



House of Commons

Business, Innovation and Skills  
Committee

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# Business-University Collaboration

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**Seventh Report of Session 2014–15**

*Report, together with formal minutes relating  
to the report*

*Ordered by the House of Commons  
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## Business, Innovation and Skills Committee

The Business, Innovation and Skills Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Business, Innovation and Skills.

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### Publications

Committee reports are published on the Committee's website at [www.parliament.uk/bis](http://www.parliament.uk/bis) and by The Stationary Office by Order of the House.

### Committee staff

The current staff of the Committee are James Davies (Clerk), Jessica Montgomery (Second Clerk), Peter Stam (Committee Specialist), Josephine Willows (Committee Specialist), Sonia Draper (Senior Committee Assistant), and Pam Morris (Committee Assistant).

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## Summary

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The UK has a world class university system, which produces internationally recognised research. Yet we do not necessarily see this output translated into economic gain. More can be done to bring businesses and universities together, in order to realise the economic benefits from our fundamental research. Business-university collaboration offers businesses access to cutting-edge research, high-tech infrastructure and highly skilled people, while giving universities an opportunity to develop their applied research and demonstrate the impact of their work.

The Catapult network has been a valuable addition to the mechanisms available to help commercialise research in the UK, as has Innovate UK itself. Continued support for both is required if the benefits of their work are to be fully achieved. The Government should prioritise further funding for these, and respond thoughtfully to the recommendations of the recent Hauser Catapult review when considering how the work of these centres should be developed.

A range of initiatives exist, or are in development, to improve information flows between universities and business and to provide spaces for collaboration to take place. If we are to capitalise on our strengths across the UK, a coordinated strategy is needed. Care is required to ensure that new initiatives add value to the existing system, rather than creating unnecessary complexity. We must also ensure that changes to funding structures, such as the Research Excellence Framework, do not shift resources away from the fundamental research which underpins the UK's innovation system.

Furthermore, nurturing the innovation system long-term requires ambitious goals for the sector and stable innovation support systems. We expect the Science and Innovation Strategy to deliver both. We urge the Government to aim for 3 per cent of GDP to be spent on research and development (R&D) by 2020. We also recommend that Government continues to protect the science budget and maintain, if not improve, funding for science and innovation in the next Spending Review.

# 1 Introduction

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## The UK's innovation landscape and business-university collaboration

1. The UK has a proven world-class standing in higher education and research.<sup>1</sup> Our universities are centres of excellence for research and leaders in education and, increasingly, they play an important role in national and regional economies. In 2011–12, the higher education sector contributed 2.8 per cent of UK Gross Domestic Product (GDP), generated over £73 billion in output and accounted for 2.7 per cent of all UK employment.<sup>2</sup> By collaborating with universities, business can gain access to cutting-edge research, high-tech infrastructure and highly skilled people.<sup>3</sup> Yet, despite these benefits, the Government has stated that “there are still too many businesses that are not reaping the rewards” of business-university collaboration.<sup>4</sup>

2. There have been numerous inquiries and reports addressing business and university interaction in recent years, and a considerable volume of analysis of the barriers to collaboration.<sup>5</sup> There have also been reviews detailing which businesses are most likely to collaborate with universities, and what forms those collaborations are likely to take.<sup>6</sup> These previous inquiries have found that differences across industry sectors and across higher education institutions mean there is no single model of effective collaboration, and few generally applicable solutions to the barriers that challenge interaction.<sup>7</sup>

## This inquiry

3. We launched our inquiry into business-university collaboration in March 2014. We sought evidence relating to:

- The strengths and weaknesses of business-university collaboration in the UK, including the UK's performance against international comparators;
- The effectiveness of Government initiatives to support innovation through business-university collaboration;
- Funding for innovation and business-university collaboration; and

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1 See, for example: BIS, [Hauser review of the Catapult network](#), November 2014, p29. Hermann Hauser is a technology entrepreneur who was asked by BIS to look at the future scale and scope of the Catapult network.

2 Universities UK, [The Impact of Universities on the UK Economy](#), 2014, Foreword

3 BIS, [Wilson review of business-university collaboration](#), February 2012, p3. Professor Sir Tim Wilson advises the Government on enterprise and entrepreneurship in universities. He carried out an independent review of business-university collaboration for BIS.

4 BIS, [Wilson review of business-university collaboration](#), February 2012, p3

5 See, for example: [the Wilson review](#), February 2012, [Government response to the Wilson review](#), June 2012, [Lambert review](#) carried out by [Sir Richard Lambert](#) for the National Centre for Universities and Business, 2003, [Witty review](#), October 2013, carried out by Sir Andrew Witty for BIS, Science and Technology Committee, [Bridging the valley of death: improving the commercialisation of research](#), Eighth Report of Session 2012-13, HC 348, and [Insights from international benchmarking of the UK science and innovation system](#), BIS, January 2014

6 See, for example, NCUB, [Connecting with the Ivory Tower: Business Perspectives on Knowledge Exchange in the UK](#), November 2013

7 See reports listed in footnotes 5 and 6

- The local growth agenda and business-university collaboration.

We received over 60 submissions of written evidence and we held eight oral evidence sessions, during which we heard from a range of interested parties in academia, business and government-backed innovation programmes. We thank everyone who helped with this inquiry.

4. This Report, as far as possible, avoids rehearsing the principles of the topic or focusing on individual case studies of collaboration, as a number of recent reports have already covered that territory.<sup>8</sup> Instead, it considers Government support for the broader innovation landscape, which creates the environment that will foster business-university collaboration, as well as suggesting where targeted and practical steps can be taken to improve existing collaboration initiatives.

5. We start by considering the work of Innovate UK, the Government's innovation agency, to support innovation. We then make recommendations about the following specific areas of work: information exchange between universities and business, funding for higher education innovation initiatives, and new or developing schemes. We conclude by outlining measures which should be taken into account in an over-arching UK Science and Innovation Strategy, which is expected to be published later in 2014.

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<sup>8</sup> See, for example, NCUB, [NCUB State of the Relationship](#), April 2013

## 2 Innovate UK: Government support for innovation

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### The work of Innovate UK

6. Innovate UK is “the UK’s innovation agency”, which “acts as the prime channel through which the Government incentivises business-led technology innovation”.<sup>9</sup> Its goal is “to accelerate economic growth by stimulating and supporting business-led innovation”.<sup>10</sup> Innovate UK was known as the Technology Strategy Board from its establishment in July 2007 until a re-branding exercise in 2014. Here, we concentrate on two areas of Innovate UK’s work: the Catapult programme and the Small Business Research Initiative.

### Catapults

7. According to the Department for Business, Innovation and Skills, one of Innovate UK’s “most significant schemes” which support collaboration is the Catapult programme.<sup>11</sup> It was established in 2010 to provide “business led, capital intensive infrastructure” that would complement existing innovation schemes.<sup>12</sup> Catapult centres should therefore act as “connective tissue between the very strong fundamental research base we have in universities [and] industry”.<sup>13</sup> This “network of elite technology and innovation centres” currently consists of seven Catapults, the first of which opened in October 2011,<sup>14</sup> with a further two planned.<sup>15</sup> The range of subjects covered by, and locations of, the existing Catapult centres are shown below (Figure 1).<sup>16</sup>

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9 Innovate UK (formerly the Technology Strategy Board) ([BUF27](#)) para 1

10 Innovate UK (formerly the Technology Strategy Board) ([BUF27](#)) para 4

11 BIS ([BUF64](#)) para 11

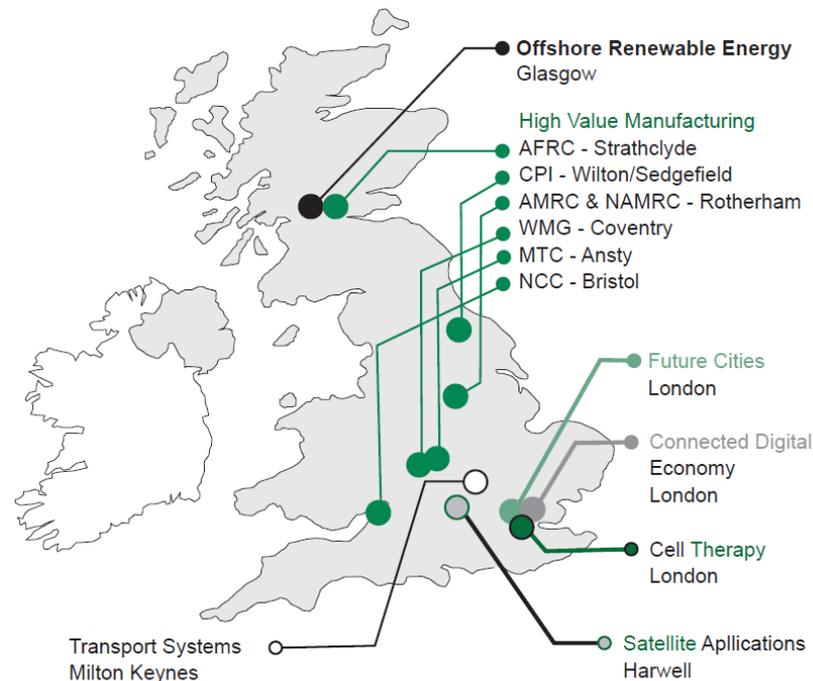
12 BIS ([BUF64](#)) para 12

13 Q48 [Professor Wren]

14 Technology Strategy Board, [Catapult Programme Progress update 2012-13](#), 2013, p11

15 Technology Strategy Board, [Catapult Programme Progress update 2012-13](#), 2013, p2

16 Many of these Catapults interact with universities in their areas. The locations of the centres are: the Cell Therapy Catapult (London); High Value Manufacturing Catapult (Strathclyde, Sheffield, Redcar, Coventry, Bristol, Rotherham and Warwick); Offshore Renewable Energy Catapult (Glasgow and Blyth); Satellite Applications Catapult (Harwell); Connected Digital Economy Catapult (London); Transport Systems Catapult (Milton Keynes); and Future Cities Catapult (London).

