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§ 8801. Definitions

In this chapter:

(1) Advisory Committee

The term “Advisory Committee” means the National Quantum Initiative Advisory Committee established under section 8814(a) of this title.

(2) Appropriate committees of Congress

The term “appropriate committees of Congress” means—

- (A) the Committee on Commerce, Science, and Transportation of the Senate;
(B) the Committee on Energy and Natural Resources of the Senate; and
(C) the Committee on Science, Space, and Technology of the House of Representatives.

(3) Coordination Office

The term “Coordination Office” means the National Quantum Coordination Office established under section 8812(a) of this title.

(4) Institution of higher education

The term “institution of higher education” has the meaning given the term in section 1001(a) of title 20.

(5) Program

The term “Program” means the National Quantum Initiative Program implemented under section 8811(a) of this title.

(6) Quantum information science

The term “quantum information science” means the use of the laws of quantum physics

for the storage, transmission, manipulation, computing, or measurement of information.

(7) Quantum network infrastructure

The term “quantum network infrastructure” means any facility, expertise, or capability that is necessary to enable the development and deployment of scalable and diverse quantum network technologies.

(8)¹ Subcommittee on Economic and Security Implications

The term “Subcommittee on Economic and Security Implications” means the Subcommittee on the Economic and Security Implications of Quantum Information Science established under section 8814a(a) of this title.

(8)¹ Subcommittee on Quantum Information Science

The term “Subcommittee on Quantum Information Science” means the Subcommittee on Quantum Information Science of the National Science and Technology Council established under section 8813(a) of this title.

(Pub. L. 115-368, §2, Dec. 21, 2018, 132 Stat. 5092; Pub. L. 117-81, div. F, title LXVI, §6606(c)(1), Dec. 27, 2021, 135 Stat. 2443; Pub. L. 117-167, div. B, title I, §10104(b)(1), Aug. 9, 2022, 136 Stat. 1437.)

Editorial Notes

AMENDMENTS

2022—Pars. (7), (8). Pub. L. 117-167 added par. (7) and redesignated former par. (7) relating to Subcommittee on Economic and Security Implications as (8).

2021—Pars. (7), (8). Pub. L. 117-81 added pars. (7) and (8) and struck out former par. (7) which defined “Subcommittee”.

Statutory Notes and Related Subsidiaries

SHORT TITLE

Pub. L. 115-368, §1(a), Dec. 21, 2018, 132 Stat. 5092, provided that: “This Act [enacting this chapter] may be cited as the ‘National Quantum Initiative Act.’”

§ 8802. Purposes

The purpose of this chapter is to ensure the continued leadership of the United States in quantum information science and its technology applications by—

(1) supporting research, development, demonstration, and application of quantum information science and technology—

(A) to expand the number of researchers, educators, and students with training in quantum information science and technology to develop a workforce pipeline;

(B) to promote the development and inclusion of multidisciplinary curriculum and research opportunities for quantum information science at the undergraduate, graduate, and postdoctoral level;

(C) to address basic research knowledge gaps, including computational research gaps;

(D) to promote the further development of facilities and centers available for quantum

¹ So in original. Two pars. (8) have been enacted.

information science and technology research, testing and education; and

(E) to stimulate research on and promote more rapid development of quantum-based technologies;

(2) improving the interagency planning and coordination of Federal research and development of quantum information science and technology;

(3) maximizing the effectiveness of the Federal Government's quantum information science and technology research, development, and demonstration programs;

(4) promoting collaboration among the Federal Government, Federal laboratories, industry, and universities; and

(5) promoting the development of international standards for quantum information science and technology security—

(A) to facilitate technology innovation and private sector commercialization; and

(B) to meet economic and national security goals.

(Pub. L. 115-368, § 3, Dec. 21, 2018, 132 Stat. 5093.)

SUBCHAPTER I—NATIONAL QUANTUM INITIATIVE

§ 8811. National Quantum Initiative Program

(a) In general

The President shall implement a National Quantum Initiative Program.

(b) Requirements

In carrying out the Program, the President, acting through Federal agencies, councils, working groups, subcommittees, and the Coordination Office, as the President considers appropriate, shall—

(1) establish the goals, priorities, and metrics for a 10-year plan to accelerate development of quantum information science and technology applications in the United States;

(2) invest in fundamental Federal quantum information science and technology research, development, demonstration, and other activities to achieve the goals established under paragraph (1);

(3) invest in activities to develop a quantum information science and technology workforce pipeline;

(4) provide for interagency planning and coordination of Federal quantum information science and technology research, development, demonstration, standards engagement, and other activities under the Program;

(5) partner with industry and universities to leverage knowledge and resources; and

(6) leverage existing Federal investments efficiently to advance Program goals and priorities established under paragraph (1).

(Pub. L. 115-368, title I, § 101, Dec. 21, 2018, 132 Stat. 5094.)

TERMINATION OF SECTION

For termination of section, see section 8815 of this title.

§ 8812. National Quantum Coordination Office

(a) Establishment

(1) In general

The President shall establish a National Quantum Coordination Office.

(2) Administration

The Coordination Office shall have—

(A) a Director appointed by the Director of the Office of Science and Technology Policy, in consultation with the Secretary of Commerce, the Director of the National Science Foundation, and the Secretary of Energy; and

(B) staff comprised of employees detailed from the Federal departments and agencies described in section 8813(b) of this title

(b) Responsibilities

The Coordination Office shall—

(1) provide technical and administrative support to—

(A) the Subcommittee on Quantum Information Science;

(B) the Advisory Committee; and

(C) the Subcommittee on Economic and Security Implications;

(2) oversee interagency coordination of the Program, including by encouraging and supporting joint agency solicitation and selection of applications for funding of activities under the Program;

(3) serve as the point of contact on Federal civilian quantum information science and technology activities for Federal departments and agencies, industry, universities¹ professional societies, State governments, and such other persons as the Coordination Office considers appropriate to exchange technical and programmatic information;

(4) ensure coordination among the collaborative ventures or consortia established under section 8831(a) of this title, Multidisciplinary Centers for Quantum Research and Education established under section 8842(a) of this title, and the National Quantum Information Science Research Centers established under section 8852(a) of this title;

(5) conduct public outreach, including the dissemination of findings and recommendations of the Advisory Committee, as appropriate;

(6) promote access to and early application of the technologies, innovations, and expertise derived from Program activities to agency missions and systems across the Federal Government, and to industry, including startup companies; and

(7) promote access, through appropriate Federal Government agencies, and an open and competitive merit-reviewed process, to existing quantum computing and communication systems developed by industry, universities, and Federal laboratories to the general user community in pursuit of discovery of the new applications of such systems.

(c) Funding

Funds necessary to carry out the activities of the Coordination Office shall be made available

¹ So in original. Probably should be followed by a comma.