

ECONOMIC DEVELOPMENT AND TRANSPORT COMMITTEE

Date: 2 March 2006
Time: 2.00 – 5.00
Venue: Committee Room 2, Assembly Offices, Cardiff Bay
Title: Briefing Note by the Department of Trade and Industry on UK Innovation Policy

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Introduction

Nurturing and encouraging innovation is vital for the UK economy. In an increasingly competitive global environment, UK companies will find it increasingly difficult to compete primarily on cost: ingenuity, responsiveness to customer needs, quality and reliability will become increasingly important if firms are to build and sustain value. The UK is well placed to build on its present strengths, and the Government needs to provide a national framework to allow innovation to flourish.

The DTI Innovation Report, published in 2003, defines innovation as the successful exploitation of new ideas. Innovation is about staying one step ahead of the competition, increasing profit margin and sustaining the business in a competitive market. Successful innovation results in an organisation being able to anticipate customer needs and bring new value added products and services to local and world markets. In many industries and for certain types of innovation, investing in R&D helps create these products and services. Here sustained investment in R&D, combined with other related investment at the right levels, is essential in creating new jobs and providing innovation. But not all forms of innovation rely on investments in what is formally recorded as R&D. Industries that are not R&D intensive also innovate using different types of investment.

UK government responsibilities and relationship with the Devolved Administrations

The multi-faceted nature of innovation and innovation policy mean that the responsibilities of the UK government and Devolved Administrations are complex with both levels of government having an influence.

Certain parts of the national innovation system are the responsibility of the UK government, such as, for example, the Patent Office and the National Measurement System. Other important enablers of innovation such as public procurement, regulations and the education and training system are influenced both by the UK Government and the Devolved Administrations.

Within England, the Regional Development Agencies are important partners for Government in delivering our innovation objectives.

At a working level, liaison is maintained and developed through the Regional Innovation, Science and Technology (RIST) network which brings together DTI officials, including the Patent Office, with partners in the RDAs and the Devolved Administrations.

Ten Year Science and Innovation Investment Framework

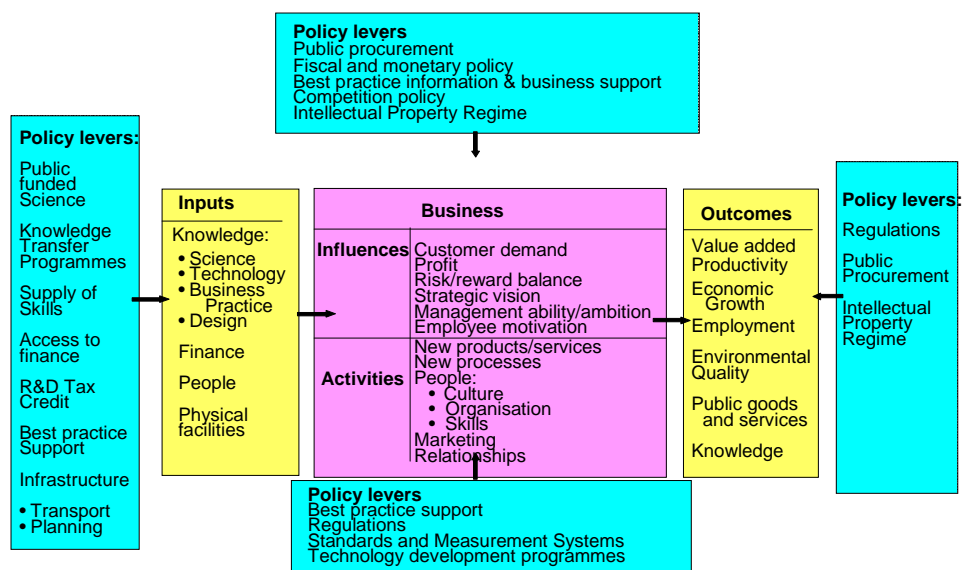
In 2004 the Government published a ten-year investment framework for science and innovation alongside the 2004 Spending Review. The framework sets out the Government’s ambition for UK science and innovation over the next decade, in particular their contribution to economic growth and public services, and the attributes and funding arrangements of a research system capable of delivering this.

This vision included the growth of R&D as a percentage of GDP to 2.5% by 2014. This is a challenging goal given recent trends in R&D, especially business enterprise R&D (BERD), which would need to increase from a current figure of 1.15% in 2004 to reach 1.7% by 2014. In July 2005 the first annual report was published, examining progress against key indicators. Raising the level of business investment in R&D remains a significant challenge. The 2004 figures subsequently published were disappointing given recent trends. Across the UK, the picture was varied with some regions seeing increases and some seeing BERD decrease. A fall of £36 million (14%) for BERD in Wales followed a very substantial increase in 2003.