**Figure 1: Location of current Catapult centres, taken from [www.catapult.org.uk](http://www.catapult.org.uk)**

8. During the course of our inquiry, we heard about a range activities currently being performed by the Catapult centres to support businesses. These included:

- providing “full-scale equipment that SMEs would not necessarily be able to afford and would not necessarily have the expertise to operate”<sup>17</sup> and “access to something that, if they had to buy it, would cost millions”;<sup>18</sup>
- creating “an environment [which is] stimulating business”;<sup>19</sup>
- facilitating “access to data and to standard ways of integrating models”;<sup>20</sup>
- examining “the market for intelligent mobility: the movement of that market, and where the opportunities are”;<sup>21</sup> and
- taking “pure research to market and looking at the impact”.<sup>22</sup>

9. A review of Catapult activity, led by Dr Hermann Hauser, was published in November 2014. It focused on the progress which had been made since the centres were established and possible future directions for development of the network. Dr Hauser’s report outlined the following ways in which the Catapults are engaging with the research base:

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17 Q11 [Professor Wren]

18 Q70 [Professor Veck]

19 Q133 [Steve Yianni]

20 Q133 [Dr Zanelli]

21 Q144 [Dr Zanelli]

22 Q192 [John Latham]

- “Strategic relationships–formal partnerships with research base stakeholders;
- Joint programmes and projects with the research base and business;
- People and skills development including formal training provision (e.g. studentships); people exchange mechanisms (e.g. secondments); and continual professional development (e.g. MSc training); and
- Shared equipment and facilities”.<sup>23</sup>

Dr Hauser concluded that “interactions like these need to be embedded more consistently across the Catapult network”.<sup>24</sup> The recommendations of the review are set out in Box 1. Dr Hauser also urged the Government to “acknowledge the importance of building this network”.<sup>25</sup> The Minister gave evidence to us before publication of the review. At that time he told us that he was “a big supporter” of the Catapult programme, but did not commit in advance to endorsing the recommendations of Dr Hauser’s review.<sup>26</sup>

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23 Dr Hermann Hauser, [Review of the Catapult network](#), 2014, p39/40

24 Dr Hermann Hauser, [Review of the Catapult network](#), 2014, p40

25 Dr Hermann Hauser, [Review of the Catapult network](#), 2014, p4

26 Q368 [Greg Clark]

**Box 1: Hauser review recommendations:**

1. The UK must maintain its focus and commitment to investing in the existing Catapults, subject to effective performance and relevance, over the long term.
2. In keeping with international best practice, public sector funding must be prioritised to maintain the current 1/3 [core public funding], 1/3 [industry funding], 1/3 [competitively won collaborative R&D] funding model for existing, successful Catapults.
3. Innovate UK should grow the network of Catapults through a clear and transparent process, based on the current criteria, at no more than 1–2 centres per year, with a view to having 30 Catapults by 2030 with total core funding for the network of £400 million per annum.
4. Growth of the Catapult budget requires increased funding for Innovate UK in line with recent calls to double UK innovation spend, bringing the Innovate UK budget closer to £1 billion per annum by 2020, such that it can explore and invest in a wider portfolio of emerging opportunities and support the most promising areas at scale.
5. Each Catapult should work with Innovate UK to develop more effective SME engagement strategies. Approaches should include working with local authorities and business groups to reach potential high growth SMEs and important clusters of activity in regions across the UK.
6. Catapults should develop a stronger more coherent engagement model for working with Universities (national and international), building on best practice, with a view to drawing on and commercialising knowledge to help UK industry gain competitive advantage.
7. Innovate UK and the Catapults should work together to develop more sophisticated Key Performance Indicators (KPIs) that sit within Catapults' Grant Funding Agreements, that incentivise impact and engagement with industry whilst still ensuring that Catapults work ahead of the market. These should reflect the difference in the sectors and the maturity of the relevant centre.
8. Once established, Catapults should take advantage of their role as a neutral convenor to identify and help address wider barriers to innovation and commercialisation, and work with relevant parties to inform and deliver solutions. These could include regulatory and non-technological barriers such as business models and skills requirements.
9. Government should ensure that the 'Catapult process' developed by Innovate UK is used when deciding whether a business-led, physical infrastructure based initiative should be supported.

10. Our inquiry was told that the Catapults “have great potential”,<sup>27</sup> but the system was “still very new”.<sup>28</sup> As a result they needed “some space to operate”<sup>29</sup> before any attempt to measure value or change policy should be made.<sup>30</sup> The importance of allowing Catapults time to “settle” was stressed to us repeatedly.<sup>31</sup>

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27 Q169 [Professor Jones]

28 Q39 [Professor O'Nions]

29 Q194 [John Latham]

30 Q39 [Professor O'Nions] and Q194 [John Latham]

31 Q39 [Professor O'Nions and Dr Bradshaw] and Q194 [John Latham]

11. The Catapult network has made a promising start, with Catapults undertaking a range of activities in a range of fields. To capitalise on this, it is important that best practice is shared across the Catapult community so that existing work can be embedded more consistently across the network, as recommended by the Hauser review.

12. *We recommend that the Government commit to acting on the recommendations of the Hauser review, and to securing cross-party agreement for this action. As part of that commitment, we recommend that the Government conduct a light touch review that identifies effective examples of collaboration between universities and industry throughout the Catapult network, and ensures that this information is shared amongst interested parties to encourage and support further interaction. This review should be driven by the National Centre for Universities and Business and Innovate UK, building on the work of the Hauser Review.*

### **Public sector procurement and the SBRI**

13. Government procurement can be an important mechanism for supporting research and development (R&D).<sup>32</sup> Government-awarded contracts help with “developing and pulling businesses through in the very early stage” of technology development, thereby supporting innovation in the private sector.<sup>33</sup> The significance of this mechanism for supporting innovation was explained to us by Professor Alan Hughes, Director of the UK Innovation Research Centre, as follows:

In relation to small and medium-sized enterprises and institutional design, it is important to recognise that the most successful activity in promoting small businesses has not been venture capital financing; it has been public support through contracts.<sup>34</sup>

14. The Small Business Research Initiative (SBRI), which Innovate UK “champions”,<sup>35</sup> is a mechanism to assist innovative companies in competing for government procurement contracts. Innovate UK states that the SBRI gives government departments “access to the ground-breaking organisations that might provide new solutions to help them meet their objectives”.<sup>36</sup> Meanwhile, businesses gain a “lead customer” to support development of their product; have a reliable source of early-stage funding for prototype development; have a potential route to market; and establish intellectual property rights and credibility for further investment.<sup>37</sup>

15. In Budget 2013, the Government announced it would award £100 million of contracts via the SBRI process in 2013–14 and over £200 million in 2014–15. However, in his evidence to the Committee, the Minister told us that the £100 million target for 2013–14

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32 See, for example: NESTA, [Driving innovation through public procurement, 2007](#)

33 Q11 [Professor Hughes]

34 Q11 [Professor Hughes]

35 Innovate UK, [SBRI Government challenges, ideas from business, innovative solutions](#), 2013, p3

36 Innovate UK, [SBRI Government challenges, ideas from business, innovative solutions](#), 2013, p2

37 Innovate UK, [SBRI Government challenges, ideas from business, innovative solutions](#), 2013, p3

had not been met, with only £78.5 million being allocated via the SBRI.<sup>38</sup> Furthermore, he was unable to give information about progress towards the £200 million target for 2014–15.<sup>39</sup> The Minister acknowledged that this was a failing and that Government “can and should do better with this”, as it was “one of the big opportunities” for small businesses. He therefore wanted “to see further progress”.<sup>40</sup> An evaluation of the SBRI’s success is currently underway and expected to report early next year.<sup>41</sup>

***16. In its evaluation of the Small Business Research Initiative, the Government should explain why it failed to meet the £100 million target for contracts awarded through the scheme in 2013–14. It should also use this review to assess the assumptions made in setting targets for the scheme, in order to confirm that there is reasonable basis for believing the £200 million target for 2014–15 can be met. If the evaluation demonstrates that the Small Business Research Initiative is not on track to meet its £200 million target, the Government should make clear the corrective steps it will take to address the underperformance. The Government should report back to us with the outcome of this review by the end of January.***

## Innovate UK’s funding

17. The major concern were heard about the operation of Innovate UK related not to its work, but to the resources available for that work. Antony Harper, Head of Research for Jaguar Land Rover, told us that Innovate UK was “very effective” but “underfunded”,<sup>42</sup> while Professor Paul Beasley, Head of R&D at Siemens, argued that Innovate UK needed “sustained funding”.<sup>43</sup> The CBI also asserted that Innovate UK was “under-resourced to fulfil its mission”.<sup>44</sup>

18. Iain Gray, Innovate UK’s CEO, explained its current funding situation as follows:

We are underfunded. In terms of where I think the priorities lie, if you look at our programmes to support the SME community, [...] it has got a 25% success rate, capped, simply, by the funding levels that are available to us, so there is a very significant scope for increasing the support of SMEs through increased funding. It is important to recognise in this context that it is not just about funding; it is about providing the backup to that funding through joined-up government access to coaching, mentoring, UKTI, and the Intellectual Property Office.<sup>45</sup>

Subsequent evidence from Innovate UK stated that:

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38 Q376 [Greg Clark]

39 Q378 [Greg Clark]

40 Q378 [Greg Clark]

41 HC Deb, 3 February 2014, [c15W](#) [Commons written answer]

42 Q223 [Antony Harper]

43 Q362 [Professor Beasley]

44 CBI, [Pulling together: strengthening the UK’s supply chains](#), 2014

45 Q267 [Iain Gray]

46% of all proposals we receive warrant funding. However, only 24% of proposals were successful in receiving funding between September 2013 and August 2014, a further 22% were of sufficient quality to have been funded had funds allowed.<sup>46</sup>

19. Although concerns about Innovate UK's resources were widespread, we were urged by Dr Henner Wapenhans, Head of Technology Strategy at Rolls Royce, and Professor Nigel Thrift, Vice Chancellor at the University of Warwick, to treat calls for increased funding with care, as it would not be productive to make further resources for Innovate UK available by transferring resources from other areas of the science and innovation budget.<sup>47</sup> We were also told that Government should not fund Innovate UK "at the expense of underpinning funding for the research councils on the basic research" because this was "as important" as applied research.<sup>48</sup> As Will Hutton, Chair of the Big Innovation Centre, explained:

Making certain that the top 10 research-based universities in this country carry on being as damn good as they are in 20 years' time is absolutely fundamental; otherwise, we have nothing. The funding that delivers that should be kept.<sup>49</sup>

20. The Secretary of State has previously set out the case for further funding for Innovate UK, arguing that:

The annual [Innovate UK] budget is approximately 0.03% of GDP, or £500 million. Doubling annual innovation spend could bring its resources closer to £1 billion. It would enable the Catapult network to be deepened and widened and lift some of the crippling barriers to private funding [...] a further £500 million of public investment could mean at least a £1 billion more of innovation spend every year across the UK.<sup>50</sup>

The Minister told us that "it would be a greater problem" if there was "a paucity of good ideas for funding" through Innovate UK.<sup>51</sup> In addition:

Over the Parliament, which has been a difficult Parliament in budgetary terms as we all know, the investment in science has been ring-fenced and the capital has been increased. We have established the Catapults and increased the funding of what is now Innovate UK for those Catapults, so we have made those investments.<sup>52</sup>

***21. We recommend that Innovate UK routinely publish the total number of applications, proportion of applications that merit funding, and proportion of***

46 Supplementary written evidence from Innovate UK

47 Q338 [Dr Wapenhans] and Q185 [Professor Thrift]

48 Q342 [Dr Skingle]

49 Q11 [Will Hutton]

50 [Speech by the Secretary of State](#), 22 July 2014

51 Q389 [Greg Clark]

52 Q387 [Greg Clark]

*applications that receive funding as part of its annual report. We further recommend that Research Councils UK publish comparable data on applications for, and successful securing of funding for, their initiatives that are designed to support and promote business-university collaboration.*

*22. The Secretary of State has set out the case for doubling Innovate UK's budget. The Autumn Statement and planned Science and Innovation Strategy are opportunities for the Government to give a statement of intent about increasing funding for Innovate UK over the course of the next Spending Review. Investing in innovation brings about demonstrable economic returns. We therefore expect the Minister to be arguing strongly for increasing Innovate UK's funding, in addition to protecting the financial support for science and innovation more broadly, in forthcoming Spending Review negotiations. Any increase in funding for Innovate UK should not be secured by diverting funding away from, or diminishing the remainder of, the science budget.*

## 3 Initiatives to support collaboration

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23. In addition to the initiatives administered through Innovate UK, a range of other programmes exist to support business-university collaboration through universities and local partnerships. In this section, we discuss activity aimed at increasing information flows between business and universities, changes to the funding landscape for university research, and new schemes aiming to further develop the business-university collaboration support landscape.

