

DINNER/DISCUSSION SUMMARY

Delivering the industrial strategy - how can government promote growth?

Held at The Royal Society on 14th November, 2012

The Foundation is grateful for the support for this meeting from BAE Systems, the Comino Foundation, the ERA Foundation, HR Wallingford, The Michael John Trust, The Royal Commission for the Exhibition of 1851, the Society of Maritime Industries and the Technology Strategy Board.

Chair:	The Earl of Selborne GBE FRS Chairman, The Foundation for Science and Technology
Speakers:	Sir John Parker GBE FEng President, Royal Academy of Engineering Professor Alan Hughes Director, Centre for Business Research, Judge Business School, University of Cambridge The Rt Hon David Willetts MP Minister of State for Universities and Science, Department for Business, Innovation and Skills
Panellists:	John Alty Acting Director General, Knowledge and Innovation, Department for Business, Innovation and Skills Rhian Kelly Director of Business Environment, CBI

SIR JOHN PARKER said that a new industrial future, building on the UK's world-class engineering and science capability was essential if the economy was to return to a growth path. He identified five key challenges for a successful modern industrial strategy. First, there needed to be clear signals from the top of government with the whole of government working coherently and consistently in the pursuit of industrial growth. Government needed to bring a systems-based approach to policy development, recognising that each new policy could have impacts and unintended consequences across many different areas. For example new visa restrictions were having the unintended and undesirable consequence of reducing the attractiveness of the UK as a place for people from other nations to study, work and undertake research.

Secondly, the UK needed to overcome its failure to match the ability of a number of other European countries to convert an outstanding research and knowledge base into the innovation which would secure economic growth. He thought that the new Technology Strategy Board Catapult Centres could be a positive step in the right direction, especially the Centre for High Value Manufacturing which was making a major contribution already to the key task of establishing world-class advanced production facilities across many leading industrial sectors.

Thirdly, a successful industrial future for the UK could not be built on small and medium enterprises

alone; a modern industrial strategy needed to recognise the importance of the UK's existing major industrial companies (e.g. Rolls Royce, JCB and Vodafone) and create a climate in which new companies, with their valuable supporting supply chains, could grow and operate at the large scale necessary to thrive in world markets.

Fourthly, policy stability (especially in such key areas as tax and incentives to encourage investment in the UK by both domestic and foreign-owned companies) was crucial for the long-term task of building new sectors, new industries and big companies. Many policy decisions affecting industry and infrastructure extended well beyond the five-year political cycle. He would like to see political parties develop a shared 20 year vision as to what was necessary to build an industrial renaissance in the UK. Uncertainty led to the hoarding of cash by UK companies and to multinationals looking elsewhere for investment and R&D.

Fifthly, society as a whole needed to realise that industrial activity in all its forms could provide a rewarding career choice for both men and women. UK industry was still suffering from a shortfall in the supply of people with the sort of skills necessary for industry.

PROFESSOR ALAN HUGHES began by endorsing the importance attached by Sir John Parker to a systems-based approach to policy formation. He noted that

the special role of universities was to increase knowledge and that of companies was to increase innovation. For industrial success there needed to be good connectivity between universities and companies. He examined the progress made by government laboratories, universities (and Research Councils) and private sector businesses towards achieving the 2.5 per cent of GDP goal, set out in the 2004 Framework for Science and Innovation, for total UK research and development expenditure. The levels in both government and the private sector had fallen. The level in universities and Research Councils had remained stable. Within the private sector he noted that R&D expenditure was highly concentrated (the top ten performers accounted for one third of the total) and that as much one fifth was funded by foreign-owned companies.

Although he supported the Haldane Principle for government-funded blue skies research, he argued that government intervention was both wide-spread and inevitable. That intervention could be beneficial provided that government ensured that its policies were not captured by vested interests, that government recognised the need to focus on sectors and technologies and not on individual companies and that government did not hesitate to weed out dead-ends. Full public accountability was also essential.

Industrial policy decisions needed to embrace demand issues as well as supply issues. He underlined the importance of taking account of value chains so as to ensure that the UK economy rather than that of overseas competitors was the principal beneficiary of policies to support science, technology, innovation and industry.

THE RT HON DAVID WILLETTS said that a successful industrial strategy depended on the co-operative involvement of business, academia and government. He noted a major shift in political attitudes towards the idea of a national industrial strategy. Many now saw the need for government to play a creative role whereas in the past the emphasis had tended to be in favour of a government role confined to ensuring that tax, regulation and planning policies did not get in the way of business.

However, he believed that in the past the idea that successful free-market economies depended on the absence of a government-led industrial strategy had been less respected than commonly supposed. If the UK had not had a tacit strategy of supporting the financial services sector, why had the Jubilee Line been extended to Canary Wharf? The US government actively intervened in many ways, especially through procurement, to lower the risks for business.

He was now convinced that the UK government needed to be no less ready to intervene than the US government. It should identify key sectors and key technologies with comparative advantage so that policy decisions across government were designed to enhance their success in markets across the world. It should facilitate access to finance. It should have an agenda for skills. It should make positive use of the government's essential procurement programme.