Stimulating business innovation and R&D

There are a very wide variety of ways on which Government policy can facilitate and incentivise business innovation, summarised in the diagram below.

Innovation policy framework



For technology based innovation, the UK Government has introduced specific policies designed to provide incentives for businesses to invest in innovation and

(when appropriate) the required technology development and to encourage them to acquire the necessary knowledge and competences.

Support has been provided through the tax system using the R&D Tax Credit. In the 2005 Budget the Government announced its intention to enhance further the support for business R&D delivered via the R&D tax credit, and a discussion paper on this issue was published. It also announced that Government departments would be obliged to spend 2.5 per cent of their R&D procurement budgets with small- and medium-sized enterprises (SMEs), providing greater support for small innovative companies.

DTI also provides a range of solutions that offer practical support and encouragement at the different stages of the innovation process (see the extract below from our guidance for business which summarises these products).

Your Requirement	The solution	It provides
If you want to exploit an innovative idea and need advice	Grant for Investigating an Innovative Idea	Reimbursed consultancy to help businesses get advice on the steps needed to implement their ideas
If you have an innovative product or technology	Grant for Research and Development	A grant to help businesses carry out R&D that could lead to a technologically innovative product or process
If you need expert help to innovate	Knowledge Transfer Partnerships	A grant to cover part of the cost of using a person to transfer and embed knowledge into a business from the UK knowledge base via a strategic project
If you want to make contact with others in particular technology areas	Knowledge Transfer Networks*	A grant to an intermediary to set up a network in a priority technology area, bringing together businesses, universities and others with an interest in technology applications
If you want to work with others to develop particular technologies for exploitation	Collaborative Research and Development*	Funding for collaborative R&D projects between businesses, universities and other potential collaborators
If you spend money on R&D and would like to invest more	R&D Tax Credits	Significant tax relief on certain expenditures associated with R&D

DTI has also sought to provide sharper and more business-focused priority-setting for its investments in technology development and transfer (Collaborative R&D and Knowledge Transfer Networks) by setting up a business-led Technology Strategy Board to guide its investment decisions. The Board published its first annual report in November 2005¹. This emphasized the Board's vision and its objectives of helping to bring together businesses and research funders to concentrate efforts on UK wealth creation priorities.

National Innovation Assets

In addition to a strong science, engineering and technology (SET) base, the UK has a number of well established institutions that have performed essential and highly specialised functions for government, business and researchers. These institutions are a potential knowledge bank for business enabling them to develop new products and services. They constitute our national innovation assets. They can help businesses and we need to increase the impact they have.

One such example is the National Measurement System, the infrastructure that underpins the standards of measurement and develops the measurement technology that is a key driver of innovation in our economy. The NPL (National Physical Laboratory), LGC (the former Laboratory of the Government Chemist), NEL (the former National Engineering Laboratory) and the NWML (National Weights & Measures Laboratory) are our National Measurement Institutes (NMIs).

The Patent Office is also a National Innovation Asset - the management of Intellectual Property (IP) (patents, trademarks, copyright and designs) is crucial for innovating firms. Our IP framework is managed by the Patent Office, though much policy development takes place at European and global levels. The Patent Office has also developed strong links with the National Intellectual Assets Centre (NIAC) in Scotland. Businesses need to make well-informed decisions on how to manage their IP and guard against infringements of their intellectual property.

Working across Government

To improve our innovation performance, it is vital that a cross government approach is adopted. The DTI and the Office of Science and Technology (OST) have a key role to play, not least because the Secretary of State for Trade and Industry chairs the Cabinet Committee on Science and Innovation, but wider actions across a range of Government Departments are necessary if we are to achieve the best possible conditions for innovation. If real change is to be achieved then innovation must become embedded in the thinking of all departments and agencies, and there must be greater collaboration between them.

In addition to the R&D funded through the Science Budget, Government Departments including the NHS fund over £4.5 billion of R&D. This means that there are substantial opportunities for collaboration across Government, particularly in knowledge transfer to business. Public procurement of approximately £125 billion of goods and services per year also has huge potential to stimulate innovation when the public sector acts as an 'intelligent customer'.

¹ See www.dti.gov.uk/technologystrategy/Technology_Strategy_Board_Annual_Report_2005.pdf

As the European Commission Report 'Raising EU R&D Intensity'² said: "The boost to innovation derived from defence spending in the USA could be matched in Europe by innovation-orientated procurement in health and public security". Furthermore, Government can help through its sponsorship of particular industries and by drafting outcome-based regulations that promote, rather than restrict, innovation.

Department of Trade and Industry
February 2006

² See <http://europa.eu.int/comm/research/era/3pct/pdf/reportmixpublicsupport.Pdf>