

# The All Party Parliamentary Engineering & Information Technology Group

## ‘The importance of design to our economy’

Report of the luncheon meeting held on 11 May 2011 at the House of Lords

### **Chairman**

Professor the Lord Broers

### **Speakers:**

Sir Christopher Frayling

Mr Sebastian Conran

### **Sponsors:**

EngineeringUK

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### ***Introduction***

Lord Broers welcomed guests and guest speakers, and thanked the Group’s sponsors and also the Technology Strategy Board and The Institute of Mechanical Engineers for their support.

Lord Broers said that the subject matter of the meeting would be the relationship and interconnection between engineering and design. They were inextricably bound up.

Sebastian Conran had spent his lifetime promoting both ideas in relation to design and also highly commercially successful, well-designed products. Sir Christopher Grayling had a distinguished career in arts and design, having held a number of influential posts, amongst which were chairmanship of the Arts Council, Rector of the College of Design and chairman of the Design Council.

### **Sebastian Conran**

Mr Conran held up the "iconic" baby cup beaker which he had designed some years ago, which was manufactured still in Wales and which had sold over 25 million units. It was an example he felt of design harnessing technology to create something useful and excellently designed. The Apple iPhone was another example.

He then spoke of a number of factors ("F" or ‘Form’ factors) which he felt were crucial in the successful creation of value out of design.

He listed them as ‘form follows’:

- fair exchange
- function

- fabrication
- failure
- fashion
- feedback
- funding
- future - especially "future"

Amongst many issues addressed, Mr Conran talked about the need to use design to develop the brand attached to products. Design is a mix of the emotional (fashion) and the practical or rational. The rational side equals "function". The functional side has to use engineering and technology both in determining the method of fabrication and the materials to be used all in the service of realising the design.

### **Sir Christopher Frayling**

Sir Christopher said that he would not be talking about the "art" end of design or creative industries but wanted more to talk about design of the heart of a business. Approximately £15 billion per annum was spent in the UK on design. There are over 500,000 "designers" in the UK of whom only 83,000 are employed in-house, which meant that design was a very fragmented industry.

The UK now had an excellent reputation for outstanding design, as witness the fact that the Nissan car company had moved its design centre to London in order to be near the colleges of art and design as well as centres of engineering excellence such as Imperial College. Manufacturing industry represented only 13% of the UK economy at 50% of its exports.

Sir Christopher spoke of the influence of science and design on industry. He drew attention to the work of Sir James Dyson. He also drew attention to projects in which he had played a part both at Imperial College and Design London whereby engineers were turned into designers. These projects had been very successful.

However, still, design was not yet fully embedded into the education and training of engineers (government departments compound the problem) and he felt that there had to be a vigorous campaign to promote the "D" in STEM (science, technology, engineering and maths).

### ***Question and answer***

Among the issues discussed were:

- The Dyson phenomenon: James Dyson had been educated as a designer but had 'crept' into engineering lectures at Imperial College in order to acquire engineering knowledge
- How to get the interest of children at an early age; The speakers referred to early role models Barns Wallis; the centre pages of the Eagle comic; the experience of using modelling kits with the emphasis on 'making' things; courses at school which mixed engineering and design; the recent requirement at Cambridge for engineering students to start by making something and then studying the principles behind it; doing 'harder' maths and science earlier so that it was more embedded later in academic life;

- Getting design into the commissioning of public services
- The speakers referred to the need for 'excellent' design to be incorporated into every aspect of life and 'value' is key to the acceptance of that principle.
- The materials revolution: certainly, it had transformed product design, but it had to be remembered that it comes with a price: and there were horses for courses: 'To innovate go to Germany, to replicate go to China.'
- The history of engineering: Very important that the basic underlying principles of design as well as engineering should be taught, as it had been as far back as the mid-19<sup>th</sup> century;
- The future; for example, "car designers are now in show business!"

**Lord Broers** at the conclusion of the meeting thanked the speakers and again the sponsors and the guests to enthusiastic appreciation