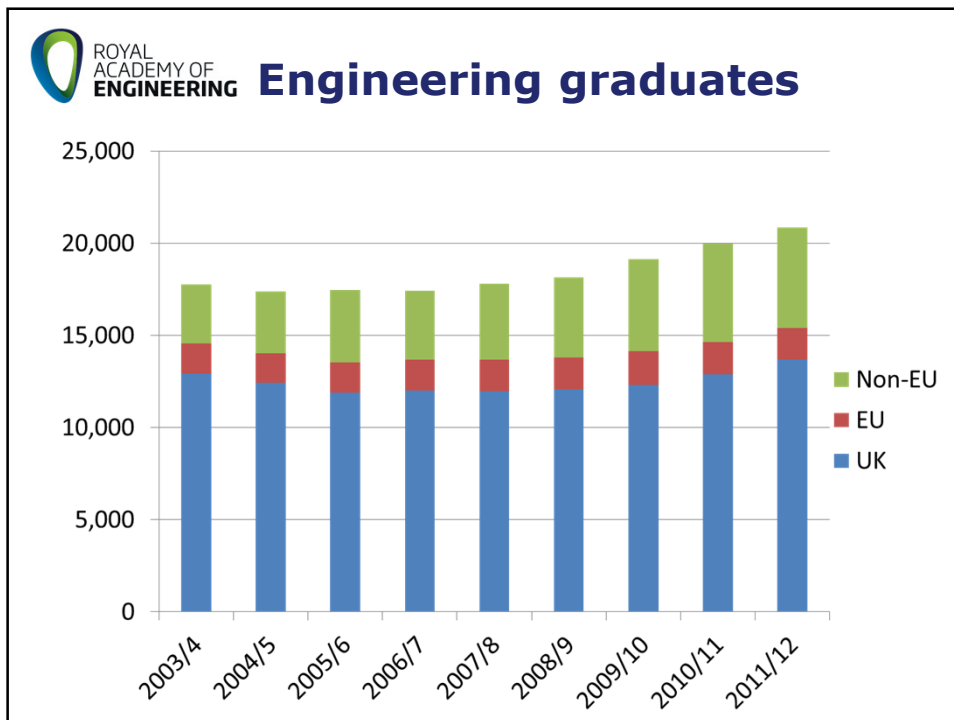
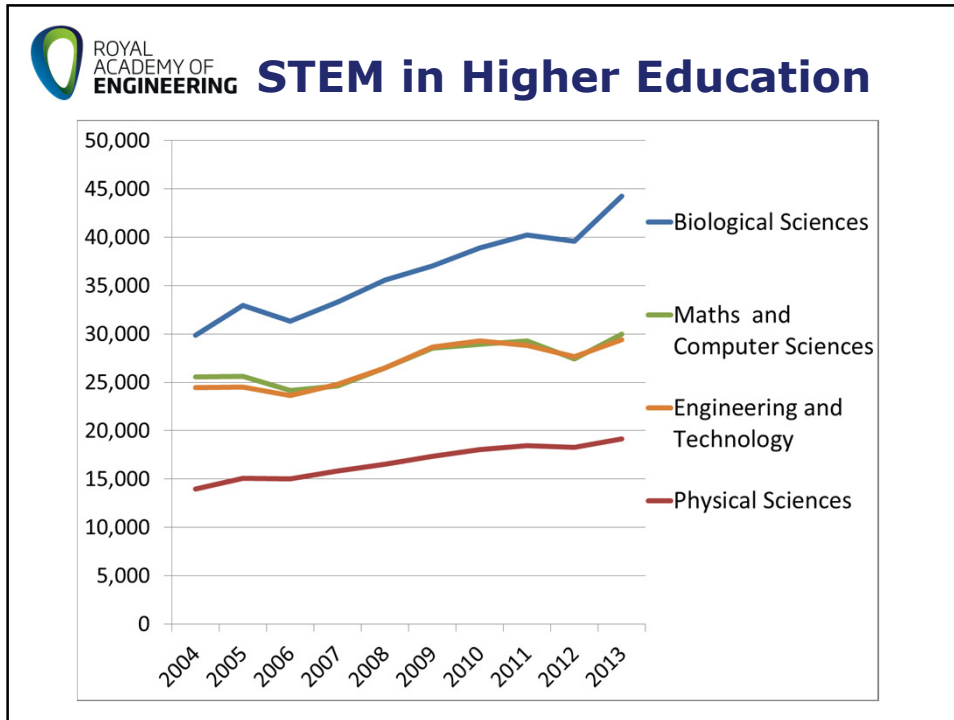


Demand for Engineers

- Engineering UK report that we need an 1.82 million new people to go into engineering during 2012-22 (based on predictions of economic and employment growth from UKCES)
- These new recruits are predicted to generate £27bn per annum from 2022 for the UK economy
- Currently we only recruit 108,000 per annum, 82,000 graduates and 26,000 technicians









Key issues to address skills shortages

- Change perceptions and attitudes towards STEM careers
- Encourage in-flow of people into engineering at all stages
- Increase supply of specialist STEM teachers
- Better careers guidance and increase employer engagement
- Increase the number of apprenticeship opportunities
- Further investment in science and engineering in higher education
- Address immigration challenge



Thank you

