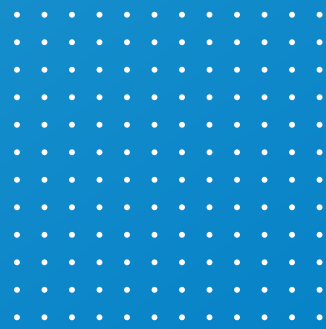


The UK tech sector in the 2020s



techUK, who are we?

techUK is a membership organisation launched in 2013 to champion the UK's technology sector and the benefits it can bring for people, society, the economy, and the planet. We have over 900 companies in our membership, made up of tech firms spread across the Scotland, England, Wales, and Northern Ireland that collectively employ around 750,000 people, about half of all the UK's tech sector workers.

We and our policy and public affairs team work collaboratively between our members, politicians, government, and others with the aim of making the UK the best place to start, scale, and develop technology companies. Working together to create opportunity across the country, for the benefit of the British people, our economy, society and the planet.

What does the UK tech sector look like?

The tech sector is often understood as a small group of companies who provide the basic services almost all of us use in our daily lives, from search engines and social media platforms to device you are reading this on right now.

This isn't the full picture. Tech companies range from start-ups with teams of as little as two or three, to large product manufacturers and service providers with complex supply and value chains. However, they all are united in that the technology that they sell, hardware or software, is the unique selling point of their business.

In the UK, around 96% of tech sector output and 81% of exports is in services.¹ These digital service providers are companies which apply their software and expertise to solve problems or enhance day to day services. This sees tech companies in several different business sectors such as food delivery, health, energy, and much more.



Our sector is growing and maturing: In 2020 a new tech business launched every half an hour and if well supported new tech business across the UK has the potential to create 678,000 new jobs and add an additional £41.5bn to the UK economy by 2025.²

Our sector is also maturing. Initially driven by start-ups, we are now seeing our home-grown companies mature. There is a consistent growth in investment in late-stage companies. The UK has now produced 122 unicorns, tech companies valued at over \$1bn, the most of any European country and behind only the US and China.³ In 2021 there were 37 tech listings on the London Stock Exchange, more than any other European exchange.⁴ This growth in UK champions combined with the large number of international firms which have operations in the UK make for a powerful and dynamic ecosystem.⁵

We are leaders in services, emerging technologies, and purpose driven tech: the UK is particularly strong in services, deep tech such as artificial intelligence, and purpose driven tech.

The UK leads in emerging technologies such as AI. We are third in the world for levels of investment in AI and have a strong record of investment and innovation in cybersecurity, robotics, and virtual and augmented reality. In fintech, financial technologies such as digital only banks, the UK is second only to the USA.

In cleantech, tech solutions working to reduce negative human environmental impact, the UK attracted 73% more investment in 2019 than in 2018, with this trend continuing into 2020.⁶ Investment in UK tech companies seeking to address the UN Sustainable Development Goals reached new levels of investment in 2020 with a record £651m in investment, an increase in 21%.⁷



BT Group is the UK's leading provider of fixed and mobile telecommunications, and related digital products, services, and solutions.

BT Group keeps the UK connected and has four customer-facing units: its Consumer arm serves individuals and households across the UK; Enterprise - its business-to-business unit - keeps UK businesses connected including the public sector and critical national infrastructure organisations; Openreach, an independently governed and wholly owned subsidiary is providing fixed access infrastructure services, connecting homes, mobile phone masts, schools, hospitals, broadcasters, and businesses of all shapes and sizes; and finally Global serves international business customers across a network spanning 180 countries.

BT is also driving innovation to find new, exciting ways to use technology to improve its networks and customer experience. It is carrying out world-leading research into AI, 5G mobile innovation, Quantum Key Distribution and digital security among other areas. BT is in the top ten investors in R&D both among UK companies and among telecoms companies globally. BT also innovates in future cases of its networks, which can drive up UK productivity, such as commercial use of drones.

What benefits does the UK tech sector bring to our society and economy?

