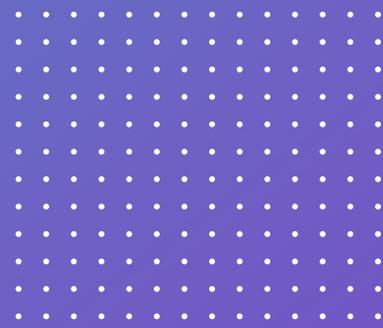# The UK tech sector in the 2020s

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 850 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, to work together to create opportunity across the country, and to support the UK's recovery from COVID-19.

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.

However, 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 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 percent of tech sector output and 81 percent 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 a number of different business sectors such as food delivery, health, energy, and much more.

octopus
energy

Octopus Energy is on a mission to fight climate change by using digital technology disruption to harness consumer power and transform how we use energy.

Its internationally licensed proprietary cloud-based platform, Kraken, reshapes energy supply chains around customers, making power cheaper when renewable energy is abundant and enabling a faster transition to net zero. Its nationwide innovation centres are building the technology to fuel the global zero carbon economy through the development of industries like electric vehicles, heat pumps, and vertical farming.

One of the few British technology companies to achieve 'double unicorn' status, Octopus Energy now operates across four continents, employs over 1,000 people across five British sites, and plans to make the UK the 'Silicon Valley of energy'.

Our sector is growing and maturing: the UK's tech sector has grown rapidly in the last five years. Since 2016 the sector has raised over $50bn in investment, almost 20 percent more than what Germany ($23bn) and France ($19bn) have achieved, combined,[2] and in 2020 the UK raised $15bn in investment, one-third of the European-wide total.[3]

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 80 unicorns, tech companies valued at over $1bn, the most of any European country and behind only the US and China. 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.[4]

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.

For example, in fintech, financial technologies such as digital only banks, the UK is second only to the USA while in cleantech, tech solutions working to reduce negative human environmental impact, the UK attracted 73% more investment in 2019 than in 2018.

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. Investment in UK tech companies seeking to address the UN Sustainable Development Goals almost doubled from 2018 to 2019 hitting $3bn, nine times higher than in 2013.[5]

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

The UK tech sector is a major employer, around 1.55 million people work in the digital sector, with average wages in the digital sector are £38,000 per year, higher than the UK average of £31,000.[6]

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.[7]

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.

85% of small businesses said accessing technologies such as these could help them boost profits, while 61% said this would help them create new jobs.9 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.

The BT Group is one of the UK's leading telecommunications and network providers and a leading provider of global communications services and solutions, serving customers in 180 countries. Its principal activities in the UK include the provision of fixed voice, mobile, broadband and TV (including Sport) and a range of products and services over converged fixed and mobile networks to consumer, business and public sector customers.

BT's Adastral Park in Ipswich, Suffolk is home to the BT Labs, their global R&D headquarters, as well as the Innovation Martlesham tech cluster made up of over 145 companies. Adastral Park consists of BT's national operations centre, test & integration facilities and global R&D unit, all of which play a critical role in the UK's digital economy.

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.[10] We also have a high level of digital penetration, around 80% of UK adults use a smartphone to access online services.[11]

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.

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 with business, 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.

deliveroo

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 have grown to now work with 140,000 restaurants and almost 110,000 riders across over 800 cities in 12 markets to deliver amazing meals straight to customers' front doors. In the UK, Deliveroo works with around 44,000 restaurants and over 50,000 self-employed riders. Deliveroo employs over 1,500 staff around the globe, the majority based in the headquarters in London.

Deliveroo has been vital to supporting small and independent restaurants across the UK to diversify their businesses by offering delivery services for the first time. According to research by Capital Economics, in 2019/20 Deliveroo was responsible for supporting £1.4 billion of revenue for UK restaurants and for 41,000 jobs across the UK economy, including 12,000 jobs in independent restaurants and their supply chains. This is in addition to providing good quality, highly flexible work to self-employed riders.

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: future-proofed digital infrastructure is essential to economic growth, innovation and to enable consumers and businesses to be able to access the latest digital services and tools. Superfast broadband is now accessible to almost everyone and 4G covers 90% of the country. However, the availability of next generation, higher speed, gigabit-capable full fibre broadband and 5G services needs to be accelerated. Falling behind on 5G could see the UK lose out on £173bn growth over the next decade.[12] We should strive for world-class connectivity. However to get there we need ambitious Government targets and detailed plans to unblock barriers to the rollout, as well as supportive public policy to unlock the substantial investment operators wish to make in the UK's full fibre and 5G networks.

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 36% between June and August 2020, only the healthcare sector recruited for more jobs in this period.[13] 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's universities are an enormous asset to the UK tech sector; however, we could do more to ensure they and the sector can work together to deliver growth across the country. Government can begin to do this by focusing investment to support economic growth near or around research institutes and universities. Patent citations; product launches; and the growth of new companies in a local area should be core criteria for how we evaluate costs versus benefits in R&D spending and the universities strategy.

We can take practical steps to begin this by supporting applied research departments, building up the UK's supercomputing capacity and becoming more strategic about how Government supports industry and university collaboration.

Regulating for the whole of the sector: often new regulations are aimed at large multinational companies with significant resources. However, these new regulations 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: While 2019 saw investment outside of London with five UK cities ranked within Europe's top 20 for tech investment (London, Cambridge, Oxford, Manchester and Bristol)[14], 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.[15] London still drives investment in the UK receiving around 70% of all investment in UK tech over the past few years.[16]

techUK recent ran a series of discussions with 260 tech leaders across the country to identify what is needed to help their sectors grow. Our conversations uncovered that there is a range of support needed to help a local system grow, including access to finance, digital skills, and more strategic approach to improving coordination and collaboration between Central, Devolved, and Local Government. You can find out more details of what we heard and read individual reports for the UK's Nations and Regions here.

International trade: the UK tech sector is an international powerhouse; the UK has a trade surplus of £100bn in digitally delivered services. 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.

For more information get in touch with us at www.techuk.org

References

1.   The UK Digital Sectors After Brexit – Frontier Economics and techUK, 2017

2.   Atomico - The State of European tech report 2020

3.   Dealroom and tech nation – UK tech ecosystem update 2020

4.   Dealroom and tech nation – UK tech ecosystem update 2020

5.   Tech nation, 2020 report

6.   DCMS Sectors Economic Estimates

7.   DCMS - Digital sector worth more than £400 million a day to UK economy, 2020

8.   Lloyds Business and Charity Digital index – resources page

9.   Polling by techUK member Sage

10. Tech nation, 2020 report

11. Ofcom – Communications Market Report 2018

12. techUK 2020 – Building the Future we Need Reports

13. Tech nation - jobs and skills report 2020

14. Atomico - State of European tech Report 2019

15. tech nation – tech nation 2018 report

16. Dealroom and tech nation – UK tech ecosystem update 2020

techUK
FOR WHAT COMES NEXT
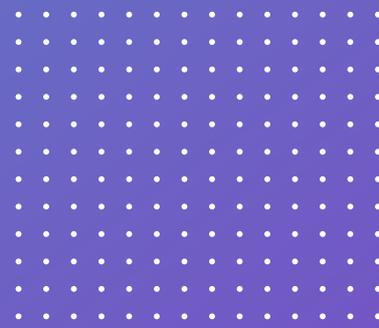
About techUK

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.