

# WHY THE UK IS LOSING THE RACE TO BECOME A SCIENCE SUPERPOWER



Sharon Todd, CEO of global hub for industrial innovation, SCI

**Science and innovation are the bedrock of British industry. That excellence has been witnessed throughout the centuries – be it the first reflecting telescope or creation of the world wide web; the discovery of penicillin or rolling out the world’s first Covid vaccine.**

The UK retains its reputation as a global leader of science-based industry, particularly regarding the quality and quantity of our researchers and innovators.

We are not, however, meeting our vast economic potential. Too often we see our start-ups move abroad, where access to capital is more freely available. Innovative business is departing our shores at an alarming scale. AstraZeneca’s decision in 2023 to locate in Ireland rather than its UK base marks just the start of the departure, as large-scale firms commercialise their research in more attractive tax systems overseas.

Lacking the commercial resources to grow our early-stage companies and attract multinationals that can help us deliver growth at scale means revenue and skilled jobs are leaking out of the UK.

There is no escaping it – the UK is losing the race to becoming a science superpower.

Before the Autumn Statement, the Chancellor vowed to respond to business leaders who have been deeply concerned by the abandonment of any form of industrial strategy. The policy was officially dropped in 2021, though the strategy had already drifted for several years.

There have been some promising signs that the government has started to see the need to boost UK competitiveness. The Autumn Statement targeted high-value technology sectors and certain local areas. However, the policy needs joining up to deliver our high-value manufacturing, research, life sciences and green technology sectors into economic engines.

growth within Europe, as well as amongst G7 countries in 2024 – where all nations except for the UK have a clear and comprehensive industrial strategy.

Despite being the world’s sixth largest economy, the UK is currently staring down the barrel of a global growth gap.

These countries have well-defined industrial strategies,



The gap between the UK and other growing economies has been widening for some time. Over the last 20 years, UK growth averaged 1.5%, compared with a global level of 3.6%. High-growth nations such as Ireland and Singapore averaged growth rates of 5.5% and 5%, respectively.

IMF forecasts predict the UK will have the lowest level of

driven by government. This translates into considerable investment in high-growth manufacturing sectors including life sciences and, more recently, renewable energy.

Take manufacturing, where economic value is generated through jobs, indirect investment in the local economy and taxes. The UK’s share of manufacturing as a percentage of the economy

**SCI Where Science Meets Business** is a global industrial innovation hub for the benefit of society. It is based in London and has members in over 70 countries. It is a charity, formed in 1881 as the Society of Chemical Industry.

has been in steady decline for decades. It has fallen from over 30% of GDP in the 1970s to less than 10% – the lowest of the major economies.

Not one top ten FTSE100 company has built or developed new manufacturing plant in the UK in the last 20 years. The last two decades have been a lost opportunity. Put in simple terms, if the economy had grown at an extra percentage point every year during the last 20-year period, this would have contributed an astonishing extra £484bn into the economy.

