

New plans to put UK at front of global innovation race

- Long-term plan to boost private sector investment across the UK and create the right conditions for all businesses to turn world-leading science into new products and services
- Business Secretary Kwasi Kwarteng: 'The countries that secure leadership in transformational technologies will lead the world – it's our job to ensure the UK keeps pace with the global innovation race.'

New plans to boost private sector investment to put the UK at the front of the global innovation race have been set in a new Innovation Strategy launched by Business Secretary Kwasi Kwarteng today (Thursday 22 July).

Today's Innovation Strategy is the government's long-term vision to put innovation at the heart of building back better, as a key pillar in our Plan for Growth. It aims to boost private sector investment in R&D across the whole of the UK, and create the right conditions for all businesses to innovate so they have the confidence to do so.

The UK is committed to increasing annual public investment on R&D to a record £22 billion, but the private sector also plays a key role in boosting spending on R&D, which is an essential part of our country's future prosperity and key to achieving key domestic priorities, from tackling climate change and boosting productivity, to levelling up opportunities across the UK and supporting businesses out of the pandemic.

The pandemic has shown us that major challenges can be resolved by ambitious investment in science, technology, innovation and entrepreneurship, and has shown the public what British innovators can deliver when given ambitious support, freedom, and risk tolerance.

The strategy takes lessons learned from the pandemic, including from the UK's Vaccine Taskforce – where the public and private sectors successfully worked alongside each other – and applies them to find solutions to fundamental challenges facing the UK – including the relative decline in business R&D investment, skills gaps and the need for pro-enterprise regulatory environment to spur innovation.

To achieve this aim, the government will specify 'innovation missions' to set clear direction, urgency and pace on the issues confronting the UK that we want to tackle with the private sector in the coming years. These will be determined by the new National Science and Technology Council and supported by the Office for Science and Technology Strategy.

The government is also outlining 7 strategic technologies to prioritise and build on our existing R&D strengths, including clean technologies, robotics, genomics and AI, where the UK has globally competitive advantage and industrial strength.

The strategy outlines how the government will focus its efforts to support businesses and institutions at the cutting edge of innovation, setting out plans in four areas:

- Unleashing Business – fuelling businesses who want to innovate by ensuring effective access to private and public investment
- People – creating the most exciting place in the world for talented innovators
- Institutions and Places – ensuring R&D institutions serve the needs of businesses and promoting innovation in places across the UK
- Missions and Technologies – stimulating innovation in technology and missions that will provide the UK with a strategic advantage and will be critical to tackling some of our greatest challenges

Business Secretary Kwasi Kwarteng said:

The UK can look back on a proud history of changing the world through innovation. From the industrial revolution to the vaccine development of the past year, the impact on our everyday lives is undeniable.

That spirit of discovery is still alive in this country today, but we have not always turned our genius for innovation into jobs and companies here in Britain.

The countries that secure leadership in such transformational technologies will lead the world, enjoying unrivalled growth, security and prosperity for decades to come – and it's our job to ensure the UK keeps pace with the global innovation race.

Through this long-term plan, we want to rekindle our country's flame of innovation and discovery, helping businesses to seize the vast opportunities that innovation can bring.

If we get this right, we can build the foundations for the new industries of tomorrow, and ensure British firms are at the front of the pack to turn world-leading science into new products and services that are successful in international markets.

Through the Innovation Strategy the government will:

- increase annual public investment on R&D to a record £22 billion
- ensure government procurement is proactive and supportive, providing a route to market for innovative new products and services
- consult on how regulation can ensure that the UK is well-placed to extract the best value from innovation
- commission the Regulatory Horizons Council to consider how best to support innovation through regulation, including looking whether there are a set of high-level guiding principles for regulation that may apply broadly to any sector of innovation
- introduce new High Potential Individual and Scale-up visa routes, and

revitalise the Innovator route to attract and retain high-skilled, globally mobile innovation talent

- undertake an independent review to assess landscape of UK organisations undertaking all forms of research, development and innovation
- reduce complexity for innovative companies by developing an online finance and innovation hub between Innovate UK and the British Business Bank within the next 12 months
- expand IP education programme for researchers and launch International IP Services to bolster innovative companies' and researchers' ability to confidently collaborate, export and invest overseas
- publish of a new [action plan on 'Standards for the Fourth Industrial Revolution'](#), promoting standards that enable innovation to flourish
- invest £200 million through the British Business Bank's Life Sciences Investment Programme to target the growth-stage funding gap faced by UK life science companies
- support 30,000 senior managers of small and medium sized businesses through Help to Grow: Management to boost their business's performance, resilience, and long-term growth

The Strategy identifies areas where the UK has globally competitive R&D and industrial strength and that will transform our economy in the future – Advanced materials and Manufacturing; AI, Digital and Advanced Computing; Bioinformatics and Genomics; Engineering Biology; Electronics, Photonics and Quantum; Energy and Environment Technologies; Robotics and Smart Machines.

