

Calendar No. \_\_\_\_\_

119TH CONGRESS  
1ST SESSION**S. 1397**

To require the Secretary of State to establish a quantum cooperation program to enhance international cooperation in quantum information science.

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IN THE SENATE OF THE UNITED STATES

APRIL 9, 2025

Mrs. SHAHEEN (for herself, Mr. YOUNG, and Mr. COONS) introduced the following bill; which was read twice and referred to the Committee on Foreign Relations

\_\_\_\_\_ (legislative day, \_\_\_\_\_), \_\_\_\_\_

Reported by Mr. RISCH, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

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**A BILL**

To require the Secretary of State to establish a quantum cooperation program to enhance international cooperation in quantum information science.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “International Quantum  
5 Research Exchange Act”.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) ~~APPROPRIATE CONGRESSIONAL COMMIT-~~  
4 ~~TEES.~~—The term “appropriate congressional com-  
5 ~~mittees”~~ means the following:

6 (A) ~~The Committee on Foreign Relations~~  
7 ~~of the Senate.~~

8 (B) ~~The Committee on Foreign Affairs of~~  
9 ~~the House of Representatives.~~

10 (C) ~~The Committee on Commerce, Science,~~  
11 ~~and Transportation of the Senate.~~

12 (D) ~~The Committee on Energy and Com-~~  
13 ~~merce of the House of Representatives.~~

14 (2) ~~INSTITUTION OF HIGHER EDUCATION.~~—The  
15 term “institution of higher education” has the  
16 meaning given the term in section 101(a) of the  
17 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

18 (3) ~~QUANTUM INFORMATION SCIENCE.~~—The  
19 term “quantum information science” means the use  
20 of the laws of quantum physics for the storage,  
21 transmission, manipulation, computing, or measure-  
22 ment of information.

23 **SEC. 3. DEPARTMENT OF STATE INTERNATIONAL QUAN-**  
24 **TUM COOPERATION PROGRAM.**

25 (a) ~~IN GENERAL.~~—The Secretary of State shall es-  
26 tablish and carry out a program—

(1) to enhance international cooperation in quantum information science through the competitive award of matching grants to institutions of higher education or eligible nonprofit organizations (or consortia thereof) engaged in international collaborative research; and

(2) to support international scientist exchange programs, including exchange programs that vary in length from multi-day to multi-year visits.

10        ~~(b) PROGRAM ALIGNMENT.—~~

(1) COORDINATION.—In carrying out the program under subsection (a), the Secretary of State shall coordinate with—

14                   (A) the Director of the Office of Science  
15                   and Technology Policy;

16 (B) the Director of the National Quantum  
17 Coordination Office (established under section  
18 102(a) of the National Quantum Initiative Act  
19 (15 U.S.C. 8812(a)));

(C) the Co-Chairs of the Subcommittee on Quantum Information Science of the National Science and Technology Council (established under section 103(a) of the National Quantum Initiative Act (15 U.S.C. 8813(a)); and

1           ~~(D) the Co-Chairs of the Subcommittee on~~  
2           ~~the Economic and Security Implications of~~  
3           ~~Quantum Information Science of the National~~  
4           ~~Science and Technology Council (established~~  
5           ~~under section 105(a) of the National Quantum~~  
6           ~~Initiative Act (15 U.S.C. 8814a(a)).~~

7           ~~(2) STRATEGIC ALIGNMENT.—In carrying out~~  
8           ~~the program under subsection (a), the Secretary of~~  
9           ~~State shall—~~

10           ~~(A) ensure alignment with the National~~  
11           ~~Quantum Information Science Strategy; and~~

12           ~~(B) only fund collaborative research pro-~~  
13           ~~grams with countries who have signed quantum~~  
14           ~~cooperation statements with the United States.~~

15           ~~(3) RESEARCH SECURITY.—The activities au-~~  
16           ~~thorized under this section shall be carried out in a~~  
17           ~~manner consistent with the following:~~

