

FRASER OF ALLANDER INSTITUTE

Driving Growth: Innovation and Sustainability in Scotland



EDITION 1

MARCH 2025

Get ready for an exploration of Scotland's economic future. The Fraser of Allander Institute and Deloitte are joining forces in an exciting collaboration, igniting a critical conversation on how Scotland can unlock unprecedented economic growth.

Over the next year, we'll delve into the heart of the matter, dissecting the transformative potential of the energy transition and digital innovation. Prepare to have your assumptions challenged as we expose the hidden opportunities within Scotland's productivity landscape and chart a course towards a more prosperous future. We're bringing together leading voices from Deloitte, the Fraser of Allander Institute, and beyond in a series of engaging podcasts. Expect lively debate, expert insights, and thought-provoking discussions that will reshape the conversation around Scottish economic growth.

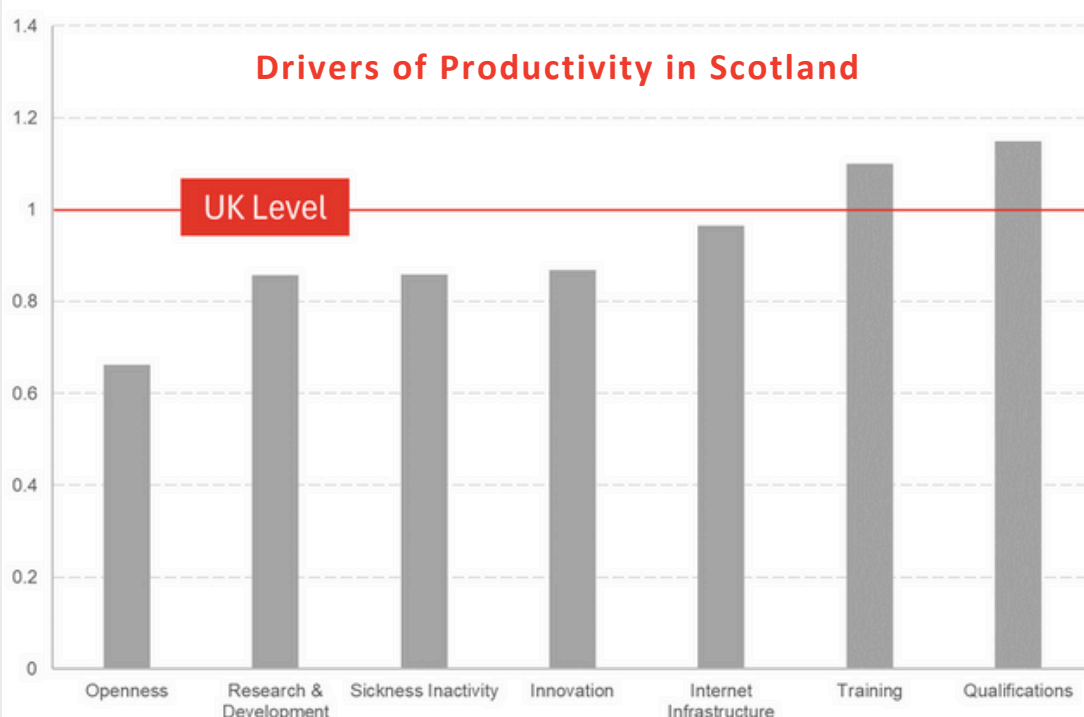
Culminating in a landmark event in March 2026, this collaboration will unveil ground-breaking insights and provide a platform for action. This Scottish-focused initiative builds upon Deloitte's UK-wide Growth 35 programme, painting a bold vision for a thriving UK economy by 2035. Join us as we spark a conversation, igniting innovation and forging a path towards a more sustainable and prosperous Scotland.

SCOTTISH PRODUCTIVITY PERFORMANCE

In general, Scottish labour productivity tends to lag UK average levels, which are pulled up by the relative strength in productivity of London and the South East. Scotland's labour productivity gap has remained stable over the last decade at around 2 percentage points, although this is an improvement on the 6 percentage point gap in the previous decade.

There are many aspects of an economy which can affect its productive capacity. For example, Economies that are more open (e.g. more likely to export) and those which have higher levels of investment in new processes or innovation are likely to be more productive.

Analysis of the drivers of productivity compared to the UK shows that Scotland lags on some of these metrics, in particular openness, due to a lower level of exporting. Scotland does comparatively better when we consider qualifications and training.



