



Department for
Science, Innovation
& Technology

OUR
PRIORITIES

2

**GROW
THE
ECONOMY**

SCIENCE & TECHNOLOGY FRAMEWORK

- taking a systems approach to UK science & technology

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Secretary of State's Foreword



**The Rt Hon The Rt Hon Michelle Donelan MP, Secretary of State
at the Department for Science, Innovation and Technology**

In an increasingly competitive world, we find ourselves facing new challenges in keeping our nation secure, our people prosperous, and our planet healthy.

Britain has a long history of leadership and innovation, from the steam engine to the World Wide Web, that has brought growth and prosperity to both our nation and the world. As we look towards the future, investment in science and technology is more important than ever. It is at the heart of the Prime Minister's priorities: halving inflation to ease the cost of living and provide people with financial security, building a stronger economy with better jobs, and ensuring that NHS waiting lists will fall and people will get the care they need more quickly.

Despite our relative size, Britain outperforms our closest competitors and we are a main challenger nation to the US and China in many areas. We have four of the world's top ten universities and a technology sector worth over one trillion dollars. If you put together just eight of our university towns, they are home to more billion-dollar unicorn start-ups than the whole of France and Germany combined.

However, when others – France and Germany among them – are moving further and faster to invest in science and technology, we have got to do the same.

That is why we have created the Department for Science, Innovation, and Technology, focussing our best minds around a single mission: becoming the most innovative economy in the world.

We will do this by ensuring that Britain as a Science and Technology Superpower does not just challenge the rankings, but translates the benefits of that position into material benefits for British people.

Because a better future will be driven by Britain's boldest businesses, whether that means using artificial intelligence to predict when equipment or machinery is likely to fail, allowing for proactive maintenance, reducing downtime, or the use of quantum computers to discover new life-saving drugs.

The Science and Technology Framework is a strategic vision which sets out ten key actions to achieve this goal by 2030. We must attract the best talent from around the world, build a skilled workforce for tomorrow's industries, provide infrastructure and investment to bring technologies to market, and encourage a regulatory environment that supports innovation.

This is an ambitious plan, and we will use every lever in government to deliver it, working closely with industry and academia leaders from both Britain and the world. Each lead department has been developing action plans so we can meet our strategic goals – a flavour of these plans is shared in the framework and any future policies in these areas will need to drive forward our strategy. My department will ensure we are working together to deliver and become a Science and Technology Superpower by 2030.

Our Department will be driven by a relentless focus on tangible improvements that matter to communities across the country, growing the economy and improving public services to help British people live longer, smarter, healthier, and happier lives.

UK Science and Technology Framework

Introduction

The motivation behind our Science and Technology Superpower agenda is simple: science and technology will be the major driver of prosperity, power and history-making events this century. The United Kingdom's future success as a rich, strong, influential country, whose citizens enjoy prosperity and security, and fulfilled, healthy and sustainable lives, will correspondingly depend on our ability to build on our existing strengths in science, technology, finance and innovation.

This agenda will only be delivered if the public sector, civil society, academia, industry and private sector, and international partners work together, and the general public is constantly engaged to ensure science and technology is not perceived to be at the fringes of citizens' lives.

Some of these outcomes will undoubtedly be very challenging to implement, but it is absolutely crucial to act quickly and act now.

This Science and Technology Framework sets out the government's goals and vision for science and technology in an enduring framework that will see us through to 2030. It has been developed in close collaboration with the UK science and technology sector, and represents a commitment to scaling our ambition and delivering the most critical actions needed to secure strategic advantage through science and technology.

The Science and Technology Framework is the strategic anchor that government policy will deliver against, and which the government will hold itself accountable to. We will have a clear action plan for each strand of the framework in place by summer 2023 and delivery will be overseen by the National Science and Technology Council.

1. Identifying Critical Technologies




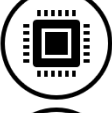

Vision: The UK has a track record of defining, pursuing and achieving strategic advantage in prioritised areas of science and technology application to deliver prosperity and security for the UK on our own terms and deliver benefits to global society. The UK's foundational science base is world-leading and broad, giving us the agility to rapidly advance discoveries and technologies as they emerge.