18           ~~(A) Subtitle D of title VI of the Research~~  
19           ~~and Development, Competition, and Innovation~~  
20           ~~Act (division B of Public Law 117–167; 42~~  
21           ~~U.S.C. 19231 et seq.).~~

22           ~~(B) National Security Presidential Memo-~~  
23           ~~randum–33 (relating to supported research and~~  
24           ~~development national policy), issued January~~  
25           ~~2021, and its implementation guidance on re-~~

1 search security and research integrity, issued  
2 January 2022, or any successor policy docu-  
3 ment or guidance related to strengthening pro-  
4 tections on research and development, funded  
5 by the Federal Government, against the influ-  
6 ence and exploitation of foreign governments.

7 (e) CONSULTATION.—In developing and operating  
8 the program required under subsection (a), the Secretary  
9 of State shall consult with—

- 10 (1) the appropriate congressional committees;
- 11 (2) the Special Envoy for Critical and Emerg-  
12 ing Technologies;
- 13 (3) United States industry leaders;
- 14 (4) any technology experts the Secretary con-  
15 siderers relevant, including experts from academia;  
16 and
- 17 (5) representatives from any United States  
18 Government agency the Secretary considers relevant.

19 (d) ANNUAL REPORT.—Not later than 2 years after  
20 the date of the enactment of this Act, and annually there-  
21 after, the Secretary shall submit to the appropriate con-  
22 gressional committees a report that contains the following  
23 elements:

- 24 (1) A description of the activities pursued under  
25 the authorities of this section during the prior year.

(2) A list of priority countries with which the Department of State seeks to pursue increased collaboration on quantum information science.

4 (c) ~~AUTHORIZATION OF APPROPRIATIONS.~~—There is  
5 authorized to be appropriated to carry out the program  
6 required by subsection (a) \$20,000,000 for fiscal year  
7 2026.

8 (f) SUNSET.—The authorities under this section shall  
9 terminate on the date that is 10 years after the date of  
10 the enactment of this title.

11 **SECTION 1. SHORT TITLE.**

12        *This Act may be cited as the “International Quantum*  
13 *Research Exchange Act”.*

14 **SEC. 2. DEFINITIONS.**

15      *In this Act:*

16 (1) APPROPRIATE CONGRESSIONAL COMMIT-  
17 TEES.—The term “appropriate congressional commit-  
18 tees” means the following:

19 (A) *The Committee on Foreign Relations of*  
20 *the Senate.*

(B) *The Committee on Foreign Affairs of  
the House of Representatives.*

23 (C) *The Committee on Commerce, Science,*  
24 *and Transportation of the Senate.*

1                   (D) *The Committee on Energy and Com-*  
2                   *merce of the House of Representatives.*

3                   (2) *INSTITUTION OF HIGHER EDUCATION.—The*  
4                   *term “institution of higher education” has the mean-*  
5                   *ing given the term in section 101(a) of the Higher*  
6                   *Education Act of 1965 (20 U.S.C. 1001(a)).*

7                   (3) *QUANTUM INFORMATION SCIENCE.—The term*  
8                   *“quantum information science” means the use of the*  
9                   *laws of quantum physics for the storage, trans-*  
10                  *mission, manipulation, computing, or measurement*  
11                  *of information.*

12 **SEC. 3. DEPARTMENT OF STATE INTERNATIONAL QUANTUM**  
13 **COOPERATION PROGRAM.**

14                  (a) *IN GENERAL.—The Secretary of State shall estab-*  
15                  *lish and carry out a program—*

16                       (1) *to enhance international cooperation in*  
17                       *quantum information science through the competitive*  
18                       *award of matching grants to institutions of higher*  
19                       *education or eligible nonprofit organizations (or con-*  
20                       *sortia thereof) engaged in international collaborative*  
21                       *research; and*

22                       (2) *to support international scientist exchange*  
23                       *programs, including exchange programs that vary in*  
24                       *length from multi-day to multi-year visits.*

