

Our *Future of Britain* project seeks to reinvigorate progressive politics to meet the challenges the country faces in the decades ahead. Our experts and thought leaders are setting out a bold, optimistic policy agenda.

Executive Summary

Science and technology have been the driving force of progress for much of our modern age. Our accomplishments have allowed us to live longer, healthier lives, to travel across the world and into space, and to generate food and energy at scale.

The United Kingdom has been at the forefront of many of these breakthroughs and was home to one of humanity's great leaps: the Industrial Revolution. Another revolution is now taking place as developments in artificial intelligence (AI), biotech, climate tech and other fields begin to change our economic and social systems.

Of course, as with the Industrial Revolution, this 21st-century technological revolution carries dangers as well as opportunities.

The challenge for policymakers is to mitigate the former and fully embrace the latter. But this requires a fundamental re-ordering of our priorities and the way the state itself functions.

The UK is starting with real strengths in many areas of emerging technology. It also has assets in its universities and in its private sector that offer significant advantages.

However, as we show in this report, without radical change, we risk decline. We cannot afford to fall behind.

The future of Britain will depend on a new age of invention and innovation. Technological superpowers such as the United States and China are investing heavily in their futures, raising the possibility that everyone else will be trapped behind these two forces – a risk the European Union is belatedly recognising and acting upon.

Britain must find its niche in this new world. To do so requires a radical new policy agenda, with science and technology at its core, that transcends the fray of 20th-century political ideology.

In turn, this requires a fundamental reshaping of the state, from how government itself works to how public services are delivered.

This new “strategic state” needs to embrace the technological revolution.

The private sector is already doing so. Individuals are already doing so. Across the board, the costs of electronic goods and software have been driven down, information has become abundant, and we can access entertainment, book travel or connect with friends and family almost instantly.

Government and public services, on the other hand, face costs increasing, service slowing and the public’s frustration building.

The starting point, then, is to ask how government can harness the benefits of this revolution for our country and use data and technology to drive down the cost of public services while improving outcomes.

The speed of the Covid response – particularly the development and deployment of new vaccines – shows what can happen when the government and the private sector mobilise effectively behind a clear purpose. We need to bring the same laser focus to the agenda we set out here.

Over the long run, a successful British state will likely be smaller in scope but more effective in its delivery. In practical terms, achieving this entails a series of reforms, including:

- **A reorganisation of the centre of government** to drive this science and technology agenda across government and public services, with the full weight of the prime minister’s authority behind it and, at the core, the skill set to ensure its effective implementation.
- **Building foundational AI-era infrastructure.** This should include:
 - Government-led development of sovereign general-purpose AI systems, enabled by the required supercomputing capabilities, to underpin broad swaths of public-service delivery.
 - A national health infrastructure that brings together interoperable data platforms into a world-leading system that is able to bring down ever-increasing costs through operational efficiencies.
 - A secure, privacy-preserving digital ID for citizens that allows them to quickly interact with government services, while also providing the state with the ability to better target support.
 - A shift in the government’s approach to data, so that it treats them as a competitive asset that can be used to drive down the cost of delivery and build high-value data sets, such as in the biomedical field.
- **Creating an Advanced Procurement Agency (APA)** with a specialised mandate to find opportunities for public-sector innovation, procure promising solutions and manage their deployment and testing.
- **Incentivising pensions consolidation** and **encouraging growth equity** by making the pension capital-gains tax exemption applicable only to funds with over £20 billion under management that allocate a minimum percentage of their funds to UK assets; and combining the UK Pension Protection Fund (PPF) and the National Employment Savings Trust (NEST) to create a single investment vehicle

that participates in market consolidation.

- **Reforming technology transfer offices (TTOs)** to encourage more university spinouts.
- **Increasing public research and development (R&D) investment** to make the UK a leader among comparable nations within five years, coupled with reforms to the way our institutions of science, research and innovation are funded and regulated to give more freedom and better incentives.
- **Investing in new models of organising science and technology research**, including greatly expanding the Advanced Research and Invention Agency (ARIA), and creating innovative **laboratories that seed new industries** by working at the intersection of cutting-edge science and engineering.
- **Pursuing broader planning reforms** to ensure infrastructure projects that are critical to the UK's economic transformation can get approval in six months or less, while also creating exemptions and fast-track processes for R&D infrastructure planning.
- **Mainstreaming new technologies in education** to build the skills of the future and develop a workforce capable of rolling out technological advances. This should include a new edtech-training fund to improve teachers' confidence and incentives to adopt innovation as part of learning.
- **Building stronger global partnerships** to avoid being trapped behind the tech superpowers of the US and China. This should include seeking to establish a new informal "T3" coalition between the UK, EU and US to find areas of common ground on global technology standards, enable associate membership of EU research programmes including Horizon, Copernicus and Euratom, and taking leadership of multilateral research initiatives on AI.

With science and technology as our new national purpose, we can innovate rather than stagnate in the face of increasing technological change. This purpose must rise above political differences to achieve a new cross-party consensus that can survive any change of government.