117TH CONGRESS
1ST SESSION

S. _____

To establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

_____

_____ introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Endless Frontier Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) For over 70 years, the United States has been the unequivocal global leader in scientific and technological innovation, and as a result the people of the United States have benefitted through good-paying jobs, economic prosperity, and a higher quality of life.

(A) Today, however, this leadership position is being eroded and challenged by foreign competitors, some of which are stealing intellectual property and trade secrets of the United States and aggressively investing in research and commercialization to dominate the key existing and future technology fields.

(B) While the United States once led the world in the share of our economy invested in research, our Nation now ranks 9th globally in total research and development and 12th in publicly financed research and development.

(C) While wages for American workers rose in parallel with growth in national productivity from the end of World War II through most of the 1970s, since then wages have stagnated and labor's share in national income has declined.

(2) Without a significant increase in investment in research, education, technology transfer, intellectual property, manufacturing, and other core strengths of the United States innovation ecosystem, it is only a matter of time before the global competitors of the United States overtake the United States in terms of technological primacy. The country that wins the race in key technologies—such as artificial intelligence, quantum computing, advanced communications, and advanced manufacturing—and uses technological innovation to support high-quality jobs and incomes will be the superpower of the future.

(3) The Federal Government must catalyze United States innovation by boosting research investments focused on discovering, creating, commercializing, and demonstrating new technologies and manufacturing those technologies domestically throughout the country to ensure the leadership of the United States in the industries of the future and broadly shared prosperity.

(4) The distribution of innovation jobs and investment in the United States has become largely concentrated in just a few locations, while much of the Nation has been left out of growth in the innovation sector. More than 90 percent of the Nation's in-

novation sector employment growth in the last 15 years was generated in just 5 major metropolitan areas. The Federal Government must address this imbalance in opportunity by—

(A) dramatically increasing funding for science and engineering research and expanding partnerships with the private sector to build new technology hubs across the country;

(B) spreading high-quality innovation sector jobs more broadly;

(C) increasing the participation of underrepresented populations, engaging workers, and collaborating with labor organizations in innovation efforts to tap the talent and potential of the entire Nation to ensure the United States leads the industries of the future;

(D) building regional expertise and capacity in such critical areas as entrepreneurship, venture capital and other investment, and design thinking; and

(E) investing in new kinds of innovation-relevant activities such as collaboration and learning platforms that reflect the evolving nature of innovation and the acceleration of technology development.

(5) As President Franklin D. Roosevelt stated, ''[N]ew frontiers of the mind are before us, and if they are pioneered with the same vision, boldness, and drive with which we have waged this war we can create a fuller and more fruitful employment and a fuller and more fruitful life.''

(6) As Vannevar Bush stated in his 1945 report entitled Science, The Endless Frontier, ''New products, new industries, and more jobs require continuous additions to knowledge of the laws of nature, and the application of that knowledge to practical purposes. Similarly, our defense against aggression demands new knowledge so that we can develop new and improved weapons. This essential, new knowledge can be obtained only through basic scientific research.''

(7) Since its inception, the National Science Foundation has carried out vital work supporting basic research and people to create knowledge that is a key driver of the economy of the United States and enhances the Nation's security.

SEC. 3. IMPROVING TECHNOLOGY AND INNOVATION RESEARCH AT THE NATIONAL SCIENCE FOUNDATION.

(a) PROVIDING AUTHORITY TO DISSEMINATE INFORMATION.—Section 11 of the National Science Foundation Act of 1950 (42 U.S.C. 1870) is amended—

(1) in subsection (j), by striking ''and'' after the semicolon;

(2) in subsection (k), by striking the period at the end and inserting ''; and''; and

(3) by adding at the end the following:

''(l) provide for the widest practicable and appropriate dissemination of information within the United States concerning the Foundation's activities and the results thereof.''.

