



Ushering in the New Frontier of Quantum Innovation

Administration Policy:

On June 23rd, 2026, the White House issued an [Executive Order](#) to stimulate U.S. innovation in quantum technologies and strengthen our national security in this critical area. The White House factsheet is available [here](#).

Quantum technology is based on the principles of quantum mechanics, which are the laws of physics that apply to sub-atomic particles. Quantum technology was first used in the development of nuclear power, and it is fundamental to the semiconductors found in smartphones and computers. Critically, quantum computing harnesses quantum technology to enable rapid data processing and analysis. This change in processing speed creates a significant economic opportunity but also raises serious national security implications.

The EO requires a full update of the National Quantum Strategy, led by White House science and technology leadership within National Science Foundation (NSF) and the Departments of Commerce, Energy, and War. Agencies have 30 days to align programs with the updated strategy, accelerating commercialization and public-private integration. The EO also launches a national effort to build a large-scale quantum computer for scientific discovery, deployed at a Department of Energy (DOE) facility with broader research access. It coordinates DOE, NASA, and National Security Agency (NSA) capabilities, sets technical specifications, explores public-private partnerships, and creates procurement and incentive tools.

The EO accelerates quantum sensors and networking, requiring the Department of War (DoW) to identify sensor projects for deployment by 2028. It also directs Commerce, NSF, and NASA to produce five-year plans for sensing, timing, networking, and space applications while prioritizing federal R&D. It strengthens the quantum industrial base by analyzing supply chains and establishing clear standards. Agencies are directed to use prize competitions and advance market commitments to expand domestic manufacturing, while increasing access to federal facilities, expanding grants, and reconstituting the National Quantum Initiative Advisory Committee.

The EO further strengthens national security controls to prevent adversary exploitation while coordinating policies across science and national security agencies. It expands an FBI-led counterintelligence team with DoW and NSA to track threats and protect quantum institutions and firms. It also builds a workforce strategy to recruit and retain quantum talent, directing OMB and science agencies to explore incentives such as special pay scales and retention bonuses, while expanding apprenticeships, training pipelines, and NSF-led workforce institutes with universities and industry. Finally, the EO promotes coordinated export controls, research security, and investment screening, while directing agencies to address foreign barriers and integrate quantum priorities into diplomacy and trade.

Background:

- Quantum computing [uses](#) quantum physics to solve problems at speeds not possible with classical computers.
- The National Quantum Initiative Act ([Public Law 115-368](#)) requires a coordinated federal program to accelerate quantum research and development for the economic and national security of the United States. It expired in 2023 and has not been reauthorized. The National Quantum Strategy was first [issued](#) in 2018.