Actions and ongoing work - the government will:

- **Use a robust and repeatable approach to identify the technologies that are most critical to the UK.** We have assessed over fifty technologies against eight criteria:



Informed by this approach, we have identified a portfolio of **five critical technologies**:

-  Artificial intelligence (AI) – Machines that perform tasks normally performed by human intelligence, especially when the machines learn from data how to do those tasks.
-  Engineering biology – the application of rigorous engineering principles to the design of biological systems.
-  Future telecommunications - evolutions of the infrastructure for digitised data and communications.
-  Semiconductors – a class of electronic materials with unique properties that sit at the heart of the devices and technology we use every day.
-  Quantum technologies – devices and systems which rely on quantum mechanics, to provide capabilities that ‘classical’ machines cannot.

The National Science and Technology Council will review this list annually to ensure that the UK keeps pace and continues to develop global competitive advantage - although there will be a high bar to major change given the need for long-term planning.

- **Create the environment for these technologies to flourish in the UK, using the other nine levers set out in this Framework.** Where necessary, the government must

be prepared to intervene to shape markets. We will develop a cross-government plan to optimise the science and technology system for each critical technology. Plans will be informed by analysis of the UK's strategic interests and strengths, and other nations' postures, using an 'Own-Collaborate-Access' framework as a guide. We will consider where reliable and resilient supply chains are needed, with established methods for securing goods, to enable companies to grow and protect the UK from supply shocks.

The Department for Science, Innovation and Technology is working on a cross-government action plan for each of the critical technologies. **Initial work will include:**

- Developing a pro-innovation approach to regulating AI, which will be detailed in a White Paper to be published in early 2023.
- Publishing UK strategies for semiconductors and quantum technologies in early 2023.
- Publishing ambitious Wireless Infrastructure Strategy, which sets out our R&D priorities for future telecoms including 6G
- Establishing a strategic approach to Engineering Biology and its applications across the economy, by mid 2023, to maximise opportunities and mitigate the risks.
- For each critical technology, establishing a plan to protect the strategic advantage that we develop from state threats.
- Ensuring that emerging technologies such as Large Language Models can be used to support a more innovative public sector while managing the risks.

Note: “identifying critical technologies” is a unique strand of this Science and Technology Framework that is about choosing which critical technologies the UK should focus on to build strategic advantage.

The remaining strands describe other tools that the government can use to support these choices and create the environment for success. These tools may be system-wide, such as improving science, technology, engineering and mathematics (STEM) skills across the population, or directed at a specific critical technology, for example through investment in innovative companies.

2. Signalling UK Strengths and Ambitions

Vision: Domestic and international recognition of the UK's strengths and ambitions in science and technology ensures that all stakeholders have the confidence to invest their time, money and effort supporting our science and technology vision. There is a sense of shared common goals, and citizens trust that science and technology can improve their lives.

Outcomes – by 2030 we will have:

- **Clearly, credibly and consistently communicated the government's science and technology priorities and actions, increasing confidence among UK stakeholders to conduct activity that supports our objectives.** The narrative will be easy to understand, similar to China's Made in China 2025 or the US 1960s "we choose to go to the moon". Stakeholders will recognise that the government has clear ambitions on which it delivers.
- **Built a sense of shared science and technology goals that key stakeholders have co-created.** The government will champion UK success stories and more citizens will understand the positive impact that science and technology can have on their lives. Only 57% of people polled in Public Attitudes to Science felt that science could generate more work opportunities; this should be at least 80%.
- **Promoted internationally the strength of the UK science and technology system and our longer-term ambitions.** Polling by the government will demonstrate that the UK is seen as a top three nation in the world, and the leader in Europe, for the strength of its science and technology system.

The Department for Science, Innovation and Technology is working on a cross-government action plan in collaboration with the Cabinet Office and the Department for Business and Trade. **Initial work will include:**

- Increasing our reach to different audiences by delivering coordinated communications with key partners.
- Launching the GREAT Tech campaign in March to target the West Coast of the US. The campaign will improve investors' perceptions of the UK's technology ecosystem to attract more investment into the UK.
- Running the UK's second Global Investment Summit in October, with a particular focus on high technology sectors.
- Improving uptake of STEM subjects, technical education and advanced digital training through the Skills for Life campaign and the next phase of the Get the Jump campaign.

