

The All Party Parliamentary Engineering Group

‘Exciting opportunities for young engineers in Industrial R&D’

Report of the discussion over lunch held on 4 June 2013 in the Cholmondeley Room, House of Lords

Chairman

Professor the Lord Broers

Speakers

Joe Greenwell CBE, former Chairman of Ford of Britain

Steve Yianni, Chief Executive (Elect) for the Transport Systems Catapult

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Introduction

Lord Broers welcomed guests and the two speakers. He noted that in the UK R&D makes up for less than 2% of GDP due to the UK’s changing economy. He said that despite low figures, the UK is changing creating more opportunities and leadership in this field which will affect young people the most.

The speakers were then introduced.

Joe Greenwell

Joe first started his career in the automotive industry in 1973 at Austin Morris. He said that at this time manufacturing made up over 30% of GDP in the UK. Since then figures have dropped to 11-12%, with recent years seeing a boost following the recession. Joe remarked that the attitudes to manufacturing and engineering are changing and that the catalyst for this was the recession.

He went on to make the case for a balanced economy, which doesn’t mean that financial services need to contract or diminish in significance, as financial services and manufacturing are not mutually exclusive they can work together.

He stated that the resurging interest in manufacturing creates new and exciting opportunities for the UK to become a world class provider of both manufacturing and R&D. These opportunities both create wealth but also fulfilling careers.

Jo explained that in the automotive industry, things are changing and a framework of opportunities has been created to encourage skills and education in engineering. He remarked that the industry is responding via internships, traineeships and higher apprenticeships, which markets careers in engineering starting pre-16. In his final remarks, Joe encouraged teachers to become thought leaders and inspire these skills in their pupils from a young age.

Steve Yianni

Steve Yianni opened with some statistics - *“R & D investments make up 1.7% of company turnover in the UK and this is behind the global average of 3.6% and behind the EU target of 3%”*. He reiterated Joe’s comments on the new opportunities available for businesses and young people and remarked that in the current economic environment *“manufacturing is the engine of growth with R & D providing the lifeline”*.

He reflected back on his own career - during his time at JCB he helped develop and launch the Telescopic handler range, which is used globally on construction sites. He said that he was proud to be part of a team that delivered it - *“it has added value, it has delivered jobs and it has contributed to economic growth.”* He explained that this is job satisfaction.

Steve said that as an engineer it is all about making the case for why a project needs to progress. Steve said that he is extremely proud of his career and he encouraged the young people in the room to embrace a career in engineering.

Questions and comments

Lord Broers asked the guests to contribute any questions or comments they had.

Questions tackled a range of issues including:

- Attracting more young women into the industry and producing more role models
- Getting children interested in engineering at a young age including getting companies into schools to talk to teachers about the careers available to their students (the *“great”* work of Engineering UK, the Big Bang Fair and the Royal Academy of Engineering was cited)
- The diversity that a career in engineering can offer
- How do we get Britain back at the centre of the engineering world?
- Joe Greenwell stated that in his opinion Britain has a great reputation for such a small country but we aren’t spending enough.
- Steve Yianni concurred and said that we have some great showpiece projects that *“we don’t shout out about enough”*. He said the biggest criticism is that *“we don’t celebrate our successes.”*
- Where is the connection with higher education? The UK has some of the world’s most renowned universities for engineering but people should also the fact that many companies have undergraduate bursaries and scholarships
- How do we encourage clients to indulge in new practices and research that is so far untested? One issue is that success is more often than not measured on whether things are delivered on budget and on time - is this the most relevant definition?
- How do you fund schools to enable them to facilitate engineering? Jo Greenwell cited organisations such as the Smallpeice Trust and IMechE who go and visit schools; they take all the equipment with them.
- It isn’t easy to get into the industry so the benefits (salary, career progression etc) need to be emphasised
- The role of parents in promoting engineering
- The stereotypical images of engineers needs to be dismantled
- We should look into the ‘profession’ of engineering as is the case with doctors and lawyers.
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