(b) ESTABLISHMENT OF DIRECTORATE FOR TECHNOLOGY AND INNOVATION.—The National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq.) is amended—

(1) in section 8 (42 U.S.C. 1866), by inserting at the end the following: ''Such divisions shall include the Directorate for Technology and Innovation established under section 8A.''; and

(2) by inserting after section 8 the following:

"SEC. 8A. IMPROVING RESEARCH AND ESTABLISHING DIRECTORATE FOR TECHNOLOGY AND INNOVATION.

"(a) DEFINITIONS.—In this section:

"(1) COMMUNITY COLLEGE.—The term 'community college' has the meaning given the term 'junior or community college' in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f)).

"(2) DESIGNATED COUNTRY.—The term 'designated country' means a country that has been approved and designated in writing by the President for purposes of this section, after providing—

"(A) not less than 30 days of advance notification and explanation to the relevant congressional committees before the designation; and

"(B) in-person briefings to such committees, if requested during the 30-day advance notification period described in subparagraph (A).

"(3) DIRECTORATE.—The term 'Directorate' means the Directorate for Technology and Innovation established under subsection (b).

"(4) EMERGING INSTITUTION OF HIGHER EDUCATION.—The term 'emerging institution of higher education' means an institution of higher education with an established undergraduate student program

that has, on average for the 3 years prior to an application for an award under this section, received less than $35,000,000 in Federal research funding.

''(5) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term 'historically Black college or university' has the meaning given the term 'part B institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061)).

''(6) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

''(7) KEY TECHNOLOGY FOCUS AREAS.—The term 'key technology focus areas' means the areas included on the most recent list under subsection (d)(2).

''(8) LABOR ORGANIZATION.—The term 'labor organization' has the meaning given the term in section 2(5) of the National Labor Relations Act (29 U.S.C. 152(5)), except that such term shall also include—

''(A) any organization composed of labor organizations, such as a labor union federation or a State or municipal labor body; and

"(B) any organization which would be included in the definition for such term under such section 2(5) but for the fact that the organization represents—

"(i) individuals employed by the United States, any wholly owned Government corporation, any Federal Reserve Bank, or any State or political subdivision thereof;

"(ii) individuals employed by persons subject to the Railway Labor Act (45 U.S.C. 151 et seq.); or

"(iii) individuals employed as agricultural laborers.

"(9) MINORITY-SERVING INSTITUTION.—The term 'minority-serving institution' means an institution described in section 371(a) of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

"(10) RELEVANT CONGRESSIONAL COMMITTEES.—The term 'relevant congressional committees' means—

"(A) the Committee on Armed Services, the Committee on Commerce, Science, and Transportation, the Committee on Appropriations, the Committee on Foreign Relations, the

Committee on Health, Education, Labor, and Pensions, and the Select Committee on Intelligence of the Senate; and

"(B) the Committee on Armed Services, the Committee on Science, Space, and Technology, the Committee on Appropriations, the Committee on Foreign Affairs, and the Permanent Select Committee on Intelligence of the House of Representatives.

"(11) STEM.—The term 'STEM' has the meaning given such term in section 2 of the America COMPETES Reauthorization Act of 2010 (Public Law 111–358; 42 U.S.C. 6621 note).

"(12) TRIBAL COLLEGE OR UNIVERSITY.—The term 'Tribal college or university' has the meaning given the term in section 316(b)(3) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)(3)).

"(13) UNDERREPRESENTED POPULATIONS.—The term 'underrepresented populations' means women, minorities, veterans, tribal populations, persons with disabilities, and other populations that are underrepresented in STEM.

"(b) ESTABLISHMENT OF DIRECTORATE OF TECHNOLOGY AND INNOVATION.—

"(1) IN GENERAL.—Not later than 60 days after the date of enactment of the Endless Frontier Act, the Director shall establish in the Foundation a Directorate for Technology and Innovation. The Directorate shall carry out the duties and responsibilities described in this section, in order to further the following goals:

"(A) Addressing and mitigating societal challenges through the activities authorized by this section.

