MillionPlus

The Association for Modern Universities

POLICY BRIEFING

Levelling up to £22 billion: research, innovation & local business support

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Executive summary

The UK government 2020 budget outlined plans to raise public investment in research and development (R&D) to £22bn by 2024-2025.[1]

Increasing expenditure in R&D is a critical means by which the government can support recovery from the pandemic and its ambition to level up the country. Indeed, many of the areas that are seen to be key targets in the levelling up agenda have also felt the impact of the pandemic most acutely. There are a range of factors that have contributed to this. In some areas, pre-existing health inequalities have contributed towards a disproportionate economic effect. Some areas or regions with high proportions of small and medium-sized businesses have suffered, as smaller enterprises have struggled to shoulder the prolonged disruption caused by Covid-19. It is also the case that in many post-industrial areas of the country, the effects of the pandemic have compounded many long term social and economic shifts that have given rise to inequalities between and within regions of the UK.

It is therefore crucial that by increasing the level of spend on research and innovation, the government ensures that investment is spread across the country to support effective recovery and help reduce regional inequalities. It has been argued that HM Treasury has historically fallen into the trap of rewarding affluence in the way it distributes public spend on infrastructure, research and innovation.[2] Moreover, recent analysis shows that public investment in R&D is highly uneven across regions, and that this needs to be corrected if the country is to generate inclusive economic growth and solve the productivity puzzle.[3] Modern universities are a key national asset that must be utilised in this agenda. Not only do they have valuable expertise and knowledge exchange capabilities, but they are also well spread across the UK, reaching parts of the economy that are too often neglected.

This briefing highlights some of the key funding streams that should be prioritised in any increases in public R&D spending. They have been selected specifically because they are the funding mechanisms that can most directly contribute to levelling up. The funding priorities outlined below represent an investment in both universities and local businesses.

Modern universities have built up long-standing relationships with businesses and contribute to their local areas through a wide range of university-business partnerships, examples of which can be found here.

RECOMMENDATIONS

As part of the £22bn investment in public R&D, the government should:

1. **Scale up the Higher Education Innovation Fund,** so that knowledge exchange makes up a greater proportion of overall grant funding from Research England.
2. **Increase the number of Knowledge Transfer Partnerships funded across the UK.**
3. **Expand the Strength in Places Fund.**
4. **Ensure that the Shared Prosperity Fund is devolved,** based on long-term funding cycles, and accessible to universities and local businesses.

[1] HM Treasury, Budget 2020, 2020, section 2.22.

[2] Coyle & Sensier (2018) The Imperial Treasury: appraisal methodology and regional economic performance in the UK, Bennett Institute for Public Policy for working paper no: 02/2018, University of Cambridge.

[3] Forth & Jones (2020) The missing £4 billion: making R7D work for the UK, Nesta

Higher Education Investment Fund

The Higher Education Investment Fund (HEIF) is a funding stream administered by Research England that provides funding for knowledge exchange activity amongst higher education institutions. HEIF incentivises universities to work with charities, third-sector organisations and community bodies. This collaboration predominately takes place within the communities that surround the university in receipt of funding, which highlights the potential of this kind of investment to reach places said to be "left-behind" and help level up the country. Data from the 2019-20 academic cycle of funding allocations shows that HEIF funding is more evenly spread across the country than recurrent research funding, also known as QR funding (Figure 1). Regions that have been identified as key areas in the levelling up agenda, and those who are subject to greater levels of inter-regional inequality, all do better out of HEIF. This suggests that HEIF funding is perhaps a better vehicle to help level up the country than some comparators.