### Information exchange between universities and business

24. The evidence we received suggested that the difficulty that businesses encountered when trying to access research and understand who might be a potential research partner was a key barrier for business-university collaboration.<sup>53</sup> We heard that the single most positive step the Government could take to improve business-university collaboration would be to ensure that the existing support was visible, clear and coordinated, using “targeted action to improve information rather than unconstrained funds”.<sup>54</sup> Here, we consider three initiatives which aim to improve information flows: the Gateway to Research, the planned collaborative online platform and the university single point of contact.

### Gateway to Research

25. The Gateway to Research is a Research Councils UK initiative, launched officially in December 2013, which:

Provides a single entry point of access to information on what and whom we fund, and the outcomes of that research, in an accessible way that benefits users. The website has been designed to be of particular interest to innovative SMEs enabling easy access to information about current research projects and outcomes of past projects.

26. We heard that while this platform was “fit for purpose” and “quite a useful tool”,<sup>55</sup> it could take “time and effort” to navigate, which risked putting off small and medium-sized enterprises (SMEs)<sup>56</sup> We therefore questioned Research Councils UK about the extent to which SMEs were using this resource, but this information was not available, as a capability to monitor users by type had not been built into the system.<sup>57</sup> Research Councils UK acknowledged that this was a weakness in the system, which needed to be addressed.<sup>58</sup>

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53 For example: Q122, Q333, Axillium ([BUF66](#)) para 1, Institute of Cancer Research ([BUF61](#))

54 NCUB ([BUF20](#)) para 23

55 Q333 [Dr Wapenhans] and Q336 [Dr Skingle]

56 Q333 [Professor Beasley]

57 Q239 [Professor Hunter]

58 Q242 [Professor Hunter]

According to Research Councils UK, options for evaluating Gateway usage were currently under consideration.<sup>59</sup>

**27. The Gateway to Research was intended to help SMEs access information about the research base. We are aware that this portal is still being developed. However, we are concerned about the lack of a capability to monitor who is using the Gateway, and therefore whether it is reaching its desired audience. This capability should be developed as a matter of priority, with the resulting data being used to inform the Gateway's future development. We recommend that, in its response to this report, RCUK provides details of the monitoring and evaluation of Gateway to Research users that will be undertaken, a timetable for data collection and an explanation as to how this data will inform future iterations of the Gateway.**

### **Collaborative online platform**

28. In addition to Research Councils UK's Gateway to Research, the Government has promised a new online platform to improve the accessibility of research and expertise. The National Centre for Universities and Business (NCUB) is:

Developing a collaborative online platform which joins up university research and expertise with the needs of business. These intelligent brokering services, using online tools to pair up local businesses with the institutions and researchers that can support them, offer a potentially clear and simple way for businesses to access the research and expertise that can drive forward their growth.<sup>60</sup>

David Docherty, CEO of the National Centre for Universities and Business, told us that this platform would go beyond the Gateway to Research, in terms of delivery:

[It] would be a bit like an eBay for intellectual property: could you find a way of the whole system coming together to support all the information that is available from universities, and through the research councils and the TSB, on one platform? We have been talking to all of those players for the past 12 months and there is a general agreement that this is a good idea.<sup>61</sup>

29. Iain Gray, CEO of Innovate UK, said that this new resource would add value to the existing system, by “taking advantage of existing databases like the Gateway to Research” and by helping “the SME that sits in one part of the country and is trying to access research capability in another part of the country”.<sup>62</sup>

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59 RCUK ([BUF74](#)) para 1

60 BIS, [Government's response to Sir Andrew Witty's Review of Universities and Growth](#), 2014, p10

61 Q55 [Dr Docherty]

62 Q247 [Iain Gray]

30. As yet, there is little information about what exactly is being developed, by whom and to what timetable.<sup>63</sup> Furthermore, the feedback we received on the platform's development did not seem to indicate that there had been comprehensive consultation on the subject.<sup>64</sup>

**31. It is of paramount importance that research capability and funding opportunities to support collaboration are easily accessible, clear and navigable through a single interface. The new NCUB online platform should be developed to complement, rather than complicate, the existing information systems. However, it is unclear what processes or structures, if any, are in place to build on the capability of the Gateway to Research as part of this new platform.**

*32. As much of this work is being conducted by the National Centre for Universities and Business (NCUB), we recommend that the NCUB set out its plans for the development of the online collaborative platform. This should include an assessment of existing platforms and their respective capabilities, so that NCUB can demonstrate it is building on, rather than duplicating or complicating, existing capabilities. We also recommend that the NCUB includes in these plans a clear statement of objectives, planned functions and information on how it will engage with interested parties in the platform's development, alongside an estimated timetable for launch. The ability to monitor or classify users by type should be built into the platform's capability from an early stage.*

### Single point of contact

33. In addition to the development of online databases, there have been calls for each university to “have a single point of entry to triage the needs of SMEs and direct them to the relevant part of the university”.<sup>65</sup> The Government has previously rejected the idea of making a single point of contact for collaboration in universities mandatory, noting that such a contact point was encouraged<sup>66</sup> and already in place in the majority of institutions.<sup>67</sup>

34. We heard mixed opinions from universities on the utility of a single contact point. University Alliance supported the approach and said that their members had such a contact.<sup>68</sup> However, we were told this could be “a difficult area”,<sup>69</sup> and that universities sometimes preferred to establish their own “sector-based gateways” instead.<sup>70</sup> For example, Sir Keith O’Nions, President and Director of Imperial College, said:

We don’t [have a single point of contact for SMEs]. That is not to say that I disagree at all with universities having single portals. The reason we haven’t is pragmatic. I have already described that we have nearly 100 companies for

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63 Q335 [Professor Beasley and Dr Skingle]

64 Q237 [Professor Hunter], Q244 [Professor Hunter] and Q335 [Professor Beasley and Dr Skingle]

65 BIS, [Encouraging a British Invention Revolution: Sir Andrew Witt’s Review of Universities and Growth](#), para 14, See also: Science and Technology Committee, Eighth Report of Session 2012-13, [Bridging the valley of death: improving the commercialisation of research](#), HC 348.

66 BIS, [Government’s response to Sir Andrew Witt’s Review of Universities and Growth](#), 2014, p 4

67 As measured through the annual HE-BCI survey.

68 Q34 [Libby Hackett]

69 Q164 [Nigel Foster]

70 Q164 [Professor Jones]

which we are the landlord in our properties which have a particular SME relationship with the university.<sup>71</sup>

In addition, although a “way of getting beyond the Byzantine internal structure of the university and presenting a face that made sense”<sup>72</sup> was valuable, Professor Richard Jones, Pro-Vice Chancellor for Research and Innovation at the University of Sheffield, told us that universities should have to pay more than lip service to this. He argued that it was:

Not [...] good enough just to say, “Okay, we will put up a website that says, ‘If you need us, this is the telephone number to ring.’” We need to actually understand how we can help, and in some places it could be research, but a lot of universities are deep institutions. Maybe, because we have got a Korean speaker, we could help [SMEs] find some new export markets. There are many different things.<sup>73</sup>

**35. The single point of contact can be a useful point at which universities can gauge demand from industry for interaction and capacity to meet that demand. This single point of entry should be designed to enhance the other ways in which universities are encouraging interaction with industry.**

*36. Every university should have a single point of contact for businesses that are seeking to collaborate. The forthcoming NCUB online portal should clearly signpost contact information for each university, so that businesses looking to collaborate can easily find someone to talk to as a first point of call.*

## University-based funding for innovation

### *Higher Education Innovation Funding (HEIF)*

37. Higher Education Innovation Funding (HEIF) is provided by the Higher Education Funding Council for England (HEFCE) “to support and develop a broad range of knowledge-based interactions between universities and colleges and the wider world”.<sup>74</sup> HEIF is used “to support business engagement” by hiring business support staff and securing the time of relevant academics.<sup>75</sup> HEIF has the potential to be important in helping a broader range of universities access funding for innovation. Professor Alan Hughes, Director of the UK Innovation Research Centre at the University of Cambridge, explained that in terms of university funding:

Because the quality-related bit from the funding councils and the research council bit are massively concentrated in the top 10 to 15 universities, the amount that other universities get from those two sources is quite small [...]

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71 Q34 [Keith O’Nions]

72 Q164 [Professor Jones]

73 Q164 [Professor Jones]

74 HEFCE, [What we do](#), accessed November 2014: HEFCE funded institutions in England are eligible to receive HEIF.

75 Q271 [Dr Sweeney]

HEIF is a very interesting incentive mechanism because it could lead to some valuable differentiation in our university system.<sup>76</sup>

38. Sir Andrew Witty's review of how universities could support local growth recommended that "the Government should make an explicit long-term commitment to HEIF, which should increase to £250 million a year" in order to strengthen incentives for universities to engage with SMEs.<sup>77</sup> That proposal received widespread support.<sup>78</sup> Our inquiry heard that HEIF "has been one of the demonstrably most successful uses of public money" and that there was "a very strong case"<sup>79</sup> for increasing it as a result of the "robust"<sup>80</sup> returns it has shown.

