



**COUNCIL FOR
SCIENCE AND
TECHNOLOGY**

Joint Statement to Leaders from the United States' President's Council of Advisors on Science and Technology and United Kingdom's Prime Minister's Council for Science and Technology

Dear President Biden and Prime Minister Sunak,

The United States and United Kingdom are global leaders in scientific research, discovery, and innovation. Investments in these areas over the last century have improved our economic prosperity, security, and well-being. Today, the rapid pace of technological change promises similar advances for the future. At the same time, the world faces complex and interconnected risks, from climate change to biodiversity loss to aging societies. The COVID-19 pandemic illustrated the complexity of hazards that transcend national borders and the critical role of science and technology in identifying, preparing for, and mitigating global risks.

Strengthening Science and Technology Cooperation

The U.S.-UK Leaders Joint Statement published in June 2021^{1,2} called for closer coordination between the President's Council of Advisors on Science and Technology (PCAST) and the Prime Minister's Council for Science and Technology (CST). PCAST and CST thus met on 14th March 2024 in Washington, DC to discuss matters of shared interest, including those identified in the June 2023 Atlantic Declaration.^{3,4} We focused on the role of science and technology in responding to global challenges, and the potential for the United States and United Kingdom to deepen cooperation around emerging technologies such as Artificial Intelligence (AI).

Responding to Global Challenges and Preparing for the Future

Science and technology provide tools to identify, monitor, and manage hazards, as well as anticipate and mitigate their risks. The United States and United Kingdom have significant scientific and technological capabilities but cannot be complacent. Our governments' approaches to addressing global challenges should involve anticipating complex, emerging global risks and strengthening preparedness, response, and recovery. PCAST and CST encourage increased intensity and consistency of collaborative scientific effort between our countries and with our global partners.

Global risks are often interconnected. For example, hazards such as extreme weather, already known to affect biodiversity, may amplify the likelihood of disease outbreaks and pandemics. PCAST and CST therefore recommend our nations adopt a systems approach to address global challenges, integrating a range of perspectives – including economics,

¹ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/10/joint-statement-on-the-visit-to-the-united-kingdom-of-the-honorable-joseph-r-biden-jr-president-of-the-united-states-of-america-at-the-invitation-of-the-rt-hon-boris-johnson-m-p-the-prime-min/>

² https://assets.publishing.service.gov.uk/media/60c24c0dd3bf7f4bd842e2c1/UK-US_Joint_Statement_-_June_10.pdf

³ <https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/08/the-atlantic-declaration-a-framework-for-a-twenty-first-century-u-s-uk-economic-partnership/>

⁴ <https://www.gov.uk/government/publications/the-atlantic-declaration>

social and behavioral science, the physical and biological sciences, and engineering – to study how risks can be mitigated and appropriate responses prepared. Joint action by our two countries should catalyze expanded global monitoring efforts, for instance around disease surveillance and ocean monitoring, in addition to enhancing the effectiveness of existing institutions in managing these risks.

The resilience of our societies depends upon individual, societal, and organizational behavior during crises, as well as efforts aimed at building preparedness in advance of crises. PCAST and CST encourage policymakers to consider social and behavioral science principles for emergencies as input to inform crisis responses and to consider the trade-offs and inequitable impacts involved. Our Councils will continue to engage our respective scientific communities to help address some of society’s greatest challenges, including through innovative scientific and technological solutions.

Enhancing Collaboration on Artificial Intelligence

Recent advances in generative AI have captured imaginations worldwide and raised awareness of the broader capabilities of AI technologies. As governments and the private sector grapple with how to develop and deploy AI systems in a safe, secure, and trustworthy manner, PCAST and CST recognize the domestic efforts you are each taking, which lend support and credibility to U.S. and UK international efforts on AI, respectively. Our Councils encourage efforts by the international community to cooperate on AI, including as described in the Bletchley Declaration⁵ and your joint statement with other G7 Leaders on the G7 Hiroshima AI Process with the referenced International Guiding Principles and Code of Conduct.⁶

AI presents opportunities to address global challenges, improve productivity, and manage major systems upon which society depends, including energy, transport, agriculture, and water. Today, the development of AI is being driven largely by private sector investments. Careful consideration should be given to the appropriate scale and focus of public sector investments in AI research to ensure that AI achieves its potential to create societal benefits while minimizing harms. This may be an area of fruitful discussion in ongoing collaboration between the U.S. and UK National Academies.

