



UK Science & Innovation Network Summary:

USA

1. Science and Innovation Landscape

The United States spent an estimated \$886 billion (3.44% of GDP) on research and development in 2022—the most of any country. US scientists and innovators demonstrate excellence in nearly every research field and economic sector.

The majority of American R&D (77% in 2021) is funded and operated by the private sector. At the federal level, science funding is highly decentralised, with over 20 executive departments and agencies supporting research, primarily focused on fundamental science. Leading funding agencies include the National Science Foundation (NSF), the National Institutes of Health (NIH), the Department of Energy (DOE), and the Department of Defense (DOD). Federal laboratories span the country, including the 17 DOE National Laboratories, and the 90+ labs of the US Department of Agriculture (USDA) Agricultural Research Service.

The White House Office of Science and Technology Policy (OSTP) acts as a convener and coordinates cross-agency priorities on federal science initiatives. Many federal agencies also provide competitive or strategic research funding to external delivery partners, mainly the vast network of US public and private universities. In addition to the US federal system, state and local governments have considerable discretion to provide funding or policy support for science and innovation. Implementation varies by state, and innovation programmes are often tailored to fit a state's economic focus - for example, life sciences in Massachusetts, agriculture in lowa - and may be supported by public and private stakeholders, including local universities.

The US has 7 of the top 10 universities in the world, with the UK home to the other 3.

US Science, Innovation and Technology Priorities

Science and technology has been a key issue for President Joe Biden, with several high-profile policies and initiatives implemented, among these:





- Passing the <u>CHIPS and Science Act of 2022</u>, which provides nearly \$53 billion in the U.S. semiconductor manufacturing, research and development, and workforce development,
- Publishing two White House Executive Orders to advance and govern the
 development and use of AI safely and responsibly, and to address its risks
 and benefits, and to advance biotechnology and biomanufacturing innovation
 for a sustainable, safe, and secure American bioeconomy,
- More broadly ensuring that the US remains the world leader in emerging and critical technologies across clean energy, AI, quantum science and technology, synthetic biology, and semiconductors, especially with regard to increasing competition from China

2. UK partnership with USA on ST&I

The UK and US have a long history of collaboration on science, innovation and technology, and there are countless examples of organic partnerships between researchers, innovators, and funders. In 2017 the two countries signed a government-to-government Science & Technology Agreement, which outlines a commitment to collaborate on world-class science and innovation. This was followed by several high-profile agreements that included science and technology as a core theme including:

- The 2021 New Atlantic Charter, committing to harness and protect our innovative edge in science and technology to support our shared security and prosperity
- The 2021 <u>Joint Statement of Intent</u> to boost collaboration on quantum science and technologies
- The 2021 <u>AUKUS Partnership</u>, including collaboration in quantum, Al and cyber technologies
- The 2023 <u>Atlantic Declaration</u>, including leadership in science and technology as part of a framework for a twenty-first century US-UK Economic Partnership
- The 2023 <u>Joint Statement of Intent</u> to collaborate on accelerating fusion energy development
- The 2024 Memorandum of Understanding on AI, establishing a partnership on the science of AI safety





The Science and Innovation Network in the US includes 13 officers working across seven regions to develop science and innovation opportunities for the benefit of the UK. The team is led from the British Embassy in Washington DC.

In 2024-25, SIN US will focus on four overarching themes: Emerging Technologies, Energy Security and Climate, Space Science, and One Health and Biosecurity. These workstreams reflect both the high-level HMG areas of focus in Science and Technology, and the breadth of opportunity for bilateral partnerships at the US federal and regional levels.

SIN US supports multi-stakeholder UK-US research and innovation collaborations; identifying and supporting emerging opportunities for UK business; tracking and influencing US science and innovation policy; and supporting UK policy development with US insights. The team works closely with colleagues in the UK government like the Department for Business and Trade (DBT) and other UK organisations. There is also a strong partnership with UK Research & Innovation (UKRI) who have a US office in Washington DC.

3. SIN contacts

For further information or to reach an individual SIN US officer, write to usa.si@fcdo.gov.uk

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