39. The Government has resisted Sir Andrew Witty's recommendation, arguing that "in the current tight fiscal environment [...] we are unable to commit to raising the level of HEIF funding".<sup>81</sup> However, the Minister told us that the existing level of HEIF was "not to be sneezed at":

The fact that it is seen to be, and is, successful is a good thing. [...] We have set the Spending Review; that sets the envelope, as you know, for this period. The next one is next spring. It is no doubt the case, and I am sure the Committee will reinforce it in its report, that the higher education innovation funding mechanism has been a success, and no doubt will be a prime candidate for investment in the future.<sup>82</sup>

**40. There is widespread support for increasing HEIF to £250 million per annum. HEFCE is currently assessing the evidence base for increasing HEIF. If the evidence base presented as a result of HEFCE's review of HEIF funding is strong, the Government should prioritise additional funds for HEIF in the next Spending Review.**

### **Measuring 'impact' of academic research**

41. The Research Excellence Framework (REF) is the system by which the quality of research in UK higher education institutions is assessed by higher education funding bodies.<sup>83</sup> It is a periodic assessment used to inform how research funding is allocated, provide benchmarks of institutional performance, and to help demonstrate the benefits of public investment in research.<sup>84</sup> The 2014 REF exercise required that the "impact" of

76 Q6 [Professor Hughes]

77 BIS, [Government's response to Sir Andrew Witty's Review of Universities and Growth](#), 2014, p17

78 See, for example: Q31 [Keith O'Nions], Institute of Cancer Research ([BUF61](#)), University of Cambridge ([BUF57](#)), GSK ([BUF56](#)), Oxfordshire County Council ([BUF60](#)), University of Manchester ([BUF52](#)), Russell Group ([BUF47](#)), National Physical Laboratory ([BUF38](#))

79 Q31 [Keith O'Nions]

80 Q5 [Professor Hughes]

81 BIS, [Government's response to Sir Andrew Witty's Review of Universities and Growth](#), 2014, p17

82 Q401 [Greg Clark]

83 REF, [Homepage](#), accessed November 2014

84 REF, [Sector impact assessment](#), 2014

research be included in the overall assessment of research quality. Impact was considered in terms of the “reach and significance” of research outputs.<sup>85</sup>

42. There was positive feedback about inclusion of impact criteria within the 2014 REF.<sup>86</sup> However, we heard concerns about the reliability of mechanisms to measure impact and whether a focus on immediate, measurable outcomes from research would direct funding away from the basic research which is considered a strength of the UK university system. For example, the Russell Group warned that further increases to the weighting assigned to this particular REF criterion could “create perverse incentives” for universities to “discourage fundamental research of a novel and high risk nature”.<sup>87</sup> It is believed that if the weighting attached to impact was increased further, universities might be inclined to alter their strategies accordingly, to the detriment of basic research.<sup>88</sup> We heard it was “very important”<sup>89</sup> to maintain the focus on basic research and not “dilute”<sup>90</sup> this, as there was “a real risk”<sup>91</sup> that doing so would undermine the strength of our research base.<sup>92</sup> HEFCE is currently carrying out an evaluation of the introduction of impact to the REF assessment process.<sup>93</sup>

**43. Done properly, assessing impact as part of the Research Excellence Framework should help the higher education community to better communicate the purpose and quality of its work. Impact criteria should therefore enhance research quality assessments, not detract or distract from basic research, which may not have an immediately obvious commercial application. Our understanding of “impact” therefore needs to include social, economic and cultural factors, as well as how research can transform thinking within a field. Achieving this understanding will require sophisticated metrics, as well as an assessment mechanism designed to avoid the submission of stock answers as evidence to the review.**

**44. Care will be required when considering how much weight is assigned to impact within the overall assessment programme. The ability to produce high quality fundamental research is a strength of the UK’s innovation ecosystem. This should not be taken for granted. There is a risk that increasing the weighting assigned to impact within the Research Excellence Framework beyond 20 per cent could distort funding away from this type of work, to the detriment of the overall system.**

**45. HEFCE should proceed with caution, and appropriate consultation, in its evaluation of impact criteria, taking into account concerns about both criteria design and weighting. Such consultation should include the full range of academic disciplines expected to engage**

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85 REF, [Assessment criteria and level definitions](#), 2014

86 See, for example: Q328 [Dr Skingle], GSK ([BUF56](#)), Fraunhofer UK ([BUF54](#)), University Alliance ([BUF37](#))

87 Russell Group ([BUF47](#))

88 Q89 [Professor Fitt and Professor Walmsley]

89 Q39 [Professor Dawson]

90 Q45 [Professor Dawson]

91 Q89 [Professor Walmsley]

92 Q155 [Professor Jones]

93 HEFCE ([BUF42](#)) pa ra 7

*with the REF, in addition to other interested parties. HEFCE should set out plans for such a consultation.*

## New initiatives to support collaboration

46. In addition to national, government-based initiatives to support innovation and collaboration, Local Enterprise Partnerships (LEPs) also play an important role. LEPs are “joint local-authority-business bodies” which work “to promote local economic development”.<sup>94</sup> We have previously commented on their work in our report on the subject.<sup>95</sup> Here, we consider two schemes in which LEPs may have a role in supporting business-university collaboration: University Enterprise Zones and a new advisory hub.

### University Enterprise Zones

47. A pilot initiative to create University Enterprise Zones (UEZs) was launched in 2014. These zones would “allow universities to push through local growth plans and support entrepreneurship and innovation” by providing spaces for small businesses and facilities for sharing knowledge with universities.<sup>96</sup> The evidence we received about University Enterprise Zones consistently said it was too early to evaluate the initiative, but warned that the funding pool (£15m) was very low,<sup>97</sup> and that the pilots lack “many of the incentives” found in established Enterprise Zones.<sup>98</sup> There were also concerns about the rules regarding who could apply to take part in the UEZ pilot, such as geographical restrictions or potential difficulties in submitting cross-LEP bids.<sup>99</sup> The view of our witnesses was that Government needed to “ensure that [UEZs] become part of the long term regional and national infrastructure”<sup>100</sup> and to investigate “how they overlay with things like city deals and with the economic development plans of LEPs”.<sup>101</sup>

**48. Universities are in a strong position to be able to drive growth across the country. Many have been active in local growth initiatives for some time, for example by engaging with LEPs. UEZs need to fit within this existing local ecosystem for innovation. How this is achieved should be built into the evaluation of the UEZ pilot scheme, using the examples of effective collaboration already highlighted by previous reviews.**

**49. LEPs must have the freedom to work collaboratively to develop innovative bids for future UEZs that maximise benefits from the low levels of available funding. The Government should confirm that future rounds of applications to the UEZ programme will be less restrictive in terms of who can apply to set up a UEZ, for example cross-LEP bids.**

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94 Cabinet Office, [The Coalition: Our programme for Government](#), p10

95 Business, Innovation and Skills Committee, Ninth Report of Session 2012-13, [Local Enterprise Partnerships](#), HC 598

96 BIS, [Supporting economic growth through local enterprise partnerships and enterprise zones](#), 2014

97 Q45 [Libby Hackett], Q46 [Dr Bradshaw] and University of Cambridge ([BUF57](#))

98 Q45 [Libby Hackett], Q46 [Dr Bradshaw], University of Bristol ([BUF40](#)); Russell Group ([BUF47](#))

99 University of Hertfordshire and Hertfordshire LEP ([BUF43](#)); Bournemouth University and Dorset LEP ([BUF35](#))

100 Engineering Professors Council ([BUF41](#))

101 Q46 [Professor Purcell]

### **The proposed NCUB Advisory Hub**

50. “Smart specialisation” is a framework designed to encourage local innovation “with each region building on its own strengths, to guide priority-setting in national and regional innovation strategies”.<sup>102</sup> A smart specialisation strategy is defined by the EU as follows:

‘Smart specialisation strategy’ means the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation strengths to business needs in order to address emerging opportunities and market developments in a coherent manner, while avoiding duplication and fragmentation of efforts.<sup>103</sup>

51. Development of so-called smart specialisation strategies is a necessary condition in order to apply for certain categories of funding, in particular European structural funds.<sup>104</sup> The European Structural and Investment Funds “are the EU’s main funding programmes for supporting jobs and growth”.<sup>105</sup> LEPs submitted their strategies for the use of these funds in early 2014. Despite these strategies having been appraised by BIS and Innovate UK,<sup>106</sup> there appears to be little information available about their implementation.<sup>107</sup>

52. The Government has agreed to set up an Advisory Hub for smart specialisation, the development of which is being led by the National Centre for Universities and Business, in order to help “better connect universities and businesses to aid local growth”.<sup>108</sup> As Antony Harper, Head of Research at Jaguar Land Rover, told us “if we know that institution X or Y is the national centre for expertise for X or Y then it is much easier” to engage.<sup>109</sup> In a recent consultation paper, the National Centre for Universities and Business (NCUB) set out its plans to develop this Hub. This stated that:

The Advisory Hub will act to pull together the evidence on what is working and aid strategic decision making about where strengths really lie. To encourage and attract greater regional R&D investment, there needs a greater focus on specialising in areas where a region can make a real difference. Once this is better understood then strategic and collaborative action can follow.<sup>110</sup>

David Docherty, CEO of the NCUB, told us that they were “still trying to understand” exactly what smart specialisation meant for the innovation ecosystem, but that he was “hoping that we will be a trusted source of information”.<sup>111</sup>

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102 European Commission, [Guide to Research and Innovation Strategies for Smart Specialisations](#), 2012, p8

103 Council Regulation ([EC No 1303/2013](#))

104 Council Regulation ([EC No 1303/2013](#))

105 BIS, [Making European funding work better for the UK economy](#), 2013

106 Innovate UK (formerly the Technology Strategy Board) ([BUF27](#)) para 59

107 PraxisUnico ([BUF15](#))

108 NCUB, [David Willets confirms NCUB to lead Advisory Hub](#), April 2014

109 Q223 [Antony Harper]

110 NCUB ([BUF20](#))

111 Q63 [David Docherty]

53. The NCUB will make recommendations about how to proceed with the proposed Hub to Government, with an expectation of a ministerial decision on the way forward in late 2014 and establishment of the Hub from early 2015. The Minister told us that he was “considering” the NCUB’s proposals, but could not give a date at which a decision, or further information, would be announced.<sup>112</sup> In the meantime, the devolved administrations have developed their own smart specialisation strategies, LEPs have submitted their strategies for European structural funding, and it is unclear from the NCUB consultation document what involvement these administrations would have with the national Hub.<sup>113</sup>

**54. If the UK is to have a coherent innovation strategy, it is vital that there is a UK wide picture of the capacity, capability and coherence of local innovation ecosystems, and how these contribute to UK-wide growth goals. Smart specialisation should be the means by which we understand the relative strengths and weaknesses of local, devolved and national innovation landscapes and strategies. Businesses operate across these borders and therefore government at all levels must provide a coherent package of innovation support.**