Harnessing the opportunities made possible by AI depends on access to accurate and representative data. PCAST and CST are encouraged by multilateral discussions and existing U.S.-UK partnerships to facilitate safe and secure access to data, including continuous collaboration through the Comprehensive Dialogue on Technology and Data.⁷ Both Councils strongly support efforts to deepen collaboration and coordinate support for AI research and innovation; such actions will help foster systemic change.

Moving Forward

PCAST and CST recognize other topics of importance to the bilateral U.S.-UK science and technology relationship and identified the following areas of mutual interest:

1. **Energy security and climate change.** Both of our nations have identified energy security and reducing greenhouse gas emissions as national priorities. Our ability to deliver decarbonization at speed and scale is contingent on timely, key decisions to invest in low or zero carbon technologies and methods to counteract climate change. Our Councils intend to share our expertise and knowledge on the opportunities that

⁵ <https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023>

⁶ <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/g7-leaders-statement-on-the-hiroshima-ai-process/>

⁷ <https://www.gov.uk/government/publications/uk-and-us-progress-tech-and-data-partnership/uk-us-joint-statement-new-comprehensive-dialogue-on-technology-and-data-and-progress-on-data-adequacy>

fusion presents for sustainable and secure global energy. PCAST and CST also recommend that the U.S. and UK governments enhance collaboration with key likeminded partners to improve understanding of geoengineering, including its unintended consequences, efficacy, cost, governance, and possible countermeasures.

2. **Healthcare.** Both of our nations face challenges from health inequities, growing demand from an aging population, and the rising costs of healthcare. PCAST and CST support the strong collaboration between industry, healthcare researchers, and innovators across our countries; we also think there is more to be learned from closer exchange. PCAST and CST recommend deepening U.S. and UK collaboration on issues such as the management of public health and how to increase the cost effectiveness and adoption of novel health technologies.
3. **Synthetic biology.** The applications of synthetic biology are highly diverse and will impact our world, from advances in healthcare and agricultural technology, to more sustainable chemical industries. Both of our Councils have already considered this topic: CST has provided advice on the opportunities of engineering biology to improve the UK economy and address national goals,⁸ while PCAST has provided advice on biomanufacturing and the bioeconomy.⁹ PCAST and CST encourage further alignment of research by our two countries on this important emerging technology.
4. **Public trust and engagement with science and technology.** Science and technology increasingly play a central role in informing public policy, as evident in discussions on responding to the COVID-19 pandemic, considering advances in genetic modification, regulating generative AI, and mitigating climate change. Both of our Councils have already considered this topic: PCAST has recommended that U.S. federal agencies place increased priority on collaborative engagement with the public,¹⁰ while CST has commissioned an independent review of public trust in science for policymaking. PCAST and CST encourage further opportunities to strengthen public engagement in how science and technology is used in public policy in the United States and United Kingdom.

Our Councils remain committed to sharing expertise and to advancing mutual understanding of these and other topics. PCAST and CST share a confidence in the potential for science and technology to expand the realm of human knowledge, improve well-being, and foster greater global prosperity. We will continue to support you in strengthening our respective science and technology ecosystems.

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⁸ <https://www.gov.uk/government/publications/advice-on-engineering-biology>

⁹ https://www.whitehouse.gov/wp-content/uploads/2022/12/PCAST_Biomanufacturing-Report_Dec2022.pdf

¹⁰ https://www.whitehouse.gov/wp-content/uploads/2023/08/PCAST_Science-Engagement-Letter_August2023.pdf