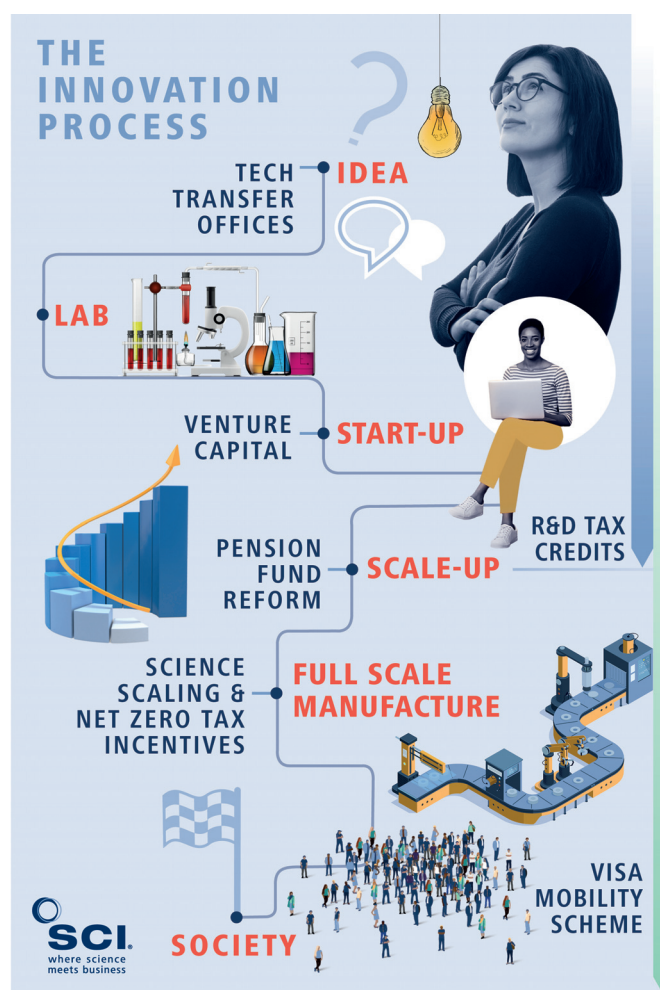
Globally, other sectors demonstrate the opportunities available. The global pharmaceutical market is valued at £2 trillion, and clean tech at £1.2 trillion. Both are showing strong growth rates of 6% and 12% per annum, respectively.

The UK's performance in the pharmaceutical sector has been at best lacklustre. In contrast to major pharmaceutical manufacturing countries – which have all grown exports – the UK's pharmaceutical exports have been in decline for a decade. Germany has consistently been a leader in pharmaceutical exports and has maintained that position during the same period.

A recent report by LEK Consulting, commissioned by SCI, estimated the value opportunity in life sciences and clean tech alone in the UK to be worth £230bn in GVA, with an additional 240,000 of new jobs by 2030. It is an opportunity we cannot afford to pass up.

## CREATING THE ENVIRONMENT FOR SCIENCE-BUSINESS

To unlock this potential, however, will require the creation of a conducive business environment, set at the very top. An effective industrial strategy for



science will include simplifying R&D tax incentive schemes. It will ensure scale-up capital is available, and make the UK globally competitive to attract investment for large scale projects.

The government needs the advice of a single body of science-based business leaders that can join the dots on creating the new infrastructure required to sustain 21st century innovation - a single voice that can help direct public investment to where it is needed.

The UK cannot afford to stand still while other advanced economies are implementing huge industrial strategies to propel their economies, creating jobs while becoming world leaders in the green tech revolution.

There is no better example than the US's Inflation Reduction

Act, which contains \$500b in tax breaks and spending for clean energy and to reduce healthcare costs. R&D will be boosted beyond measure, as will commercialisation of state-of-the-art technologies such as carbon capture and storage and clean hydrogen.

In the UK, the words "industrial strategy" are mentioned often by commentators, expert organisations and politicians. What should be in such a strategy is rarely articulated.

That's why we have developed SCI's Industrial Science & Innovation Manifesto – it is science-based business' articulation of what an industrial strategy should look like.

This document is not a menu of options, but a whole life-cycle strategy. Industry needs every element of this manifesto to be implemented to grow the most

dynamic start-ups and make sure revenues stay in the UK once these long-term investments can produce at scale.

We believe that this could not only be encapsulated in an Innovation Implementation Act, but must also form part of an overall Industrial Strategy, with science and innovation recognised as a vital component for its success.

## TURBOCHARGING UK BUSINESS

By taking commercial advantage of our expertise, the UK's economy would be turbocharged.

The resulting investment and job creation would take place in diverse areas of the UK, supporting political ambitions to rebalance the economy from its dependence on London and the south-east of England and into some of the most economically deprived areas of the country.

The UK must take its place in the green tech revolution, as it must protect those industries it founded and fostered in previous industrial revolutions.

To achieve these incontrovertible wins for the UK, political parties must first agree to an Industrial Science and Innovation Manifesto.

To read SCI's Manifesto for an Industrial Science and Innovation Strategy, scan the QR code below or visit [bit.ly/SCIManifestoPdf](https://bit.ly/SCIManifestoPdf)