*55. LEPs should be fully consulted as a key stakeholder in developing the NCUB Advisory Hub. This would allow sharing of best practice and advice on implementing strategic plans for European Structural and Investment Fund allocations. These attributes should be built into the NCUB’s recommendations to Government on the way forward for the Advisory Hub. The proposed Advisory Hub should complement and link with the planned NCUB online platform. In addition, the Hub should link with existing relevant work, such as best practice guidance and other sources of Government support for business.*

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112 Q418 [Greg Clark]

113 NCUB, [Smart Specialisation Advisory Hub](#), accessed November 2014

## 4 Contributing to a UK Innovation Strategy

### A strategic approach to business-university collaboration

56. In January 2014, the Government produced the following assessment of the strengths and weaknesses in the UK's science and innovation system:<sup>114</sup>

**Table 1: Analysis of main strengths and weaknesses of UK science and innovation system, taken from BIS benchmarking analysis.**

Category	Assessment <sup>1</sup>	Key Strengths <sup>1</sup>	Key weaknesses <sup>1</sup>
1. Money	Medium/Low	Strong foreign direct investment (FDI) and foreign funding into R&D, high private sector investment in intangibles, vibrant financial sector and capital markets (e.g. business angels, venture capital) relative to non-US companies	Low levels of public and private R&D investment, low levels of public innovation support, short-term focus of capital markets, remaining issues in access to finance for innovative growth companies
2. Talent	Medium/Low	Relatively attractive to top global research talent, internationally recognised higher education system attracting high quality students, relatively high number of doctorate holders, average proportion of population with tertiary education	Relatively low basic skills (numeracy, literacy, ICT), insufficient domestic human capital to exploit science and innovation (domestic STEM talent and Masters/PhD graduates working in research), below-average management skills
3. Knowledge assets	Medium/High	Highly productive world-class research base (second only to US), world class research institutions, high proportion of international research collaborations	Low number of academic/corporate co-authored publications, smaller number of patent applications (albeit unreliable as a metric of performance)
4. Structure and Incentives	Medium/High	Competitive funding driving excellence, strong international collaboration by firms, effective university collaboration with R&D intensive businesses, relatively strong formal and informal knowledge networks, a number of strong clusters with critical mass, modern intellectual property regime, good mix of basic, applied and experimental research	Government procurement not seen to foster innovation, limited SME/university collaboration, potential tensions in academics' incentives (e.g. publications vs. collaboration and interdisciplinary research vs. teaching), possible issues around portfolio management (e.g. complementary of broader system with science investments)
5. Broader environment	Medium/High	Open and competitive markets, positive business environment, attractive to multi-national corporations, good rates of new firm creation and entrepreneurial activity, strong citizen interest in science and technology	R&D concentrated in a small numbers of sectors and firms, low proportion of medium-sized growth companies, UK manufacturing relatively lower-tech and less skills-intensive, relatively low quality of demand (degree of consumer orientation and buyer sophistication), migration rules perceived to be cumbersome
6. Innovation outputs	Medium (mixed)	Comparative export advantage in relatively sophisticated products, strong knowledge-intensive services and creative sector exports, strong technology balance of payments	Lagging labour productivity, average-to-low levels of new-to-market innovations, low number of innovative SMEs

114 BIS, [Insights from international benchmarking of the UK science and innovation system](#), January 2014, p7

This analysis found effective university collaboration with R&D intensive businesses, but limited collaboration between universities and SMEs more broadly. It concluded that “this may explain some of the low levels of innovation among SMEs”.<sup>115</sup> Furthermore, it stated that this low level of innovation amongst SMEs “is likely to be a significant drag on productivity”.<sup>116</sup>

***57. We recommend that the forthcoming Science and Innovation Strategy address each key relative weakness of the UK’s innovation system, as outlined in the BIS Benchmarking Analysis. The Strategy should identify and explain which Government policies, programmes and incentives are designed to tackle those weaknesses, and explain how the effectiveness of those interventions will be measured, monitored and evaluated.***

***58. As the Government prepares its Science and Innovation Strategy, there is a need for clarity on how its policies will utilise the strengths of universities across Scotland, Northern Ireland, Wales and England within a UK-wide strategy. Businesses operate across the UK, so coordination with devolved administrations is required to ensure coherence in the innovation support system.***

## Measuring success: the R&D scoreboard

59. The R&D scoreboard was a BIS-produced annual record of R&D spend in private companies. The scoreboard monitored the 1,000 UK companies that invested most in R&D, and the 1,000 global companies that invested most in R&D, and compared the two. Production of this document was discontinued in 2010. Since then, there have been calls for its reintroduction, in order to help monitor this field.<sup>117</sup>

60. The Minister told us that scrapping the scoreboard had saved approximately £500,000 a year.<sup>118</sup> He also said that statistics outlining R&D spend by the private and public sectors in the UK were freely available from other sources. The R&D scoreboard therefore “was not the only statistical insight into research and development spending”. For that reason he argued that no one was “massively disadvantaged by not having it”.<sup>119</sup> However, when he gave evidence, he was unable to set out clearly the level of R&D spend.<sup>120</sup>

**61. Many of the Government’s major initiatives are aimed at increasing R&D activity in the UK and encouraging investment in a wide portfolio of sectors and technologies. It is important that the Government has a respected and impartial way to evaluate the success of such initiatives. This is particularly significant at a time of constrained public spending.**

***62. We recommend that the Government reintroduce a means of monitoring R&D activity, a function previously fulfilled by the R&D scoreboard, in order to measure***

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115 BIS, [Insights from international benchmarking of the UK’s science and innovation system](#), January 2014, para 114

116 BIS, [Insights from international benchmarking of the UK’s science and innovation system](#), January 2014, para 134

117 Science and Technology Committee, Eighth Report of Session 2012-13, [Bridging the valley of death: improving the commercialisation of research](#), HC 348.

118 Q370 [Greg Clark]

119 Q372 [Greg Clark]

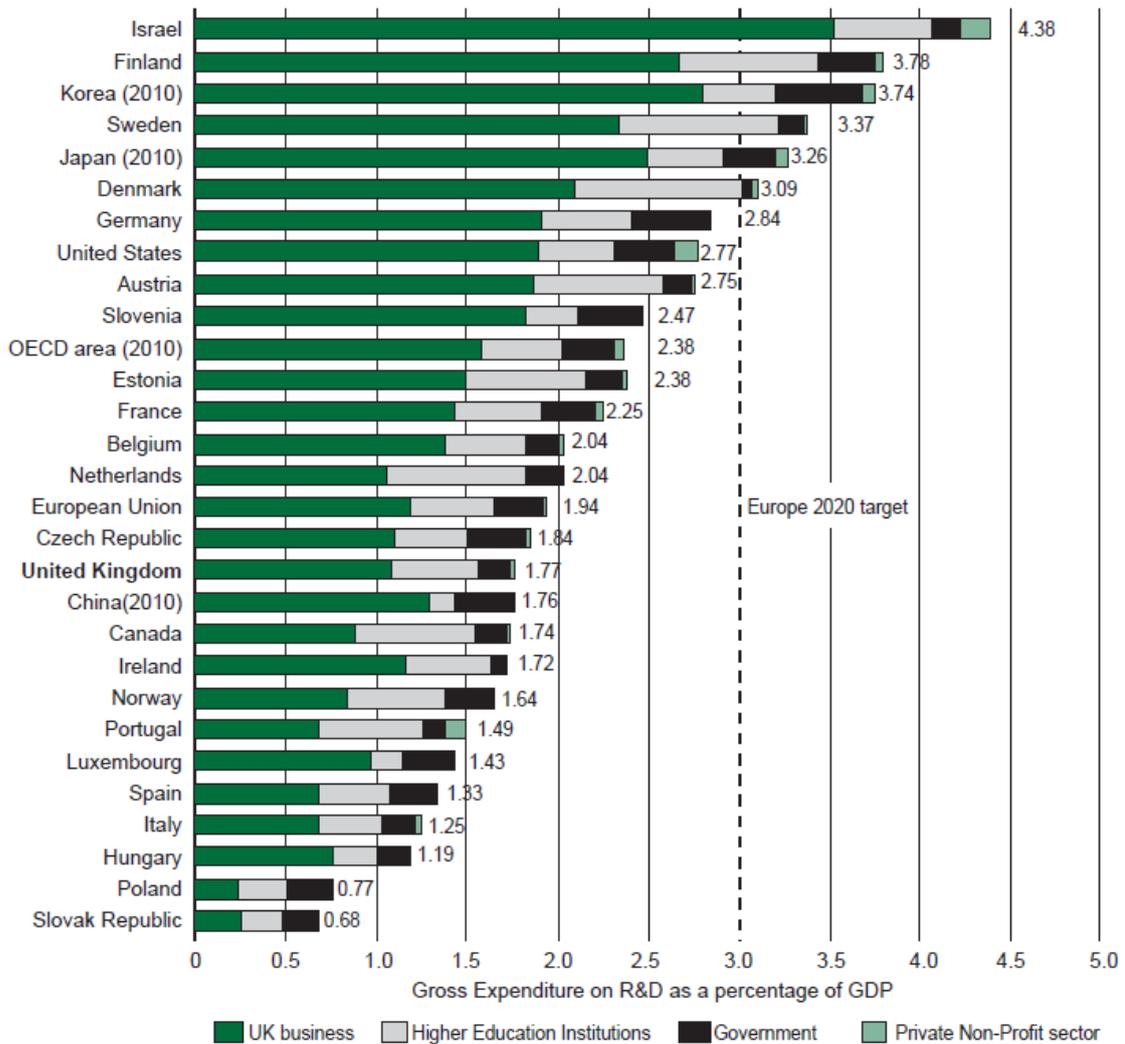
120 Q374 [Greg Clark]

*progress in its R&D initiatives. Use of the scoreboard, or similar indicators, should be built into mechanisms for measuring progress in implementing the forthcoming Science and Innovation Strategy.*

### The structural gap in R&D spend

63. According to the National Audit Office, R&D is “historically the most cited metric of innovation in an economy”.<sup>121</sup> Overall investment in R&D by government, industry and others can be measured by considering total investment as a percentage of GDP. This is known as the R&D intensity. Figure 2 gives an international comparison of R&D intensity. In 2012, the UK’s gross domestic expenditure on research and development was £27 billion, approximately 1.72 per cent of GDP. In contrast, the US spends around £250bn (2.8 per cent of GDP) on R&D per annum. France and Germany consistently invest more than 2 per cent of their GDP in R&D.<sup>122</sup>

