

Speaking Notes

Speech Delivered by Lord Sainsbury of Turville at the Foundation for Science and Technology's debate on the Sainsbury Review

14th November, 2007 at The Royal Society of Medicine

www.hm-treasury.gov.uk/media/5/E/sainsbury_review051007.pdf

A. The Strategy

(i) Gordon Brown's request to look at Government's science and innovation policies in context of competition from low-cost emerging economies.

(ii) Company strategies based solely on low costs will fail, ending up in a 'race to the bottom' with emerging economies.

(iii) Instead we need to create the best possible conditions for industry to restructure into high-value goods, services and industries, and compete with emerging economies in a 'race to the top'.

(iv) In the report we show how the economy over the period 1993 to 2003 has shifted into high-tech manufacturing and knowledge services over the period 1993 to 2002. 36.4% in 1993 – 40.5% in 2002.

(v) 'The Race to the Top' requires us to re-focus government support for industry on knowledge generation, innovation, education, training and infrastructure development, and removing barriers to innovation and growth.

(vi) I think it is useful to set out this argument because it is important that we have as a country a shared understanding of the challenge we face and what we need to do to be economically successful in the future.

Key Issues

a. The quality of our record of discovery should be seen as a major asset in the global knowledge economy. In 2005 the U.K. was ranked second in the world to the

U.S.A. with a 9% share of world scientific papers and 13% of world citations. We also produce 13% of the 1% of most cited papers. Also very consistent performance, ranking second in the world in seven of the ten disciplines.

b. Innovation performance better than commonly thought. R & D and patents. Knowledge transfer from universities. In the past 3 years 25 spin-outs from U.K. universities had IPO's and today have a market capitalisation of more than £1.5 billion. In the past 18 months six spin-outs have been acquired for £1.8 billion.

Growth of high-tech clusters.

Recent report by Library House "UK universities are now producing spin-out companies of equivalent number and quality to some of the USA's top institutions". Charts 4.1 and 4.2 show how venture capital input companies around Stanford Wisconsin and Washington, compared to U.K. companies.

c. Balance of basic and applied. To me distinction is between curiosity-driven and user-driven. User-driven should be done by users (companies). Main goal for research universities should be world-class research plus knowledge transfer. Scale of venture capital correlates with RAE scores. But there is a role for collaborative user-driven R & D. TSB.

d. Research and business-facing universities. Diversity of excellence. We see important missions for both research universities and business facing universities. Think business-facing universities better than 'less research intensive universities', 'teaching intensive universities' or 'regional universities'.

C. Recommendations

- (i) A New Leadership Role for the Technology Strategy Board (TSB)
- (ii) Building on Our Success in Knowledge Transfer
- (iii) A major Campaign to enhance the Teaching of Science and Technology

- (iv) A key role of Government Departments
- (v) Increasing the focus of RDA's on Science and Innovation