"(B) Strengthening the leadership of the United States in critical technologies, as described as a critical national need in section 7018 of the America COMPETES Act (42 U.S.C. 1862o–5), through basic research in the key technology focus areas and the commercialization of those technologies to businesses in the United States.

"(C) Enhancing the competitiveness of the United States in the key technology focus areas by improving education in the key technology focus areas and attracting more students to such areas at all levels of education.

"(D) Consistent with the mission and operations of the Foundation, fostering the eco-

nomic and societal impact of Federally funded research and development through an accelerated translation of basic advances in the key technology focus areas into processes and products, known as technology transfer, that can help achieve national goals related to economic competitiveness, domestic manufacturing, national security, shared prosperity, energy and the environment, health, education and workforce development, and transportation.

''(E) Utilizing the full potential of the United States workforce by encouraging broader participation in key technology focus areas by underrepresented populations.

''(F) Ensuring the programmatic work of the Directorate and Foundation incorporates a worker perspective from labor organizations.

''(2) ORGANIZATION AND ADMINISTRATIVE MATTERS.—

''(A) PROGRAM MANAGERS.—The employees of the Directorate may include program managers for the key technology focus areas, who may perform a role similar to programs managers employed by the Defense Advanced Research Projects Agency for the oversight and

selection of programs supported by the Directorate.

''(B) SELECTION OF RECIPIENTS.—Recipients of support under the programs and activities of the Directorate shall be selected by program managers or other employees of the Directorate and the selection criteria may include intellectual merit and broader impacts, including economic impacts on the advanced technology production system of the United States. The Directorate may use a peer review process or the authorities provided under subsection (c), or some combination of such process and authorities, to inform the selection of award recipients.

''(C) REPORT.—Not later than 1 year after the date of enactment of the Endless Frontier Act, the Director shall prepare and submit a report to the relevant congressional committees regarding the use of alternative methods for the selection of recipients and the distribution of funding to recipients as compared to the traditional peer review process.

''(D) ASSISTANT DIRECTORS.—The Director shall appoint an Assistant Director for the

Directorate, in the same manner as other Assistant Directors of the Foundation are appointed.

''(3) REPORT.—Not later than 120 days after the date of enactment of the Endless Frontier Act, the Director shall prepare and submit a report to the relevant congressional committees regarding the establishment of the Directorate.

''(c) PERSONNEL MANAGEMENT AUTHORITIES FOR THE FOUNDATION.—In addition to the authorities and requirements of section 15, the Director shall have the following authorities:

''(1) EXPERTS IN SCIENCE AND ENGINEERING.—The Director shall have the authority to carry out a program of personnel management authority in the same manner, and subject to the same requirements, as the program of personnel management authority authorized for the Director of the Defense Advanced Research Projects Agency under section 1599h of title 10, United States Code, for the Defense Advanced Research Projects Agency.

''(2) HIGHLY QUALIFIED EXPERTS IN NEEDED OCCUPATIONS.—In addition to the authority provided under paragraph (1), the Director shall have the authority to carry out a program of personnel

management authority in the same manner, and subject to the same requirements, as the program to attract highly qualified experts carried out by the Secretary of Defense under section 9903 of title 5, United States Code. Individuals hired by the Director through such authority shall include individuals with expertise in business creativity, innovation management, design thinking, entrepreneurship, venture capital, and related fields.

''(3) ADDITIONAL HIRING AUTHORITY.—To the extent needed to carry out the duties in paragraph (1), the Director is authorized to utilize hiring authorities under section 3372 of title 5, United States Code, to staff the Directorate with employees from other Federal agencies, State and local governments, Indian Tribes and Tribal organizations, institutions of higher education, and other organizations, as described in that section, in the same manner and subject to the same conditions, that apply to such individuals utilized to accomplish other missions of the Foundation.

