How can we encourage more R&D in the tech sector, creating high skilled jobs across the UK

techUK is the trade association for the technology sector in the UK. Our over-1000 members, the majority of which are UK-based SMEs, are based around the United Kingdom. They employ 1.1 million people across the UK, with a turnover of £329bn in 2023 and an estimated annual growth rate of 10%.

We have prepared this briefing to help Prospective Parliamentary Candidates understand key tech issues in the UK, what can be done to tackle these issues, and the benefits of doing so.

This briefing draws upon:

- Our [UK Tech Plan: How the next Government can use technology to build a better Britain](#)
- The [Seven Tech Priorities for the next Government and polling of 250 tech industry leaders in February 2023](#).

More briefings, both from ourselves and techUK’s members, can be found on our [online briefing hub](#).

What is the problem?

While Government has taken several important steps to incentivise investment in innovation, such as introducing full expensing for capital spending, there are still several major barriers to companies seeking to innovate in the UK.

The first of these relates principally to the **R&D tax credit**. While the UK has developed a competitive R&D tax credit, repeated changes to the scheme have shaken business confidence and driven some R&D investment abroad. This particularly hits small UK businesses, with over one third of Small and Medium-Sized Enterprise (SME) tech leaders in (36%) finding it difficult to access Government support in a recent survey by techUK.

The second relates to **the cost of R&D facilities and essential infrastructure**. It takes too long and is too expensive to get connected to the National Grid. At the moment over 40% of connection agreements sold have delivery dates of 2030 or beyond. When connected, businesses are then paying rates that are too high, with energy costs the most significant barrier for tech businesses seeking to achieve their business goals over the next five years according to our recent polling.

Furthermore, **the Energy Intensive Industries Scheme (EIIS)** which aid sectors with high energy usage is prevented from aiding digital infrastructure due to legacy EU guidelines on state aid. This makes the UK a less attractive market for investment in digital infrastructure, such as telecoms networks, compute facilities and semiconductor manufacturing where energy costs are a major and increasing...
determinant of site selection. This also creates the risks of costs being passed to consumers, as digital infrastructure must always be switched on.

In terms of physical infrastructure, space in the UK’s major research hubs is uncompetitive compared to our peers’ major hubs, while identifying and building sites for manufacturing advanced technologies is expensive and slow versus our competitors. This creates a risk the UK will lose out on significant benefits of technological innovation, especially in sectors such as semiconductor manufacturing.

What are the solutions?

To improve how the R&D tax credit operates, the Government should set out a five-year plan for the future of the R&D tax credit focused on improving the operations of HMRC and providing better and faster customer service around claims.

Once the operation of the credit by HMRC has been stabilised and improved, the Government should look to expand the credit, with the first change being to include capital investment within scope of the R&D tax credit. This would bring the UK’s credit in line with those of Ireland and South Korea and has been called for by a wide range of industry voices.

To improve access to essential infrastructure, the next Government needs to work at speed to reform how our grid infrastructure is being upgraded, this should include reforms to Ofgem to give the regulator a formal duty to achieve net zero by boosting grid capacity and increasing connection speeds.

The next Government should also launch a review of nationally-significant infrastructure projects and the Energy Intensive Industries Scheme (EIIS) to make sure that both import schemes include digital infrastructure, currently they are excluded. The next Government should also seek to improve the planning system so that proposals to build economically important sites carry more weight.

What are the benefits?

Boosting R&D investment is a key part of helping the UK tech sector fulfil its potential to add over £200bn to the economy every year by the end of the 2020s, providing the money for essential public services and raising our standard of living.

R&D tax relief does this by stimulating investment. Every £1 of tax forgone through R&D tax relief results in up to £2.70 of additional investment in R&D by UK companies.¹

¹ HMRC (2020) ‘Evaluation of the research and development expenditure credit’
techUK member ForrestBrown ran a survey with clients that showed 61% of respondents said more tax relief for capital expenditure on R&D would incentivise their business to carry out more R&D.

In addition to providing the stability that businesses need to invest in R&D in the UK, **boosting the amount of R&D investment spending in the UK**, expanding the qualifying expenditures of the R&D tax credit to cover capital expenditure such as new plants and machinery could generate a **net additional £4 billion over 10 years**, providing **12,200 new R&D jobs**.

**Without improving the speed and reducing the cost of connection times, the UK’s future competitiveness will be severely undermined** across range of sectors from semiconductors to artificial intelligence. This will lead to a loss of opportunities to, for example, grow new semiconductor fabs from companies like Pragmatic Semiconductors who recently invested in a major new manufacturing site in the North East².

Faster planning decisions can help deliver major projects, such as **Google’s recent £1bn investment as well as Microsoft’s £2.5bn investment in UK computer infrastructure**. These kinds of infrastructure investments will have benefits for local communities, mostly outside of cities, through both the construction and operations phase

Expanding the EIIS, while this would be a major investment, is likely to bring significant returns by making the UK **more competitive as a location to build and run new digital infrastructure, while saving costs for the wider UK economy**.

How can I learn more?

If you would like to know more about the importance of getting our incentives for innovation right, you can read our [UK Tech Plan](https://www.techuk.org/uk-tech-plan) and [Seven Tech Priorities](https://www.techuk.org/eight-tech-priorities). techUK can also arrange a call with yourself and our policy managers so we can brief you on this topic in more detail. If this would be of benefit to you, please contact archie.breare@techuk.org and alice.campbell@techuk.org.

TechUK is also able to arrange a meeting between yourself and a member company of ours who has premises in your constituency if possible. This would provide you with a photo opportunity and allow you to discuss the importance of this issue further with a company operating in your constituency.

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² [https://www.ft.com/content/067ee2b6-505c-4995-8d46-cd4eb796a38b](https://www.ft.com/content/067ee2b6-505c-4995-8d46-cd4eb796a38b)