



- The UK's "Digital Economy" will be central to the competitiveness of the UK in the future. This is one of the obvious conclusions to emerge from the Digital Britain report.
- The way in which the UK uses ICT for the benefit of citizens, industry and the environment will have real impact on quality of life and the economy.
- Industry research investment must be maintained in order to ensure the long-term health of the economy¹. However, without assistance, companies will struggle to maintain the necessary level of investment in research as well as the ratio of Research to Development².
- BT believes that current incentives for UK Industry-based research are minimal and insufficiently targeted to help reverse the downward trend in Industry research. This does not compare favourably with other parts of the world.
- Action is required to evolve the tax credit and research funding mechanisms specifically to protect and support Research – potentially a high positive impact for a modest investment.

Investment for Innovation

BT recognises the Government's support for the Digital Economy and in particular the announcement in the 2009 Budget to review the tax treatment of IP and innovation. However, the Digital Britain report provides a focus and stimulus to future action and the opportunity to ensure that investment in innovation is seen as an essential element of future success must not be missed.

BT welcomes the creation of the Digital Economy research hubs and clear coordination and direction for the research and innovation investments necessary to achieve Digital Britain. We believe the Technology Strategy Board should establish an Industry advisory board to help provide guidance on investment in innovation and research activities relevant to Digital Britain.

in addition, there are other measures that should be taken:-

- **Significantly increase the economic impact of academic research** - industry-based research plays a critical role in directing and exploiting academic research but is threatened during this recession. Exploitation requires an active collaboration between all parties. Government should offer more focused support to the industry's role in innovation for the UK economy.
- **Re-skill the UK workforce in preparation for the economic recovery** - ensuring the UK has the necessary innovation skills requires re-skilling of the current workforce and, in particular, an increase in skilled researchers in key ICT topics. There is, rightly, a strong focus at present on the training of new graduates and apprentices. The industrial experience necessary to capitalise on the upturn, however, lies within the existing workforce.

Further action required

Current incentives for UK Industry-based research are minimal and insufficiently targeted to help reverse the downward trend in Industry research, for example:

- tax credits are nominal at 8.5% and do not distinguish between Research and Development;
- funding for collaborative projects (through the Technology Strategy Board) is targeted at the mid-phase of innovation, with little support for final commercial exploitation or long-term research engagement with Universities.

¹ McKinsey Quarterly, February 2009; Harvard Business Review, January 2009

² RTEC, 2008.

This does not compare favourably with other parts of the world. For example, most recently BT has founded a new telecommunications research facility in the United Arab Emirates that is fully funded by the UAE government through Etisalat (UAE telecommunications service provider) and Kumar University.

Without immediate action, Industry research will tend towards shorter-term activities, becoming Development rather than Research. This will widen the gap between investment in academic research and exploitation by industry at the very time that Government is urging greater collaboration. Action is required to evolve the tax credit and research funding mechanisms specifically to protect and support Research. Modest investment in this area could lead to substantial returns.

Recommendations for action

1. Support Industry-based research and exploitation
 - 100% tax credit for direct funding of University work for core research and exploitation
 - 100% funding/tax credit for collaborative research through TSB and EU
 - 100% funding/tax credit for Industry contribution to Research Council initiatives

The most effective mechanism for collaboration and exploitation is the embedding of industry researchers in academia and vice-versa. In particular, embedding industry thought-leaders would help academia understand the research challenges critical to industry, help shape and drive the work programmes to address them and, most importantly, prepare the work for exploitation. Similar benefits would accrue from embedding lead academics in industry were this to be recognised as a positive contribution to a career in academia.

2. Improve the effectiveness of UK research through embedding of industry and academic thought-leaders
 - 100% funding/tax credit for Industry thought-leaders to lead academic research teams
 - Change academic career structure to recognise and promote internships for academics within Industry

In addition, the embedding of trained researchers with academic research teams provides the opportunity to combine collaborative research with up-skilling.

3. Support re-skilling of industry researchers
 - 100% funding/tax credit for industry researchers seconded into academic research teams.