The UK tech sector is a major employer, around 1.7 million people work in the digital sector.⁸ On average salaries in digitally intensive jobs are estimated at £62,500.⁹

Gross value added (GVA), the value of the goods and services produced by the sector minus the value of the consumption needed to produce these, was £149bn in 2018. Meaning the UK tech sector added £149bn to the country's wealth. This contribution has grown by 43% since 2010 and accounted for about 7.7% of all value added to the UK economy in 2018.¹⁰

But the tech sector's value is not just in the jobs it supports or the tax revenue it generates. The tech sector provides society and economy with the tools to get better, smarter, and more affordable services which enhance our wellbeing.

This could be a smart energy company which helps a family reduce their energy bills while sourcing power from renewable sources, or an AI-driven delivery system that streamlines your grocery shopping, providing a cheaper more environmentally friendly service.

Businesses outside the tech sector also benefit from our competitive market for digital services. Small businesses who use a combination of teamwork and creativity boosting technology such as cloud computing and digital training tools see annual turnover on average £262,000 higher than those using none.¹¹

92% of businesses view technology as crucial for their survival.¹² During the COVID-19 pandemic digital services allowed many companies to continue to reach their customers and find new ways of operating under social distancing, protecting thousands of jobs.



Deliveroo is a UK tech success story and one of the UK's most significant tech unicorns.

Founded in 2013 by William Shu and Greg Orlowski, the company started with a handful of riders and partner restaurants and has grown to work with 180,000 best-loved restaurants and grocery partners and around 160,000 riders to deliver amazing meals straight to customers' front doors.

The company has been vital to supporting small and independent restaurants across the UK to diversify their businesses by offering delivery services for the first time.

Deliveroo employs over 3,000 staff around the globe, the majority based in the headquarters in London.

Why is the UK good at tech?

But what makes the UK such a strong market for tech? There are a number of inherent features of the UK which have helped it become a strong tech market.

We have **a tech positive society**, the UK is 12th in the world for business adoption of technologies.¹³ We also have a high level of digital penetration, 96% of UK adults have access online services.¹⁴

We have **an exceptionally strong universities sector**. Many of techUK's member's partner with our universities for research and development (R&D) and to set up new research institutes. Spinout companies from UK universities are vital to developing the next generation of UK tech success stories.¹⁵

The UK is **a hugely attractive place to set up a tech company**, our language, ease of setting up a business and openness to investment are indispensable assets. However, accessing skilled workers remains a major challenge.

We also have **good regulatory practices**. For services companies, proportionate and risk-based regulation, as well as a regulator who understands the market and engages regularly gives companies the confidence to innovate. It also breeds partnerships that allow regulation to evolve in line with new technological developments. For example, the Financial Conduct Authority's, and Information Commissioner's Office sandboxes, programmes where companies can test new products under the oversight of the regulator, have helped UK companies develop cutting edge products and services in a secure environment.





RELX is a UK-headquartered global provider of information-based analytics and decision tools for professional and business customers, enabling them to make better decisions, get better results and be more productive.

Our purpose is to benefit society by developing products that help researchers advance scientific knowledge; doctors and nurses improve the lives of patients; lawyers promote the rule of law and achieve justice and fair results for their clients; businesses and governments prevent fraud; consumers access financial services and get fair prices on insurance; and customers learn about markets and complete transactions. RELX serves customers in more than 180 countries and has offices in about 40 countries employing more than 33,000 people.

RELX is both a significant consumer and developer of the latest technologies. We annually invest approximately £1.5 billion in technology and employ around 10,000 technologists across our business. The combination of our rich data assets, technology infrastructure and knowledge of how to use next generation technologies, such as machine learning and natural language processing, allows us to create effective solutions for our customers.

RELX is the parent company of LexisNexis Risk Solutions, Elsevier, LexisNexis Legal & Professional and RX.

What are the risks to this success?

The tech sector is the UK's modern success story, and we have a strong reputation internationally. But growing strong tech sectors is now the aim of many countries meaning we will face more competition for the top tech talent and companies in the future. Ensuring we continue to stay in the race is vital and we face a number of challenges that, if unaddressed could see us lose ground.

Connectivity: while we have high levels of device adoption among the public connectivity remains a challenge. Full fibre broadband and 5G rollout has been slow and we are behind some of our competitors. Good connectivity is the lifeblood of the sector. Without good connection speeds and the latest infrastructure, UK companies will simply not be able to provide the latest or most innovative services to consumers. This has negative impacts for our tech sector by reducing the innovative capacity, but also on consumers who won't have access to the latest services. Falling behind on 5G could see us lose out on £173bn growth over the next decade. To address this, we need ambitious targets and detailed plans to rollout full fibre and 5G.¹⁶

Talent and skills: the UK like other countries has a digital skills crisis, with not enough routes into tech jobs. The UK Government estimates that we could miss out on £141.5 billion in GDP growth if we fail to close the digital skills gap.