The seven sectors identified by government were in advanced manufacturing (aerospace, automotive, life sciences), in knowledge intensive activities (education, professional business services) and in enabling activities (energy, construction). The eight key technologies identified by government after intensive consultation with scientists were IT infrastructure, synthetic biology, regenerative medicine, agri-science and agri-technology, energy storage, robotics and space.

In his view the strategy should be taken forward by a mixture of harnessing the collective power of government across all departments, the creation of leadership councils (not to be dominated by big business) to devise technological road maps and engaging the active participation of the Treasury to help unlock the £750 billion of cash currently waiting to be invested by industry to proceed along those road maps.

In the two discussion periods (before and after dinner) the speakers were joined on the panel by JOHN ALTY and RHIAN KELLY.

The general flavour of the comments from participants was supportive of the evolution (revolution?) in government thinking about the need for and nature of industrial strategy for the UK. Recent speeches by the Prime Minister and the Chancellor of the Exchequer were welcomed. One speaker reminded the meeting that 20 years ago South Korea had embarked upon an industrial strategy very similar to that now in prospect in the UK and that it would therefore be useful to learn any lessons available from that successful venture.

But, at least one speaker voiced doubts about the desirability of policy initiatives predicated on the need for continued economic growth in the longer term. Such doubts received little support. How could a country survive in a world where other countries were pursuing policies of growth? How could problems about income distribution be addressed without growth? How else could there be sustainable jobs for future generations? One speaker drew attention to the unwelcome fact that the trajectory of the UK's growth was nearer that of an economy like Greece than that of one like Singapore.

A number of interventions pointed out that distinctions between services and manufacturing could be misleading. Successful enterprises increasingly depended on both manufacturing and associated services. Services were an integral part of industrial activity. In seeking to support promising sectors and technologies it would be wrong to envisage boosting manufacturing at the expense of services. It would also be wrong for the UK to turn its back on its highly successful financial services sector.

However, many speakers gave strong support to the remarks of the Panel about the need to encourage more young people of both sexes to look to engineering and industry as rewarding and exciting careers. As one speaker put it: "an Archers-type programme was needed to show what a modern manufacturing career was really like". Concern about the leakage of qualified engineers to the City was expressed but a number of speakers commented that job quality and interest could for many people more than compensate for less spectacular financial rewards.

Some questions were raised about the sources of funding for an active industrial strategy and a few

speakers were keen to see the proceeds of the forthcoming 4G spectrum auction earmarked for it. However it was made plain that such a course would find no favour with the government and that a combination of coherent and consistent government policies, the large unused cash available within UK companies and some modest public funding would be the way forward. And, carefully designed and professionally executed public purchasing programmes could be invaluable in support of innovation.

The Panel emphasised on more than one occasion the vital importance of systems thinking and stress tests in policy design by government. And when one speaker asked about the contribution which social science could make to the industrial strategy, the answer was that successful policies were impossible without a well informed understanding of people and their motivation – a key area for social science.

A concluding remark from the Panel pointed to the impressive alignment of business, academia and government about the nature of need for an industrial strategy. The discussion process was now over. What was needed now was action.

Sir John Caines KCB

Web links relevant to the debate:

Comino Foundation
www.cominofoundation.org.uk

CBI Report on Industrial Strategy
www.cbi.org.uk/media/1821466/cbi_industrial_strategy_report.pdf

Department for Business, Innovation and Skills
www.bis.gov.uk

ERA Foundation
www.erafoundation.org

The Foundation for Science and Technology
www.foundation.org.uk

HM Treasury
www.hm-treasury.gov.uk

HR Wallingford
www.hrwallingford.com

Judge Institute, University of Cambridge
www.jbs.cam.ac.uk

Professor Alan Hughes, Enhancing Impact - The Value of Public Sector R&D
www.cbr.cam.ac.uk/pdf/Impact%20Report%20-%20webversion.pdf

Research Councils UK
www.rcuk.ac.uk

Continued on the next page

Research Councils UK Report: Investing for Growth
www.rcuk.ac.uk/documents/publications/RCUKFrameworkforCapitalInvestment2012.pdf

Royal Academy of Engineering
www.raeng.org.uk

The Royal Commission for the Exhibition of 1851
www.royalcommission1851.org.uk

The Royal Society
www.royalsociety.org

Society of Maritime Industries
www.maritimeindustries.org

Speech: Rt Hon George Osborne MP
www.hm-treasury.gov.uk/speech_chx_091112.htm

Speech: Rt Hon Vince Cable MP
www.bis.gov.uk/news/speeches/vince-cable-industrial-strategy-september-2012

The Rt Hon Lord Heseltine Report: No stone unturned in pursuit of growth
www.bis.gov.uk/assets/biscore/corporate/docs/n/12-1213-no-stone-unturned-in-pursuit-of-growth.pdf

Technology Strategy Board
www.innovateuk.org

office@foundation.org.uk
The Foundation for Science and Technology
A Company Limited by Guarantee
Registered in England No: 1327814
Registered Charity No: 274727