25                  (b) *PROGRAM ALIGNMENT.—*

1           (1) *COORDINATION.*—*In carrying out the pro-*  
2           *gram under subsection (a), the Secretary of State*  
3           *shall coordinate with—*

4                     *(A) the Director of the Office of Science and*  
5                     *Technology Policy;*

6                     *(B) the Director of the National Quantum*  
7                     *Coordination Office (established under section*  
8                     *102(a) of the National Quantum Initiative Act*  
9                     *(15 U.S.C. 8812(a));*

10                    *(C) the Co-Chairs of the Subcommittee on*  
11                    *Quantum Information Science of the National*  
12                    *Science and Technology Council (established*  
13                    *under section 103(a) of the National Quantum*  
14                    *Initiative Act (15 U.S.C. 8813(a)); and*

15                    *(D) the Co-Chairs of the Subcommittee on*  
16                    *the Economic and Security Implications of*  
17                    *Quantum Information Science of the National*  
18                    *Science and Technology Council (established*  
19                    *under section 105(a) of the National Quantum*  
20                    *Initiative Act (15 U.S.C. 8814a(a)).*

21           (2) *STRATEGIC ALIGNMENT.*—*In carrying out*  
22           *the program under subsection (a), the Secretary of*  
23           *State—*

24                     *(A) shall—*



1                   (i) ensure alignment with the National  
2                   Quantum Information Science Strategy;  
3                   and

4                   (ii) only fund collaborative research  
5                   programs with—

6                   (I) countries who have signed  
7                   quantum cooperation statements with  
8                   the United States; or

9                   (II) countries that are members of  
10                  the Five Eyes intelligence sharing alli-  
11                  ance; and

12                 (B) may not fund research programs with  
13                 any foreign adversary as defined in section  
14                 825(d) of the National Defense Authorization Act  
15                 for Fiscal Year 2024 (Public Law 118–31; 46  
16                 U.S.C. 50309 note).

17                 (3) RESEARCH SECURITY.—The activities au-  
18                 thorized under this section shall be carried out in a  
19                 manner consistent with the following:

20                 (A) Subtitle D of title VI of the Research  
21                 and Development, Competition, and Innovation  
22                 Act (division B of Public Law 117–167; 42  
23                 U.S.C. 19231 et seq.).

24                 (B) National Security Presidential Memo-  
25                 randum–33 (relating to supported research and

1           *development national policy), issued January*  
2           *2021, and its implementation guidance on re-*  
3           *search security and research integrity, issued*  
4           *January 2022, or any successor policy document*  
5           *or guidance related to strengthening protections*  
6           *on research and development, funded by the Fed-*  
7           *eral Government, against the influence and ex-*  
8           *ploitation of foreign governments.*

9           (c) *CONSULTATION.*—*In developing and operating the*  
10          *program required under subsection (a), the Secretary of*  
11          *State shall consult with—*

- 12                   (1) *the appropriate congressional committees;*  
13                   (2) *the Special Envoy for Critical and Emerging*  
14          *Technologies;*  
15                   (3) *United States industry leaders;*  
16                   (4) *any technology experts the Secretary con-*  
17          *siders relevant, including experts from academia; and*  
18                   (5) *representatives from any United States Gov-*  
19          *ernment agency the Secretary considers relevant.*

20          (d) *ANNUAL REPORT.*—*Not later than 2 years after*  
21          *the date of the enactment of this Act, and annually there-*  
22          *after, the Secretary shall submit to the appropriate congres-*  
23          *sional committees a report that contains the following ele-*  
24          *ments:*

1           (1) *A description of the activities pursued under*  
2           *the authorities of this section during the prior year.*

3           (2) *A list of priority countries with which the*  
4           *Department of State seeks to pursue increased collabo-*  
5           *ration on quantum information science.*

6           (e) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
7           *authorized to be appropriated to carry out the program re-*  
8           *quired by subsection (a) \$20,000,000 for fiscal year 2026.*

9           (f) *SUNSET.—The authorities under this section shall*  
10          *terminate on the date that is 10 years after the date of the*  
11          *enactment of this title.*