

## **Joint Statement of Denmark and the United States of America on Cooperation in Quantum Information Science and Technology**

Denmark and the United States of America,

- Recognizing that science, technology, and innovation have enabled transformative capabilities across multiple sectors, from energy to health and communications to transportation, and that the foundation of this progress is the global research enterprise, and its constant creation of new knowledge, understanding, and insights;
- Appreciating that quantum information science and technology (QIST) revolutionizes both our understanding of fundamental phenomena as well as the development of powerful computers, secure and rapid communication, and sensors with unprecedented precision, accuracy, and modalities;
- Understanding that the emergence of such robust technologies depends on an intensive effort to expand theoretical and practical understandings of QIST and to develop new tools for characterization, validation, and verification purposes; and
- Acknowledging that international partnerships are key to combine the expertise, ingenuity, and creativity of our countries to expand our fundamental understanding of QIST and thereby accelerate the realization of new technologies for the benefit of humanity.

Denmark and the United States intend to harness the spirit of science, technology, and innovation to pursue cooperation and the mutual respect it confers, and to promote QIST, including but not limited to quantum computing, quantum networking, and quantum sensing, which underpins the development of society and industry.

We intend to advance this agenda using the following approach:

### **Creating a vibrant ecosystem for QIST Research and Development by:**

- Embarking on good-faith cooperation that is underpinned by our shared principles, including freedom of inquiry, openness, transparency, honesty, equity, fair competition, objectivity, protection and enforcement of intellectual property, and democratic values.
- Committing to create inclusive scientific research communities and tackle cross-cutting issues of common interest such as equity, diversity, inclusion, and accessibility, so that every person is able to fully participate and have an equal opportunity to succeed.
- Collaborating in venues such as workshops, seminars, and conferences to convene stakeholders across government, academia, and industry to discuss and understand the progress of QIST research, and identify concrete areas of mutual interest for present and future scientific cooperation.
- Leveraging existing platforms for collaboration that create opportunities for academic institutions, industry consortia, major laboratories, and stakeholders in our global science and innovation community.
- Promoting dialogue to encourage the formation of collaborative networks and the sharing of QIST related methodologies, infrastructure, and data, on voluntary and mutually agreed terms, for education, training, research, development, and fundamental science.
- Supporting the development of respectful and inclusive research environments and the next generation of scientists and engineers necessary to expand the field through skill-building and relationship-building for students and professionals via exchange opportunities, and other potential mechanisms.
- Exploring possibilities for other activities to be considered by participating countries.

**Supporting pathways to cultivate QIST for commercial and societal impact by:**

- Recognizing the capacity of industry to innovate and accelerate quantum information science and technology breakthroughs via commercialization and investments that foster deployment of quantum technologies for shared economic prosperity and security.
- Enabling opportunities to build a trusted global market and supply chain for QIST R&D, and supporting economic growth, by engaging stakeholders including industry consortia, research leaders, policy makers, and business security stakeholders to grow the future QIST marketplace based on shared engagement principles.
- Facilitating continued dialogue with relevant stakeholders across academic, private sector, and government offices regarding the responsible development and implementation of quantum technologies to provide practical benefits for our citizens, economies, and security.
- Leveraging multilateral opportunities to promote policy dialogues and discuss QIST matters of international importance, including, but not limited to, building safe and inclusive research environments, and pursuing ways to address regulatory, standardization, and certification needs in areas where quantum technologies can be applied such as energy, health, and cybersecurity.
- Taking into account that QIST ecosystems will rely on close international connections and collaboration with partners, since the solutions that need to be developed are at a scale where no company, nor nation, can develop all components alone.
- Valuing cooperation in quantum scientific research, technology development, and innovation to deepen our bonds of friendship and understanding, strengthen our economies, and contribute to global science and technology knowledge.

We confirm our understanding that cooperation enabled by this Statement is pursuant to the Agreement between the Government of the Kingdom of Denmark and the Government of the United States of America for Scientific and Technological Cooperation signed at Copenhagen on September 15, 2009, and that the terms of the S&T Agreement and related agreements govern such cooperation.

Signed at Washington, in two originals, in the English language.

For Denmark:

For the United States of America:

*Ann Ky*

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Date: 06/07/2022

Date: June 7, 2022