3. Investment in Research and Development

Vision: The UK's R&D investment matches the scale of the Science and Technology Superpower ambition, and the private sector takes a leading role in delivering this. Delivery under the Science and Technology Framework catalyses private sector R&D and boosts the innovation activity of firms leading to UK economic growth.

Outcomes – by 2030 we will have:

- **Increased private sector investment in R&D, building on record levels of public sector investment committed at SR21.** The UK will be delivering its plan for increasing private investment in the UK, anchored in our strengths in priority sectors. We will have delivered the biggest increase in public R&D investment, and have already committed to invest £20bn in R&D in 2024/25.
- **Ensured the UK has the right diversity in the science and technology landscape.** Alongside our excellent universities, we will optimise existing organisations such as Public Sector Research Establishments and Catapults, and consider new agile, innovative models such as focused research organisations and practical support for innovators. The Landscape Review led by Sir Paul Nurse will inform these choices.
- **Raised domestic public investment in R&D outside the Greater South East by at least 40%** as set out in the Levelling Up White Paper, to boost productivity, pay, jobs and living standards outside the greater south-east.
- **Accelerated translation, commercialisation and knowledge exchange** through targeted support for local innovation clusters.
- **Reduced bureaucracy of research and innovation funding**, with funders experimenting with new approaches. This will build on the Independent Review of UKRI and the Bureaucracy Review, and consider all government funded R&D programmes.

The Department for Science, Innovation and Technology is working on a cross-government action plan in collaboration with the Department for Business and Trade and the Department for Levelling Up, Housing and Communities. **Initial work will include:**

- Responding to the Tickell Review of Research Bureaucracy in early 2023, and Sir Paul Nurse's Review of the Research, Development and Innovation Landscape.
- Working with industry and philanthropic partners to increase inward investment by Summer Recess 2023.
- Piloting new Innovation Accelerators supporting UK city regions to become major, globally competitive centres for research and innovation.

4. Talent and Skills

Vision: The UK has a large, varied base of skilled, technical and entrepreneurial talent which is agile and quickly responds to the needs of industry, academia and government. This includes talent in STEM, digital and data, commercialisation and national security.

Outcomes – by 2030 we will have:

- **Created an agile and responsive skills system, which delivers the skills needed to support a world-class workforce in STEM sectors and drive economic growth.** We will articulate and, where possible, forecast skills gaps in critical technologies (within academia, industry, government and the third sector) and actions needed to fill them.
- **Recruited and retained high-quality FE and school teachers in STEM-related subjects.**
- **Expanded opportunities for participation in STEM and ensured that a more diverse range of people enter the science and technology workforce.** We will learn from examples like AI and data science conversion courses, where we have invested up to £30 million to help people from underrepresented groups join the UK's AI industry.
- **Established competitive advantage in attracting international talent to the UK.** The UK's offer will be attractive to the world's best talent across all career stages, with easy access through our 'high-skilled visa system' (Global Talent, Start Up/Innovator, High Potential Individual, Scale Up and Graduate). UK researchers will participate in exchanges which deliver international links and establish new collaborations.
- **Given people the opportunity to train, retrain and upskill throughout their lives to respond to changing needs.** We will create proactive career advice programmes which establish links between STEM training or education at 16 and well-paid jobs. This includes revolutionary initiatives like the Lifelong Loan Entitlement, especially important given 80% of the 2030 workforce is already in work.

The Department for Education is working on a cross-government action plan in collaboration with the Home Office, Department for Science, Innovation and Technology, Department for Business and Trade and the Cabinet Office. **Initial work will include:**

- Developing a DfE Skills Dashboard in 2023, to understand the supply and demand of science and technology skills for the technologies that we plan to prioritise.
- Taking forward the Prime Minister's ambition for all young people to study Maths to 18.
- Working across government, with educators and employers, to develop the pipeline of individuals entering priority computing and digital sectors.
- Finding and attracting the next generation of AI leaders from around the world, showcasing our fantastic offer and matching them to specific opportunities in the UK.
- Continuing to roll out a network of 21 employer-led Institutes of Technology (IoTs), which will offer higher level technical training. IoTs also have a remit to help widen participation at higher technical levels from disadvantaged and under-represented groups.

