

116TH CONGRESS
2D SESSION

S. 3832

To establish a new Directorate for Technology in the redesignated National Science and Technology Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, and innovation, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 21, 2020

Mr. SCHUMER (for himself and Mr. YOUNG) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

A BILL

To establish a new Directorate for Technology in the redesignated National Science and Technology Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, and innovation, and for other purposes.

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 “Endless Frontier Act”.

5 **SEC. 2. FINDINGS.**

6 Congress finds the following:

1 (1) For over 70 years, the United States has
2 been the unequivocal global leader in scientific and
3 technological innovation, and as a result the people
4 of the United States have benefitted through good-
5 paying jobs, economic prosperity, and a higher qual-
6 ity of life. Today, however, this leadership position
7 is being eroded and challenged by foreign competi-
8 tors, some of whom are stealing intellectual property
9 and trade secrets of the United States and aggres-
10 sively investing in fundamental research and com-
11 mercialization to dominate the key technology fields
12 of the future. While the United States once led the
13 world in the share of our economy invested in re-
14 search, our Nation now ranks 9th globally in total
15 research and development and 12th in publicly fi-
16 nanced research and development.

17 (2) Without a significant increase in investment
18 in research, education, technology transfer, and the
19 core strengths of the United States innovation eco-
20 system, it is only a matter of time before the global
21 competitors of the United States overtake the
22 United States in terms of technological primacy. The
23 country that wins the race in key technologies—such
24 as artificial intelligence, quantum computing, ad-

1 vanced communications, and advanced manufac-
2 turing—will be the superpower of the future.

3 (3) The Federal Government must catalyze
4 United States innovation by boosting fundamental
5 research investments focused on discovering, cre-
6 ating, commercializing, and producing new tech-
7 nologies to ensure the leadership of the United
8 States in the industries of the future.

9 (4) The distribution of innovation jobs and in-
10 vestment in the United States has become largely
11 concentrated in just a few locations, while much of
12 the Nation has been left out of growth in the innova-
13 tion sector. More than 90 percent of the Nation’s in-
14 novation sector employment growth in the last 15
15 years was generated in just 5 major cities. The Fed-
16 eral Government must address this imbalance in op-
17 portunity by partnering with the private sector to
18 build new technology hubs across the country,
19 spreading innovation sector jobs more broadly, and
20 tapping the talent and potential of the entire Nation
21 to ensure the United States leads the industries of
22 the future.

23 (5) Since its inception, the National Science
24 Foundation has carried out vital work supporting
25 basic research and people to create knowledge that

1 is a primary driver of the economy of the United
 2 States and enhances the Nation's security.

3 **SEC. 3. NATIONAL SCIENCE AND TECHNOLOGY FOUNDA-**
 4 **TION.**

5 (a) REDESIGNATION OF NATIONAL SCIENCE FOUN-
 6 DATION AS NATIONAL SCIENCE AND TECHNOLOGY FOUN-
 7 DATION.—

8 (1) IN GENERAL.—Section 2 of the Act of May
 9 10, 1950 (64 Stat. 149, chapter 171; 42 U.S.C.
 10 1861), is amended—

11 (A) in the section heading, by inserting
 12 “AND TECHNOLOGY” after “SCIENCE”; and

13 (B) by striking “the National Science
 14 Foundation” and inserting “the National
 15 Science and Technology Foundation”.

16 (2) REFERENCES.—Any reference in any law,
 17 rule, regulation, certificate, directive, instruction, or
 18 other official paper in force on the date of enactment
 19 of this Act to the National Science Foundation shall
 20 be considered to refer and apply to the National
 21 Science and Technology Foundation.

22 (b) ESTABLISHMENT OF DEPUTY DIRECTOR FOR
 23 TECHNOLOGY.—Section 6 of the Act of May 10, 1950 (64
 24 Stat. 149, chapter 171; 42 U.S.C. 1864a), is amended—

1 (1) in the section heading, by striking “DEPUTY
2 DIRECTOR” and inserting “DEPUTY DIRECTORS”;

3 (2) in the first sentence—

4 (A) by striking “a Deputy Director” and
5 inserting “2 Deputy Directors”; and

6 (B) by inserting “and in accordance with
7 the expedited procedures established under S.
8 Res. 116 (112th Congress)” after “the Senate”;

9 (3) in the third sentence, by striking “The Dep-
10 uty Director shall receive” and inserting “Each Dep-
11 uty Director shall receive”;

12 (4) by inserting after the third sentence the fol-
13 lowing: “The Deputy Director for Technology shall
14 oversee, and perform duties relating to, the Direc-
15 torate for Technology of the Foundation, as estab-
16 lished under section 8A, and the Deputy Director for
17 Science shall oversee, and perform duties relating to,
18 the other activities and directorates supported by the
19 Foundation.”; and

20 (5) in the last sentence, by striking “The Dep-
21 uty Director shall act” and inserting “The Deputy
22 Director for Science shall act”.

23 (c) ESTABLISHMENT OF DIRECTORATE FOR TECH-
24 NOLOGY.—The Act of May 10, 1950 (64 Stat. 149, chap-
25 ter 171; 42 U.S.C. 1861 et seq.), is amended—

1 (1) in section 8 (42 U.S.C. 1866), by inserting
 2 at the end the following: “Such divisions shall in-
 3 clude the Directorate for Technology established
 4 under section 8A.”; and

5 (2) by inserting after section 8 the following:

6 **“SEC. 8A. DIRECTORATE FOR TECHNOLOGY.**

7 “(a) DEFINITIONS.—In this section:

8 “(1) DEPUTY DIRECTOR.—The term ‘Deputy
 9 Director’ means the Deputy Director for Tech-
 10 nology.

11 “(2) DESIGNATED COUNTRY.—The term ‘des-
 12 ignated country’ means a country that has been ap-
 13 proved and designated in writing by the President
 14 for purposes of this section, after providing—

15 “(A) not less than 30 days of advance noti-
 16 fication and explanation to the relevant con-
 17 gressional committees before the designation;
 18 and

19 “(B) in-person briefings to such commit-
 20 tees, if requested during the 30-day advance no-
 21 tification period described in subparagraph (A).

22 “(3) DIRECTORATE.—The term ‘Directorate’
 23 means the Directorate for Technology established
 24 under subsection (b).

1 “(4) INSTITUTION OF HIGHER EDUCATION.—

2 The term ‘institution of higher education’ has the
3 meaning given the term in section 101(a) of the
4 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

5 “(5) KEY TECHNOLOGY FOCUS AREAS.—The
6 term ‘key technology focus areas’ means the areas
7 included on the most recent list under subsection
8 (c)(2).

9 “(6) RELEVANT CONGRESSIONAL COMMIT-
10 TEES.—The term ‘relevant congressional commit-
11 tees’ means—

12 “(A) the Committee on Armed Services,
13 the Committee on Commerce, Science, and
14 Transportation, the Committee on Appropria-
15 tions, the Committee on Foreign Relations, and
16 the Select Committee on Intelligence of the
17 Senate; and

18 “(B) the Committee on Armed Services,
19 the Committee on Science, Space, and Tech-
20 nology, the Committee on Appropriations, the
21 Committee on Foreign Affairs, and the Perma-
22 nent Select Committee on Intelligence of the
23 House of Representatives.

24 “(b) ESTABLISHMENT.—

1 “(1) IN GENERAL.—Not later than 90 days
2 after the date of enactment of the Endless Frontier
3 Act, the Director shall establish in the Foundation
4 a Directorate for Technology. The Directorate shall
5 carry out the duties and responsibilities described in
6 this section, in order to further the following goals:

7 “(A) Strengthening the leadership of the
8 United States in critical technologies through
9 fundamental research in the key technology
10 focus areas.

11 “(B) Enhancing the competitiveness of the
12 United States in the key technology focus areas
13 by improving education in the key technology
14 focus areas and attracting more students to
15 such areas.

16 “(C) Consistent with the operations of the
17 Foundation, fostering the economic and societal
18 impact of federally funded research and devel-
19 opment through an accelerated translation of
20 fundamental advances in the key technology
21 focus areas into processes and products that
22 can help achieve national goals related to eco-
23 nomic competitiveness, domestic manufacturing,
24 national security, shared prosperity, energy and

1 the environment, health, education and work-
2 force development, and transportation.

3 “(2) DEPUTY DIRECTOR.—The Directorate
4 shall be headed by the Deputy Director.

5 “(3) ORGANIZATION AND ADMINISTRATIVE
6 MATTERS.—

7 “(A) HIRING AUTHORITY.—

8 “(i) EXPERTS IN SCIENCE AND ENGI-
9 NEERING.—The Director shall have the au-
10 thority to carry out a program of personnel
11 management authority for the Directorate
12 in the same manner, and subject to the
13 same requirements, as the program of per-
14 sonnel management authority authorized
15 for the Director of the Defense Advanced
16 Research Projects Agency under section
17 1599h of title 10, United States Code, for
18 the Defense Advanced Research Projects
19 Agency.

20 “(ii) HIGHLY QUALIFIED EXPERTS IN
21 NEEDED OCCUPATIONS.—In addition to
22 the authority provided under clause (i), the
23 Director shall have the authority to carry
24 out a program of personnel management
25 authority for the Directorate in the same

1 manner, and subject to the same require-
2 ments, as the program to attract highly
3 qualified experts carried out by the Sec-
4 retary of Defense under section 9903 of
5 title 5, United States Code.

6 “(iii) ADDITIONAL HIRING AUTHOR-
7 ITY.—To the extent needed to carry out
8 the duties in paragraph (1), the Director
9 shall utilize hiring authorities under sec-
10 tion 3372 of title 5, United States Code, to
11 staff the Directorate with employees from
12 other Federal agencies, State and local
13 governments, Indian tribes and tribal orga-
14 nizations, institutions of higher education,
15 and other organizations, as described in
16 that section, in the same manner and sub-
17 ject to the same conditions, that apply to
18 such individuals utilized to accomplish
19 other missions of the Foundation.

