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**THE UK GOVERNMENT
TECHNOLOGY
INNOVATION STRATEGY**



— THOUGHT LEADERSHIP

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THE UK GOVERNMENT TECHNOLOGY INNOVATION STRATEGY

The Government has ambitions for the UK to become the world's most innovative economy and at the forefront of future technologies, but it says that without Government intervention and support from industry, the full economic and societal benefits of technology will not be realised. Here Clifford Chance experts consider the potential challenges, what this means for the tech sector and whether more could be done.

The Government's plans were unveiled in the [Government Technology Innovation Strategy](#), (one of the latest policy documents emanating from its [Industrial Strategy](#)) which was launched by Cabinet Office's Oliver Dowden (at the time, Minister for Implementation) on 10 June 2019. The document emphasises the importance of "realising the potential of emerging technologies for all, including through delivery of high-quality public services." The key to success, Dowden believes, is to focus on three themes:

- People – ensuring the public sector has the right people with the right skills in place.
- Process – ensuring that the Government's own purchasing processes encourage innovation as part of business-as-usual.
- Data and Technology – delivering structured data and up-to-date technology to capture insights from their use.

What has happened so far?

In November 2017, the Department for Business, Energy and Industrial Strategy published the "Industrial Strategy: building a Britain fit for the future." This white paper outlined how the Government intends to maintain and enhance its position as a world leading economy. The Government will back businesses to create good jobs and invest to increase the earning power of people throughout the UK. A plan of this size requires coherence, consistency and control. And this is what the Industrial Strategy seeks to achieve. It tasks policy makers across Whitehall with reaching the same shared goals (the "[Grand Challenges](#)") through common approaches ("[Foundations](#)") and in a way that engages support from industry.

A range of specific policies for different sectors – known as "[Sector Deals](#)" – has followed covering Aerospace, Artificial Intelligence, Automotive, Construction, Creative industries, Life sciences, Nuclear, Offshore wind, Rail and Tourism and outlining the ways in which the Government will back businesses and invest. Technology underpins each of these and the Government Technology Innovation Strategy focuses on the Government's role in harnessing new and emerging technologies by improving the capabilities and capacity within the public sector. "The strategy is not a definitive statement" says Dowden, "We will continually need to refresh and review our approach."

Date	Item
Jan 2017	Green Paper 'Building our Industrial Strategy' launched
Nov 2017	Government unveils 'Industrial Strategy: building a Britain fit for the future'
Dec 2017	Sector deal: Life Sciences, Deal 1
Jan 2018	Sector deal: Automotive
March 2018	Sector deal: Creative Industries
April 2018	Sector deal: Artificial Intelligence (AI)
May 2018	Business productivity review: call for evidence
June 2018	Sector deal: Nuclear
July 2018	Sector deal: Construction

Date	Item
Oct 2018	Local Industrial Strategies policy prospectus released
Nov 2018	Industrial Strategy Council membership announced
Dec 2018	Sector deal: Life Sciences, Deal 2
Dec 2018	Sector deal: Rail
March 2019	Sector deal: Offshore Wind
June 2019	Sector deal: Tourism
June 2019	Technology Innovation Strategy launched

What does this mean for the UK Tech Sector?

The UK tech sector is buoyant. It attracted £6.3 billion in venture capital investment last year, outperforming all its European neighbours and 2.5 times the investment than might have been anticipated given the relative size of the UK economy. Of that venture capital, £5 billion went into scaleup investments, ranking the UK fourth in the world after the US, China and India. But the Government believes there is “much still to gain” by focusing on digital, and is intent on delivering the benefits of its spending power across the economy. The rise of GovTech – applying emerging technologies to improve the delivery of public services through increasing efficiency and lowering costs – is a powerful driver within the market and forecast to be worth £20 billion by 2025. GovTech also allows SMEs to compete for Government contracts, allowing the public sector to harness innovation from across the market.

As part of its strategy, the Government has created [Spark](#) – the Technology Innovation Marketplace – which provides a clear route for any public body looking to access cutting edge technology products. The decision to structure Spark as a “dynamic purchasing system” is great news for the tech sector as it means new or emerging businesses – a fertile ground for innovation – can sign up at any time throughout the term of the

arrangement, unlike the more traditional “framework agreement” which is locked down to original parties for an extended period of time (usually four years). The estimated spend under Spark is £650 million, which should provide a healthy pipeline for tech businesses to flourish.

What are the challenges?

- **Focus:** Brexit continues to take up a vast amount of civil service resource and attention. We have seen several examples of “business as usual” and non-critical matters being shelved indefinitely, paused, or downsized due to a lack of civil service bandwidth. The Strategy is not immune either.

According to the United Nations’ e-Government performance tables, the UK has suffered a dramatic fall in the last three years since it achieved the top spot in both the [E-Government Development and Participation Indices](#). The UK has since slipped to fourth and ninth place respectively. It is difficult to say whether there is any correlation between the decline and Brexit but we suspect the Government’s focus on the EU referendum and subsequent planning has not been helpful.

