



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON **SCIENCE, SPACE, & TECHNOLOGY**

Opening Statement

Ranking Member Zoe Lofgren (D-CA)

Full Committee Hearing:

From Policy to Progress: How the National Quantum Initiative Shapes U.S. Quantum Technology Leadership

May 7th, 2025

Thank you, Chairman Babin, for holding today's hearing. I would also like to welcome our distinguished panel of witnesses, including two leading quantum companies headquartered in Silicon Valley, near my home district: Google and PsiQuantum. Dr. Chou, Dr. Shadbolt, and the rest of the witnesses, thank you for volunteering your time and expertise before the Committee today.

When the Science Committee developed and enacted the National Quantum Initiative Act in 2018, the global race for quantum dominance was already decades in the making. Agencies like NSF, NIST, and DOE had long invested in basic quantum information science at Federal labs and universities across the country. Innovative companies, like those represented on the panel today, were already beginning to build quantum computers. Other countries, allies and adversaries alike, were also making significant investments.

We were confident then it was time for Congress to act. Years later, we know with certainty that the Quantum Initiative played an important role in galvanizing the U.S. science community around quantum technologies and focusing the efforts of our federal agencies. In these 7 years, the U.S. has built increasingly advanced quantum technologies, spun out new companies, and continued to lead the world in quantum development and commercialization. It's past time to strengthen the NQIA by reauthorizing this important legislation and I look forward to partnering with the chairman in this effort.

A few weeks ago, I met with several California State Senators who wish to establish a quantum economic zone in California to capitalize and build on our existing strengths in both academia and industry. I applaud this effort. And it's not just in California we see these kinds of efforts. Regions across the country recognize the economic development that will come from investments in the quantum industrial base.

As with any new technology, even as we tout the potential, we must also be open-eyed about the challenges and limitations. If we compare quantum computing to regular computing, we are at the mainframe stage of development. Companies like PsiQuantum are actively building several next-generation quantum systems and I'm excited to hear more about their work today.

However, to get to the next stage of development—the multipurpose quantum computer—we will need significant advances in basic and applied quantum research. We will need the infrastructure in academia, government, and industry to facilitate this research. Moreover, we will need a science and engineering workforce capable of developing and operating quantum technologies to fill the workforce gaps that companies already face today.

The Administration claims to support quantum research funding in its budget proposal, but in practice President Trump is actively gutting the fields of research and STEM training programs that underpin our nation's quantum industry. In the past month, NSF has terminated nearly 1,500 active grants, including multiple awards in physics and engineering education—in other words, fields that make up the backbone of the multidisciplinary quantum workforce.

They even terminated one award focused directly on quantum education. It was called Building Educational Growth for Industry Learning. This NSF award was devoted to providing scalable experiential learning experiences in quantum literacy, quantum AI, and machine learning to build the next generation of quantum technicians. This award was terminated because it committed the sin of including women and historically underrepresented students as program participants.

We are fooling ourselves if we think we can support quantum leadership while eviscerating the workforce that feeds into the quantum industry. I call on my colleagues on both sides to exercise our constitutional responsibilities to push back against these devastating and possibly illegal actions.

Hopefully, we can continue to find bipartisanship in our support for U.S. quantum leadership. But such efforts must strengthen our overall scientific enterprise, not embark down a foolhardy path of trying to pick winners and losers. Or we will surely lose everything.

Thank you and I yield back.