20 “(B) PROGRAM MANAGERS.—The employ-
21 ees of the Directorate may include program
22 managers for the key technology focus areas,
23 who shall perform a role similar to programs
24 managers employed by the Defense Advanced
25 Research Projects Agency for the oversight and

1 selection of programs supported by the Direc-
2 torate.

3 “(C) SELECTION OF RECIPIENTS.—Recipi-
4 ents of support under the programs and activi-
5 ties of the Directorate shall be selected by pro-
6 gram managers or other employees of the Di-
7 rectorate. The Directorate may use a peer re-
8 view process to inform the decisions of program
9 managers or other employees.

10 “(D) ASSISTANT DIRECTORS.—The Direc-
11 tor may appoint 1 or more Assistant Directors
12 for the Directorate as the Director determines
13 necessary, in the same manner as other Assist-
14 ant Directors of the Foundation are appointed.

15 “(4) REPORT.—Not later than 120 days after
16 the date of enactment of the Endless Frontier Act,
17 the Director shall prepare and submit a report to
18 the relevant congressional committees regarding the
19 establishment of the Directorate.

20 “(c) DUTIES AND FUNCTIONS OF THE DIREC-
21 TORATE.—

22 “(1) DEVELOPMENT OF TECHNOLOGY FOCUS
23 OF THE DIRECTORATE.—The Director, acting
24 through the Deputy Director, shall—

“(A) advance innovation in the key technology focus areas through fundamental research and other activities described in this section; and

“(B) develop and implement strategies to ensure that the activities of the Directorate are directed toward the key technology focus areas in order to accomplish the goals described in subparagraphs (A) through (C) of subsection (b)(1) consistent with the most recent report conducted under section 5(b) of the Endless Frontier Act.

“(2) KEY TECHNOLOGY FOCUS AREAS.—

“(A) INITIAL LIST.—The initial key technology focus areas are—

“(i) artificial intelligence and machine learning;

“(ii) high performance computing, semiconductors, and advanced computer hardware;

“(iii) quantum computing and information systems;

“(iv) robotics, automation, and advanced manufacturing;

1 “(v) natural or anthropogenic disaster
2 prevention;

3 “(vi) advanced communications tech-
4 nology;

5 “(vii) biotechnology, genomics, and
6 synthetic biology;

7 “(viii) cybersecurity, data storage, and
8 data management technologies;

9 “(ix) advanced energy; and

10 “(x) materials science, engineering,
11 and exploration relevant to the other key
12 technology focus areas described in this
13 subparagraph.

14 “(B) REVIEW OF KEY TECHNOLOGY FOCUS
15 AREAS AND SUBSEQUENT LISTS.—

16 “(i) ADDING OR DELETING KEY
17 TECHNOLOGY FOCUS AREAS.—Beginning
18 on the date that is 4 years after the date
19 of enactment of the Endless Frontier Act,
20 and every 4 years thereafter, the Director,
21 acting through the Deputy Director—

22 “(I) shall, in consultation with
23 the Board of Advisors, review the list
24 of key technology focus areas; and

1 “(II) as part of that review, may
2 add or delete key technology focus
3 areas if the competitive threats to the
4 United States have shifted (whether
5 because the United States or other
6 nations have advanced or fallen be-
7 hind in a technological area), subject
8 to clause (ii).

9 “(ii) LIMIT ON KEY TECHNOLOGY
10 FOCUS AREAS.—Not more than 10 key
11 technology focus areas shall be included on
12 the list of key technology focus areas at
13 any time.

14 “(iii) UPDATING FOCUS AREAS AND
15 DISTRIBUTION.—Upon the completion of
16 each review under this subparagraph, the
17 Director shall make the list of key tech-
18 nology focus areas readily available and
19 publish the list in the Federal Register,
20 even if no changes have been made to the
21 prior list.

22 “(3) ACTIVITIES.—

23 “(A) IN GENERAL.—In carrying out the
24 duties and functions of the Directorate, the Di-

1 rector, acting through the Deputy Director,
2 may—

3 “(i) award grants, cooperative agree-
4 ments, and contracts to—

5 “(I) individual institutions of
6 higher education for work at centers
7 or by individual researchers;

8 “(II) not-for-profit entities; and

9 “(III) consortia that—

10 “(aa) shall include and be
11 led by an institution of higher
12 education, and may include 1 or
13 more additional institutions of
14 higher education;

15 “(bb) may include 1 or more
16 entities described in subclause (I)
17 or (II) and, if determined appro-
18 priate by the Director, for-profit
19 entities, including small busi-
20 nesses; and

21 “(cc) may include 1 or more
22 entities described in subclause (I)
23 or (II) from treaty allies and se-
24 curity partners of the United
25 States;

1 “(ii) provide funds to other divisions
2 of the Foundation, including—

3 “(I) to the other directorates of
4 the Foundation to pursue basic ques-
5 tions about natural and physical phe-
6 nomena that could enable advances in
7 the key technology focus areas;

8 “(II) to the Directorate for So-
9 cial, Behavioral, and Economic
10 Sciences to study questions that could
11 affect the design, operation, deploy-
12 ment, or the social and ethical con-
13 sequences of technologies in the key
14 technology focus areas; and

15 “(III) to the Directorate for
16 Education and Human Resources to
17 further the creation of a domestic
18 workforce capable of advancing the
19 key technology focus areas;

20 “(iii) provide funds to other Federal
21 research agencies, including the National
22 Institute of Standards and Technology, for
23 intramural or extramural work in the key
24 technology focus areas;

1 “(iv) make awards under the SBIR
2 and STTR programs (as defined in section
3 9(e) of the Small Business Act (15 U.S.C.
4 638(e)) in the same manner as awards
5 under such programs are made by the Di-
6 rector of the Foundation;

7 “(v) administer prize challenges under
8 section 24 of the Stevenson-Wydler Tech-
9 nology Innovation Act of 1980 (15 U.S.C.
10 3719) in the key technology focus areas, in
11 order to expand public-private partnerships
12 beyond direct research funding; and

13 “(vi) enter into and perform such con-
14 tracts, including cooperative research and
15 development arrangements and grants and
16 cooperative agreements or other trans-
17 actions, as may be necessary in the con-
18 duct of the work of the Directorate and on
19 such terms as the Deputy Director con-
20 siders appropriate, in furtherance of the
21 purposes of this Act.

22 “(B) REPORTS.—Not later than 180 days
23 after the date of enactment of the Endless
24 Frontier Act, the Director shall prepare and
25 submit to the relevant congressional committees

1 a spending plan for the next 5 years for each
2 of the activities described in subparagraph (A),
3 including—

4 “(i) a plan to seek out additional in-
5 vestments from—

6 “(I) certain designated countries;

7 and

8 “(II) if appropriate, private sec-
9 tor entities; and

10 “(ii) the planned activities of the Di-
11 rectorate to secure federally funded science
12 and technology pursuant to section 1746 of
13 the National Defense Authorization Act for
14 Fiscal Year 2020 (Public Law 116–92).

15 “(C) ANNUAL BRIEFING.—Each year, the
16 Director shall formally request a briefing from
17 the Director of the Federal Bureau of Inves-
18 tigation and the Director of the National Coun-
19 terintelligence and Security Center regarding
20 their efforts to preserve the United States ad-
21 vantages generated by the activity of the Direc-
22 torate.

23 “(4) INTERAGENCY COOPERATION.—In carrying
24 out this section, the Director and other Federal re-
25 search agencies shall work cooperatively with each

1 other to further the goals of this section in the key
 2 technology focus areas. Each year, the Director shall
 3 prepare and submit a report to Congress, and shall
 4 simultaneously submit the report to the Director of
 5 the Office of Science and Technology Policy, describ-
 6 ing the interagency cooperation that occurred during
 7 the preceding year pursuant to this paragraph, in-
 8 cluding a list of—

9 “(A) any funds provided under paragraph
 10 (3)(A)(ii) to other divisions of the Foundation;
 11 and

12 “(B) any funds provided under paragraph
 13 (3)(A)(iii) to other Federal research agencies.

14 “(5) PROVIDING SCHOLARSHIPS, FELLOWSHIPS,
 15 AND OTHER STUDENT SUPPORT.—

16 “(A) IN GENERAL.—The Director, acting
 17 through the Directorate, shall fund under-
 18 graduate scholarships, graduate fellowships and
 19 traineeships, and postdoctoral student awards
 20 in the key technology focus areas.

21 “(B) IMPLEMENTATION.—The Director
 22 may carry out subparagraph (A) by providing
 23 funds—

“(i) to the Directorate for Education
and Human Resources of the Foundation
for—

“(I) awards directly to students;
and

“(II) grants or cooperative agree-
ments to institutions of higher edu-
cation, including those institutions in-
volved in operating university tech-
nology centers established under para-
graph (6); and

“(ii) to programs in Federal research
agencies that have experience awarding
such scholarships, fellowships, traineeships,
or postdoctoral awards.

“(C) SUPPLEMENT, NOT SUPPLANT.—The
Director shall ensure that funds made available
under this paragraph shall be used to create ad-
ditional support for postsecondary students and
shall not displace funding for any other avail-
able support.

“(6) UNIVERSITY TECHNOLOGY CENTERS.—

“(A) IN GENERAL.—From amounts made
available to the Directorate, the Director shall,
through a competitive application and selection

1 process, award grants to or enter into coopera-
2 tive agreements with institutions of higher edu-
3 cation or consortia described in paragraph
4 (3)(A)(i)(III) to establish university technology
5 centers.

6 “(B) USES OF FUNDS.—

7 “(i) IN GENERAL.—A center estab-
8 lished under a grant or cooperative agree-
9 ment under subparagraph (A)—

10 “(I) shall use support provided
11 under such subparagraph—

12 “(aa) to carry out funda-
13 mental research to advance inno-
14 vation in the key technology
15 focus areas; and

16 “(bb) to further the develop-
17 ment of innovations in the key
18 technology focus areas, includ-
19 ing—

20 “(AA) innovations de-
21 rived from research carried
22 out under item (aa), through
23 such activities as proof-of-
24 concept development and
25 prototyping, in order to re-

1 duce the cost, time, and risk
2 of commercializing new tech-
3 nologies; and

4 “(BB) through the use
5 of public-private partner-
6 ships; and

7 “(II) may use support provided
8 under such subparagraph—

9 “(aa) for the costs of equip-
10 ment, including mid-tier infra-
11 structure, and the purchase of
12 cyberinfrastructure resources, in-
13 cluding computer time; or

14 “(bb) for other activities or
15 costs necessary to accomplish the
16 purposes of this section.

