

## **Maximising the benefits to the UK of Britain's science and research excellence: a Budget proposal for HMT to support productivity and address regional imbalances in growth**

### **Background**

1. Seventy two universities in England received less than £5m per annum in government funding for research yet they are crucial to the domestic and international postgraduate market. These universities are net contributors to their regional economies through graduate supply and interactions with national but also small and medium sized businesses including in the creative industries – a leading sector for the British economy which accounts for one in 12 jobs.
2. Research classified at 2\* under the Research Excellence Framework and defined as internationally recognised in terms of its originality and significance is not counted at all in Quality-Related allocations. As a result of the formula adopted by the Higher Education Funding Council, the following allocations will be made in 2015-16:
  - 35 universities receive less than £1m in recurrent research funding
  - 37 universities receive between £1m and £5m in recurrent research funding
  - 15 universities receive between £5m and £10m in recurrent research funding
  - 16 universities receive between £10m and £20m in recurrent research funding
  - 13 universities receive between £20m and £50m in recurrent research funding
  - 6 universities receive over £50m in recurrent research funding (almost 40% of the total budget) – 3 of these receive over £100m

### **The issue**

#### **Science and Research is at the heart of Britain's economic future**

- The government says that “with science and research shaping the future ...the economic case for investing in science and research is overwhelming.”<sup>1</sup>
- In a speech in Cambridge in April 2014 the Chancellor of the Exchequer said “support for and application of science is right at the centre of our long term economic plan.....”<sup>2</sup>

#### **But Britain spends less on Science and Research than its OECD competitors**

- Britain still spends less on research as a percentage of GDP than the 22 leading OECD countries and the level of our private sector spending on research and development as a percentage of GDP ranks at number 19 of the 34 OECD countries.<sup>3</sup>

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<sup>1</sup> BIS “Creating the future: A 2020 vision for research and science” P8  
[https://bis.gov.uk/citizenspace.com/digital/consultation-on-proposals-for-long-term-capital-in/supporting\\_documents/010514bis14757consultationonproposalsforlongtermcapitalinvestmentinsciencandresearch.pdf](https://bis.gov.uk/citizenspace.com/digital/consultation-on-proposals-for-long-term-capital-in/supporting_documents/010514bis14757consultationonproposalsforlongtermcapitalinvestmentinsciencandresearch.pdf)

<sup>2</sup> HM Treasury Chancellor of the “Exchequer’s speech on science in Cambridge” April 25 2014  
<https://www.gov.uk/government/speeches/chancellor-of-the-exchequers-speech-on-science-in-cambridge>

<sup>3</sup> million + “The Innovation Challenge: A new approach to research funding” September 2014

### **The Government's Science and Research budget is largely spent in areas of market success**

- Most of the Government's research funding is concentrated on a small number of universities.
- *The Innovation Challenge*, a report by million+ shows that in 2012-13, 25% of the UK's recurrent research funding went to just five of the 160 UK universities, of which 130 are in England. 50% went to just 12 universities and 75% of the funding went to under one third (31) of the universities. The remaining 130 universities (81%) received just 25% of the funding.<sup>4</sup>

### **But Britain is clearly failing in translating much of its ground breaking research discoveries into practical and economic uses for the benefit of Britain and our economy**

- The Chancellor recognises this problem. In his speech in Cambridge he said "for decades we have done too little to turn British ingenuity into commercial success. Again and again we have seen the best research in the world developed here in the UK – and then commercialised overseas. We're getting much better at avoiding this – we're making real progress. But we've still got a long way further to go."<sup>5</sup>
- The CBI has also pointed out that medium-sized businesses (MSBs) are the UK's 'forgotten army' with the potential to inject as much as £20bn into the economy by 2020<sup>6</sup>. MSBs make up 1% of firms, 23% of revenue and 16% of employment but MSB productivity has grown at less than 0.5% of large firms. In contrast German MSBs contribute twice the number of jobs.
- Projects such as the Catapult Centres make valuable contributions to universities and businesses in specific regions, but they are limited in number and geographically concentrated.

### **There is a particular problem in engaging SMEs and MSBs throughout the country in research. This is an area of potential market failure**

- The concentration of research funding in fewer and fewer universities means that universities with the best records<sup>7</sup> of working with SMEs and MSBs are not funded to develop research capacity to meet new and emerging markets. This leads to under investment in projects to translate research into practical applications that promote innovation and improve systems, supply chains and productivity in smaller and medium sized businesses.

### **One solution is to mobilise the existing valuable assets of universities which historically have not benefitted from large amounts of research funding and help them work more closely with their local SME and MSBs**

- Britain has an impressive network of universities which are undertaking research judged by the government to be excellent but these valuable assets are not being fully exploited.
- These universities are extremely well-placed to support a strategy that promotes sustainable growth and innovation in the regions through a fund geared at translational research.
- There are positive spill-over effects of university engagement with SMEs/ MSBs in respect of translational research. These include an increased likelihood that these businesses engage with universities in upskilling their workforces.

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<sup>4</sup> million + "The Innovation Challenge: A new approach to research funding" September 2014  
<http://www.millionplus.ac.uk/research-policy/reports/latest-reports>

<sup>5</sup> HM Treasury Chancellor of the "Exchequer's speech on science in Cambridge" April 25 2014

<sup>6</sup> CBI Pulling together: Unlocking growth in the UK's medium-sized businesses  
[http://www.cbi.org.uk/media/1196347/cbi\\_future\\_champs\\_a5summary.pdf](http://www.cbi.org.uk/media/1196347/cbi_future_champs_a5summary.pdf)

<sup>7</sup> See [Smarter Regions, Smarter Britain](#) pg. 9 million+ March 2014

## The proposal

### Growth by Research has two clear proposals

**1. Government should aim to increase the UK's investment on Science and Research so that it is within the top 10 OECD countries as a proportion of GDP**

- Currently the UK's combined public and private spend on research amounts to 1.7% of GDP. Business and universities agree that this needs to be improved. The CBI calls for the Government to work to increase this to 3% of GDP<sup>8</sup>. The Federation of Small Businesses calls for "the government to make a long-term commitment to increase public expenditure on research and development"<sup>9</sup>. The Campaign for Science and Engineering has also called for the government to increase spending on research to at least meet the European average of 2% of GDP.<sup>10</sup>

**2. Government should provide a new fund for translational research focused on those universities where excellent research exists but which receive less than £5m per annum in quality-related research funding**

- This funding should be recurring for 4 years but universities would need to demonstrate the value for money of the investments made.

## The cost

**We suggest that a total of £100 million per year over a 4 year period be provided for translational research funding which is specifically focused on work with SMEs and MSBs and allocated to universities in England which receive less than £5m per annum in funding and grants from HEFCE and the research councils. This would require a total budget allocation for the period of £400m – which is only around 3% of the overall annual recurrent research budget allocated to universities through funding bodies and research councils.**

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<sup>8</sup> CBI "Pulling Together – strengthening the UK's supply chains" P9  
[http://www.cbi.org.uk/media/3576042/cbi\\_supply\\_chain\\_report.pdf](http://www.cbi.org.uk/media/3576042/cbi_supply_chain_report.pdf)

<sup>9</sup> Federation of Small Businesses "Be the Voice of Small Businesses" FSB Businesses Manifesto for the 2015-20 Government. P25. <http://www.ibacksmallbusiness.com/wp-content/uploads/2014/10/FSB-A4-Manifesto-V2-WEB.pdf>

<sup>10</sup> Latest ONS figures bring good and bad news for government investment in R&D  
<http://sciencecampaign.org.uk/?p=17003>