5. Financing Innovative Science and Technology Companies

Vision: There is sufficient supply of capital at all stages with increased participation from domestic investors, and an environment to grow and scale large globally competitive science and technology companies that drive growth in the economy and high-skilled employment opportunities for citizens.

Outcomes – by 2030 we will have:

- **Narrowed the financing gap for the UK’s most innovative science and technology companies.** We will reduce the financing gap to the United States, particularly for scale ups at later funding rounds, capitalising upon our mature, open financial markets to support the UK’s most innovative companies.
- **Increased the supply of UK institutional investment to deepen the pool of domestic capital available for scaling UK science and technology firms.** We will engage closely with institutional investors, particularly defined contribution pension schemes, to address any remaining barriers to investment in innovative UK companies. This will ensure that UK pension savers stand to benefit from higher potential returns and that our most promising companies can access domestic sources of capital to scale up and remain in the UK.
- **A scale up finance ecosystem capable of nurturing the next generation of globally competitive science and technology companies.** In addition to increasing the supply of capital, we will strengthen the pipeline of high-quality science and technology businesses and spin-outs, increase specialist knowledge of UK investors, tackle regional disparities, and smooth the pathway to taking companies public.

His Majesty’s Treasury is working on a cross-government action plan in collaboration with the Department for Science, Innovation and Technology, the Department for Business and Trade and the Department for Work and Pensions. **Initial work will include:**

- Building upon the strong track record of the British Business Bank to strengthen support for the UK’s scaling science and technology companies.
- Implementing in legislation the recommendations of the Hill Review to enhance the attractiveness of the UK as a place to list.
- Engaging with defined contribution pension schemes to unlock institutional investment into UK science and technology companies.
- Delivering the Digital Growth Grant to boost small and scaling technology businesses in all corners of the UK.

6. Procurement

Vision: Government departments create a demand for innovation that can catalyse their buying power into economic growth. Departments clearly articulate their technology needs through long-term strategies to give businesses confidence to invest and shape markets, with a proportion of departmental spend dedicated to procurement supporting innovation.

Outcomes – by 2030 we will have:

- **A track record of strategically pulling through current and future innovations** by clearly signalling the pipeline of technologies the government needs to procure to meet its own ambitions in critical technologies. Departments will articulate the requirements for innovation and effectively use their own spend and the procurement they influence (e.g regulated utilities), to stimulate innovation and pull through critical technologies.
- **The business development and venturing capability to back science and technology companies that support our objectives, forming a range of partnerships with innovative high-growth firms.** Departments will clearly articulate their technology needs and have the business scouting expertise to search for relevant technologies and work with businesses to support pull-through into procurements. Departments will build a portfolio of innovative projects, learning from the experiences of the Vaccine Taskforce, Ventilator Challenge, Defence and Security Accelerator and National Security Strategic Investment Fund.
- **Increased spend by departments on innovative products and services**, aided through a defined portion of procurement spend directly supporting innovation (to be defined by each department). This is achieved in part through making it easier for businesses of all sizes to apply for public funding.
- **A culture within policy and operational teams across departments to be an intelligent and coordinated customer** which supports innovation and critical technologies. This includes improved technical expertise within departments, consistently faster procurement by all departments, increased appetite for appropriate risk-taking and improved adoption of innovation to deliver government objectives.

The Cabinet Office is working on a cross-government action plan with departments that have a significant procurement spend. **Initial work will include:**

- Setting a minimum proportion of government procurement expenditure to directly support innovation in critical technologies.
- Scaling the Small Business Research Initiative to support our critical technologies.
- During 2023, progressing the Procurement Reform Bill through Parliament, to create a simpler and more flexible, commercial system making it easier for new entrants such as SMEs.
- Working with contracting authorities throughout 2023 to initiate culture change towards innovation across the public sector, through the training and guidance that will support the implementation of the Procurement Reform Bill.

