

## **Response to the survey by the UK Government's Department for Business, Energy and Industrial Strategy on the UK Research & Development Roadmap**

**11<sup>TH</sup> August 2020**

### **1. How can we best increase knowledge and understanding through research, including by achieving bigger breakthroughs?**

Bigger breakthroughs in addressing societal challenges will require a broader, deeper, and more inclusive understanding of science and research. We welcome the R&D Roadmap's explicit recognition that 'all academic disciplines contribute to the vigour of the research endeavour, including the natural sciences, technologies, medicine, the social sciences, the arts and the humanities' (p. 10). This recognition has long existed in the private sector, where businesses and entrepreneurs already value the contributions of the 'Social Sciences, Humanities & the Arts for the People and the Economy' (a concept now known as SHAPE). As the Roadmap also recognises, many social sciences have been invaluable in helping solve urgent and pressing problems around the spread of Covid-19 and the impacts of the pandemic – from the behavioural sciences working together with epidemiology to slow the spread, to supply chain and organisational management experts keeping the UK running even through lockdown.

But to really achieve 'bigger breakthroughs' in knowledge and understanding through research, this wider perspective – that truly recognises the values that all disciplines, like business and management research, can bring to the table – needs to be deeply embedded in the UK government culture and its funding and supporting framework for R&D going forward. Research calls – whether to fund 'moon shots' or to solve specific problems – should explicitly encourage and welcome collaboration between disciplines, and both recognise and encourage wider disciplinary feed-in and engagement. For example, research projects focused on national security and defence-related technology should explicitly include experts from the business and management community to ensure that their intended supply chains for key project components and inputs are secure, robust, and resilient. Equally business schools at UK universities are well placed to provide successful incubators and accelerators for entrepreneurial and innovative talent, as well as advice on how to bring fledging technology and innovations to market in a successful and sustainable manner. Moreover, business schools, and business and management departments, at UK Universities have deep connections to their place-based local communities as well as to already existing international partnerships and collaborators, that can make for research outcomes that are meaningful for the UK economy and knowledge-base.

A true cultural shift in how the government understands and defines 'research' itself will also be important. We again welcome the Roadmap's recognition of the importance of collaboration and co-creation in wide ranging and inclusive research (p. 37), and would encourage that more practice-based

knowledge is also including in the push to improve the UK's knowledge base and research outcomes. More multi-disciplinary ways of research 'working' are needed, for example, and this includes the greater use of end-users in the co-design of research. Such 'ways of research working' entail completely different processes from the more traditional research approach that separates 'upstream' analytical work by academics from 'downstream' implementation by practitioners, and it tends to work best as part of long-term relationships between research institutions and end-users. Such fully engaged research leads to findings that other approaches do not, and can be more inclusive of populations that other forms of research have difficulty reaching. For example, some of the most cutting-edge research done in UK business schools – anchor institutions with clear lines of access to local SMEs and entrepreneurs – comes from practitioners and co-creation with businesses.

## **2. How can we maximise the economic, environmental and societal impact of research through effective application of new knowledge?**

The best way to maximise research impact is through more effective knowledge exchange efforts. UK Universities and Learned Societies will be critical in these efforts. In some cases, training and assisting their own researchers on how to translate their research in a way that is easily understood and applied to real-world policy problems – and in other cases helping policy makers and private sector funders to understand the real-world applications and utility of innovative and ground-breaking research.

The British Academy of Management (BAM), for example, is the leading authority on the academic field of business and management (B&M) in the UK and – as a Learned Society with over 2000 members (almost a quarter of whom are based overseas) – it works hard to support the community of scholars in this inter-disciplinary field and foster engagement with our international peers. One way that we do this is to provide professional development opportunities for our member researchers to learn how to improve the impact of their research on policy made in Parliament and by the UK government. We support our experts with professional facilitation to translate their research into clear and useful evidence for UK government consultations and Parliamentary inquiries on issues key our society – from how to improve the productivity of UK small to medium size-enterprises, to how to successfully embrace open-access publishing in a manner that is both sustainable and supportive to the UK research base. As with many other learned societies and universities, we also work hard to respond to government requests to connect policymakers with experts in particular research areas, such as on innovation in public sector reforms. Creating wider knowledge exchange networks, that better utilise existing knowledge mobilisers that sit at Learned Societies and within UK Universities, will help the UK R&D community to better connect research to policy to help solve societal problems, and will be an important impact magnifier.

