

Manufacturing Briefing

Written on behalf of the IET's Manufacturing Policy Panel

Over the last year, manufacturing has advanced rapidly up the public and political agenda. In this briefing document, the IET's Manufacturing Policy Panel summarises the current state of the UK's manufacturing sector and gives recommendations to Government on how to help secure a world-leading place for UK businesses as well as create new job opportunities.

A Briefing provided by the Institution of **Engineering and Technology**



About This Briefing

The Institution of Engineering and Technology acts as a voice for the engineering and technology professions by providing independent, reliable and factual information to the public and policy makers. This Briefing aims to provide an accessible guide to current technologies and scientific facts of interest to the public.

For more Briefings, Position Statements and Factfiles on engineering and technology topics please visit <http://www.theiet.org/factfiles>.

The Institution of Engineering and Technology

The Institution of Engineering and Technology (IET) is a global organisation, with over 150,000 members representing a vast range of engineering and technology fields. Our primary aims are to provide a global knowledge network promoting the exchange of ideas and enhance the positive role of science, engineering and technology between business, academia, governments and professional bodies; and to address challenges that face society in the future.

As engineering and technology become increasingly interdisciplinary, global and inclusive, the Institution of Engineering and Technology reflects that progression and welcomes involvement from, and communication between, all sectors of science, engineering and technology.

The Institution of Engineering and Technology is a not for profit organisation, registered as a charity in the UK.

For more information please visit <http://www.theiet.org>

© The Institution of Engineering and Technology 2010

The Institution of Engineering and Technology is registered as a Charity in England & Wales (no 211014) and Scotland (no SC038698).

Enquiries

policy@theiet.org

Contents

The Manufacturing Sector	3
Innovation and Investment	3
Low Carbon Goods	3
Public Procurement	3
Tax Regime	3
SME Sector	3
Infrastructure	4
Skills	4
IET Manufacturing Policy Panel	4

The Manufacturing Sector

The manufacturing industry is crucial to the economic wellbeing of the country. It accounts for 10% of total employment, generates 50% of UK exports and contributes 13% of GDP. This should be reflected in both the continued application of the Government's manufacturing strategy and in the promotion of the positive aspects of manufacturing to the population as a whole.

Recommendation:

The IET believes that a growing manufacturing base can help cut the UK's deficit, will play a crucial role in addressing the national debt as well as **transforming the economy**. To develop the manufacturing sector, there needs to be continued investment in the commercialisation of our scientific excellence.

Innovation and Investment

Exploiting the opportunities presented by the global market depends upon constant innovation in and development of products, manufacturing methods and resources focussed on understanding and satisfying customer needs. Manufacturing accounts for 75% of business funded research and development.

Recommendation:

Governments and organisations should seek to invest in innovation, experimentation and knowledge sharing between companies, universities and Government departments.

Low Carbon Goods

The Department for Business, Innovation and Skills (BIS) estimates that "the global market for low carbon goods and services is already worth over £3 trillion and growing rapidly." There are numerous opportunities for the manufacture of new products, services and components that will **reduce carbon emissions** across the UK and the rest of the world.

There is an enormous opportunity for the UK to take a global leadership role in low carbon manufacturing and low carbon technology. We have world renowned universities, research facilities and a long tradition of innovation and engineering.

Recommendation:

In order to achieve a low carbon economy, Government has to create the right environment to attract investment in the low-carbon industrial sectors of the future as well as low carbon processes for existing industrial sectors.

Public Procurement

The government spends £220 billion per annum on goods and services procured from the private and third sectors. With the right processes in place, public procurement can encourage innovation and the development of UK capability, by providing a vital source of financial support for innovative, high tech small and medium sized companies. However currently there is a tendency for government procurers to buy well-known, "off-the-shelf" products from established providers.

Recommendation:

There must be a change of culture across government. Procurers in government departments must be more willing to consider innovative ideas from suppliers. Departments must utilise the reformed Small Business Research Initiative (SBRI).