17 “(ii) SUPPORT OF REGIONAL TECH-
18 NOLOGY HUBS.—Each center established
19 under subparagraph (A) may support and
20 participate in, as appropriate, the activities
21 of any regional technology hub designated
22 under section 27(d) of the Stevenson-
23 Wydler Technology Innovation Act of 1980
24 (15 U.S.C. 3722(d)).

1 “(C) REQUIREMENTS.—The Director shall
 2 ensure that any institution of higher education
 3 or consortium receiving a grant or cooperative
 4 agreement under subparagraph (A) has dem-
 5 onstrated an ability to advance the goals de-
 6 scribed in subsection (b)(1).

7 “(7) MOVING TECHNOLOGY FROM LABORATORY
 8 TO MARKET.—

9 “(A) PROGRAM AUTHORIZED.—The Direc-
 10 tor shall establish a program in the Directorate
 11 to award grants, on a competitive basis, to in-
 12 stitutions of higher education or consortia de-
 13 scribed in paragraph (3)(A)(i)(III)—

14 “(i) to build capacity at an institution
 15 of higher education and in its surrounding
 16 region to increase the likelihood that new
 17 technologies in the key technology focus
 18 areas will succeed in the commercial mar-
 19 ket; and

20 “(ii) with the goal of promoting ex-
 21 periments with a range of models that in-
 22 stitutions of higher education could use
 23 to—

24 “(I) enable new technologies to
 25 mature to the point where the tech-

nologies are more likely to succeed in
the commercial market; and

“(II) reduce the risks to commercial success for new technologies earlier in their development.

A grant awarded under this subparagraph for a purpose described in clause (i) or (ii) may also enable the institution of higher education or consortium to provide training and support to scientists and engineers who are interested in research and commercialization, if the use is included in the proposal submitted under subparagraph (B).

“(B) PROPOSALS.—An institution of higher education or consortium desiring a grant under this paragraph shall submit a proposal to the Director at such time, in such manner, and containing such information as the Director may require. The proposal shall include a description of—

“(i) the steps the applicant will take to reduce the risks for commercialization for new technologies;

“(ii) why such steps are likely to be effective; and

1 “(iii) how such steps differ from pre-
2 vious efforts to reduce the risks for com-
3 mercialization for new technologies.

4 “(C) USE OF FUNDS.—A recipient of a
5 grant under this paragraph shall use grant
6 funds to reduce the risks for commercialization
7 for new technologies developed on campus,
8 which may include—

9 “(i) creating and funding competitions
10 to allow entrepreneurial ideas from institu-
11 tions of higher education to illustrate their
12 commercialization potential;

13 “(ii) facilitating mentorships between
14 local and national business leaders and po-
15 tential entrepreneurs to encourage success-
16 ful commercialization;

17 “(iii) creating and funding for-profit
18 or not-for-profit entities that could enable
19 researchers at institutions of higher edu-
20 cation to further develop new technology
21 prior to seeking commercial financing,
22 through patient funding, advice, staff sup-
23 port, or other means;

1 “(iv) providing off-campus facilities
2 for start-up companies where technology
3 maturation could occur; and

4 “(v) revising institution policies to ac-
5 complish the goals of this paragraph.

6 “(8) TEST BEDS.—

7 “(A) PROGRAM AUTHORIZED.—The Direc-
8 tor, acting through the Deputy Director, shall
9 establish a program in the Directorate to award
10 grants, on a competitive basis, to institutions of
11 higher education or consortia described in para-
12 graph (3)(A)(i)(III) to establish test beds and
13 fabrication facilities to advance the operation,
14 integration and, as appropriate, manufacturing
15 of new, innovative technologies in the key tech-
16 nology focus areas, which may include hardware
17 or software. The goal of such test beds and fa-
18 cilities shall be to accelerate the movement of
19 innovative technologies into the commercial
20 market through existing and new companies.

21 “(B) PROPOSALS.—A proposal submitted
22 under this paragraph shall, at a minimum, de-
23 scribe—

1 “(i)(I) the 1 or more technologies that
2 will be the focus of the test bed or fabrica-
3 tion facility;

4 “(II) the goals of the work to be done
5 at the test bed or facility; and

6 “(III) the expected schedule for com-
7 pleting that work;

8 “(ii) how the applicant will assemble a
9 workforce with the skills needed to operate
10 the test bed or facility;

11 “(iii) how the applicant will ensure
12 that work in the test bed or facility will
13 contribute to the commercial viability of
14 any technologies, which may include col-
15 laboration and funding from industry part-
16 ners;

17 “(iv) how the applicant will encourage
18 the participation of entrepreneurs and the
19 development of new businesses; and

20 “(v) how the test bed or facility will
21 operate after Federal funding has ended.

22 “(C) AWARDS.—Grants made under this
23 paragraph—

24 “(i) shall be for 5 years, with the pos-
25 sibility of one 3-year extension; and

1 “(ii) may be used for the purchase of
2 equipment, the support of graduate stu-
3 dents and postdoctoral researchers, and
4 the salaries of staff.

5 “(D) REQUIREMENTS.—As a condition of
6 receiving a grant under this paragraph, an in-
7 stitution of higher education or consortium
8 shall publish and share with the public the re-
9 sults of the work conducted under this para-
10 graph.

11 “(9) INAPPLICABILITY.—Section 5(e)(1) shall
12 not apply to grants, contracts, or other arrange-
13 ments made under this section.

14 “(d) BOARD OF ADVISORS.—

15 “(1) IN GENERAL.—There is established in the
16 Foundation a Board of Advisors for the Directorate
17 (referred to in this section as the ‘Board of Advi-
18 sors’), which shall provide advice to the Deputy Di-
19 rector pursuant to this subsection. The Board of Ad-
20 visors shall not have any decision-making authority.

21 “(2) MEMBERSHIP.—

22 “(A) COMPOSITION.—The Board of Advi-
23 sors shall be comprised of 12 members rep-
24 resenting scientific leaders and experts from in-
25 dustry and academia, of whom—

1 “(i) two shall be appointed by the ma-
2 jority leader of the Senate;

3 “(ii) two shall be appointed by the mi-
4 nority leader of the Senate;

5 “(iii) two shall be appointed by the
6 Speaker of the House of Representatives;

7 “(iv) two shall be appointed by the
8 minority leader of the House of Represent-
9 atives; and

10 “(v) four shall be appointed by the
11 Director.

12 “(B) OPPORTUNITY FOR INPUT.—Before
13 appointing any member under subparagraph
14 (A), the appointing authority shall provide an
15 opportunity for the National Academies of
16 Sciences, Engineering, and Medicine and other
17 entities to provide advice regarding potential
18 appointees.

19 “(C) QUALIFICATIONS.—

20 “(i) IN GENERAL.—Each member ap-
21 pointed under subparagraph (A) shall—

22 “(I) have extensive experience in
23 a field related to the work of the Di-
24 rectorate or other expertise relevant to
25 developing technology roadmaps; and

1 “(II) have, or be able to obtain
2 within a reasonable period of time, a
3 security clearance appropriate for the
4 work of the Board of Advisors.

5 “(ii) EXPEDITED SECURITY CLEAR-
6 ANCES.—The process of obtaining a secu-
7 rity clearance under clause (i)(II) may be
8 expedited by the head of the appropriate
9 Federal agency to enable the Board to re-
10 ceive classified briefings on the current and
11 future technological capacity of other na-
12 tions, and on the military implications of
13 civilian technologies.

14 “(D) DATE.—The appointments of the
15 members of the Board of Advisors shall be
16 made not later than 90 days after the date of
17 enactment of the Endless Frontier Act.

18 “(3) PERIOD OF APPOINTMENT; VACANCIES.—

19 “(A) IN GENERAL.—A member of the
20 Board of Advisors shall be appointed for a 3-
21 year term, except that the Deputy Director
22 shall adjust the terms for the first members of
23 the Board of Advisors so that, within each ap-
24 pointment category described in clauses (i)

1 through (v) of paragraph (2)(A), the terms ex-
 2 pire on a staggered basis.

3 “(B) TERM LIMITS.—A member of the
 4 Board of Advisors shall not serve for more than
 5 2 full consecutive terms.

6 “(C) VACANCIES.—Any vacancy in the
 7 Board of Advisors—

8 “(i) shall not affect the powers of the
 9 Board of Advisors; and

10 “(ii) shall be filled in the same man-
 11 ner as the original appointment.

12 “(4) CHAIRPERSON.—The members of the
 13 Board of Advisors shall elect 1 member to serve as
 14 the chairperson of the Board of Advisors.

15 “(5) MEETINGS.—

16 “(A) INITIAL MEETING.—Not later than
 17 180 days after the date of enactment of the
 18 Endless Frontier Act, the Board of Advisors
 19 shall hold the first meeting of the Board of Ad-
 20 visors.

21 “(B) ADDITIONAL MEETINGS.—After the
 22 first meeting of the Board of Advisors, the
 23 Board of Advisors shall meet upon the call of
 24 the chairperson or of the Director, and at least

1 once every 180 days for the duration of the
2 Board of Advisors.

3 “(C) MEETING WITH THE NATIONAL
4 SCIENCE BOARD.—The Board of Advisors shall
5 hold a joint meeting with the National Science
6 Board on at least an annual basis, on a date
7 mutually selected by the chairperson of the
8 Board of Advisors and the Chairman of the Na-
9 tional Science Board.

10 “(D) QUORUM.—A majority of the mem-
11 bers of the Board of Advisors shall constitute a
12 quorum, but a lesser number of members may
13 hold hearings.