- **Regulatory:** “For any technology that involves collecting, storing, transmitting or using data, questions arise regarding how privacy and security of the data will be safeguarded” says André Duminy, Head of Clifford Chance’s UK Commercial & Technology Group and Global Outsourcing Practice. André added that regulators across the world have been considering whether to regulate Internet of Things (IoT) technologies for several years, but currently seem inclined to rely on more general principles already governing cyber-security and data issues. One factor that may influence the regulators, in addition to the relative immaturity of the technology, is that there is clearly an “awareness among IoT innovators of the security risks involved in the technologies.” However, not all manufacturers and developers quite live up to the ideal of applying the highest standards of security to protect the integrity of their products and services. As such, “further regulation cannot be ruled out.”





- **Cyber security:** New and emerging technologies have the potential to exacerbate the vulnerabilities of many systems which had hitherto been relatively insulated by not being connected to the outside world. This is an issue for NHSX, the new NHS body given the task of driving the digital transformation of health and social care as they ramp up plans to share NHS patient data with industry to achieve greater public sector efficiencies.
- **Resources:** The Government must compete with businesses and other external organisations for the best people and within the Government, resources are always tight. The question of how to recruit and retain people with the right skills is still an open one. With tech booming, not just in the UK, but across the globe, there is a highly competitive market for qualified people and buying in those skills and retaining people can be expensive.

According to the [Coursera Global Skills Index 2019](#), which measures and ranks the skills of 60 countries that together account for 80% of the world's population and 95% of global GDP, the UK scores well on business, technology and data science – the three fundamental skill domains that Coursera consider crucial to building, managing and leveraging new technologies. However, the UK lags behind a number of European neighbours (e.g. Germany, France, Finland, Switzerland, Austria, Sweden, Belgium and the Netherlands). In particular, the UK falls outside the top percentile – “cutting edge” – for technology due to the perceived shortages/weakness in databases, security engineering, operating systems and operating systems

How the UK compares in business, tech and data skills

Rank	Business skill	Tech skill	Data skill
1	Finland (100%)	Argentina (100%)	Israel (100%)
2	Switzerland (98%)	Czech Republic (98%)	Switzerland (98%)
3	Austria (97%)	Austria (97%)	Belgium (97%)
4	Netherlands (95%)	Spain (95%)	Austria (95%)
5	Belgium (93%)	Poland (93%)	Sweden (93%)
6	New Zealand (92%)	Belarus (92%)	Czech Republic (92%)
7	Germany (90%)	Germany (90%)	Germany (90%)
8	Sweden (88%)	Sweden (88%)	France (88%)
9	Australia (86%)	Belgium (86%)	United Kingdom (86%)
10	Canada (85%)	Finland (85%)	Poland (85%)
11	Chile (83%)	Netherlands (83%)	Finland (83%)
12	Denmark (81%)	Hungary (81%)	Netherlands (81%)
13	Norway (80%)	Norway (80%)	Hungary (80%)
14	United Kingdom (78%)	Australia (78%)	Canada (78%)
15	Spain (76%)	Switzerland (76%)	Norway (76%)
16	Singapore (75%)	France (75%)	United States (75%)
17	France (73%)	New Zealand (73%)	Portugal (73%)
18	United States (71%)	Russia (71%)	Denmark (71%)
19	Israel (70%)	Israel (69%)	New Zealand (69%)
20	Ireland (68%)	United Kingdom (68%)	Singapore (68%)

Source: Coursera

- Attitude to risk:** “Procuring new and emerging technologies involves innovative and often ground-breaking procurement processes and technique” says Andrew Dean, Director of Public Law and procurement law specialist. “The risk of court proceedings or public scrutiny if things go wrong – whether negative press stories or Public Accounts Committee investigations – often influences decision making in a manner that can stifle innovation.” The route to addressing this tension may lie partly in the adoption of commonly used technology methodologies such as agile, where short cycles and delivery of requirements as they are discovered provides the opportunity to recognise and mitigate risk. The question of a creating a risk tolerant culture is a wider issue to be addressed.
- Cross-Government buy-in:** The Government Technology Innovation Strategy is applicable to all parts of Government and all departments need to buy-in and push forward the application of technology to problem solving and improving services. The Government first created the post of Chief Data Officer (CDO) in 2017 and allowed itself until 2020 to fill that role. As of September 2019 the position is still vacant. John Manzoni appearing

before a recent Public Accounts committee made specific reference to this open position and acknowledged the wide timeframe open for the appointment of a CDO, but said he expected it to filled within the timescales set out. Part of the reason why the position has remained open is that not all Government departments have bought into the same drumbeat in respect of buy into the technology strategy.

What's next?

The Government Technology Innovation Strategy is to be applauded for its bold aims and ambitions, but we think there is still an awful lot for the UK to do to catch up with other countries. In particular, there should be a greater openness and focus on developing business, tech and data skills both within the public and the private sectors.

To have any credible claim of being at the forefront of technology, the Government must start to find ways of climbing to the top of global rankings. We also suggest a greater focus on achieving buy-in from all sides of the public sector so that the Government can control the push to harness emerging technologies across the whole of the public sector.



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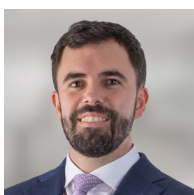
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