### **3. How can we encourage innovation and ensure it is used to greatest effect, not just in our cutting-edge industries, but right across the economy and throughout our public services?**

As significant knowledge brokers, UK universities and learned societies enable the transfer of innovative research not just to our cutting-edge industries, but across the UK economy and public services. Many UK business schools, and business and management departments, for example, have deep networks and relationships into their local community and the private sector. Through both education and collaborative and co-creative research, many of these departments are already working with local Small and Medium-sized Enterprises (SMEs) and entrepreneurs, and are well placed to nurture local talent and ideas and then to ‘catapult’ them to success. Universities that sit in areas of great socio-economic disparity, can help local business owners and entrepreneurs to create more sustainable businesses, whether through management training to improve productivity or by fostering the type of networks that can lead to improved access to funding and opportunity. Such universities exist in every region of the UK, and it is important to understand that a broad-brush regional perspective to funding the R&D roadmap will miss out on the vast socioeconomic differences (and levels of exclusion) that can exist in the ‘places within places’ like London and Glasgow. All of this is critical to improving place-based innovation and to ‘levelling-up’ across the UK.

Inclusiveness of voice is also critical to innovation, and business and management studies is also among the most diverse disciplines in terms of BAME academic staff. The British Academy of Management is also working hard to understand how we can break down existing barriers to equality, diversity, and inclusion in our community – and foster an even wider range of voices from our discipline in the future – whether from different ethnic communities and nationalities, genders, or career stages. Indeed, more work needs to be done across all disciplines to create more flexible (and less leaky) pipelines for research careers, and to promote greater inclusion of genders, ethnicity, age groups, belief systems, cultures, and others less-protected groups.

### **4. How can we attract, retain and develop talented and diverse people to R&D roles? How can we make R&D for everyone?**

We support the call by Middlesex University to encourage an industry-led programme of short-term (3-6 month) secondments of researchers into the private-sector and industrial researchers into Universities, in order to encourage co-creative and collaborative research, and more engaged implementation of the knowledge that emerges from that research.

It will be important to nurture and attract research talent from abroad and at home in the UK, if the UK research and development ecosystem is to flourish. Vibrancy and sustainability of the research base require a research and funding culture that is both rewarding and supportive. Not all research will be successful, and researchers will need to know that they are ‘safe to fail’ – i.e., that there is a supportive network and culture around them – if they are to engage in ‘moon shots’. However, we know that the current research ecosystem has high levels of job insecurity, especially for early career researchers who are more likely to be on fixed-term or even zero-hours contracts. The lure out of

academia and into the private sector is often great, and many find it difficult to return. Knowledge exchange and the lure of research careers could be greatly improved by fostering a cultural shift to encourage both universities and business to value and encourage the two-way movement of researchers between academe and the private sector. Significant attention will need to be paid to the mental wellbeing of researcher student and staff at UK universities, as they face the difficulties of isolation and increased pressure to deliver through the pandemic.

Thus far, the UK R&D system has had great success recruiting the best and brightest global talent to its shores, but there is concern that some of our most talented researchers will be lured away if they are unable to participate in the prestigious competitive grants processes offered by Horizon Europe, and unable to lead and host such projects at UK institutions. The Business & Management community, for example, has high numbers of international-origin staff: roughly 1 out of every 3 researchers in the business and management community – which has around 8,000 staff on regular academic contracts – come from abroad. At the research-intensive Russell Group universities, 50% of academics in business studies are of international origin, as are 42% of those in management studies – and more than half of all international-origin staff in business and management come from the European Union [1]. With Brexit, EU staff now face the possibility of losing access to competitive research funding that they would otherwise be able to access in their home countries. Securing associated access to Horizon Europe, in conjunction with additional new UK schemes to fund international collaborative research, would undoubtedly help all disciplines to retain and recruit international staff of the highest quality, and reduce negative disruption to the R&D ecosystem.

NOTE:

[1] See: Lenihan & Witherspoon (2018). A World of Talent: International Staff at UK Universities & the Future Migration System. Campaign for Social Science, available at: <https://campaignforsocialscience.org.uk/wp-content/uploads/2018/10/A-World-of-Talent-International-Staff-at-UK-Universities-the-Future-Migration-System.pdf>

## **5. How should we ensure that R&D plays its fullest role in levelling up all over the UK?**

The UK research and development ecosystem must move beyond its narrow focus on traditionally ‘research-intensive’ universities, if the government truly wishes to support ‘levelling up’ across the UK regions. We support Middlesex University’s observation that *‘the higher education system is diverse and encompasses a wide range of research activity. It is important to avoid channelling funding to fewer institutions with a higher cost base and to ensure that agile, fleet-of-foot, quality, research groups in institutions engaged in both teaching and research activity are supported to make their contribution. These are institutions are often pivotal to the levelling up agenda as they typically support higher numbers of disadvantaged students and researchers to fulfil their potential.’* Business and management departments at universities across the UK, for example, engage in research that helps local SMEs to increase productivity, bring new technology to market, and bring their products to new or local markets more efficiently and sustainably.

