

THE POWER OF PLACE: MAXIMISING THE LOCAL ECONOMIC IMPACTS OF RESEARCH AND DEVELOPMENT



Daniel Rathbone, Assistant Director, Campaign for Science and Engineering

Dr Daniel Rathbone is Assistant Director of the Campaign for Science and Engineering, the UK's leading independent advocate for Science and Engineering. In this role he is head of policy for CaSE, shaping its policy work and engaging with Parliament and Government. Daniel has a background across the physical sciences and has previously worked for the House of Lords Science and Technology Committee and the House of Commons Library.

The UK Government's hugely welcome commitment to increasing the public research budget to £22bn by 2024/25, provides it, UKRI and others with the opportunity to be more creative in how they support research and innovation. Far from the turn of the 2010s, where a ring-fenced budget left the Government with little room to manoeuvre, the UK can afford to be bold with its investment in research.

However, the Covid-19 pandemic has put serious pressure on the ability of the research sector to continue to fund and facilitate research. This not only brings unprecedented questions to the way in which research-intensive organisations need to be supported in the short and medium term, but also poses questions about how the UK public sector can most effectively and sustainably invest in research to create the best outcomes for the citizens of this country.

Here at the Campaign for Science and Engineering (CaSE) our work on increasing research and development (R&D) intensity in recent months has focussed on two main strands ahead of the Comprehensive Spending Review, due to conclude this autumn. The first is working with our members to identify ways in which the effects of the Covid-19 pandemic on the research sector can be

mitigated. The second, and the focus of this article, is working to create an evidence base for how R&D investment can support economic growth in the regions and nations of the UK and drive the Covid-19 economic recovery. Our report "The Power of Place", published back in May, sets out a number of recommendations for the Government as it draws up its own R&D place strategy. We were really pleased to see that some of these were already taken up by the Department for Business, Energy and Industrial strategy in its recently published R&D roadmap.

We have developed an evidence base for the impact of place-based regional R&D investment on local economic growth by working with our diverse, UK-wide membership. We have held discussions in Scotland, London, the West of England, the West Midlands, the North East, Northern Ireland, Wales and the North West. Our

discussions have brought together senior representatives from academia, industry and local government to review areas such as the structure of partnerships between organisations and the opportunities that R&D investment could bring for local economies.

In our work we have covered the many different types of places in the UK, including urban metropolitan areas, smaller towns and cities and their rural hinterlands. The issues faced by those carrying out R&D in these different types of places can often be quite different. Our findings were in three broad categories: building on excellence and developing a brand, local leadership, and supporting small businesses.

BUILDING ON EXCELLENCE AND DEVELOPING A BRAND

We found that investment is likely to give a greater return

when it builds on existing excellence and it is difficult to re-create the conditions that give rise to excellence just by spending money – it is a process that has often happened organically over many years. Therefore, investment should be focussed on R&D excellence that already exists – even if it is small and nascent.

It is also important to improve the branding of regions to highlight their strengths. By clarifying their distinctive strengths and sectors in order to present a pitch for national and overseas investment regions should be able to attract greater UK and global investment.

To be most effective, local and regional branding should be mapped on to areas where there is already a sense of local or regional identity and the appropriate local bodies exist in order to take advantage of that brand and any investment that comes with it.

THE IMPORTANCE OF LOCAL LEADERSHIP

Strong leadership from both civic leaders and the research sector is vital to realising the full benefits of local R&D investment. Leaders from local authorities, combined authorities and LEPs need to have much greater involvement in regional R&D conversations. Those examples we have found of successful local and regionally R&D investment, such as NETPark in County Durham and the National Graphene Institute at the University of Manchester, have been driven by strong civic leadership by a small number of

committed individuals. However, this works both ways and it is incumbent on leaders in the research community, both in businesses and universities to build a strong narrative to show local civic leaders what R&D can do for the local growth agenda.

There is also a need for combined authorities and other local leaders to assess the levers they currently have at their disposal to design and implement tailored regional interventions, and should consider making the case to Government if they believe more levers are needed. Central and local government should also work together closely to improve national coordination between local and national R&D priorities. This will help maintain the breadth of the UK research base by ensuring that regions do not all focus on the same areas or disciplines.

Investment in R&D cannot be considered in a vacuum. Attracting and retaining highly skilled graduates in a region is important in order to attract innovative businesses to that region. This is often affected by the wider perceptions of a region and quality of life factors outside of R&D, such as housing affordability. Improving local infrastructure and housing will help equip places for increased research intensity and making places more attractive to live will help retain skilled people, a topic that has come up during every conversation we have had. It is important that decisions made about regional R&D are linked up with other regional development decisions across

local and national Government. There is a role here for UKRI to encourage all parts of Government to think about these issues holistically.

SUPPORTING SMALL BUSINESS

University-business collaborations are crucial to local research and innovation ecosystems and promoting a region. This is particularly true for the collaborations between universities and small and medium sized enterprises (SMEs). Universities often act as an anchor point around which a local innovation ecosystem can be built. However, research ecosystems are often complex and fragmented, which can hinder SMEs from accessing finance and innovation support easily. Therefore, there needs to be greater support from local and national government to enable SMEs to form collaborations with universities and to secure R&D investment.

EU structural funds currently support a large number of SME collaborations and help build research capacity across the country. This support is not spread evenly. Some areas, such as Wales, are more heavily reliant on this type of support. Therefore, careful consideration will have to be given to how domestic schemes such as the long-awaited Shared Prosperity Fund replace this support, in order to continue to build research capacity in less research intensive parts of the UK.

WHAT NEXT?

Since we carried out the evidence gathering for our report

the context in which the “levelling up” and R&D investment agenda will be taken forward has changed dramatically as a result of the Covid-19 pandemic. However, the fundamental challenge of encouraging regional economic growth will remain the same and has taken on even more importance as the UK emerges from the pandemic and looks to rebuild the economy. Furthermore, the barriers facing this agenda are unlikely to be changed by the pandemic, if anything public investment is likely to be even more crucial. Therefore, it is still vital that Parliament and the Government takes on board the evidence we have gathered and the recommendations we have made to ensure that the regional investment in R&D has the greatest possible economic impact.

CaSE will be continuing our discussions around the country with our members and continue to engage with the Government and Parliamentarians as proposals are developed for the UK R&D Place Strategy. Strong evidence will be essential to inform policymaking and ensure that a place-based approach to research funding will in fact deliver the intended outcomes. We hope that our contribution to the evidence base will support policymakers in building a more productive and prosperous nation. □