14 “(6) DUTIES OF BOARD OF ADVISORS.—

15 “(A) IN GENERAL.—The Board of Advi-
16 sors shall provide advice—

17 “(i) to the Deputy Director on pro-
18 grams that could best be carried out to ac-
19 complish the purposes of this section;

20 “(ii) to the Deputy Director to inform
21 the reviews of key technology focus areas
22 required under subsection (c)(2)(B); and

23 “(iii) on other issues relating to the
24 purposes and responsibilities of the Direc-

1 torate, as requested by the Deputy Direc-
2 tor.

3 “(B) NO ROLE IN AWARDING GRANTS,
4 CONTRACTS, OR COOPERATIVE AGREEMENTS.—
5 The Board of Advisors shall not provide advice
6 on or otherwise help determine what entities
7 shall receive grants, contracts, or cooperative
8 agreements under this Act.

9 “(7) POWERS OF BOARD OF ADVISORS.—

10 “(A) HEARINGS.—The Board of Advisors
11 may hold public or private hearings, sit and act
12 at such times and places, take such testimony
13 and receive such evidence (including classified
14 testimony and evidence), and administer such
15 oaths as may be necessary to carry out the
16 functions of the Board of Advisors under para-
17 graph (6).

18 “(B) INFORMATION FROM FEDERAL AGEN-
19 CIES.—

20 “(i) IN GENERAL.—Each Federal de-
21 partment or agency shall, in accordance
22 with applicable procedures for the handling
23 of classified information, provide reason-
24 able access to documents, statistical data,
25 and other such information that the Dep-

uty Director, in consultation with the chairperson of the Board of Advisors, determines necessary to carry out its functions under paragraph (6).

“(ii) OBTAINING CLASSIFIED INFORMATION.—If the Board of Advisors, acting through the chairperson, seeks classified information from a Federal department or agency, the Deputy Director shall submit a written request to the head of the Federal department or agency for access to classified documents and statistical data, and other classified information described in clause (i), that is under the control of such agency.

“(C) FINANCIAL DISCLOSURE REPORTS.—Each member of the Board of Advisors shall be required to file a financial disclosure report under title I of the Ethics in Government Act of 1978, except that such reports shall be held confidential and exempt from any law otherwise requiring their public disclosure.

“(8) BOARD OF ADVISORS PERSONNEL AND OPERATIONAL MATTERS.—

“(A) COMPENSATION OF MEMBERS.—

1 “(i) IN GENERAL.—A member of the
2 Board of Advisors shall be compensated at
3 a rate equal to the daily equivalent of the
4 annual rate of basic pay prescribed for
5 level IV of the Executive Schedule under
6 section 5315 of title 5, United States
7 Code, for each day (including travel time)
8 during which the member is engaged in the
9 performance of the duties of the Board of
10 Advisors.

11 “(ii) NO FEDERAL EMPLOYEE MEM-
12 BERS.—No member of the Board of Advi-
13 sors may be an officer or employee of the
14 United States during the member’s term
15 on the Board of Advisors.

16 “(B) TRAVEL EXPENSES.—A member of
17 the Board of Advisors shall be allowed travel
18 expenses, including per diem in lieu of subsist-
19 ence, at rates authorized for employees of agen-
20 cies under subchapter I of chapter 57 of title 5,
21 United States Code, while away from their
22 home or regular places of business in the per-
23 formance of services for the Board of Advisors.

24 “(C) STAFF.—The Deputy Director, in
25 consultation with the chairperson of the Board

1 of Advisors, shall assign an employee of the
2 Foundation to serve as an executive director for
3 the Board of Advisors.

4 “(D) GOVERNMENT EMPLOYEES.—

5 “(i) IN GENERAL.—Any Federal Gov-
6 ernment employee may be detailed to the
7 Board of Advisors without reimbursement,
8 and such detail shall be without interrup-
9 tion or loss of civil service status or privi-
10 lege.

11 “(ii) EMPLOYEES OF THE LEGISLA-
12 TIVE BRANCH.—The Deputy Director shall
13 establish procedures and policies to enable
14 an employee of an office, agency, or other
15 entity in the legislative branch of the Gov-
16 ernment to support the activities of the
17 Board of Advisors.

18 “(E) PROCUREMENT OF TEMPORARY AND
19 INTERMITTENT SERVICES.—The chairperson of
20 the Board of Advisors, with approval from the
21 Deputy Director, may procure temporary and
22 intermittent services under section 3109(b) of
23 title 5, United States Code, at rates for individ-
24 uals which do not exceed the daily equivalent of
25 the annual rate of basic pay prescribed for level

1 V of the Executive Schedule under section 5316
2 of that title.

3 “(F) ASSISTANCE FROM FEDERAL AGEN-
4 CIES.—A Federal department or agency may
5 provide to the Board of Advisors such services,
6 funds, facilities, staff, and other support serv-
7 ices as the department or agency may deter-
8 mine advisable and as may be authorized by
9 law.

10 “(9) PERMANENT BOARD.—Section 14 of the
11 Federal Advisory Committee Act (5 U.S.C. App.)
12 shall not apply to the Board of Advisors.

13 “(e) AREAS OF FUNDING SUPPORT.—Subject to the
14 availability of funds under subsection (f), the Director
15 shall, for each fiscal year, use—

16 “(1) not less than 35 percent of funds provided
17 to the Directorate for such year to carry out sub-
18 section (c)(6);

19 “(2) not less than 15 percent of such funds to
20 carry out subsection (c)(5) with the goal of award-
21 ing, across the key technology focus areas—

22 “(A) not fewer than 1,000 post-doctorate
23 fellowships;

24 “(B) not fewer than 2,000 graduate fellow-
25 ships and traineeships;

1 “(C) not fewer than 1,000 undergraduate
2 scholarships; and

3 “(D) if funds remain after carrying out
4 subparagraphs (A) through (C), grants to insti-
5 tutions of higher education to enable the insti-
6 tutions to fund the development and establish-
7 ment of new or specialized courses of education
8 for graduate, undergraduate, or technical col-
9 lege students;

10 “(3) not less than 5 percent of such funds to
11 carry out subsection (c)(7);

12 “(4) not less than 10 percent of such funds to
13 carry out subsection (c)(8) by establishing and
14 equipping test beds and fabrication facilities; and

15 “(5) not less than 15 percent of such funds to
16 carry out research and related activities pursuant to
17 subclauses (I) and (II) of subsection (c)(3)(A)(ii).

18 “(f) AUTHORIZATION OF APPROPRIATIONS.—

19 “(1) IN GENERAL.—There are authorized to be
20 appropriated for the Directorate, in addition to any
21 other funds made available to the Directorate, a
22 total of \$100,000,000,000 for fiscal years 2021
23 through 2025, of which—

24 “(A) \$2,000,000,000 is authorized for fis-
25 cal year 2021;

1 “(B) \$8,000,000,000 is authorized for fis-
2 cal year 2022;

3 “(C) \$20,000,000,000 is authorized for fis-
4 cal year 2023;

5 “(D) \$35,000,000,000 is authorized for
6 fiscal year 2024; and

7 “(E) \$35,000,000,000 is authorized for
8 fiscal year 2025.

9 “(2) APPROPRIATIONS LIMITATIONS.—

10 “(A) HOLD HARMLESS.—No funds shall be
11 appropriated to the Directorate or to carry out
12 this section for any fiscal year in which the
13 total amount appropriated to the Foundation
14 (not including amounts appropriated for the Di-
15 rectorate) is less than the total amount appro-
16 priated to the Foundation (not including such
17 amounts), adjusted by the rate of inflation, for
18 the previous fiscal year.

19 “(B) NO TRANSFER OF FUNDS.—The Di-
20 rector shall not transfer any funds appropriated
21 to any other directorate or office of the Foun-
22 dation to the Directorate.”.

23 (d) ANNUAL REPORT ON UNFUNDED PRIORITIES.—

24 (1) ANNUAL REPORT.—Not later than 10 days
25 after the date on which the budget of the President

1 for a fiscal year is submitted to Congress pursuant
 2 to section 1105 of title 31, United States Code, the
 3 Director shall submit to the President and to Con-
 4 gress a report on the unfunded priorities of the Na-
 5 tional Science and Technology Foundation.

6 (2) ELEMENTS.—Each report submitted under
 7 paragraph (1) shall provide—

8 (A) for each directorate of the National
 9 Science Foundation for the most recent, fully
 10 completed fiscal year—

11 (i) the proposal success rate;

12 (ii) the percentage of proposals that
 13 were not funded and that met the criteria
 14 for funding; and

15 (iii) the most promising research
 16 areas covered by proposals described in
 17 clause (ii); and

18 (B) a list, in order of priority, of the next
 19 activities that should be undertaken in the
 20 Major Research Equipment and Facilities Con-
 21 struction account.

22 **SEC. 4. REGIONAL TECHNOLOGY HUB PROGRAM.**

23 (a) DEFINITIONS.—

24 (1) KEY TECHNOLOGY FOCUS AREAS.—Sub-
 25 section (a) of section 27 of the Stevenson-Wydler

1 Technology Innovation Act of 1980 (15 U.S.C.
2 3722) is amended—

3 (A) by redesignating paragraphs (2)
4 through (4) as paragraphs (3) through (5), re-
5 spectively; and

6 (B) by inserting after paragraph (1) the
7 following:

8 “(2) KEY TECHNOLOGY FOCUS AREAS.—The
9 term ‘key technology focus areas’ means the areas
10 included on the most recent list under section
11 8A(c)(2) of the Act of May 10, 1950 (64 Stat. 149,
12 chapter 171; 42 U.S.C. 1861 et seq.).”.

13 (2) VENTURE DEVELOPMENT ORGANIZA-
14 TIONS.—Paragraph (5) of such subsection, as redes-
15 ignated by paragraph (1) of this subsection, is
16 amended by striking “purposes of” and all that fol-
17 lows through the period at the end and inserting the
18 following: “purposes of—

19 “(A) accelerating the commercialization of
20 research;

21 “(B) strengthening the competitive posi-
22 tion of industry through the development, com-
23 mercial adoption, or deployment of technology;
24 and

1 “(C) providing financial grants, loans, or
 2 direct financial investment to commercialize
 3 technology.”.