We also support the Chartered Association of Business Schools' comment that, *“Levelling-up R&D across the UK to the fullest extent will require both institutional changes and the more equitable distribution of resources across the country. Research funding should not be disproportionately focused within the 'golden triangle' of universities and there should be funding opportunities for institutions in different parts of the country and from varying backgrounds. This will require long term Government commitment, and potentially quotas or targets.”*

#### **6. How should we strengthen our research infrastructure and institutions in support of our vision?**

We would encourage fostering a more collaborative research ecosystem. For example, the UK has a strong community of learned societies covering a wide range of disciplines. There should be greater engagement by government and government-funded bodies with these learned societies to help gain a better understanding of the current research directions (trends and possibilities) in and across these disciplines. Many learned societies, like BAM, can also help provide access to their own international networks to foster internationally collaborative research.

#### **7. How should we most effectively and safely collaborate with partners and networks around the globe?**

International collaboration through existing, well-established, and secure mechanisms like the European Framework Programmes should remain a high priority. We welcome the Roadmap's stated 'ambition to fully associate to [Horizon Europe and Euratom R&T] if we can agree a fair and balanced deal' (p. 43), and to establish an alternative funding mechanism for international collaboration if this does not prove possible.

Our European colleagues are valued research partners in tackling questions crucial to our shared futures, and the European Framework Programmes have proven invaluable for fostering globally collaborative research with significant impact. The UK business and management (B&M) research community, for example, has a vital role to play in the successful delivery of UK R&D and a more prosperous Britain. Business and management schools and university departments provide a powerful research base with proven impact, helping to improve leadership skills, raise productivity, and bring powerful change to working lives. Much of the work of the B&M community – so important to inclusive national growth – has depended heavily on access to competitive European research funding in recent years. While overall research income for UK universities grew over the last decade, the B&M community faced a 33% decline in funding from the UK government and an 18% real-term decline in funding overall. [1]. Yet, during this same period, research funding from EU government bodies

increased by 38%. [2] In fact, a recent report by the Chartered Association of Business Schools (Chartered ABS) shows that ‘in three of the last four years, Business and Management received more research funding from EU government bodies than the UK central government, and in 2016/17 the EU was only marginally behind the research councils as the largest contributor’ to the funding of our discipline. [3]

Participation in the European Research Area (ERA) has helped attract global talent to our universities and fostered international collaboration at an unparalleled scale that increases impact and aids in finding global solutions to global problems – with the added tangible benefit of an established and proven reputation that draws the best and brightest global talent to participate, a factor that can only be achieved over time, and which is difficult for new arrangements to emulate in the near- to medium-term with home-grown funding programs. Any domestic schemes should thus aim to supplement fully associated participation in Horizon Europe and reinforce international collaborative research in a post-Brexit environment, as the UK has neither the depth of resources, nor scale, required to replace or reinvent such partnerships alone or in the short term. This would ensure a more stable and diverse research funding landscape, which would help protect the UK science community from unexpected future challenges

[1] CABS (2020). Research Income for Business and Management: Analysis of HESA data for 2008/09 to 2018/19. <https://chartereddabs.org>

[2] and [3] [https://chartereddabs.org/wp-content/uploads/2018/04/Chartered ABS Research Income Report 2018-WEB.pdf](https://chartereddabs.org/wp-content/uploads/2018/04/Chartered_ABS_Research_Income_Report_2018-WEB.pdf)

#### **8. How can we harness excitement about this vision, listen to a wider range of voices to ensure R&D is delivering for society, and inspire a whole new generation of scientists, researchers, technicians, engineers, and innovators?**

We believe that there should be a high-level steering group to oversee the implementation and further development and refinement of this R&D roadmap. This should include balanced representation from national academies (such as the Academy of Social Sciences) and learned societies (like the British Academy of Management) from a wide array of disciplines that reflect the cultural change needed in widening the perspective on an understanding of science to truly include the social sciences. This steering group will also need to be inclusive of voices from across the UK research ecosystem and all types of Universities (including modern, Post-92 universities), if there is to also be a true cultural shift towards inclusive research that covers a multitude of diverse communities, and also different types of research including that which is collaborative and co-created.