



NATIONAL PHOTONICS INITIATIVE



Chair Maria Cantwell & Ranking Member Ted Cruz
U.S. Senate Committee on Commerce, Science, and Transportation
254 Russell Senate Office Building
Washington, D.C. 20510

March 12, 2024

Dear Chair Cantwell and Ranking Member Cruz,

As Chairman of the National Photonics Initiative, I am writing to thank you for your continued leadership in advancing quantum research and technology and to urge you to reauthorize the National Quantum Initiative (NQI) Act (P.L. 115-368), which was enacted in 2018 with strong bipartisan support. The NQI is a vital suite of programs that fosters collaboration among federal agencies, academia, industry, and non-governmental organizations, to advance U.S. leadership and competitiveness in quantum information science and technology (QIST).

QIST is a rapidly growing field that promises to revolutionize many sectors, such as computing, finance, communications, sensing, cryptography, pharmaceuticals, and materials. To date, our investments in QIST have already created new industries, jobs, and markets, and have bolstered our national security and enhanced our global leadership.

Now the United States needs to build upon the progress made so far. The NQI is a strategic investment that supports the development of a quantum workforce, infrastructure, standards, and innovation ecosystem to ensure that the U.S. remains at the forefront of this emerging technology.

The NQI has already achieved significant milestones and impacts in its first five years, such as establishing national quantum research centers through the Department of Energy (DOE) and National Science Foundation (NSF), launching a quantum education network, coordinating quantum activities across federal agencies, and engaging with international partners. However, much more work remains. Global competition in QIST is intensifying; billions of dollars are being invested in China and Europe. The scientific and technical challenges for this field are complex and demanding. Therefore, we urge you to reauthorize the NQI with increased funding, an expanded scope, and enhanced coordination to sustain and accelerate U.S. quantum efforts for the next decade and beyond.

We are encouraged by the recent passage of the National Quantum Initiative Reauthorization Act by the House Science Committee, which would authorize a total of \$10 billion over five



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years for the NQI, as well as expand the roles and responsibilities of the National Institute of Standards and Technology (NIST), the National Aeronautics and Space Administration (NASA), DOE, NSF, the National Quantum Coordination Office, and the National Science and Technology Council's Subcommittee on Quantum Information Science. We believe that these provisions are essential to maintain the momentum and impact of the NQI, and we hope that the Senate Commerce Committee will adopt similar measures in its reauthorization bill.

We appreciate your leadership and support for the NQI, and we stand ready to work with you and your staff to provide any information or assistance you may need. Thank you for your consideration of this important matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim McNally". The signature is fluid and stylized, with a large initial "J" and "M".

Jim McNally
Chairman, National Photonics Initiative