7. International Opportunities

Vision: The UK is confident and upfront about its science and technology strengths and enjoys international partnerships which support critical technologies and the growth of our sectors. International relationships with governments, industry and academia make a meaningful contribution to the UK's science and technology capabilities. We are influential in shaping the global landscape, embedding our values into technology, and protecting our security interests.

Outcomes - by 2030 we will have:

- **Clearly and consistently communicated the UK's science and technology priorities, strengths and values** to a wide international audience of governments, academics, investors and industries. The UK's science and technology sector is consistently championed and strengthened through political engagement overseas and forms a core part of plans for engagement with our partners around the world.
- **A prioritised and varied set of science and technology-based international partnerships**, building on existing links (such as G7 and G20) and defined by mutually beneficial objectives. Partnerships will differ in scope and depth, but will each benefit the UK and strengthen the science and technology system and the UK's global influence.
- **A coordinated approach to international science and technology activity**, which will facilitate long-term research and infrastructure partnerships, explore new international collaboration funds, prioritise R&D in the Official Development Assistance budget, and effectively deploy the Science and Innovation Network.
- **Embedded a systematic approach to handling national security risks** around international R&D collaboration and inward investment, weighing the security risk of open collaboration and investment against the opportunity cost of limiting them.
- **A diplomatic network with strong science and technical knowledge and in-country networks**, and greater international technology leadership. Our diplomatic network will have a clear science and technology mandate, and develop relationships which meet UK science and technology needs across this Framework.

The Foreign, Commonwealth and Development Office is working on a cross-government action plan, in collaboration with the Department for Science Innovation and Technology, Department of Business and Trade and the Ministry of Defence. **Initial work will include:**

- Delivering the £119 million International Science Partnerships Fund to create bigger, better science than we can do alone.
- Expanding the UK's network of Tech Envoys to build our diplomatic network to have unrivalled technical knowledge and geographic reach.
- Establishing a UK Technology Centre of Expertise so that our tech experts can support developing countries to transform their economies, aligned with our common principles.
- Developing partnerships with emerging and leading technology nations, through targeted R&D investment and expertise, to build global resilience to shared challenges.

8. Access to Physical and Digital Infrastructure

Vision: Accessibility and coordination of infrastructure attracts talent and investment, establishes anchors for innovation clusters and enables companies to scale. The UK has diverse, agile and resilient facilities to support its technology choices and works with partners globally to deliver major science and technology projects.

Outcomes – by 2030 we will have:

- **Increased infrastructure capacity to deliver science and technology ambitions** by using a portfolio approach across all Technology Readiness Levels. We will have invested in infrastructure, upgrading and repurposing facilities which support research and commercialisation. This will be geared towards supporting innovative companies.
- **Access to a wide variety of research and innovation infrastructure across all regions of the UK** including Public Sector Research Establishments, Catapults, demonstrator facilities for process/product testing and “living labs” which establish public-private-user needs and partnerships to support applied R&D.
- **Ensured that the UK strategically invests in relevant and important international infrastructure** which sustains the UK’s scientific edge (e.g. CERN, European Molecular Biology Laboratory), aligns with critical technologies, or facilitates knowledge exchange. We will host infrastructure funded by international partnerships. Our investments will support UK access to the best public and private collaborations and opportunities.
- **Promoted data as an enabler** as digital needs of academia, government and industry are met through well-established digital infrastructure including the Office for National Statistics Integrated Data Service, data sharing agreements and access protocols.

The Department for Science, Innovation and Technology is working on a cross-government action plan. **Initial work will include:**

- Setting out a long-term national plan for research and innovation infrastructure, which will set direction and enhance coordination, working with the public and private sector to ensure the long-term sustainability of the UK’s infrastructure base.
- Publishing the Independent Future of Compute Review in March 2023, which will inform the approach to the UK’s compute needs for the next decade.
- Investing in a research cloud pilot and giving researchers greater access to data from a range of sources through the Office for National Statistics Integrated Data Service.
- Ensuring the capabilities of Public Sector Research Establishments are understood, coordinated and available for use across the UK science and technology landscape.
- Convening government, academia and industry experts to identify science and technology infrastructure opportunities in critical technologies.
- Through our response to the Cyber-Physical Infrastructure consultation, setting out a plan to work with industry and academia to tackle systemic challenges and maximise the value to the UK and globally.