4 (b) DESIGNATION OF AND SUPPORT FOR REGIONAL
 5 TECHNOLOGY HUBS AS PART OF REGIONAL INNOVATION
 6 PROGRAM OF DEPARTMENT OF COMMERCE.—

7 (1) IN GENERAL.—Such section is amended—

8 (A) by redesignating subsections (d)
 9 through (h) as subsections (e) through (i), re-
 10 spectively; and

11 (B) by inserting after subsection (c) the
 12 following:

13 “(d) DESIGNATION OF AND GRANTS IN SUPPORT OF
 14 REGIONAL TECHNOLOGY HUBS.—

15 “(1) PROGRAM REQUIRED.—

16 “(A) IN GENERAL.—As part of the pro-
 17 gram established under subsection (b), the Sec-
 18 retary shall carry out a program—

19 “(i) to designate eligible consortia as
 20 regional technology hubs that create the
 21 conditions, within a region, to facilitate ac-
 22 tivities that—

23 “(I) enable United States leader-
 24 ship in a key technology focus area,
 25 complementing the Federal research

1 and development investments under
 2 section 8A of the Act of May 10,
 3 1950 (64 Stat. 149, chapter 171; 42
 4 U.S.C. 1861 et seq.); and

5 “(II) support regional economic
 6 development that diffuses innovation
 7 capacity around the United States,
 8 enabling better broad-based growth
 9 and competitiveness in key technology
 10 focus areas; and

11 “(ii) to support regional technology
 12 hubs designated under clause (i).

13 “(B) ELIGIBLE CONSORTIA.—For purposes
 14 of this section, an eligible consortium is a con-
 15 sortium that—

16 “(i) includes—

17 “(I) an institution of higher edu-
 18 cation;

19 “(II) a local or Tribal govern-
 20 ment or other political subdivision of
 21 a State;

22 “(III) a government of a State or
 23 the economic development representa-
 24 tive of a State; and

1 “(IV) an economic development
2 organization or similar entity that is
3 focused primarily on improving
4 science, technology, innovation, or en-
5 trepreneurship; and
6 “(ii) may include 1 or more—
7 “(I) nonprofit entities with rel-
8 evant expertise;
9 “(II) venture development orga-
10 nizations;
11 “(III) financial institutions;
12 “(IV) educational institutions, in-
13 cluding career and technical education
14 schools;
15 “(V) workforce training organiza-
16 tions;
17 “(VI) industry associations;
18 “(VII) firms in the key tech-
19 nology focus areas;
20 “(VIII) Federal laboratories;
21 “(IX) Centers (as defined in sec-
22 tion 25(a) of the National Institute of
23 Standards and Technology Act (15
24 U.S.C. 278k(a)));

1 “(X) Manufacturing USA insti-
 2 tutes (as described in section 34(d) of
 3 the National Institute of Standards
 4 and Technology Act (15 U.S.C.
 5 278s(d))); and

6 “(XI) institutions receiving an
 7 award under paragraph (6) or (7) of
 8 section 8A(c) of the Act of May 10,
 9 1950 (64 Stat. 149, chapter 171; 42
 10 U.S.C. 1861 et seq.).

11 “(C) ADMINISTRATION.—The Secretary
 12 shall carry out this subsection through the As-
 13 sistant Secretary of Commerce for Economic
 14 Development and the Under Secretary of Com-
 15 merce for Standards and Technology, jointly.

16 “(2) DESIGNATION OF REGIONAL TECHNOLOGY
 17 HUBS.—

18 “(A) IN GENERAL.—The Secretary shall
 19 use a competitive process for the designation of
 20 regional technology hubs under paragraph
 21 (1)(A)(i).

22 “(B) NUMBER OF REGIONAL TECHNOLOGY
 23 HUBS.—During the 5-year period beginning on
 24 the date of the enactment of the Endless Fron-
 25 tier Act, the Secretary shall designate not fewer

1 than 10 and not more than 15 eligible consortia
2 as regional technology hubs under paragraph
3 (1)(A)(i).

4 “(C) GEOGRAPHIC DISTRIBUTION.—In
5 conducting the competitive process under sub-
6 paragraph (A), the Secretary shall ensure geo-
7 graphic distribution in the designation of re-
8 gional technology hubs—

9 “(i) aiming to designate regional tech-
10 nology hubs in as many regions of the
11 United States as possible; and

12 “(ii) focusing on localities that have
13 clear potential and relevant assets for de-
14 veloping a key technology focus area but
15 have not yet become leading technology
16 centers.

17 “(3) GRANTS.—

18 “(A) IN GENERAL.—The Secretary shall
19 carry out clause (ii) of paragraph (1)(A)
20 through the award of grants to eligible con-
21 sortia designated under clause (i) of such para-
22 graph.

23 “(B) TERM.—Each grant awarded under
24 subparagraph (A) shall be for a period of 5

1 years, but may be renewed once for an addi-
2 tional period of 5 years.

3 “(C) MATCHING REQUIRED.—The total
4 Federal financial assistance awarded in a given
5 year to an eligible consortium in support of the
6 eligible consortium’s operation as a regional
7 technology hub under this subsection shall not
8 exceed amounts as follows:

9 “(i) In fiscal year 2021, 90 percent of
10 the total funding of the regional technology
11 hub in that fiscal year.

12 “(ii) In fiscal year 2022, 85 percent
13 of the total funding of the regional tech-
14 nology hub in that fiscal year.

15 “(iii) In fiscal year 2023, 80 percent
16 of the total funding of the regional tech-
17 nology hub in that fiscal year.

18 “(iv) In fiscal year 2024 and in each
19 fiscal year thereafter, 75 percent of the
20 total funding of the regional technology
21 hub in that fiscal year.

22 “(D) USE OF GRANT FUNDS.—The recipi-
23 ent of a grant awarded under subparagraph (A)
24 shall use the grant for multiple activities deter-

1 mined appropriate by the Secretary, includ-
2 ing—

3 “(i) the permissible activities set forth
4 under subsection (c)(2); and

5 “(ii) activities in support of key tech-
6 nology focus areas—

7 “(I) to develop the region’s
8 skilled workforce through the training
9 and retraining of workers and align-
10 ment of career technical training and
11 educational programs in the region’s
12 elementary and secondary schools and
13 institutions of higher education;

14 “(II) to develop regional strate-
15 gies for infrastructure improvements
16 and site development in support of the
17 regional technology hub’s plans and
18 programs;

19 “(III) to support business activ-
20 ity that develops the domestic supply
21 chain and encourages the creation of
22 new business entities;

23 “(IV) to attract new private,
24 public, and philanthropic investment
25 in the region for developing innovation

1 capacity, including establishing re-
2 gional venture and loan funds for fi-
3 nancing technology commercialization,
4 new business formation, and business
5 expansions;

6 “(V) to further the development
7 of innovations in the key technology
8 focus areas, including innovations de-
9 rived from research conducted at in-
10 stitutions of higher education or other
11 research entities, including research
12 conducted by 1 or more university
13 technology centers established under
14 section 8A(c)(6) of the Act of May 10,
15 1950 (64 Stat. 149, chapter 171; 42
16 U.S.C. 1861 et seq.), through activi-
17 ties that may include—

18 “(aa) proof-of-concept devel-
19 opment and prototyping;

20 “(bb) public-private partner-
21 ships in order to reduce the cost,
22 time, and risk of commercializing
23 new technologies;

24 “(cc) creating and funding
25 competitions to allow entrepre-

1 neurial ideas from institutions of
2 higher education to illustrate
3 their commercialization potential;

4 “(dd) facilitating mentor-
5 ships between local and national
6 business leaders and potential en-
7 trepreneurs to encourage success-
8 ful commercialization;

9 “(ee) creating and funding
10 for-profit or not-for-profit entities
11 that could enable researchers at
12 institutions of higher education
13 and other research entities to
14 further develop new technology
15 prior to seeking commercial fi-
16 nancing, through patient funding,
17 advice, staff support, or other
18 means; and

19 “(ff) providing facilities for
20 start-up companies where tech-
21 nology maturation could occur;
22 and

23 “(VI) to carry out such other ac-
24 tivities as the Secretary considers ap-
25 propriate to improve United States

1 competitiveness and regional economic
2 development to support a key tech-
3 nology focus area and that would fur-
4 ther the purposes of the Endless
5 Frontiers Act.

6 “(4) APPLICATIONS.—

7 “(A) IN GENERAL.—An eligible consortium
8 seeking designation as a regional technology
9 hub under clause (i) of paragraph (1)(A) and
10 support under clause (ii) of such paragraph
11 shall submit to the Secretary an application
12 therefor at such time, in such manner, and con-
13 taining such information as the Secretary may
14 specify.

15 “(B) CONSULTATION WITH NATIONAL
16 SCIENCE FOUNDATION UNIVERSITY TECH-
17 NOLOGY CENTERS.—In preparing an applica-
18 tion for submittal under subparagraph (A), an
19 applicant shall, to the extent practicable, con-
20 sult with one or more university technology cen-
21 ters established under section 8A(c)(6) of the
22 Act of May 10, 1950 (64 Stat. 149, chapter
23 171; 42 U.S.C. 1861 et seq.), that are either
24 geographically relevant or are conducting re-
25 search on relevant key technology focus areas.

1 “(5) CONSIDERATIONS FOR DESIGNATION AND
2 GRANT AWARDS.—In selecting an eligible consortium
3 that submitted an application under paragraph
4 (4)(A) for designation and support under paragraph
5 (1)(A), the Secretary shall consider, at a minimum,
6 the following:

7 “(A) The potential of the eligible consor-
8 tium to advance the development of new tech-
9 nologies in a key technology focus area.

