



Innovation and Research Strategy for Growth – 8th December 2011 Summary and GuildHE / CREST Response

The Government's *Innovation and Research Strategy for Growth*¹, building on the *Strategy for Growth* and informed by the *BIS Economics Paper No 15*², also released today focuses on the following areas:

- the need to **balance** UK public investment in research and innovation in *both* 'blue skies' and applied or translational research (or, in other words, the 'need to maintain a balance in the breadth of disciplines funded and between **fundamental and user-led research**'³;
- building up the **skills base** of UK graduates, researchers and technical and support staff supporting innovation; FE as well as HE is mentioned here as key to the system, recognising that 'Turning creative ideas into new products or affordable production processes requires practical and higher level skills.'⁴ The *Strategy* also talks about the ration of degrees to businesses' ability to innovate.⁵
- the need to capture and further the potential of **SMEs** at the local, national and international level through R&D Tax Credits; venture capital support; Knowledge Transfer Networks (KTNs), Knowledge Transfer Partnerships (KTPs) and Small Business Research Initiatives operated by the Technology and Strategy Board; as well as increased access to public sector-generated data, more open public procurement practices⁶, and IP support;
- supporting engagement with Europe through Horizon 2020 and increased **international collaborations** (in particular with emerging economies such as China, India, Brazil and Indonesia);
- **collaborative and interdisciplinary research** with 'private, public and third sector research partners' is also included with respect to graduate skills, as well as the preference for consortia to solve problems and to work internationally and with business⁷

¹ www.bis.gov.uk/assets/biscore/innovation/docs/i/11-1387-innovation-and-research-strategy-for-growth.pdf

² www.bis.gov.uk/assets/biscore/innovation/docs/e/11-1386-economics-innovation-and-research-strategy-for-growth.pdf

³ Department for Business, Innovation and Skills, *Innovation and Research Strategy for Growth* (December 2011), p. 18.

⁴ *Ibid.*, p. 41.

⁵ *Ibid.*, p. 40.

⁶ *Ibid.*, p. 86.

⁷ *Ibid.*, p. 54.

- **local and regional networks** and the role HEIs play at ‘the centre of dynamic local economies and innovation and research systems, acting as the hubs of networks that link businesses with the research base and with the wider innovation ecosystem’,⁸
- a renewed emphasis on the IPO (both nationally and internationally⁹) and **Open Access**

The report also discusses the need to capitalise on ‘national assets’, including the general knowledge base, ‘applied research across a range of disciplines’ and ‘technology based sectors, designers and the creative industries’. The stated overall goal is to focus on initiatives that support a more ‘open and integrated innovation ecosystem’,¹⁰ and the need to ensure that the ‘ecosystem supports all stages of innovation and research’.¹¹ The *BIS Economics Paper No 15* reinforces the need for a broader definition and understanding of innovation:

‘Many approaches to innovation policy, both in the UK and other OECD economies, have favoured particular sectors or technologies. The emphasis has often been on research-intensive activities that produce ‘high tech’ products... In some cases there is a strong argument for this. Generic technologies, such as the digital complex, can have powerful cross-industry impacts, and are therefore very important in the policy agenda. However, **diverse innovative assets, which are the defining features of advanced economies, can be found across all sectors and all industries...the success of high tech industries, and their impact on productivity, depends on the extent to which they are adopted by other, lower-tech, industries.**’¹²

This paper also calls attention to the point that HEIs do not only contribute to the economy by generating economic profits; they are key ‘innovators’ in the longer term with respect to human resources and the production of highly-skilled graduates. The following three ‘**definitions**’ of **HE activity** speak particularly to the strengths of GuildHE Members’ institutions:

- ‘Universities create capabilities in teams and individuals, both in terms of particular areas of expertise as well as wider abilities to identify and address problems; that is, they are a major channel of investment in high-level skills’;
- ‘Universities maintain knowledge bases via teaching, via data storage and transmission, and via the maintenance of libraries and databases’;
- ‘Universities develop new forms of problem-solving and search heuristics that enable firms to address new problems in new ways; that is to say, they not only solve problems, they develop new ways to address them’;
- ‘Universities engage in reactive problem-solving via a wide range of formal and informal collaborations with firms. This is often done via informal contacts rather than formal collaboration agreements, and therefore does not normally show up on the usual indicators for university-industry interaction.’¹³

Other highlights of the *Strategy* include:

- References to entrepreneurial clusters in the US (including Boston, Austin and North Carolina), as well as international approaches to innovation coming out of Japan, Germany & Sweden.

⁸ Ibid, p. 47.

⁹ Ibid, p. 65.

¹⁰ Ibid, p. 4.

¹¹ Ibid, p. 47.

¹² Department for Business, Innovation and Skills, *BIS Economics Paper No 15*, p. 94.

¹³ Ibid, pp 81-2.

- Challenges driving discovery and development such as climate change and the ageing population, with the economic impact of research linked to ‘health, quality of life and creative output’.¹⁴
- The creative industries in particular are singled out as ‘the fastest growing sector of the UK’s economy’, to be supported by the AHRC and Design Councils, as well as vis-à-vis the TSB¹⁵.
- The agri-food and utilities sectors¹⁶ are singled out as ‘economically important sectors’ which will be the starting point for government supported innovation¹⁷, and there is a commitment to invest £80 million in the Institute for Animal Health.¹⁸
- The importance of ‘challenge-led innovation’, particularly in sectors such as ‘automotive, healthcare, agri-food, construction and digital systems’.¹⁹
- The central role of design in a number of areas, including an expanded role for the Design Council and increased funding for ‘Designing Demand’²⁰
- A series of ‘Innovation Inducement Prizes and Challenges’ focusing on areas such as climate change and communities, and the stimulating of new networks²¹

GuildHE / CREST have released the following initial statement reacting to the release of the *Research and Innovation Strategy*:
 GuildHE today welcomed the publication of the Government’s Innovation and Research Strategy.

GuildHE CEO, Andy Westwood, said:

‘Today’s strategy is very welcome indeed. It sets out the vital importance of innovation to the UK economy and a practical policy framework to make more of it happen. The approach rightly puts higher education and research at the centre of the UK’s growth strategy and also sets out clear steps for further improving our innovation eco-system.

‘We particularly support the emphasis on sectors such as the creative industries, agri-business, advanced manufacturing and aerospace and also the focus on access to finance, tax credits and public sector procurement. But perhaps most encouraging of all is that the strategy has embraced recent thinking and academic evidence of how open innovation increasingly takes place across organisations, sectors and borders and that the activities and interests of users and governments are vital. Crucially, the strategy also explains why innovation needs to happen across all sectors of the economy and in all parts of the UK.

‘The strategy may not generate the same level of attention as the Chancellor’s Autumn Statement last week, but it is potentially more significant. If this becomes the Government’s central story of economic growth, then at last there may be a reason for optimism.’

Dr Alisa Miller
 Senior Policy Advisor (Research & Innovation), GuildHE
 & CREST Research Network Coordinator

¹⁴ *Strategy*, p. 15.

¹⁵ *Ibid*, p. 25.

¹⁶ *Ibid*, p. 43.

¹⁷ *Ibid*, p. 45.

¹⁸ *Ibid*, p. 53.

¹⁹ *Ibid*, p.20.

²⁰ *Ibid*, p. 36.

²¹ *Ibid* P. 79.