Source: CBI Scottish Productivity Index, FAI Analysis

ACCELERATING THE GREEN ENERGY TRANSITION

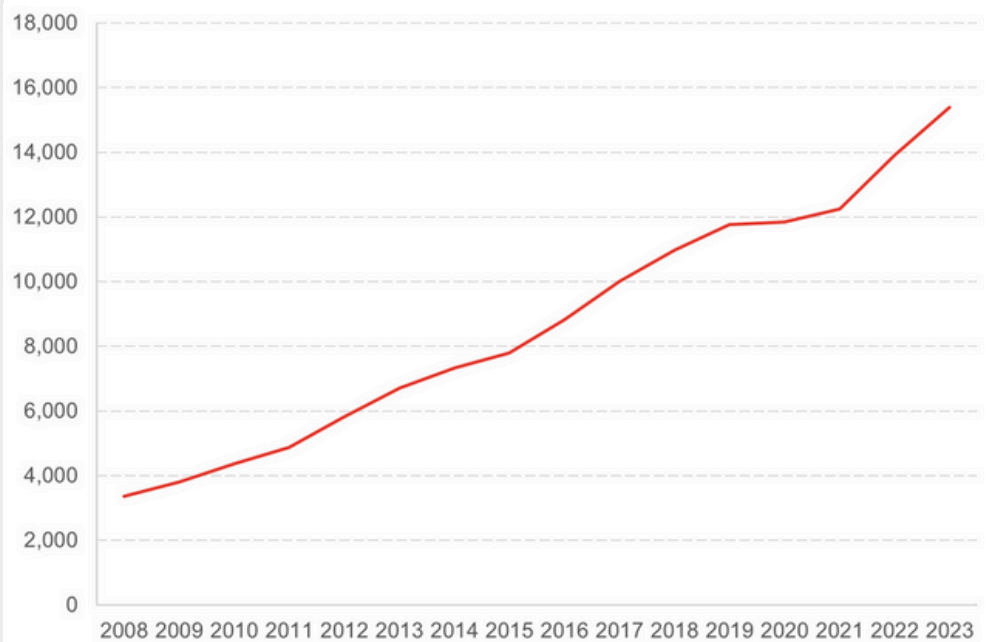
The energy transition provides huge opportunities for Scotland given the natural resources at our disposal and our existing specialisms in energy production and the related supply chain. The assets that Scotland has at its disposal, in both public and private hands, could be leveraged to ensure the opportunities of the transition are realised. For example, the public sector owns more than 10% of Scotland’s 8m hectares of land, and around 23,000 of its buildings. It also procures around 10% of electricity consumed in Scotland.

Key to the success of the transition is likely to be the nature of local impacts - both in terms of the threat of decline of existing industries, the opportunities from the rise of new industries, and local opportunities for new and cheaper energy supplies.

Over the past decade and a half, Scotland has significantly increased the installed capacity from renewable sources, to over 15 MW in 2023.

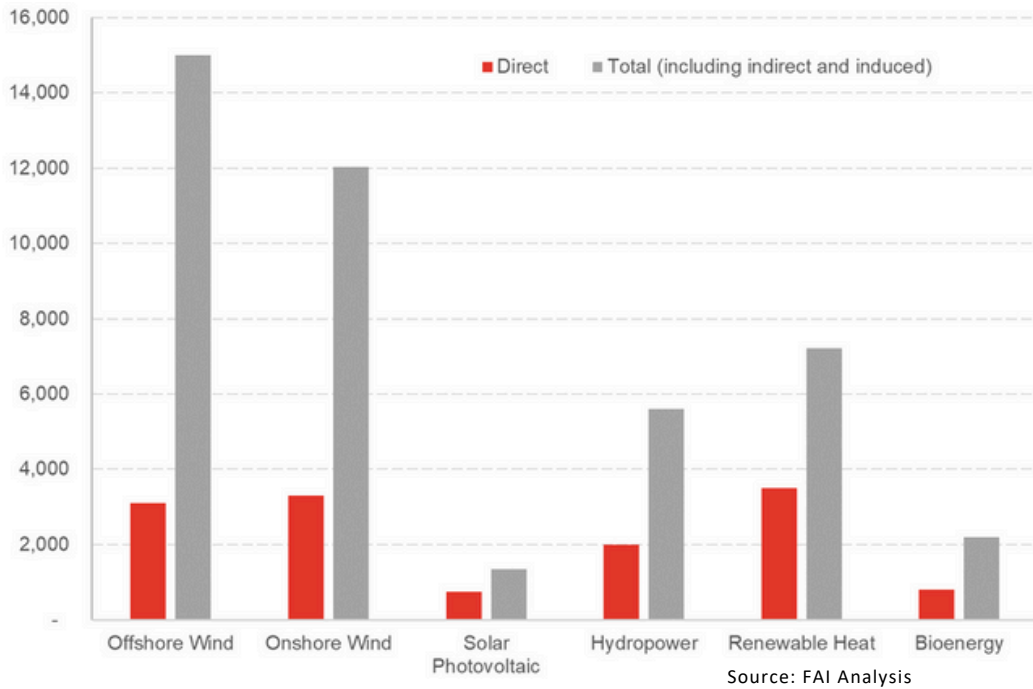
Of this capacity, over 80% of this is from wind power. The amount of energy generated from wind power in Scotland is equivalent to 113% of Scotland’s electricity requirement in 2022. Of course, this does not mean that all electricity comes from renewable sources - as having the power required at the time required remains a challenge for renewable sources and still requires use of fossil fuels.