**Figure 2: International comparison of spending on R&D as a percentage of GDP in 2011, taken from NAO analysis, p39**



121 National Audit Office, [Research and Development funding for science and technology in the UK](#), June 2013

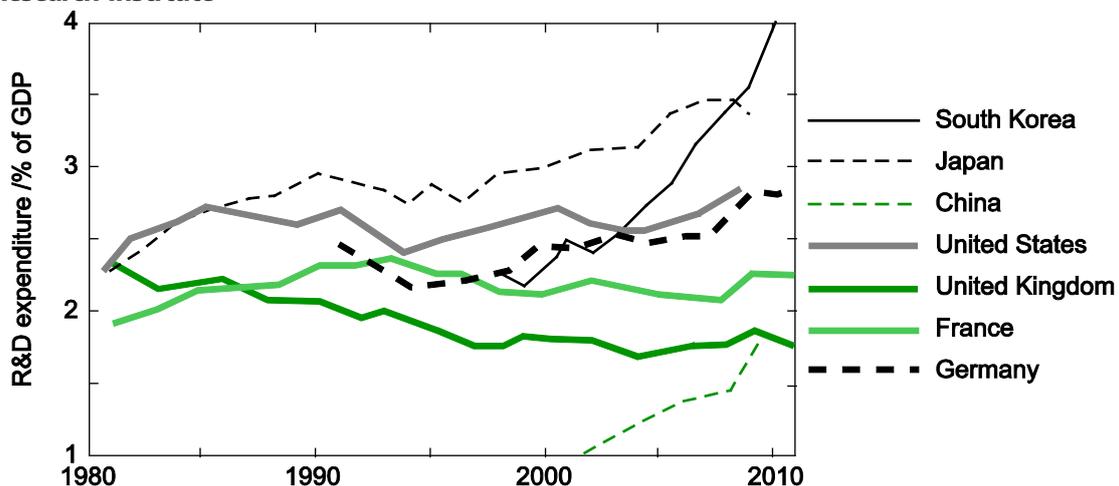
122 BIS, [Insights from international benchmarking of the UK's science and innovation system](#), January 2014, para 4

64. This comparatively low position internationally follows “a sustained period of national disinvestment in R&D” in the UK.<sup>123</sup> The Sheffield Political Economy Research Institute states:

In 1979 the UK was one of the most research-intensive economies in the world. Now, amongst advanced industrial economies, it is one of the least.<sup>124</sup>

UK spending as a percentage of GDP has therefore been falling.<sup>125</sup> This is at a time when many other countries have been increasing their investment in this field. The EU Innovation Scorecard is a comparative assessment of the innovation performance of EU Member States. According to that Scorecard, the UK’s performance is slipping: from 5<sup>th</sup> position in 2010<sup>126</sup> to 8<sup>th</sup> position in 2014.<sup>127</sup> The UK’s pattern of spending therefore contrasts to the growth seen in R&D spend in other OECD and EU countries (Figure 3).<sup>128</sup> Therefore, not only is the UK’s investment in R&D relatively low in international terms, it is also declining.<sup>129</sup>

**Figure 3: R&D intensity of selected economies over the period 1980-2011, expressed as Gross Expenditure on R&D as a fraction of GDP. Source: Sheffield Political Economy Research Institute**



65. Will Hutton, Chair of the Big Innovation Centre, told us that the UK has constructed a “medium-to-low R&D intensity economy”, which meant that “when you are trying to leverage public expenditure, the counter parties for that are harder to find”.<sup>130</sup> Professor Richard Jones, Pro-Vice Chancellor for Research and Innovation at the University of Sheffield, also highlighted the fact that the “weak link” in the system was industrial R&D.<sup>131</sup> This was attributed to short-termism in the private sector, as companies were “looking to

123 Sheffield Political Economy Research Institute, [The UK’s innovation deficit and how to repair it](#), October 2013, p2

124 Sheffield Political Economy Research Institute, [The UK’s innovation deficit and how to repair it](#), October 2013, p3

125 HoC Library, [Standard Note SN/SG/6967](#), 2014

126 European Commission, [Innovation Union Scoreboard 2010](#), 2011

127 European Commission, [Innovation Union Scoreboard 2014](#), 2014

128 Figure 3 taken from Sheffield Political Economy Research Institute, [The UK’s innovation deficit and how to repair it](#), October 2013

129 CaSE, [Policy briefing: Science and Engineering Investment](#), p2

130 Q2 [Will Hutton]

131 Q158 [Professor Jones]

offload costs on to the university sector and looking for incredibly short buyback periods for paybacks”.<sup>132</sup> Professor Alan Hughes, Director of the Innovation Research Centre at the University of Cambridge, explained that R&D work in the private sector:

[...] is fantastically concentrated in the hands of a small number of firms. The strategic decisions by those firms are absolutely critical to the matching of any public sector R&D. [...] The whole of the independent SME sector in the UK accounts for less than 4% of our R&D effort. There is a real order of magnitude problem in thinking that SMEs are going to do something dramatic. The other aspect is the internationalisation of our largest R&D spenders. It is not as if they are reducing their R&D expenditures, but the proportion that UK-based multinationals are investing in overseas R&D has risen relative to their domestic R&D.<sup>133</sup>

66. Professor Hughes also told us that there was clear evidence that the UK’s “excellence in scientific research crowds in resources from the private sector”, meaning that “if you spend on public sector R&D [...] the willingness of the private sector to pay is high”.<sup>134</sup> Increasing public investment in R&D can therefore drive virtuous circles of private investment and innovation “as quality of research attracts international talent, which in turn attracts global companies—all of which results in further advances in both new knowledge and exploitation”.<sup>135</sup> This was confirmed by the Government’s recent analysis of the effect of public sector support for innovation, which stated that:

Direct public investment in R&D to support innovation leverages extra investment from the private sector. Each £1 of public investment in collaborative R&D is estimated to offer a [...] return of £6.71 before taking spillover effects into account. Direct public investment in R&D also leads to a long run increase in firms’ absorptive capacity.<sup>136</sup>

67. The EU’s Europe 2020 “growth strategy for the coming decade” sets a 3% objective for R&D intensity, which is translated into national targets in many EU countries.<sup>137</sup> The UK has not adopted this target.<sup>138</sup> However, the Secretary of State for Business, Innovation and Skills has described 2.9% of GDP as “the indicative level necessary for the UK’s future economic success”.<sup>139</sup>

**68. We recommend that the Government aims for 3 per cent of GDP to be spent on R&D by 2020. This aim should be built into the Science and Innovation Strategy as a long-term objective and as an indication of the UK’s commitment to building capability in this area.**

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132 Q11 [Will Hutton]

133 Q4 [Professor Hughes]

134 Q10 [Professor Hughes]

135 BIS, [Insights from international benchmarking of the UK science and innovation system](#), January 2014, p30

136 BIS, [Estimating the effect of UK direct public support for innovation](#), 2014, p19

137 European Commission, [Europe 2020 targets: research and development](#), accessed November 2014

138 National Audit Office, [Research and Development funding for science and technology in the UK](#), June 2013, p37

139 [Speech by the Secretary of State](#), 22 July 2014

## Stability in the innovation ecosystem

69. The importance of stability in the system of support for innovation was a reoccurring theme in evidence to the inquiry. We heard that stability and continuity were “essential” to allow universities and industry “to build up knowledge and experience of the schemes”.<sup>140</sup> Instead of “endless”<sup>141</sup> new schemes being invented, we heard that businesses “crave”<sup>142</sup> continuity. Indeed, John Latham, Vice Chancellor of Coventry University, attributed the relative success of Germany’s innovation system to the “longevity, flexibility and stability” of its initiatives.<sup>143</sup>

70. This has also been recognised by the Government’s own analysis of the UK innovation system, which reported a perception amongst businesses that the UK “tends to make frustratingly frequent changes” to innovation support mechanisms.<sup>144</sup> The Minister acknowledged that stability of initiatives was important, stating:

There is a great temptation for Ministers to come up with a new scheme, get a new name and a new logo, launch it and have a celebratory lunch to congratulate all concerned. It may be enjoyable, but a logo, a launch and a lunch is not the way that I would proceed.<sup>145</sup>

**71. We agree with the Minister that greater stability in the innovation support system is required. We expect the forthcoming Innovation Strategy to deliver on the desire from businesses and universities for a long-term commitment to, and increasing stability of, mechanisms to support innovation and business-university collaboration.**

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140 The Institute of Cancer Research ([BUF61](#))

141 Q14 [Alan Hughes]

142 Q202 [Dr Hutchins]

143 Q184 [John Latham]

144 BIS, [Insights from international benchmarking of the UK science and innovation system](#), January 2014, para 116

145 Q380 [Greg Clark]

## 5 Conclusion

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72. Our inquiry heard a lot of good news about business-university collaboration in the UK. We heard that the innovation environment in the UK “has produced great benefits”, including a “very strong research base” and that “we ought to be proud about how close the connections between universities and business are”.<sup>146</sup> As Antony Harper, Head of Research at Jaguar Land Rover, told us:

We are fundamentally optimistic about this space in the UK. There are some very good ingredients. The university base and our research base in the UK are very good. [Innovate UK] [...] is very good. So our whole approach and mindset to this is that there is an opportunity to be had here with the innovation strategy.<sup>147</sup>

Furthermore, our universities are “a phenomenal asset [...] because we have managed to pull off the trick of their having sufficient autonomy, but also sufficient funding”.<sup>148</sup> There is clearly a lot for the UK to be proud of in terms of its universities and research output. To build on this:

The Government just needs to have that mindset that, actually, it does need to help build some new capacity. It is not just about connecting existing businesses; we really need to have a positive aim that we are going to grow some major new industries that can contribute to growth and wealth.<sup>149</sup>

The “sustained, long-term pattern of under-investment in public and private”<sup>150</sup> R&D is also cause for concern. **We urge the Government to use the Science and Innovation Strategy as an opportunity to set out its plans to build capacity in the innovation system and to articulate an ambitious vision for this sector.**

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146 Q158 [Professor Jones]

147 Q223 [Antony Harper]

148 Q10 [Will Hutton]

149 Q169 [Professor Jones]

150 BIS, [Insights from international benchmarking of the UK science and innovation system](#), January 2014,

## Conclusions and recommendations

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### Catapults

1. The Catapult network has made a promising start, with Catapults undertaking a range of activities in a range of fields. To capitalise on this, it is important that best practice is shared across the Catapult community so that existing work can be embedded more consistently across the network, as recommended by the Hauser review. (Paragraph 11)
2. We recommend that the Government commit to acting on the recommendations of the Hauser review, and to securing cross-party agreement for this action. As part of that commitment, we recommend that the Government conduct a light touch review that identifies effective examples of collaboration between universities and industry throughout the Catapult network, and ensures that this information is shared amongst interested parties to encourage and support further interaction. This review should be driven by the National Centre for Universities and Business and Innovate UK, building on the work of the Hauser Review. (Paragraph 12)