Tax Regime

The tax system increasingly fails to reflect the investment needs of modern manufacturing. It needs to support the manufacturing sector, promote increased investment in new technologies, make it easier to innovate and reward long term investment. The UK tax system needs to be internationally competitive to ensure businesses move their headquarters here and encourage inward investment.

Recommendation:

Government needs create a more sustainable **capital gains tax regime** and make the **R&D tax credit** less costly to claim, reflect a wider range of costs and allow companies to benefit no matter what point in the business cycle they are in. Government should make the tax system more transparent and drive down the administrative burden for companies.

SME Sector

Small and medium sized enterprises are crucial to the UK economy. In 2008 there were an estimated 323,000 manufacturing SMEs in the UK employing about 1.7 million people with a combined annual turnover of £181 billion. SMEs are often better able to innovate than large companies. This is because it is easier for SMEs to focus on niche markets and they have shorter decision chains which enable them to be more flexible and nimble.

Recommendation:

The UK Government needs to put in place an environment in which SMEs can thrive. Schemes such as the **Capital for Enterprise Scheme** and **Enterprise Finance Guarantee Scheme** must be built upon and advertised widely.

Infrastructure

The Eddington Transport Study highlighted that transport systems have played a pivotal role for economic growth in many economies. The performance of such transport systems can boost or hinder growth of GDP. The Eddington Transport Study estimated that eliminating existing **congestion** on the road network would be worth some £7-8 billion of GDP per annum.

Good communication and transport links are essential if manufacturers are to be successful in marketing and supplying their products to customers at home and abroad and establishing effective extended enterprises. This can only be achieved through the provision and maintenance of efficient and reliable telecommunications and road, rail and air infrastructures, which are linked seamlessly to the international communication and transport networks.

Recommendation:

It is clear that congestion will remain a problem in Britain and the government needs to take decisive action to tackle traffic in the long run. This will require some difficult choices and better demand management.

Skills

It is important to capitalise on the expertise held within UK manufacturing and to exploit best practice. The IET is committed to facilitating access to knowledge and providing an active network to promote knowledge sharing amongst its manufacturers.

The National Audit of Skills from the UK Commission for Employment and Skills identifies the fundamental importance of increasing **skill levels** for future economic growth over the long term. It has identified not only the range of high level skills which are necessary but also recognises the need for intermediate level and technical level to meet the needs of new manufacturing processes.

Recommendation:

Government needs to encourage sound employment practices which contribute to the development of competent workforces and use public procurement as a lever to contribute to the development of workforces. It needs to continue and expand investment in the skills infrastructure, including **further education colleges** and **apprenticeships**.

IET Manufacturing Policy Panel

The IET Manufacturing Policy Panel is made up of high profile representatives from large and small manufacturing companies, manufacturing academia and related organisations.

The aims of the panel are to:

- Provide guidance and direction to the IET on activities supporting the manufacturing sector
- Articulate a point of view about the prerequisites for a successful UK manufacturing industry and the role of the IET towards this end
- Maintain liaison with other interested and influential bodies
- Formulate responses, on behalf of the IET to appropriate government or non governmental organisation (NGO) publications and opinion and policy forming activities
- Provide the IET with advice on how the IET plan, annual reports and other IET publications might properly reflect strategic manufacturing considerations and appropriate communication
- Raise to the attention of the IET any items of concern or interest in the area of manufacturing



The Institution of Engineering & Technology
Michael Faraday House
Six Hills Way
Stevenage
SG1 2AY

01438 765690 - Policy Department
email: policy@theiet.org
<http://www.theiet.org/policy>
<http://www.theiet.org/factfiles>

© The IET 2010

The Institution of Engineering and Technology is registered as a Charity in England & Wales (no 211014) and Scotland (no SC038698).



This content can
contribute towards your
Continuing Professional
Development (CPD) as
part of the IET's CPD
Monitoring Scheme.
<http://www.theiet.org/cpd>