The number of advertised vacancies in tech jobs increased by 42% when compared to pre-pandemic levels.¹⁷ However, many employers are not able to fill these vacancies. This means people, cities and towns are missing out on opportunities. To address this, we need a focus on providing lifelong learning to help people reskill, better integrate IT and digital skills into the school curriculum, increase the number of STEM university places, reform apprenticeships, and create more visa routes for international talent and graduates to work in the UK.



ocado

GROUP

Ocado Group is a UK-based technology company admitted to trading on the London Stock Exchange. It provides end-to-end online grocery fulfilment solutions to some of the world's largest grocery retailers and holds a 50% of Ocado Retail Ltd in the UK in a Joint Venture with Marks & Spencer. Ocado has spent two decades innovating for grocery online, investing in a wide technology estate that includes robotics, AI & machine learning, simulation, forecasting, and edge intelligence.

Research and Development: the UK has ambitions to become a science and tech superpower and UK tech has a key role to play in this. In our Digital Economy Monitor Survey 76% of techUK members said it research and development (R&D) is important or extremely important for their business in the UK. However, members highlighted several barriers that stopping them from increasing their UK R&D activities. Chief among these are difficulties in finding the relevant skills and talent to conduct R&D in the UK, a lack of options for financing R&D activities, and lack of government support such as R&D tax reliefs or R&D subsidies.

Over half of our members (56%) said increasing support for R&D would help improve the outlook for their business in the UK. Government can help improve this by ensuring R&D tax incentives cover capital investments such as new labs, plants and machinery, we incentivise innovation beyond just patent filings, businesses have access to the latest computing power such as new supercomputers and universities focus more on applied research, commercialisation and spinouts that can also support local growth.

Regulating for the whole of the sector: often new regulation is aimed at large multinational companies with significant resources. However, regulation can have major effects downstream as smaller companies are often caught within scope. Smaller companies need to expend proportionately more resources to comply with regulation, while larger firms can spread the cost. This puts them at a competitive disadvantage and is a particular risk to the UK's growing tech companies. To resolve this, we need a smarter approach ensuring regulation has fair impacts and is laser focused on preventing the harms policy makers want to address.

Growing tech sectors outside London: UK start-up investment is strong¹⁸ however funding remains a problem for growing clusters. Tech ecosystems in key growth areas such as Belfast, Edinburgh, Southampton, Glasgow, and Newport all reported access to funding as their number one challenge.¹⁹ London still drives investment in the UK receiving around 70% of all investment in UK tech over the past few years.²⁰ Movement towards investment outside London has improved, with Manchester seeing 164.6% increase in tech investment in 2021.²¹

In 2021 techUK published the first iteration of our Local Digital Capital Index (LDC Index), assessing the strength of the UK's regional tech ecosystems. In 2022 we updated the LDC Index to look at more focused geographic areas to help demonstrate the strength of the UK's tech sector, but also where interventions can help create new opportunities, jobs and growth. This has shown clear divides between regions and within regions including between urban and rural communities but also between the North and South. Off the back of our research and local networks are working with partners across the UK to boost the UK's regional tech ecosystems.

International trade: the UK tech sector is an international powerhouse; the UK has a trade surplus of £118bn in digitally delivered services.²² For digital services it is not tariffs that are the main barrier to trade, but non-tariff barriers as a result of incompatibility between regulation. The UK has often been at the forefront of developing innovation-friendly regulation but if these approaches are not replicated elsewhere then UK tech firms will find it much more difficult to export their products abroad. Trade agreements with strong digital trade chapters and frameworks for cooperation, such as on emerging technologies, can reduce friction. However, these are not enough on their own UK leadership in international bodies, such as the WTO, OECD or G20, can further address these issues and facilitate much-needed cooperation in regulation for the digital age.



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About techUK

techUK is a membership organisation that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. We collaborate across business, Government and stakeholders to fulfil the potential of technology to deliver a stronger society and more sustainable future. By providing expertise and insight, we support our members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.



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