Installed capacity from renewables



Source DESNZ

Employment in renewable sectors



Source: FAI Analysis

The increase in installed capacity has gone hand in hand with economic output and jobs related to the energy transition.

We estimate that the renewable energy industry had a turnover of £6.1 billion and 13,600 full-time equivalent (FTE) employment in 2021. However, the economic activity supported by renewables sector is far greater than its own turnover and employment. The renewable energy sector supports economic activity throughout its supply chains and this economic activity supports wage spending across Scotland.

Including these spill-over effects, we estimate that the renewable energy industry supports over £10.1 billion of output, over £4.7 billion of GVA and over 42,000 FTE employment across the Scottish economy. The technologies that individually support the most FTE employment are offshore wind (15,005), onshore wind (12,030), renewable heat (7,220) and hydropower (5,605).

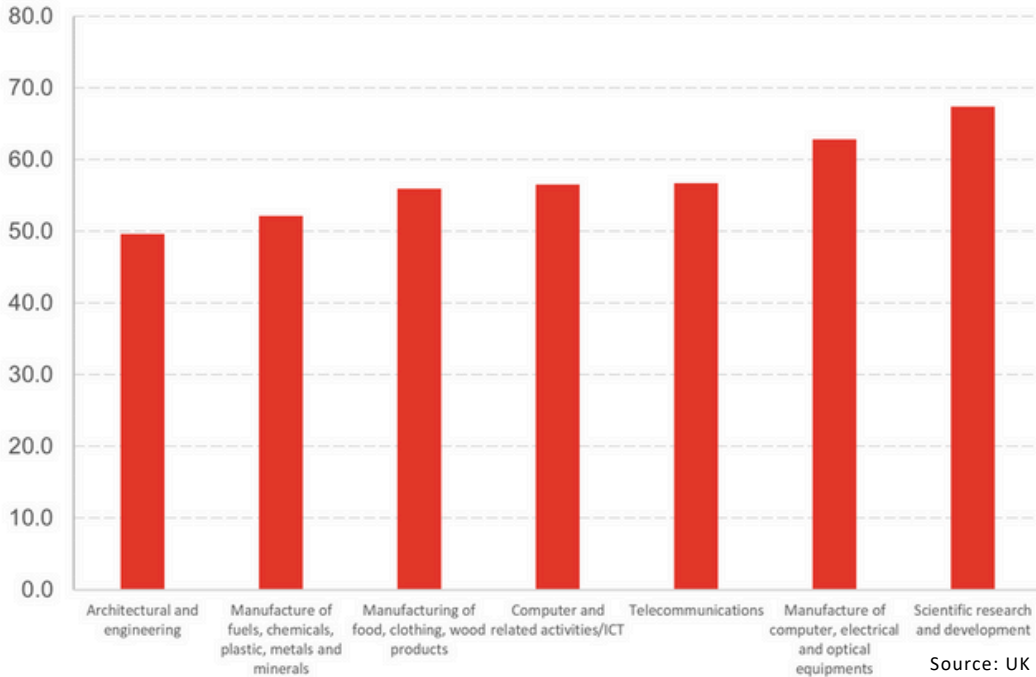


THE DIGITAL ECONOMY & ARTIFICIAL INTELLIGENCE



The digital economy is at the forefront of innovation in many developed economies, and provides innovations that can be adopted across the economy to improve productivity and accessibility (whether to goods, services or employment). Recent developments in AI have changed our understanding of both the opportunity and threat posed by digital innovations. There is no doubt that there are huge opportunities to harness technology to improve our productivity.