10 “(B) The likelihood of positive regional
11 economic effect, including increasing the num-
12 ber of high wage jobs, and creating new eco-
13 nomic opportunities for economically disadvan-
14 taged populations.

15 “(C) How the eligible consortium plans to
16 integrate with and leverage the resources of one
17 or more university technology centers estab-
18 lished under section 8A(c)(6) of the Act of May
19 10, 1950 (64 Stat. 149, chapter 171; 42 U.S.C.
20 1861 et seq.), in a related key technology focus
21 area.

22 “(D) How the eligible consortium will en-
23 gage with the private sector, including small-
24 and medium-sized enterprises to commercialize
25 new technologies and develop new supply chains

1 in the United States in a key technology focus
2 area.

3 “(E) How the eligible consortium will
4 carry out workforce development and skills ac-
5 quisition programming, including through the
6 use of apprenticeships, mentorships, and other
7 related activities authorized by the Secretary, to
8 support the development of a key technology
9 focus area.

10 “(F) How the eligible consortium will im-
11 prove science, technology, engineering, and
12 mathematics education programs in the identi-
13 fied region in elementary and secondary school
14 and higher education institutions located in the
15 identified region to support the development of
16 a key technology focus area.

17 “(G) How the eligible consortium plans to
18 develop partnerships with venture development
19 organizations and sources of private investment
20 in support of private sector activity, including
21 launching new or expanding existing companies,
22 in a key technology focus area.

23 “(H) How the eligible consortium plans to
24 organize the activities of regional partners in
25 the public, private, and philanthropic sectors in

support of the proposed regional technology hub, including the development of necessary infrastructure improvements and site preparation.

“(I) How the eligible consortium plans to address economic inclusion, including ensuring that skill development, entrepreneurial assistance, and other activities focus on economically disadvantaged populations.

“(6) COORDINATION WITH NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY PROGRAMS.—

“(A) DEFINITIONS.—In this paragraph:

“(i) MANUFACTURING EXTENSION CENTER.—The term ‘manufacturing extension center’ has the meaning given the term ‘Center’ in section 25(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(a)).

“(ii) MANUFACTURING USA INSTITUTE.—The term ‘Manufacturing USA institute’ means a Manufacturing USA institute described in section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d)).

1 “(B) COORDINATION REQUIRED.—The
2 Secretary shall coordinate the activities of re-
3 gional technology hubs designated under this
4 subsection, the Hollings Manufacturing Extension
5 Partnership, and the Manufacturing USA
6 Program with each other to the degree that
7 doing so does not diminish the effectiveness of
8 the ongoing activities of a manufacturing extension
9 center or a Manufacturing USA institute.

10 “(C) CONDITION OF SUPPORT.—In order
11 to coordinate activities under subparagraph
12 (B), the Secretary may condition the award of
13 a grant or support under this subsection or section
14 25 or 34 of the National Institute of
15 Standards and Technology Act (15 U.S.C. 278k
16 and 278s) upon submittal to the coordination
17 efforts of the Secretary under subparagraph
18 (B) of this paragraph.

19 “(D) ELEMENTS.—Coordination by the
20 Secretary under subparagraph (B) may include
21 the following:

22 “(i) The alignment of activities of the
23 Hollings Manufacturing Extension Part-
24 nership with the activities of regional tech-

nology hubs designated under this subsection, if applicable.

“(ii) The alignment of activities of the Manufacturing USA Program and the Manufacturing USA institutes with the activities of regional technology hubs designated under this subsection, if applicable.

“(7) INTERAGENCY COLLABORATION.—In assisting regional technology hubs designated under paragraph (1)(A)(i), the Secretary—

“(A) shall collaborate with Federal departments and agencies whose missions contribute to the goals of the regional technology hub;

“(B) may accept funds from other Federal agencies to support grants and activities under this subsection; and

“(C) may establish interagency agreements with other Federal departments or agencies to provide preferential consideration for financial or technical assistance to a regional technology hub designated under this subsection if all applicable requirements for the financial or technical assistance are met.

“(8) PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.—

1 “(A) METRICS, STANDARDS, AND ASSESS-
2 MENT.—For each grant awarded under para-
3 graph (3) for a regional technology hub, the
4 Secretary shall—

5 “(i) develop metrics to assess the ef-
6 fectiveness of the activities funded in mak-
7 ing progress toward the purposes set forth
8 under paragraph (1)(A);

9 “(ii) establish standards for the per-
10 formance of the regional technology hub
11 that are based on the metrics developed
12 under clause (i); and

13 “(iii) 2 years after the initial award
14 under paragraph (3) and each year there-
15 after until Federal financial assistance
16 under this subsection for the regional tech-
17 nology hub is discontinued, conduct an as-
18 sessment of the regional technology hub to
19 confirm whether the performance of the re-
20 gional technology hub is meeting the
21 standards for performance established
22 under clause (ii).

23 “(B) ANNUAL REPORT.—Not less fre-
24 quently than once each year, the Secretary shall
25 submit to the Committee on Commerce,

1 Science, and Transportation of the Senate, the
 2 Committee on Appropriations of the Senate, the
 3 Committee on Science, Space, and Technology
 4 of the House of Representatives, and the Com-
 5 mittee on Appropriations of the House of Rep-
 6 resentatives an annual report on the results of
 7 the assessments conducted by the Secretary
 8 under subparagraph (A)(iii) during the period
 9 covered by the report.”.

10 (2) INITIAL DESIGNATIONS AND AWARDS.—

11 (A) COMPETITION REQUIRED.—Not later
 12 than 180 days after the date of the enactment
 13 of this Act, the Secretary of Commerce shall
 14 commence a competition under paragraph
 15 (2)(A) of section 27(d) of the Stevenson-Wydler
 16 Technology Innovation Act of 1980, as added
 17 by paragraph (1).

18 (B) DESIGNATION AND AWARD.—Not later
 19 than 1 year after the date of the enactment of
 20 this Act, if the Secretary has received at least
 21 1 application under paragraph (4) of such sec-
 22 tion from an eligible consortium whom the Sec-
 23 retary considers suitable for designation under
 24 paragraph (1)(A)(i) of such section, the Sec-
 25 retary shall—

1 (i) designate at least 1 regional tech-
 2 nology hub under paragraph (1)(A)(i) of
 3 such section; and

4 (ii) award a grant under paragraph
 5 (3)(A) of such section to each regional
 6 technology hub designated under clause (i)
 7 of this subparagraph.

8 (c) AUTHORIZATION OF APPROPRIATIONS.—Sub-
 9 section (i) of such section, as redesignated by subsection
 10 (c)(1)(A) of this section, is amended—

11 (1) by striking “From amounts” and inserting
 12 the following:

13 “(1) IN GENERAL.—From amounts”;

14 (2) in paragraph (1), as redesignated by para-
 15 graph (1) of this subsection, by striking “this sec-
 16 tion” and inserting “the provisions of this section
 17 other than subsection (d)”;

18 (3) by adding at the end the following:

19 “(2) REGIONAL TECHNOLOGY HUBS.—There is
 20 authorized to be appropriated to the Secretary to
 21 carry out subsection (d) \$10,000,000,000 for the pe-
 22 riod of fiscal year 2021 through 2025.”.

1 **SEC. 5. STRATEGY AND REPORT ON ECONOMIC SECURITY,**
2 **SCIENCE, RESEARCH, AND INNOVATION TO**
3 **SUPPORT THE NATIONAL SECURITY STRAT-**
4 **EGY.**

5 (a) DEFINITIONS.—In this section:

6 (1) APPROPRIATE COMMITTEES OF CON-
7 GRESS.—The term “appropriate committees of Con-
8 gress” means—

9 (A) the Committee on Appropriations, the
10 Committee on Armed Services, the Committee
11 on Banking, Housing, and Urban Affairs, the
12 Committee on Commerce, Science, and Trans-
13 portation, the Committee on Energy and Nat-
14 ural Resources, the Committee on Finance, the
15 Committee on Foreign Relations, and the Select
16 Committee on Intelligence of the Senate; and

17 (B) the Committee on Appropriations, the
18 Committee on Armed Services, the Committee
19 on Energy and Commerce, the Committee on
20 Financial Services, the Committee on Foreign
21 Affairs, the Committee on Ways and Means,
22 and the Permanent Select Committee on Intel-
23 ligence of the House of Representatives.

24 (2) KEY TECHNOLOGY FOCUS AREA.—The term
25 “key technology focus area” means an area included
26 on the most recent list under section 8A(c)(2) of the

1 Act of May 10, 1950 (64 Stat. 149, chapter 171; 42
2 U.S.C. 1861 et seq.).

3 (3) NATIONAL SECURITY STRATEGY.—The term
4 “national security strategy” means the national se-
5 curity strategy required by section 108 of the Na-
6 tional Security Act of 1947 (50 U.S.C. 3043).

7 (b) STRATEGY AND REPORT.—

8 (1) IN GENERAL.—In 2021 and in each year
9 thereafter before the applicable date set forth under
10 paragraph (2), the Director of the Office of Science
11 and Technology Policy, in coordination with the Di-
12 rector of the National Economic Council, the Direc-
13 tor of the National Science Foundation, the Sec-
14 retary of Commerce, the National Security Council,
15 and the heads of other relevant Federal agencies,
16 shall—

17 (A) review such strategy, programs, and
18 resources as the Director of the Office of
19 Science and Technology Policy determines per-
20 tain to United States national competitiveness
21 in science, research, and innovation to support
22 the national security strategy;

23 (B) develop a strategy for the Federal
24 Government to improve the national competi-
25 tiveness of the United States in science, re-

1 search, and innovation to support the national
2 security strategy; and

3 (C) submit to the appropriate committees
4 of Congress—

5 (i) a report on the findings of the Di-
6 rector with respect to the review conducted
7 under paragraph (1); and

8 (ii) the strategy developed or revised
9 under paragraph (2).

10 (2) APPLICABLE DATES.—In each year, the ap-
11 plicable date set forth under this paragraph is as fol-
12 lows:

13 (A) In 2021, December 31, 2021.

