Quantum Industry Coalition

September 2, 2025

The Honorable Donald J. Trump
President of the United States
The White House

The Honorable Ted Cruz
Chairman
The Honorable Maria Cantwell
Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Mike Lee
Chairman
The Honorable Martin Heinrich
Ranking Member
Committee on Energy and Natural Resources
United States Senate

The Honorable Brian Babin
Chairman
The Honorable Zoe Lofgren
Ranking Member
Committee on Science, Space, and Technology
United States House of Representatives

Dear President Trump, Chairman Cruz, Ranking Member Cantwell, Chairman Lee, Ranking Member Heinrich, Chairman Babin, and Ranking Member Lofgren:

We write as U.S. industry leaders in quantum computing, networking, sensing, and cryptography to thank you for recognizing the value of quantum technology and urge you to reauthorize and fully fund the National Quantum Initiative (NQI) in 2025.

Quantum technologies have the potential to bring transformative economic, scientific, and national security impacts to the American people. It is imperative that the United States lead in the ongoing global quantum race, particularly since China and other international competitors are investing more and more in these technologies. A lack of investment could result in dire consequences if we fall behind our competitors. Industry road maps predict that quantum computers may be able to break current cryptography and accomplish other major milestones by the end of the decade, if not before. We must not risk losing our competitive edge at this key moment.

The NQI, enacted in 2018, has played a crucial role in promoting U.S. quantum leadership by:

- **Seeding U.S. quantum R&D infrastructure.** The NQI authorized the creation of research centers throughout the country that give researchers the tools to advance the

state of the art in quantum technology. They are becoming hubs for public-private partnership to seed and scale quantum R&D.

- **Advancing U.S. quantum workforce development.** The NQI authorized nationwide quantum education programs that are helping expand the U.S. quantum workforce and ensure that we have the pipeline of skilled workers necessary to lead the world in scaling and applying quantum technologies.

- **Unlocking private investment.** The NQI sent a signal to capital markets that quantum technology is worth investing in. This unlocked billions of dollars of private investment, providing significant return on taxpayer funds.

After seven years, it is time to update the NQI to ensure that it reflects the progress we have made, and accelerate it so that it continues to promote U.S. quantum leadership in the years ahead. We see several opportunities to do this:

- **Expand research to include not only research on quantum technologies but also research with quantum technologies.** Quantum sensors, computers, and networks are starting to reach a point at which they have begun to be useful in practice. A variety of quantum architectures have shown promise, as have quantum-classical hybrid technologies. Federal research should expand beyond "building a better qubit" and similar tasks – a role now best handled by industry – and focus on using these new technologies to address broader research needs.

- **Help federal departments and agencies use quantum technology to advance their missions.** The federal government can benefit from quantum technology now, but many departments and agencies do not understand how to do so. The NQI can and should help identify potential mission-critical quantum use cases, such as scientific discovery, military logistics, natural resource discovery, air traffic management, and medical research, and should help agencies develop plans to procure quantum solutions. This will help build demand for quantum technologies across the federal government. It will send a strong demand signal to industry without picking winners or losers in the marketplace.

- **Offer milestone-based incentives.** As NASA's Commercial Orbital Transportation Services program has demonstrated and DARPA's Quantum Benchmarking Initiative is demonstrating, milestone-based incentives are a powerful way to incentivize technology development without predetermining who can win. As long as milestones are based on end requirements rather than architecture, they will attract a range of competitors. The government will not have to pre-select the competitors, and can simply wait until one of them meets the requirement. This is another demand signal that unlocks private investment without pre-selecting winners and losers and allows the government to focus on advancing viable quantum technologies that can scale to impactful use cases. For example, Congress should institute and expand a type of "grand challenges" program for quantum technologies as a way of scaling private sector breakthroughs.

- **Strengthen our domestic quantum supply chain.** The quantum supply chain, including domestic manufacturing of chips for quantum technologies, is both sparse and heavily disaggregated. Many enabling technologies that our domestic quantum startups rely upon are produced by singular, small vendors that lack capacity for high-volume production or current-generation manufacturing equipment or facilities. Many of these suppliers are not domestic. The NQI can support the US quantum industry by funding the onshoring of the manufacturing supply chain for quantum technologies, making it more robust and secure.

- **Ensure that NQI funding eventually reaches U.S. quantum companies.** Only a very small fraction of NQI funding has reached U.S. quantum companies. These companies can contribute to the NQI by providing hardware, software, and applications. The NQI should make funds available for leveraging commercially available capabilities. The NQI should incorporate faster procurement vehicles and Other Transaction Authority where possible to allow for rapid adoption of emerging capabilities.

- **Support engagement with non-traditional government contractors and small businesses.** A significant fraction of the innovation taking place in the quantum fields is happening in small businesses and in companies that have not been government contractors. Federal departments and agencies should be encouraged to seek out and engage with such companies and to make it easier for these companies to access federal funding opportunities and partnerships.

- **Grow the domestic quantum workforce.** U.S. quantum companies urgently seek qualified U.S. employees. The NQI should expand efforts to attract U.S. students (including at the high school and undergraduate level) to quantum fields and to develop Ph.D. quantum programs at U.S. colleges and universities.

We look forward to working with you to reauthorize the NQI this year. We are ready to help ensure that the United States continues to lead the world in developing this revolutionary technology.

Sincerely,

Paul Stimers
Executive Director
Quantum Industry Coalition
www.quantumindustrycoalition.com

Quantum Industry Coalition Member Companies

Other Organizations Supporting This Letter