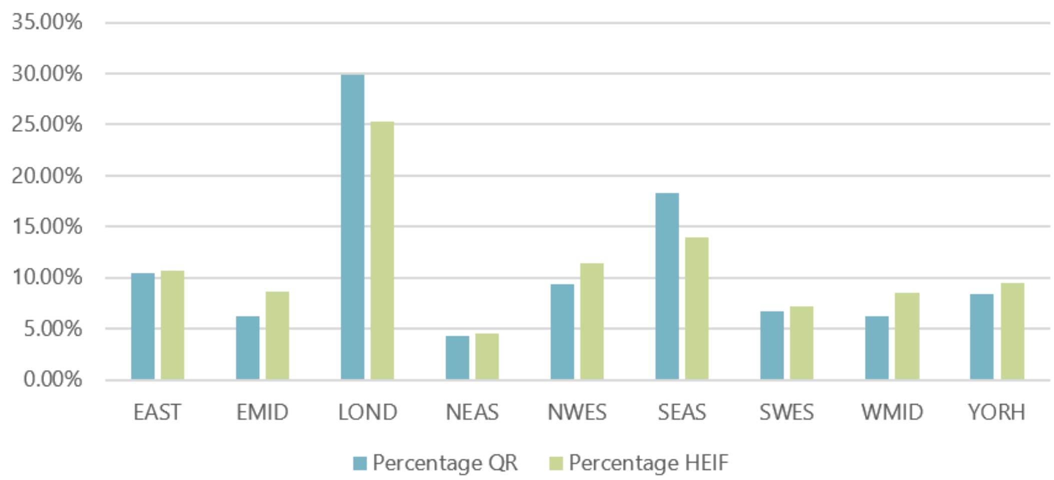
HEIF has a strong track record of cutting through to local business in places that have been traditionally hard to reach in terms of research and innovation. Projects funded by HEIF have historically been effective at engaging with small- and medium-sized business in such communities in particular.

Moreover, HEIF has a proven track record in terms of return on investment. Research has shown that for every £1 spent on HEIF, £8.30 is generated.[4] HEIF is a distinctive funding source that is stable and predictable. This means there is a degree of flexibility afforded to institutions, which opens up space for innovation in business interaction and knowledge exchange.

Research[5] has also provided evidence of where HEIF supports local economic development:

- regenerating disused sites in the local economy;
- providing R&D services to local firms;
- attracting inward investment and supporting SMEs by leveraging expertise;
- working closely with Local Enterprise Partnerships to strengthen innovation in the local area.

Figure 1: Proportion of recurrent Research England funding by region 2019/20



[4] Research England Website, https://re.ukri.org/knowledge-exchange/the-higher-education-innovation-fund-heif/

[5] Ulrichsen, T (2014) report for HEFCE, Knowledge Exchange Performance and the Impact of HEIF in the English Higher Education Sector https://core.ac.uk/download/pdf/20090197.pdf

Knowledge Transfer Partnerships

Knowledge Transfer Partnerships (KTPs) are three-way partnerships that are a win-win-win for universities, graduates and local businesses. For universities, KTPs provide a great opportunity to generate output that has impact, with each often spawning multiple research projects and papers. It is also a great way for universities or other educational organisations to forge links with local partners and further embed themselves in their local communities as anchor institutions. For local businesses (as well as charities and social enterprises), KTPs offer the opportunity to make use of expert academic insight and resources they would not otherwise have access to. The net result of a KTP for a business is often to increase capabilities, improve productivity and ultimately make the organisation more competitive. For graduates, KTPs represent a valuable opportunity to apply the skills and knowledge they have developed while studying and develop themselves professionally. KTPs often lead to a high-skilled permanent job for many of the graduates who participate. KTPs are therefore a key instrument than can be used to support graduate retention in localities or regions that lose out on high levels of graduate mobility. These types of initiatives are exactly the kind that should be ramped up to support the creation of high skilled employment in levelling up areas.

Optimising software development productivity at HTC solutions Ltd to increase the capacity to engage with new customers and to develop new cognitive algorithms to transform software capability at **STAFFORDSHIRE UNIVERSITY.**

Applying machine learning and advanced data analytics expertise to develop a diagnostic and prognostic capability for advanced leak detection, mapping and network visualisation services to water utilities at **THE UNIVERSITY OF WEST OF SCOTLAND.**

Creating an intelligent forecasting platform which uses data science, AI and behavioural finance to enable the rapid creation and production of precision financial forecasts at the **UNIVERSITY OF SUNDERLAND**

Developing a continuous high-speed thermal printer using linear motion control to deliver the speed and accuracy needed to deliver high-quality print at **LONDON SOUTH BANK UNIVERSITY**