Our partners in the innovation system will be critical to delivering our ambitions, and the Business Secretary has asked Innovate UK and UK Research and Innovation (UKRI) to operationalise this Strategy in order to achieve our shared objectives.

The government will work with universities and other research organisations, charities, Catapults, public sector research establishments and research and innovation institutes who will all play a key role in implementation of the Strategy.

As part of efforts to ensure innovative business across the UK can capitalise on these strengths, 5 pioneering projects will receive a share of £127 million through the Strength in Places Fund, delivered by UK Research and Innovation (UKRI):

- in the North of England, £22.6 million will help the Advanced Machinery & Productivity Initiative to drive innovation for the UK's advanced machinery manufacturers to put them at the cutting edge of emerging technologies such as robotics
- in the Midlands, £18.3 million is being awarded to the Midlands Industrial Ceramics Group to improve manufacturing processes in advanced ceramics – the funding will help to make ceramics manufacturing to become more energy-efficient, faster and cheaper
- working in Scotland and Cumbria, £21.3 million of funding will be awarded to the Digital Dairy Value-Chain project which will create a more sustainable dairy industry by combining digital communications and advanced manufacturing

- in Wales, the media.cymru project will bring together UK broadcasters, small local businesses and freelancers to research and develop new products and services for global markets thanks to £22.2 million of funding from the fund
- and in Northern Ireland, £42.4 million will help the Smart Nano NI project to speed up the development of new nano-scale optical components to power our future digital devices

In addition to the Strength in Places Fund, £25 million of funding for the Connecting Capability Fund will help drive further economic growth through university-business innovation, and eight new Prosperity Partnerships will establish business-led research projects harnessing the power of science and engineering to develop transformational new technologies that benefit companies, with £59 million of industry, university and government investment.

Notes to editors

A detailed strategy for levelling up through research and innovation will be set out as part of the government's forthcoming Levelling Up White Paper.

In addition, through the Innovation Strategy the government will:

- devise training to upskill the next generation of lenders, supporting them in their ability to assess risk when lending to innovative businesses
- government will engage closely with pension funds and the investment industry to understand the scope for industry-led initiatives that take advantage of innovation investment opportunities
- establish £10 million innovation seed fund to provide early-stage patient capital for high-potential businesses.
- reduce complexity for innovative companies by developing an online finance and innovation hub between Innovate UK and the British Business Bank within the next 12 months
- provide a £50 million package for innovation infrastructure projects
- launch a consultation on the potential value of and options for a national capability in 'cyber-physical infrastructure'
- commission the Regulatory Horizons Council to consider how best to support innovation through regulation, including looking whether there are a set of high-level guiding principles for regulation that may apply broadly to any sector of innovation
- extend the reach of the "Agile Nations" network to make it easier for businesses to introduce and scale innovations across international markets
- consult on reforms to ensure that the competition framework is effective for an innovative modern economy and on setting up a new, pro-competition regime for digital markets
- publish the National AI Strategy to support businesses and the public sector to responsibly adopt AI
- expand IP education programme for researchers and launch International IP Services to bolster innovative companies' and researchers' ability to confidently collaborate, export and invest overseas

- consult on the protection of inventions and creations made by AI with minimal human input
- develop innovation chapters in Free Trade Agreements
- ensure government procurement is proactive and supportive, providing a route to market for innovative new products and services
- establish a UKRI-wide Commercialisation Funding Framework to simplify support, minimise bureaucracy and embed best practice so the best ideas can be commercialised
- Innovate UK will continue to strengthen its provision of support for commercialisation capability
- launch Help To Grow: Digital to support 100,000 small businesses to adopt digital technologies that will save them time and money, helping them recover from the pandemic
- expand Innovate UK EDGE, working alongside Growth Hubs in England, and programmes delivered by Scottish Enterprise, Invest Northern Ireland, and the Welsh Government to accelerate growth in the UK's most innovative businesses
- allocate £8 million announced in February 2021 to continue Made Smarter Adoption in the North West of England and to begin scaling-up support in the West Midlands, North East of England and Yorkshire & the Humber for the adoption of advanced industrial digital technology amongst manufacturing SMEs
- Innovate UK will include the adoption and diffusion of cutting-edge innovation in its objectives
- set up the Government Office for Technology Transfer to support public sector organisations in identifying wider uses for their innovations