14 (B) In 2022 and every year thereafter—

15 (i) in any year in which a new Presi-
16 dent is inaugurated, October 1 of that
17 year; and

18 (ii) in any other year, the date that is
19 90 days after the date of the transmission
20 to Congress in that year of the national se-
21 curity strategy.

22 (c) ELEMENTS.—

23 (1) REPORT.—Each report submitted under
24 subsection (b)(1)(C)(i) shall include the following:

1 (A) An assessment of public and private
2 investment in civilian and military science and
3 technology and its implications for the
4 geostrategic position and national security of
5 the United States.

6 (B) A description of the prioritized eco-
7 nomic security interests and objectives of the
8 United States relating to science, research, and
9 innovation and an assessment of how invest-
10 ment in civilian and military science and tech-
11 nology can advance those objectives.

12 (C) An assessment of how regional efforts
13 are contributing and could contribute to the in-
14 novation capacity of the United States, includ-
15 ing—

16 (i) programs run by State and local
17 governments; and

18 (ii) regional factors that are contrib-
19 uting or could contribute positively to inno-
20 vation.

21 (D) An assessment of barriers to competi-
22 tiveness in key technology focus areas and bar-
23 riers to the development and evolution of start-
24 ups, small and mid-sized business entities, and
25 industries in key technology focus areas.

1 (E) An assessment of the effectiveness of
2 the Federal Government, federally funded re-
3 search and development centers, and national
4 labs in supporting and promoting technology
5 commercialization and technology transfer, in-
6 cluding an assessment of the adequacy of Fed-
7 eral research and development funding in pro-
8 moting competitiveness and the development of
9 new technologies.

10 (F) An assessment of manufacturing ca-
11 pacity, logistics, and supply chain dynamics of
12 major export sectors, including access to a
13 skilled workforce, physical infrastructure, and
14 broadband network infrastructure.

15 (2) STRATEGY.—Each strategy submitted
16 under subsection (b)(1)(C)(ii) shall include the fol-
17 lowing:

18 (A) A plan to utilize available tools to ad-
19 dress or minimize the leading threats and chal-
20 lenges and to take advantage of the leading op-
21 portunities, including the following:

22 (i) Specific objectives, tasks, metrics,
23 and milestones for each relevant Federal
24 agency.

1 (ii) Specific plans to support public
2 and private sector investment in research,
3 technology development, and domestic
4 manufacturing in key technology focus
5 areas supportive of the national economic
6 competitiveness of the United States and
7 to foster the prudent use of public-private
8 partnerships.

9 (iii) Specific plans to promote environ-
10 mental stewardship and fair competition
11 for United States workers.

12 (iv) A description of—

13 (I) how the strategy submitted
14 under subsection (b)(3)(B) supports
15 the national security strategy; and

16 (II) how the strategy submitted
17 under such subsection is integrated
18 and coordinated with the most recent
19 national defense strategy under sec-
20 tion 113(g) of title 10, United States
21 Code.

22 (v) A plan to encourage the govern-
23 ments of countries that are allies or part-
24 ners of the United States to cooperate with
25 the execution of the strategy submitted

1 under subsection (b)(3)(B), where appro-
2 priate.

3 (vi) A plan to encourage certain inter-
4 national and multilateral organizations to
5 support the implementation of such strat-
6 egy.

7 (vii) A plan for how the United States
8 should develop local and regional capacity
9 for building innovation ecosystems across
10 the nation by providing Federal support.

11 (viii) A plan for strengthening the in-
12 dustrial base of the United States.

13 (B) An identification of additional re-
14 sources, administrative action, or legislative ac-
15 tion recommended to assist with the implemen-
16 tation of such strategy.

17 (d) FORM OF REPORTS AND STRATEGIES.—Each re-
18 port and strategy submitted under subsection (b) shall be
19 submitted in unclassified form, but may include a classi-
20 fied annex.

21 **SEC. 6. CONFORMING AMENDMENTS.**

22 (a) SCIENTIFIC AND ADVANCED-TECHNOLOGY ACT
23 OF 1992.—The Scientific and Advanced-Technology Act
24 of 1992 (42 U.S.C. 1862h et seq.) is amended—

1 (1) in section 2(a)(5) (42 U.S.C. 1862h(a)(5)),
 2 by striking “National Science Foundation” and in-
 3 serting “National Science and Technology Founda-
 4 tion”; and

5 (2) in section 3 (42 U.S.C. 1862i), by striking
 6 “National Science Foundation” each place the term
 7 appears and inserting “National Science and Tech-
 8 nology Foundation”.

9 (b) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
 10 TION ACT OF 1998.—The National Science Foundation
 11 Authorization Act of 1998 (42 U.S.C. 1862k et seq.) is
 12 amended—

13 (1) in each of paragraphs (1) and (2) of section
 14 2 (112 Stat. 869), by striking “National Science
 15 Foundation established” and inserting “National
 16 Science and Technology Foundation established”;
 17 and

18 (2) in section 101(a)(6) (42 U.S.C.
 19 1862k(a)(6)), by striking “National Science Founda-
 20 tion” each place the term appears and inserting
 21 “National Science and Technology Foundation”.

22 (c) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
 23 TION ACT OF 2002.—The National Science Foundation
 24 Authorization Act of 2002 (42 U.S.C. 1862n et seq.) is
 25 amended—

1 (1) in section 2 (42 U.S.C. 1862n note), by
 2 striking “National Science Foundation” each place
 3 the term appears and inserting “National Science
 4 and Technology Foundation”;

5 (2) in each of paragraphs (4) and (7) of section
 6 4 (42 U.S.C. 1862n note), by striking “National
 7 Science Foundation established” and inserting “Na-
 8 tional Science and Technology Foundation estab-
 9 lished”; and

10 (3) in section 10A (42 U.S.C. 1862n–1a)—

11 (A) in the section heading, by inserting
 12 “**AND TECHNOLOGY**” after “**NATIONAL**
 13 **SCIENCE**”;

14 (B) in the subsection heading of subsection
 15 (e), by inserting “AND TECHNOLOGY” after
 16 “NATIONAL SCIENCE”; and

17 (C) by striking “National Science Founda-
 18 tion” each place the term appears and inserting
 19 “National Science and Technology Founda-
 20 tion”.

21 (d) AMERICA COMPETES ACT.—The America
 22 COMPETES Act (Public Law 110–69; 121 Stat. 572) is
 23 amended—

24 (1) in each of sections 1006(c)(1)(K) (15
 25 U.S.C. 3718(c)(1)(K)), 4001 (33 U.S.C. 893), and

1 5003(b)(1), by striking “National Science Founda-
 2 tion” and inserting “National Science and Tech-
 3 nology Foundation”;

4 (2) in section 7001(5) (42 U.S.C. 1862o note),
 5 by striking “National Science Foundation” and in-
 6 serting “National Science and Technology Founda-
 7 tion”; and

8 (3) in the title heading for title VII, by insert-
 9 ing **“AND TECHNOLOGY”** after **“NA-**
 10 **TIONAL SCIENCE”**.

11 (e) NATIONAL SCIENCE AND TECHNOLOGY POLICY,
 12 ORGANIZATION, AND PRIORITIES ACT OF 1976.—The Na-
 13 tional Science and Technology Policy, Organization, and
 14 Priorities Act of 1976 (42 U.S.C. 6601 et seq.) is amend-
 15 ed—

16 (1) in section 205(b)(2) (42 U.S.C.
 17 6614(b)(2)), by striking “National Science Founda-
 18 tion” and inserting “National Science and Tech-
 19 nology Foundation”; and

20 (2) in section 206 (42 U.S.C. 6615), by striking
 21 “National Science Foundation” each place the term
 22 appears and inserting “National Science and Tech-
 23 nology Foundation”.

24 (f) AMERICA COMPETES REAUTHORIZATION ACT
 25 OF 2010.—The America COMPETES Reauthorization

1 Act of 2010 (Public Law 111–358; 124 Stat. 3982) is
 2 amended—

3 (1) in the subtitle heading of subtitle A of title
 4 V, by inserting “**and Technology**” after “**Na-**
 5 **tional Science**”;

6 (2) in section 502 (42 U.S.C. 1862p note)—

7 (A) in paragraph (1), by striking “Na-
 8 tional Science Foundation” and inserting “Na-
 9 tional Science and Technology Foundation”;
 10 and

11 (B) in paragraph (3), by striking “Na-
 12 tional Science Foundation established” and in-
 13 serting “National Science and Technology
 14 Foundation established”;

15 (3) in the section heading of section 506 (42
 16 U.S.C. 1862p–1), by inserting “**AND TECH-**
 17 **NOLOGY**” after “**NATIONAL SCIENCE**”;

18 (4) in section 517 (42 U.S.C. 1862p–9)—

19 (A) in paragraph (2) of subsection (a), by
 20 striking “National Science Foundation” each
 21 place the term appears and inserting “National
 22 Science and Technology Foundation”; and

23 (B) in each of subsections (a)(4), (b), and
 24 (c)(2), by striking “National Science Founda-

1 tion” and inserting “National Science and
2 Technology Foundation”;

3 (5) in section 518 (124 Stat. 4015), by striking
4 “Foundation.” and inserting “and Technology Foun-
5 dation.”;

6 (6) in section 519 (124 Stat. 4015)—

7 (A) in the section heading, by inserting
8 “**AND TECHNOLOGY**” after “**NATIONAL**
9 **SCIENCE**”; and

10 (B) by striking “National Science Founda-
11 tion” each place the term appears and inserting
12 “National Science and Technology Founda-
13 tion”;

14 (7) in section 520 (42 U.S.C. 1862p–10)—

15 (A) by striking “National Science Founda-
16 tion” each place the term appears and inserting
17 “National Science and Technology Founda-
18 tion”; and

19 (B) in the subsection heading of subsection
20 (b), by striking “NSF” and inserting “NSTF”;

21 (8) in section 522 (42 U.S.C. 1862p–11)—

22 (A) in the section heading, by striking
23 “**NSF**” and inserting “**NSTF**”; and

1 (B) by striking “National Science Founda-
2 tion” and inserting “National Science and
3 Technology Foundation”;

4 (9) in section 524 (42 U.S.C. 1862p–12), by
5 striking “National Science Foundation” each place
6 the term appears and inserting “National Science
7 and Technology Foundation”; and

8 (10) in section 555(5) (20 U.S.C. 9905(5)), by
9 inserting “and Technology” after “National
10 Science”.