Developing a new range of fabricated steel access covers at Wrekin Products Limited, introducing new innovative production methods and design modularisation with the **UNIVERSITY OF WOLVERHAMPTON**

A project to research, develop an innovative Bayesian-based data approach for hydrocarbon allocation and attribution using a cloud-based software approach at **ROBERT GORDON UNIVERSITY**

Strength in Places Fund

The Strength in Places Fund (SIPF) is a relatively new initiative distributed by UK Research and Innovation, the body that overseas public investment in R&D in the UK. This is a UK-wide funding stream that aims to support innovation-led regional growth. All projects that receive funding are collaborations between businesses and universities (or other research organisations). The value of this initiative is that it has an explicit focus on place. That is to say, bids for funding are considered on the degree to which they can contribute to growth within their region, and there is a concerted effort therefore to spread investment outside what might be considered the economic "core" of the UK. A more contextualised approach is welcome as it helps to avoid rewarding historic performance to such an extent that would simply reproduce regional disparities in funding.

This is all the more important in the current context where, as a result of the UK leaving the European Union, the UK is losing access to European Regional Development Funds (ERDF). ERDF is designed with a built-in objective to reduce inter-regional inequalities, referred to as the principle of convergence, and funding is allocated according to measurements of economic performance of different regions across the UK. The irony is that at the very moment when the levelling up agenda is beginning to be formulated by the government, the UK is losing its principle "place-based" mechanism for investment. It is vital therefore, that initiatives like the Strength in Places Fund are supported and continue to expand if the levelling up agenda is to achieve its objective of spreading prosperity more evenly around the country. There is also scope for this to be complimented by other funding streams where allocations are distributed according to some more objective measure of economic performance/deprivation by region or local authority area.

Shared Prosperity Fund

The Shared Prosperity Fund (SPF) represents a great opportunity for the government to spread opportunity and support regional development to help in their ambitions to level up the country. MillionPlus published a policy briefing on this topic in February 2020, "SPF2020: How the Shared Prosperity Fund can protect the UK economy". This briefing gave an overview of the history of European regional funds in the UK, and identified strengths that should be taken forward or replicated in the SPF, as well as identifying where there are opportunities to improve.

In this briefing MillionPlus argued that the SPF should be designed on three main principles:

- Devolve decisions as far away from the centre as possible so that the UK's regions and nations can target development where it is most needed.
- Promote long-term, flexible, local approaches to investment to avoid the pitfalls of electioneering on economic development and ensure there is no centralised one-size-fits-all approach.
- Reduce bureaucracy and burden to enable swift action and innovation in regional economic development.

There is some concern from across different sectors of society that progress on the SPF appears slow, and that there have been no major announcements since early 2020. The SPF has the potential to be a key instrument that the government could use to help level up the country. MillionPlus believes that the true potential of this fund will only be fully realised if the government adheres to the principles outlined above. It is also crucially important that the fund is accessible to the full range of local actors that can contribute to regional development, including universities and local SMEs.

Conclusion

Public investment in research and development is a key area in which the government can contribute to levelling up the country, by ensuring that opportunity and prosperity are spread more evenly across the UK.

While the concept of levelling up is still yet to be fully defined by the government, this briefing argues that research, innovation and business support should be key components of this agenda.

These key funding streams have the potential to support local economic development in the recovery from the pandemic, help solve the productivity puzzle, and combat historic disparities in economic performance across the country, both within and between regions. Modern universities are already making great strides in boosting their local economies, but this can be further instrumentalised to support work in these areas. MillionPlus has presented a concrete plan of how to do this going forward, by outlining four funding streams that should be prioritised. The government has announced it will be raising the total level of public R&D over the coming years and therefore, to "level up to £22 billion", MillionPlus recommends the government should:

1. **Scale up the Higher Education Innovation Fund,** so that knowledge exchange makes up a greater proportion of overall grant funding from Research England.
2. **Increase the number of Knowledge Transfer Partnerships funded across the UK.**
3. **Expand the Strength in Places Fund.**
4. **Ensure that the Shared Prosperity Fund is devolved,** based on long-term funding cycles, and accessible to universities and local businesses.