9. Regulation and Standards

Vision: The UK leverages post-Brexit freedoms and is at the frontier of setting technical standards and shaping international regulations. Regulation is pro-innovation, stimulates demand for science and technology and attracts investment while representing UK values and safeguarding citizens. The government leverages its science and technology strengths and international relationships to secure influence over regulations and technical standards.

Outcomes - by 2030 we will have:

- **A system of regulation and standards that is pro-innovation, easy to navigate and facilitates widespread commercial science and technology applications.** The role of regulators will be clear for each critical technology, including where they cut across sectors and regulatory remits. Regulators will have a mandate to support innovation testing costs for UK innovators to be internationally competitive.
- **Moved fast relative to others to establish rules for critical technologies** and, where appropriate, regulations to increase certainty for innovators in these areas. We will consider international contexts when setting domestic regulation to strengthen our first-mover advantage. Regulation covering critical technologies will be world-leading.
- **Led international efforts to shape standards and regulations for critical technologies.** We will play an active role in the WTO, G7, G20, OECD, NATO, Council of Europe, Commonwealth, and the UN. The UK will be a convener and a top tier author of international rules and conventions for critical technologies.
- **Become a champion of the global technical standards ecosystem that underpins international governance of critical technologies.** We will build capability in industry and government, forming multi-stakeholder coalitions to shape technical standards.
- **Used government horizon-scanning capability to support regulators to consider how emerging technologies** could become critical technologies. Dialogue between industry and regulators will inform reform and promote technology development in the UK.

The Department for Science, Innovation and Technology is working on a cross-government action plan in collaboration with the Department for Business and Trade and Foreign, Commonwealth and Development Office. **Initial work will include:**

- Implementing the findings of the Pro-Innovation Regulation of Technologies Review, to improve the regulatory landscape for digital technologies, green technologies and life sciences. Further work will follow on creative industries and advanced manufacturing.
- Working with global Standards Development Organisations (SDOs) including ITU, ISO/IEC, ETSI and IETF, to ensure that the standards underpinning our critical technologies reflect our UK values.
- Bringing together industry, government, regulators, consumer groups and civil society to inform and strengthen AI governance practices domestically and internationally through our AI Standards Hub Platform.

10. Innovative Public Sector

Vision: The public sector has a pro-innovation culture, with a system that adequately supports and rewards innovation while unblocking systemic barriers. This is supported by strong internal STEM capability. Civil Servants have the resources they need to test and develop ideas for delivering services more effectively. There is an appetite for appropriate risk-taking, minimal bureaucracy and the agility to work with business and support strategically important sectors.

Outcomes - by 2030 we will have:

- **The STEM skills and literacy needed to deliver science and technology policy for strategic advantage at all levels of government.** This includes interdisciplinary teams for more effective decision making. Government STEM capability will support the government's objectives, including government laboratories de-risking early stage mission-oriented research and forming the basis of innovation clusters.
- **Improved knowledge, talent and resource sharing within government, and between the public sector, academia and businesses.** We will increase collaboration between departments, professions and sectors. Partnerships will support Levelling Up by including Devolved Administrations, local administrations and innovation clusters.
- **A culture within the public sector where an innovative approach to delivering services is rewarded and supported.** The government will have an appropriate risk appetite when applying technologies to existing activities and growing new ones to scale. Value for money assessments will encourage a portfolio approach to innovation.

The Department for Science, Innovation and Technology is working on a cross-government action plan in collaboration with the Government Office for Science and the Cabinet Office.