11 (g) STEM EDUCATION ACT OF 2015.—Each of sec-
12 tions 2 and 3 of the STEM Education Act of 2015 (42
13 U.S.C. 6621 note; 1862q) are amended by striking “Na-
14 tional Science Foundation” and inserting “National
15 Science and Technology Foundation”.

16 (h) RESEARCH EXCELLENCE AND ADVANCEMENTS
17 FOR DYSLLEXIA ACT.—The Research Excellence and Ad-
18 vancements for Dyslexia Act (Public Law 114–124; 130
19 Stat. 120) is amended by striking “National Science” each
20 place the term appears and inserting “National Science
21 and Technology”.

22 (i) AMERICAN INNOVATION AND COMPETITIVENESS
23 ACT.—The American Innovation and Competitiveness Act
24 (42 U.S.C. 1862s et seq.) is amended—

1 (1) in section 2 (42 U.S.C. 1862 note), by in-
 2 serting “and Technology” after “National Science”;
 3 and

4 (2) in section 601(a)(1) (42 U.S.C. 1862s-
 5 8(a)(1)), by striking “National Science” each place
 6 the term appears and inserting “National Science
 7 and Technology”.

8 (j) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
 9 TION ACT, 1976.—The National Science Foundation Au-
 10 thorization Act, 1976 (Public Law 94–86) is amended—

11 (1) in section 2(b) (42 U.S.C. 1869a), by strik-
 12 ing “National Science Foundation” each place the
 13 term appears and inserting “National Science and
 14 Technology Foundation”; and

15 (2) in section 6(a) (42 U.S.C. 1881a(a)), by
 16 striking “National Science Foundation” and insert-
 17 ing “National Science and Technology Foundation”.

18 (k) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
 19 TION ACT, 1977.—Section 8 of the National Science
 20 Foundation Authorization Act, 1977 (42 U.S.C. 1883) is
 21 amended by striking “National Science Foundation” each
 22 place the term appears and inserting “National Science
 23 and Technology Foundation”.

24 (l) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
 25 TION ACT, FISCAL YEAR 1978.—Section 8 of the National

1 Science Foundation Authorization Act, Fiscal Year 1978
2 (42 U.S.C. 1869b) is amended by inserting “and Tech-
3 nology” after “National Science”.

4 (m) ACT OF AUGUST 25, 1959.—The first section of
5 the Act of August 25, 1959 (42 U.S.C. 1880), is amended
6 by inserting “and Technology” after “National Science”.

7 (n) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
8 TION ACT FOR FISCAL YEAR 1980.—Section 9 of the Na-
9 tional Science Foundation Authorization Act for Fiscal
10 Year 1980 (42 U.S.C. 1882) is amended by striking “Na-
11 tional Science Foundation” each place the term appears
12 and inserting “National Science and Technology Founda-
13 tion”.

14 (o) NATIONAL AERONAUTICS AND SPACE ADMINIS-
15 TRATION AUTHORIZATION ACT OF 2005.—Section 721 of
16 the National Aeronautics and Space Administration Au-
17 thorization Act of 2005 (42 U.S.C. 1886a) is amended
18 by striking “The National Science Foundation” and in-
19 serting “The National Science and Technology Founda-
20 tion”.

21 (p) NATIONAL SCIENCE FOUNDATION AUTHORIZA-
22 TION ACT FOR FISCAL YEAR 1986.—Section 108 of the
23 National Science Foundation Authorization Act for Fiscal
24 Year 1986 (42 U.S.C. 1886) is amended by inserting “and
25 Technology” after “National Science”.

1 (q) NATIONAL QUANTUM INITIATIVE ACT.—The Na-
 2 tional Quantum Initiative Act (Public Law 115–368) is
 3 amended—

4 (1) in the table of contents in section 2, by
 5 striking the item relating to title III and inserting
 6 the following:

“TITLE III—NATIONAL SCIENCE AND TECHNOLOGY FOUNDATION
 QUANTUM ACTIVITIES”;

7 (2) in section 102(a)(2)(A) (15 U.S.C.
 8 8812(a)(2)(A)), by inserting “and Technology” after
 9 “National Science”;

10 (3) in section 103 (15 U.S.C. 8813), by striking
 11 “National Science Foundation” each place the term
 12 appears and inserting “National Science and Tech-
 13 nology Foundation”;

14 (4) in the title heading for title III, by inserting
 15 “**AND TECHNOLOGY**” after “**NATIONAL**
 16 **SCIENCE**”; and

17 (5) in each of sections 301 and 302 (15 U.S.C.
 18 8841, 8842), by striking “National Science Founda-
 19 tion” each place the term appears and inserting
 20 “National Science and Technology Foundation”.

21 (r) CYBERSECURITY ENHANCEMENT ACT OF 2014.—
 22 The Cybersecurity Enhancement Act of 2014 (15 U.S.C.
 23 7421 et seq.) is amended—

1 (1) in section 201 (15 U.S.C. 7431), by striking
 2 “National Science Foundation” each place the term
 3 appears and inserting “National Science and Tech-
 4 nology Foundation”; and

5 (2) in each of sections 301 and 302 (15 U.S.C.
 6 7441, 7442), by striking “National Science Founda-
 7 tion” each place the term appears and inserting
 8 “National Science and Technology Foundation”.

9 (s) HIGH-PERFORMANCE COMPUTING ACT OF
 10 1991.—The High-Performance Computing Act of 1991
 11 (15 U.S.C. 5501 et seq.) is amended—

12 (1) in section 101(a)(3)(C)(xi) 15 U.S.C.
 13 5511(a)(3)(C)(xi)), by inserting “and Technology”
 14 after “National Science”; and

15 (2) in section 201 (15 U.S.C. 5521)—

16 (A) in the section heading, by inserting
 17 “**AND TECHNOLOGY**” after “**NATIONAL**
 18 **SCIENCE**”; and

19 (B) by striking “National Science Founda-
 20 tion” each place the term appears and inserting
 21 “National Science and Technology Founda-
 22 tion”.

23 (t) ARCTIC RESEARCH AND POLICY ACT OF 1984.—
 24 The Arctic Research and Policy Act of 1984 (15 U.S.C.
 25 4101 et seq.) is amended—

1 (1) in each of sections 102(b)(3) and 103(b)(1)
 2 (15 U.S.C. 4101(b)(3), 4102(b)(1)), by inserting
 3 “and Technology” after “National Science”; and

4 (2) in section 107 (15 U.S.C. 4106)—

5 (A) in the subsection heading of subsection
 6 (a), by inserting “AND TECHNOLOGY” after
 7 “NATIONAL SCIENCE”; and

8 (B) by striking “National Science Founda-
 9 tion” each place the term appears and inserting
 10 “National Science and Technology Founda-
 11 tion”.

12 (u) STEVENSON-WYDLER TECHNOLOGY INNOVATION
 13 ACT OF 1980.—The Stevenson-Wydler Technology Inno-
 14 vation Act of 1980 (15 U.S.C. 3701 et seq.) is amended—

15 (1) in each of sections 4(5), 5(a)(2)(A), 20, and
 16 21(d) (15 U.S.C. 3703(5), 3704(a)(2)(A), 3712, and
 17 3713(d)), by inserting “and Technology” after “Na-
 18 tional Science”;

19 (2) in section 9 (15 U.S.C. 3707)—

20 (A) in the section heading, by inserting
 21 “**AND TECHNOLOGY**” after “**NATIONAL**
 22 **SCIENCE**”;

23 (B) in each of subsections (a) and (b), by
 24 striking “National Science Foundation” and in-

1 serting “National Science and Technology
2 Foundation”; and

3 (C) in subsection (c)—

4 (i) by striking “National Science
5 Foundation in” and inserting “National
6 Science and Technology Foundation in”;
7 and

8 (ii) by striking “National Science
9 Foundation under” and inserting “Na-
10 tional Science and Technology Foundation
11 under”; and

12 (3) in section 10 (15 U.S.C. 3708), by striking
13 “National Science Foundation” each place the term
14 appears and inserting “National Science and Tech-
15 nology Foundation”.

16 (v) CYBER SECURITY RESEARCH AND DEVELOP-
17 MENT ACT.—The Cyber Security Research and Develop-
18 ment Act (15 U.S.C. 7401 et seq.) is amended—

19 (1) in section 3(1) (15 U.S.C. 7402(1)), by in-
20 serting “and Technology” after “National Science”;

21 (2) in section 5 (15 U.S.C. 7404)—

22 (A) in the section heading, by inserting
23 “**AND TECHNOLOGY**” after “**NATIONAL**
24 **SCIENCE**”;

1 (B) in subsection (c)(4), by inserting “and
2 Technology” after “National Science”; and

3 (C) in subsection (d), by striking “Na-
4 tional Science Foundation’s” and inserting
5 “National Science and Technology Founda-
6 tion’s”; and

7 (3) in section 13 (15 U.S.C. 7409), by striking
8 “National Science Foundation” each place the term
9 appears and inserting “National Science and Tech-
10 nology Foundation”.

11 (w) NATIONAL SUPERCONDUCTIVITY AND COMPETI-
12 TIVENESS ACT OF 1988.—Section 6 of the National
13 Superconductivity and Competitiveness Act of 1988 (15
14 U.S.C. 5205) is amended by inserting “and Technology”
15 after “National Science”.

16 (x) WEATHER RESEARCH AND FORECASTING INNO-
17 VATION ACT OF 2017.—Each of sections 105 and
18 402(a)(1) of the Weather Research and Forecasting Inno-
19 vation Act of 2017 (15 U.S.C. 8515, 8542(a)(1)) are
20 amended by inserting “and Technology” after “National
21 Science”.

