

# Government policy fails to join the dots on the key challenges of innovation, net zero, and levelling up



**Anna Valero** writes that funding clean technologies, such as ocean and wind energy, can be a triple win, helping to address climate change, generating growth, and contributing to levelling up. Yet the 2021 Budget failed to link these three challenges together.

Chancellor Rishi Sunak's autumn budget painted an upbeat view of the economy. Improved forecasts have left the Treasury with more money than expected. The decision to spend rather than cut taxes should help to repair public services that were under strain even before the pandemic. But the UK needs to take stock of its challenges. The [Office for Budget Responsibility](#) predicts that the pandemic and Brexit will reduce long-term output by 2% and 4%, respectively. Productivity has been weak for over a decade, and growth is forecast to be just 1.3% in 2024 after the initial rebound. Restoring productivity growth is the only way to sustainably raise living standards and avoid the threat of an inflationary spiral.

We also need to act at scale – and quickly – on climate change. Doing so will maximise not only the chances of meeting our net zero commitments, but also of reaping the economic and other wider benefits it will bring. The budget fell between the publication of the [UK government's net zero strategy](#) and its hosting of the COP26 climate meeting in Glasgow. It was a perfect opportunity to make tax and spending decisions that would generate the investment and innovation required to meet net-zero commitments and achieve sustainable growth that is also more inclusive – across and within the UK's regions. But despite positive steps, the opportunity was missed.

On the research budget, the commitment to reach £20 billion by 2024-25 is a large and welcome, step up, as is the reaffirmation of support for the target for R&D spending to reach to spend 2.4 per cent of GDP by 2027. Such investment will be crucial for restoring productivity growth. Publicly funded R&D crowds in private investment and generates spillovers into the private sector.

Incentives for private-sector investment also play a role. The broadening of R&D tax credits, to reflect modern services' firms activities in cloud computing and data, along with a refocusing to support domestic R&D, are likely to increase UK innovation intensity. Even so, the retreat from 2020 budget's pledge to reach £22bn a year by 2024-25 makes it harder to hit the 2.4 per cent target. And some argue that fulfilling the UK's ambition to become a 'science superpower' should mean aiming higher than the current OECD average of 2.5%. How the extra R&D money is spent is also important—the direction of innovation, as well as the amount, matters. Given multiple market failures, uncertainties and path dependencies in innovation systems, steering towards the development of clean and smart technologies at pace will require coordinated policies, public investments and incentives.

As the chancellor said, the net zero strategy is an innovation strategy, but at this point we need aligned policies, investment and incentives to convert that strategy into action, including amongst consumers and citizens. The continued freeze of fuel duties and cuts in taxes on domestic flights are steps in the wrong direction. This links to the broader point that the government has shied away from emphasising behaviour change as part of the net zero strategy. The Climate Change Committee estimates that around 60% of decarbonisation out to 2035 requires some form of societal or behaviour change, compared with 13% from 2009-2019.

Innovation and its diffusion will play a key role in levelling up. But simply spreading R&D spending geographically will not necessarily help without complementary investment in skills and infrastructure. Workforce skills, gained via university, technical education or on-the-job, are crucial for generating innovation and helping it reach businesses, and for addressing economic disparities across and within places. This budget increased support for further education, but against a baseline of a squeezed sector and falling [job-related training in firms](#). Spending per student in further education and sixth form colleges will remain below 2010 levels. In schools, per-pupil spending will only get back to its 2010 levels by 2024-25. These decisions are not consistent with restoring productivity growth or levelling up.

Targeting spending successfully requires a deep understanding of a region's current and potential strengths, and barriers that can be addressed by policymakers. In [recent analyses](#), my colleagues and I have argued that funding clean technologies such as ocean and wind energy can be a triple win, helping to address climate change, generating growth and contributing to levelling up. We have also highlighted the sustainable growth opportunities across the UK's regions associated with [carbon capture usage and storage](#) technologies. We must look to the long-awaited Levelling Up White paper for more clarity on how all these aspects can be joined up to achieve more equal and sustainable growth across the country.

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Note: the above was [first published](#) on Research Fortnight.

### About the Author



**Anna Valero** is a senior policy fellow in the Centre for Economic Performance, and Deputy Director of the Programme on Innovation and Diffusion at the London School of Economics and Political Science.

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