Initial work will include:

- Assessing progress against the 2019 Science Capability Review and determining what the government still needs to focus on beyond 2023.
- Coordinating advice and initiatives across government to ensure public services benefit from the opportunities of Large Language Models and other generative AI capabilities while managing the risks.
- Increasing the proportion of STEM graduates in the Fast Stream to 50%.
- Ensuring that Chief Scientific Advisers have clearly articulated their department's role in delivering this Science and Technology Framework based on each of their departmental science and evidence systems.
- Training government leaders to raise their awareness of the importance of science and technology, and the key role they play in science and technology systems leadership.
- Expanding the flow of diverse, world class technical talent and proven innovators into government.
- Providing physical space and support to public servants to test and develop novel ideas for delivering government business more effectively and efficiently.

Progress and next steps

Guided by this framework, the UK will grow and maintain the ecosystem we need to attract investment, grow companies, innovate, and deploy our world class science and technology research for good. This is a long term plan that will endure to 2030. But it will require concerted effort, agility and a delivery-oriented mindset involving all of government and partners outside government to deliver at pace. The prize is great and will bring immediate and long-term benefits to UK citizens and globally.

Enhancing government

We have been putting in place the structures needed to ensure strategic advantage through science and technology since this was set out as a core priority in the Integrated Review. These structures are already being used to make good progress across this Science and Technology Framework:

- The Department for Science, Innovation and Technology (DSIT), bringing together core science and technology functions across government. The Secretary of State for DSIT is now Deputy Chair of the National Science and Technology Council.
- The National Science and Technology Council (NSTC), a Prime Minister Chaired Cabinet Committee dedicated to matters relating to strategic advantage through science and technology. The NSTC is meeting monthly to consider matters across the Science and Technology Framework.
- The Office for Science and Technology Strategy (OSTS), now in the Department for Science, Innovation and Technology, a team dedicated to driving progress on this Science and Technology Framework across government.
- The National Technology Adviser, a role currently held by Sir Patrick Vallance, to advise the NSTC on matters relating to strategic advantage through science and technology.

Early wins

- We set up the Advanced Research and Invention Agency (ARIA) to fund high-risk, high-reward R&D with a core focus on identifying and funding transformational science and technology at speed, supporting ground-breaking discoveries that could transform people's lives for the better.
- We have dedicated £250 million to 'technology missions' that exploit and sustain UK's global leadership in three critical technologies artificial intelligence, quantum technologies and engineering biology.
- We are delivering the National AI strategy, to ensure AI technologies can be used in the UK to increase resilience, productivity, growth and innovation across the private and public sectors.

- To support underserved communities of innovators with specialist support, Barclays Eagle Labs has been awarded £12 million through the Digital Growth Grant to boost small and scaling technology businesses in all corners of the UK.
- The UK Digital Strategy committed us to rolling out world-class digital infrastructure across the UK and promoting data as an enabler within the science and technology landscape, improving access for researchers and analysts.
- We have strengthened bilateral international relationships in science and technology, for example establishing the UK-US Comprehensive Dialogue on Technology and Data, and launching the UK-Japan Digital Partnership.
- We have launched targeted campaigns, including the GREAT Britain and Northern Ireland Campaign, which are signalling the UK as a destination for science and technology investment and international talent.
- In 2022-23, the government will have provided over £11 billion of support across tax reliefs, loans, guarantees, targeted programmes and equity finance, and progressed key reforms such as the pensions regulatory charge cap and the recommendations from Lord Hill's UK Listings Review.
- The Chancellor reconfirmed the biggest increase in public R&D investment at Autumn Statement, rising to £20 billion by 24/25.
- We have published Sir Paul Nurse's blueprint of reform for the research landscape, and set out immediate actions that will have a positive impact.
- We have commissioned the Pro-Innovation Regulation of Technologies Review, led by Sir Patrick Vallance, Government Chief Scientific Adviser and National Technology Adviser, which will focus on identifying opportunities and enablers for digital technologies, life sciences and green industries.

Next steps

We will work across the whole of government to ensure progress against this Science and Technology Framework, driving delivery through the NSTC. DSIT is taking an overall leadership role across this Science and Technology Framework. By the end of 2023, we will publish an update setting out the progress that we have made, and the further action that must be taken on our path to being a Science and Technology Superpower by 2030.