### Public sector procurement and the SBRI

3. In its evaluation of the Small Business Research Initiative, the Government should explain why it failed to meet the £100 million target for contracts awarded through the scheme in 2013-14. It should also use this review to assess the assumptions made in setting targets for the scheme, in order to confirm that there is reasonable basis for believing the £200 million target for 2014-15 can be met. If the evaluation demonstrates that the Small Business Research Initiative is not on track to meet its £200 million target, the Government should make clear the corrective steps it will take to address the underperformance. The results of this evaluation should be made public. (Paragraph 16)

### Innovate UK's funding

4. We recommend that Innovate UK routinely publish the total number of applications, proportion of applications that merit funding, and proportion of applications that receive funding as part of its annual report. We further recommend that Research Councils UK publish comparable data on applications for, and successful securing of funding for, their initiatives that are designed to support and promote business-university collaboration. (Paragraph 21)
5. The Secretary of State has set out the case for doubling Innovate UK's budget. The Autumn Statement and planned Science and Innovation Strategy are opportunities for the Government to give a statement of intent about increasing funding for Innovate UK over the course of the next Spending Review. Investing in innovation brings about demonstrable economic returns. We therefore expect the Minister to be arguing strongly for increasing Innovate UK's funding, in addition to protecting the financial support for science and innovation more broadly, in forthcoming Spending Review negotiations. Any increase in funding for Innovate UK should not be secured

by diverting funding away from, or diminishing the remainder of, the science budget. (Paragraph 22)

### Gateway to Research

6. The Gateway to Research was intended to help SMEs access information about the research base. We are aware that this portal is still being developed. However, we are concerned about the lack of a capability to monitor who is using the Gateway, and therefore whether it is reaching its desired audience. This capability should be developed as a matter of priority, with the resulting data being used to inform the Gateway's future development. (Paragraph 27)
7. We recommend that, in its response to this report, RCUK provides details of the monitoring and evaluation of Gateway to Research users that will be undertaken, a timetable for data collection and an explanation as to how this data will inform future iterations of the Gateway. (Paragraph 27)

### Collaborative online platform

8. It is of paramount importance that research capability and funding opportunities to support collaboration are easily accessible, clear and navigable through a single interface. The new NCUB online platform should be developed to complement, rather than complicate, the existing information systems. However, it is unclear what processes or structures, if any, are in place to build on the capability of the Gateway to Research as part of this new platform. (Paragraph 31)
9. As much of this work is being conducted by the National Centre for Universities and Business (NCUB), we recommend that the NCUB set out its plans for the development of the online collaborative platform. This should include an assessment of existing platforms and their respective capabilities, so that NCUB can demonstrate it is building on, rather than duplicating or complicating, existing capabilities. We also recommend that the NCUB includes in these plans a clear statement of objectives, planned functions and information on how it will engage with interested parties in the platform's development, alongside an estimated timetable for launch. The ability to monitor or classify users by type should be built into the platform's capability from an early stage. (Paragraph 32)

### Single point of contact

10. The single point of contact can be a useful point at which universities can gauge demand from industry for interaction and capacity to meet that demand. This single point of entry should be designed to enhance the other ways in which universities are encouraging interaction with industry. (Paragraph 35)
11. Every university should have a single point of contact for businesses that are seeking to collaborate. The forthcoming NCUB online portal should clearly signpost contact information for each university, so that businesses looking to collaborate can easily find someone to talk to as a first point of call. (Paragraph 36)

### Higher Education Innovation funding (HEIF)

12. There is widespread support for increasing HEIF to £250 million per annum. HEFCE is currently assessing the evidence base for increasing HEIF. (Paragraph 40)
13. If the evidence base presented as a result of HEFCE's review of HEIF funding is strong, the Government should prioritise additional funds for HEIF in the next Spending Review. (Paragraph 40)

### Measuring 'impact' of academic research

14. Done properly, assessing impact as part of the Research Excellence Framework should help the higher education community to better communicate the purpose and quality of its work. Impact criteria should therefore enhance research quality assessments, not detract or distract from basic research, which may not have an immediately obvious commercial application. Our understanding of "impact" therefore needs to include social, economic and cultural factors, as well as how research can transform thinking within a field. Achieving this understanding will require sophisticated metrics, as well as an assessment mechanism designed to avoid the submission of stock answers as evidence to the review. (Paragraph 43)
15. Care will be required when considering how much weight is assigned to impact within the overall assessment programme. The ability to produce high quality fundamental research is a strength of the UK's innovation ecosystem. This should not be taken for granted. There is a risk that increasing the weighting assigned to impact within the Research Excellence Framework beyond 20 per cent could distort funding away from this type of work, to the detriment of the overall system. (Paragraph 44)
16. HEFCE should proceed with caution, and appropriate consultation, in its evaluation of impact criteria, taking into account concerns about both criteria design and weighting. Such consultation should include the full range of academic disciplines expected to engage with the REF, in addition to other interested parties. HEFCE should set out plans for such a consultation. (Paragraph 45)

### University Enterprise Zones

17. Universities are in a strong position to be able to drive growth across the country. Many have been active in local growth initiatives for some time, for example by engaging with LEPs. (Paragraph 48)
18. UEZs need to fit within this existing local ecosystem for innovation. How this is achieved should be built into the evaluation of the UEZ pilot scheme, using the examples of effective collaboration already highlighted by previous reviews. (Paragraph 48)
19. LEPs must have the freedom to work collaboratively to develop innovative bids for future UEZs that maximise benefits from the low levels of available funding. (Paragraph 49)

20. The Government should confirm that future rounds of applications to the UEZ programme will be less restrictive in terms of who can apply to set up a UEZ, for example cross-LEP bids. (Paragraph 49)

### The proposed NCUB Advisory Hub

21. If the UK is to have a coherent innovation strategy, it is vital that there is a UK wide picture of the capacity, capability and coherence of local innovation ecosystems, and how these contribute to UK wide growth goals. Smart specialisation should be the means by which we understand the relative strengths and weaknesses of local, devolved and national innovation landscapes and strategies. Businesses operate across these borders and therefore government at all levels must provide a coherent package of innovation support. (Paragraph 54)
22. LEPs should be fully consulted as a key stakeholder in developing the NCUB Advisory Hub. This would allow sharing of best practice and advice on implementing strategic plans for European Structural and Investment Fund allocations. These attributes should be built into the NCUB's recommendations to Government on the way forward for the Advisory Hub. The proposed advisory Hub should complement and link with the planned NCUB online platform. In addition, the Hub should link with existing relevant work, such as best practice guidance and other sources of Government support for business. (Paragraph 55)

### A strategic approach to business-university collaboration

23. We recommend that the forthcoming Science and Innovation Strategy address each key relative weakness of the UK's innovation system, as outlined in the BIS Benchmarking Analysis. The Strategy should identify and explain which Government policies, programmes and incentives are designed to tackle those weaknesses, and explain how the effectiveness of those interventions will be measured, monitored and evaluated. (Paragraph 57)
24. As the Government prepares its Science and Innovation Strategy, there is a need for clarity on how its policies will utilise the strengths of universities across Scotland, Northern Ireland, Wales and England within a UK-wide strategy. Businesses operate across the UK, so coordination with devolved administrations is required to ensure coherence in the innovation support system. (Paragraph 58)

### Measuring success: the R&D scoreboard

25. Many of the Government's major initiatives are aimed at increasing R&D activity in the UK and encouraging investment in a wide portfolio of sectors and technologies. It is important that the Government has a respected and impartial way to evaluate the success of such initiatives. This is particularly significant at a time of constrained public spending. (Paragraph 61)
26. We recommend that the Government reintroduce a means of monitoring R&D activity, a function previously fulfilled by the R&D scoreboard, in order to measure progress in its R&D initiatives. Use of the scoreboard, or similar indicators, should be built into mechanisms for measuring progress in implementing the forthcoming Science and Innovation Strategy. (Paragraph 62)

### The structural gap in R&D spend

27. We recommend that the Government aims for 3 per cent of GDP to be spent on R&D by 2020. This aim should be built into the Science and Innovation Strategy as a long-term objective and as an indication of the UK's commitment to building capability in this area. (Paragraph 68)

### Stability in the innovation ecosystem

28. We agree with the Minister that greater stability in the innovation support system is required. We expect the forthcoming Innovation Strategy to deliver on the desire from businesses and universities for a long-term commitment to, and increasing stability of, mechanisms to support innovation and business-university collaboration. (Paragraph 71)

### Conclusion

29. We urge the Government to use the Science and Innovation Strategy as an opportunity to set out its plans to build capacity in the innovation system and to articulate an ambitious vision for this sector. (Paragraph 72)

# Formal Minutes

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**Tuesday 25 November 2014**

Members present:

Mr Adrian Bailey, in the Chair

Mr William Bain  
Mr Brian Binley  
Paul Blomfield  
Mike Crockart

Ann McKechin  
Mr Robin Walker  
Nadhim Zahawi

Draft Report (*Business-University Collaboration*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 72 read and agreed to.

Summary agreed to.

*Resolved*, That the Report be the Seventh Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Tuesday 2 December at 9.30 am

# Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the Committee's inquiry page at [www.parliament.uk/bis](http://www.parliament.uk/bis).

## Tuesday 28 January 2014

*Question number*

**Professor Martin Dawson**, Head, Fraunhofer Centre for Applied Photonics and Research Director, Institute of Photonics, and **Professor Graham Wren**, Business Engagement, University of Strathclyde Q1-51

## Tuesday 10 June 2014

**Professor Alan Hughes**, Director of the UK Innovation Research Centre, University of Cambridge, **Will Hutton**, Chair, Big Innovation Centre and Principal of Hertford College, University of Oxford Q1-19

**Professor Sir Keith O'Nions**, President and Rector of Imperial College on behalf of The Russell Group, **Dr Tim Bradshaw**, Head of Policy for Research and Innovation, The Russell Group, **Libby Hackett**, Chief Executive, University Alliance, **Professor Wendy Purcell**, Vice-Chancellor, Plymouth University on behalf of University Alliance Q20-46

**Dr David Docherty**, CEO, National Centre for Universities and Business, **Professor Graeme Reid**, Professor of Science and Research Policy at the University College London on behalf of the National Centre for Universities and Business Q47-67

## Tuesday 17 June 2014

**Professor Alistair Fitt**, Pro-Vice Chancellor, Oxford Brookes University, **Nigel Tipple**, Chief Executive, Oxfordshire Local Enterprise Partnership, **Professor Ian Walmsley**, Pro-Vice Chancellor, Research, Academic Services and University Collections, University of Oxford and **Professor Nick Veck**, Head, CEO Office, Satellite Applications Catapult; Q68-94

**Dr Charles King**, Operations Director, YASA Motors Ltd, **Dr Shpend Gerguri**, Senior Lecturer, Engineering Design, Oxford Brookes University, **Dr Diana Limburg**, Senior Lecturer, Information Management, Oxford Brookes Business School and **Michael Dibben**, Partner and Chief Executive, Brethertons LLP Q95-126