Innovation Active Firms



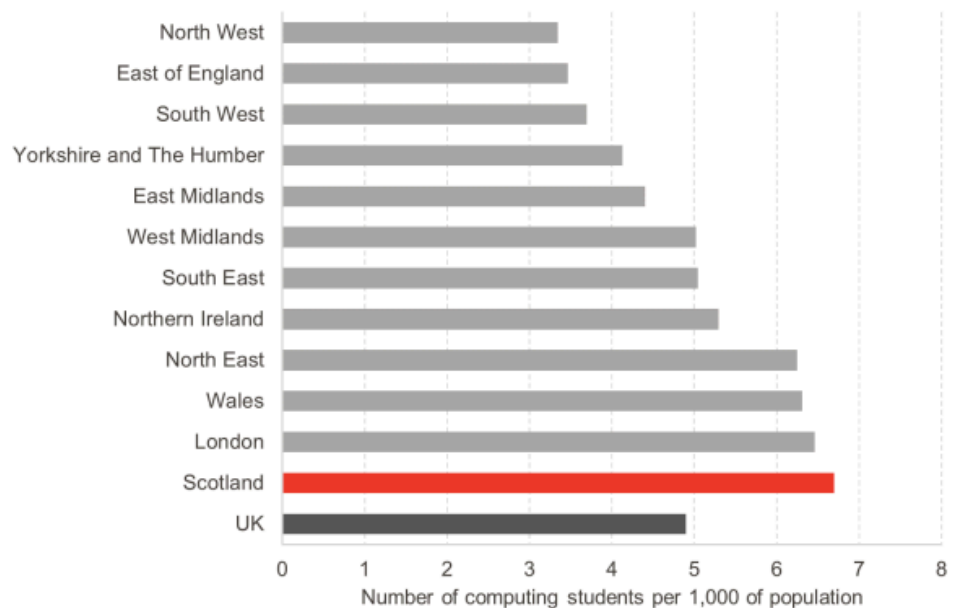
Data collected through the UK Innovation Survey shows that digital and computing related firms are much more likely to be engaging in innovation than average, with 62% if computer and electronic manufacturers and 57% of computer services and software companies engaged in innovation compared to an economy wide proportion of 32%.

Source: UK Innovation Survey

On top of understanding the nature of the digital and technology sector in Scotland, it is important to understand the skills pipeline, to assess the capacity that we have in Scotland to take advantage of different opportunities.

Scotland has the highest proportion of computer studies students per head of population. We have a similar profile of engineering students in Scotland.

Skills Provision of Computing Students



Source: HESA

Digital employment clusters in Travel to Work Areas (TTWAs)



Source: FAI Analysis of ONS data

Regional clusters are particularly important for the development of digital companies. The data suggest that these are most prevalent in the largest cities, generally congruent with Scotland's higher education strengths. A Location Quotient above 1 suggests specialism (i.e employment more than Scottish average - we'll dig into this data in one of our briefings!



OUR PROGRAMME

Our goal is to unpack the potential of the energy transition and digital innovation – two forces poised to catapult Scotland onto the global stage.

Why energy and digital? Because these are the arenas where Scotland holds the keys to unlock extraordinary growth. We're already ahead of the curve, with a wealth of knowledge and experience ready to be unleashed. Scotland thrives on pushing boundaries. We're natural innovators, perfectly positioned to seize the opportunities of the future. Imagine a future where Scotland's energy and digital prowess fuels global demand, driving economic prosperity at home. Over the coming months, prepare for a series of insightful reports and engaging discussions. We'll dissect the challenges, illuminate the opportunities, and provide a roadmap for Scotland to become a leader in the new economy. The future is ours to build.

Topics we will cover...

What is a Just Transition - for workers and regions

Investment in new technology to support the transition

The renewables economy in Scotland

AI and the job market

AI & public services

Green jobs - what are they and where are they?

Digital skills for the future

...and many more