## Wednesday 18 June 2014

**Steve Yianni**, Chief Executive, Transport Systems Catapult, **Dr Paul Zanelli**, Chief Technology Officer, Transport Systems Catapult Q127-153

**Professor Richard Jones**, Pro-Vice Chancellor for Research and Innovation, University of Sheffield, **Professor Greg Marsden**, Director of the Institute for Transport Studies, Leeds University and **Nigel Foster**, Chair of Institute for Transport Studies External Advisory Board Q154-171

### Tuesday 1 July 2014

**Professor Nigel Thrift**, Vice-Chancellor, University of Warwick, **Professor Kevin Warwick**, Deputy Vice-Chancellor (Research), Coventry University, and **John Latham**, Vice Chancellor, Coventry University Q172-200

**Will Searle**, Managing Director, Axillium, **Dr Richard Hutchins**, Board Member, Coventry and Warwickshire Local Enterprise Partnership, **Dr Carl Perrin**, Director, The Institute for Advanced Manufacturing and Engineering, and **Tony Harper**, Head of Research, Jaguar Land Rover Q201-225

### Tuesday 8 July 2014

**Iain Gray**, Chief Executive Officer, Technology Strategy Board, **Professor Jackie Hunter**, Impact Champion, Research Councils UK, and **Dr David Sweeney**, Director, Research, Innovation and Skills, Higher Education Funding Council for England Q226-279

**The Rt Hon the Lord Heseltine of Thenford CH** Q280-310

### Tuesday 9 September 2014

**Dr Malcolm Skingle**, Director, Academic Liaison, GlaxoSmithKline, **Professor Paul Beasley**, Head of Research and Development, Siemens, and **Dr Henner Wapenhans**, Head of Technology Strategy, Rolls-Royce Q311-364

### Wednesday 29 October 2014

**Rt Hon Greg Clark MP**, Minister of State for Universities, Science and Cities, Department for Business, Innovation and Skills Q365-419

## Published written evidence

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The following written evidence was received and can be viewed on the Committee's inquiry web page at [www.parliament.uk/bis](http://www.parliament.uk/bis). INQ numbers are generated by the evidence processing system and so may not be complete.

- 1 Ammon Salter ([BUF0044](#))
- 2 Association of the British Pharmaceutical Industry ([BUF0033](#))
- 3 Auril ([BUF0070](#))
- 4 Axa ([BUF0073](#))
- 5 Axillium Research ([BUF0066](#))
- 6 Bioindustry Association (BIA) ([BUF0004](#))
- 7 Bournemouth University ([BUF0035](#))
- 8 British Standards Institution ([BUF0030](#))
- 9 Buckinghamshire Thames Valley LEP ([BUF0009](#))
- 10 Campaign for Science and Engineering ([BUF0048](#))
- 11 Centre for Process Innovation Ltd ([BUF0022](#))
- 12 Charity Commission for England and Wales ([BUF0016](#))
- 13 Coventry University ([BUF0025](#))
- 14 Department for Business Innovation and Skills ([BUF0064](#))
- 15 Department for Business Innovation and Skills ([BUF0076](#))
- 16 EEF, The Manufacturers' Organisation ([BUF0018](#))
- 17 EEF, The Manufacturers' Organisation ([BUF0063](#))
- 18 Engineering Professors' Council ([BUF0041](#))
- 19 Fraunhofer UK Research Ltd ([BUF0054](#))
- 20 Glyndŵr University ([BUF0002](#))
- 21 GSK ([BUF0056](#))
- 22 Heads of University Centres of Biomedical Sciences (HUCBMS) ([BUF0011](#))
- 23 HEFCE ([BUF0042](#))
- 24 Imperial College London ([BUF0003](#))
- 25 Innovate UK-Technology Strategy Board ([BUF0078](#))
- 26 Innovate UK-Technology Strategy Board ([BUF0079](#))
- 27 Institute of Cancer Research ([BUF0061](#))
- 28 Institution of Engineering and Technology ([BUF0001](#))
- 29 Isaac Newton Inst & Smith Inst for Industrial Math ([BUF0012](#))
- 30 KTP National Forum ([BUF0069](#))
- 31 Leeds City Region Enterprise Partnership ([BUF0023](#))
- 32 London South Bank University ([BUF0075](#))
- 33 Mid Yorkshire Chamber of Commerce ([BUF0007](#))
- 34 Million+ ([BUF0071](#))
- 35 National Centre for Universities and Business ([BUF0020](#))
- 36 National Physical Laboratory ([BUF0038](#))
- 37 National Union of Students ([BUF0046](#))
- 38 North East Chamber of Commerce ([BUF0039](#))
- 39 Oxfordshire County Council ([BUF0060](#))

- 40 Plymouth University ([BUF0017](#))
- 41 PraxisUnico ([BUF0015](#))
- 42 Research Councils UK ([BUF0031](#))
- 43 Research Councils UK ([BUF0074](#))
- 44 Rolls-Royce Plc ([BUF0068](#))
- 45 Royal Academy of Engineering ([BUF0062](#))
- 46 Russell Group ([BUF0047](#))
- 47 Satellite Applications Catapult ([BUF0058](#))
- 48 Sheffield Hallam University ([BUF0032](#))
- 49 Siemens Plc ([BUF0045](#))
- 50 Society of Motor Manufacturers and Traders (SMMT) ([BUF0049](#))
- 51 Technology Strategy Board ([BUF0027](#))
- 52 Tees Valley Unlimited ([BUF0034](#))
- 53 The Open University ([BUF0059](#))
- 54 The Royal Society ([BUF0065](#))
- 55 UCB ([BUF0019](#))
- 56 UKCRC ([BUF0028](#))
- 57 Universities UK ([BUF0037](#))
- 58 University Alliance ([BUF0053](#))
- 59 University of Bath ([BUF0036](#))
- 60 University of Birmingham ([BUF0005](#))
- 61 University of Bristol ([BUF0040](#))
- 62 University of Cambridge ([BUF0057](#))
- 63 University of Cumbria ([BUF0050](#))
- 64 University of Edinburgh ([BUF0008](#))
- 65 University of Hertfordshire/Herts LEP ([BUF0043](#))
- 66 University of Manchester ([BUF0052](#))
- 67 University of Northampton ([BUF0014](#))
- 68 University of Portsmouth ([BUF0051](#))
- 69 University of Sheffield ([BUF0024](#))
- 70 University of Sheffield ([BUF0072](#))
- 71 University of Southampton ([BUF0021](#))
- 72 University of the Arts London ([BUF0010](#))
- 73 Yorkshire Universities ([BUF0026](#))

# List of Reports from the Committee during the current Parliament

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All publications from the Committee are available on the Committee's website at [www.parliament.uk/bis](http://www.parliament.uk/bis).

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

## Session 2014–15

First Report	Royal Mail Privatisation	HC 539-I/II
Second Report/First Joint Report	Scrutiny of the Government's UK Strategic Export Controls Annual Report 2012, the Government's Quarterly Reports from October 2012 to September 2013, and the Government's policies on arms exports and international arms control issues	HC 186
Third Report	Student Loans	HC 558 (HC 777)
Fourth Report	The Implications for Scottish Independence on Business; Higher Education and Research; and Postal Services	HC 504
Fifth Report	Adult Literacy and Numeracy	HC 557
Sixth Report	The Extractive Industries	HC 188
Seventh Report	Business-University collaboration	HC 249

## Session 2013–14

First Report	Women in the Workplace	HC 342-I/II/III(Cm 8701)
Second Report/First Joint Report	Scrutiny of Arms Exports and Arms Control (2013): Scrutiny of the Government's UK Strategic Export Controls Annual Report 2011 published in July 2012, the Government's Quarterly Reports from October 2011 to September 2012, and the Government's policies on arms exports and international arms control issues	HC 205
Third Report	The Kay Review of UK Equity Markets and Long-term Decision Making	HC 603(HC 762)
Fourth Report	Consultation on a Statutory Code for Pub Companies	HC 314
Fifth Report	Open Access	HC 99-I/II(HC 833)
Sixth Report	Draft Consumer Rights Bill	HC 697-I/II/III
Seventh Report	Payday Loans	HC 789
Eighth Report	The Retail Sector	HC 168-I/II/III (HC 189)

## Session 2012–13

First Report	The Hargreaves Review of Intellectual Property: Where Next?	HC 367-I/II(HC 579)
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Second Report/First Joint Report	Scrutiny of Arms Export Controls (2012): UK Strategic Export Controls Annual Report 2010, Quarterly Reports for 2010 and January to September 2011, the Government's review of arms exports to the Middle East and North Africa, and wider arms control issues	HC 419
Third Report	Post Office Network Transformation	HC 84(HC 678)
Fourth Report	Overseas Students and Net Migration	HC 425(Cm 8557)
Fifth Report	Apprenticeships	HC-III/III(HC 899)
Sixth Report	The Insolvency Service	HC 675 (HC 1115)
Seventh Report	Too Little, Too Late: Committee's observations on the Government Response to the Report on Overseas Students and Net Migration	HC 1015(Cm 8622)
Eighth Report	Pre-appointment hearing of the Government's preferred candidate for the post of Groceries Code Adjudicator	HC 1011
Ninth Report	Local Enterprise Partnerships	HC 598
<b>Session 2010–12</b>		
First Report	The New Local Enterprise Partnerships: An Initial Assessment	HC 434 (HC 809)
Second Report	Sheffield Forgemasters	HC 484 (HC 843)
Third Report	Government Assistance to Industry	HC 561
Fourth Report / First Joint Report	Scrutiny of Arms Export Controls (2011): UK Strategic Export Controls Annual Report 2009, Quarterly Reports for 2010,licensing policy and review of export control legislation	HC 686
Fifth Report	Government Assistance to Industry: Government Response to the Committee's Third Report of Session 2010–11	HC 1038
Sixth Report	Is Kraft working for Cadbury?	HC 871
Seventh Report	Rebalancing the Economy: Trade and Investment	HC 735 (HC 1545)
Eighth Report	Trade and Investment: China	HC 1421 (HC 1568)
Ninth Report	Time to bring on the referee? The Government's proposed Adjudicator for the Groceries Code	HC 1224-I
Tenth Report	Pub Companies	HC 1369-III (Cm 8222)
Eleventh Report	Time to bring on the referee? The Government's proposed Adjudicator for the Groceries Code: Government Response to the Committee's Ninth Report of Session 2010-12	HC 1546
Twelfth Report	Government reform of Higher Education	HC 885-III/III (HC 286)
Thirteenth Report	Pre-Appointment Hearing: Appointment of Director of the Office for Fair Access	HC 1811
Fourteenth Report	Debt Management	HC 1649 (HC 301)
Fifteenth Report	Stamp Prices	HC 1841-III