''(d) DUTIES AND FUNCTIONS OF THE DIRECTORATE.—

''(1) DEVELOPMENT OF TECHNOLOGY FOCUS OF THE DIRECTORATE.—The Director shall—

"(A) through the Directorate, advance innovation in the key technology focus areas through basic and translational 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 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, machine learning, and other software advances;

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

"(iii) quantum computing and information systems;

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

"(v) natural and anthropogenic disaster prevention or mitigation;

"(vi) advanced communications technology;

"(vii) biotechnology, genomics, and synthetic biology;

"(viii) cybersecurity, data storage, and data management technologies;

"(ix) advanced energy, batteries, and industrial efficiency;

"(x) advanced materials science, engineering, and exploration relevant to the other key technology focus areas described in this subparagraph; and

"(xi) innovation methods, processes and promising practices that can affect the speed and effectiveness of innovation processes at scale.

"(B) REVIEW OF KEY TECHNOLOGY FOCUS AREAS AND SUBSEQUENT LISTS.—

"(i) ADDING OR DELETING KEY TECHNOLOGY FOCUS AREAS.—Beginning on the date that is 3 years after the date of enactment of the Endless Frontier Act, and every 3 years thereafter, the Director, in coordination with the Director of the Office of Science and Technology Policy,

the Director of National Institute of Standards and Technology, the Secretary of Energy, and, as appropriate, the heads of other departments and agencies—

"(I) shall review the list of key technology focus areas; and

"(II) as part of that review, may add or delete key technology focus areas if societal challenges or the competitive threats to the United States have shifted (whether because the United States or other nations have advanced or fallen behind in a technological area), subject to clause (ii).

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

"(iii) UPDATING FOCUS AREAS AND DISTRIBUTION.—Prior to completion of each review under this subparagraph, the Director shall make the list of key technology focus areas readily available to the public and available for public comment,

including, at a minimum, by publishing the list in the Federal Register even if no changes are expected to be made to the prior list.

''(3) ACTIVITIES.—

''(A) IN GENERAL.—In carrying out the duties and functions of the Directorate, the Director—

''(i) may make awards in a technologically-neutral manner for key technology focus areas to—

''(I) individual institutions of higher education for work at centers or by individual researchers or teams of researchers;

''(II) not-for-profit entities; and

''(III) consortia that—

''(aa) shall include and be led by an institution of higher education, or by a not-for-profit entity designed to support technology development, and may include 1 or more additional institutions of higher education;

"(bb) shall include (as either the lead institution described in item (aa) or as a member of the consortium)—

"(AA) a historically Black college or university;

"(BB) a Tribal College or University;

"(CC) another minority-serving institution;

"(DD) an institution that participates in the Established Program to Stimulate Competitive Research under section 113 of the National Science Foundation Authorization Act of 1988 (42 U.S.C. 1862g);

"(EE) an emerging research institution that is not classified as a very high research activity by the Carnegie Classification of Institutions of Higher Education and that has an under-

graduate enrollment with a majority of students who are from underrepresented populations;

"(cc) shall include a community college; and

"(dd) shall, where feasible, include—

"(AA) 1 or more entities described in subclause (I) or (II) and, if appropriate, industry organizations, including startups and small business;

"(BB) 1 or more labor organizations;

"(CC) 1 or more National Laboratories, as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801);

"(DD) 1 or more Federal laboratories, as defined in section 4 of the Stevenson-Wydler Technology In-

novation Act of 1980 (15 U.S.C. 3703);

''(EE) 1 or more entities described in subclause (I) or (II) from treaty allies and security partners of the United States; and

''(FF) other entities if determined by the Director to be vital to the success of the program;

''(ii) shall provide funds to and partner with other directorates of the Foundation for projects or research, including—

''(I) to pursue basic questions about natural, human, and physical phenomena that could enable advances in the key technology focus areas;

''(II) to study questions that could affect the design (including human interfaces), operation, deployment, or the social and ethical consequences of technologies in the key technology focus areas, including the

development of technologies that complement or enhance the abilities of workers and impact of specific innovations on domestic jobs and equitable opportunity; and

''(III) to further the creation of a domestic workforce capable of advancing, using, and adapting to key technology focus areas and understanding and improving the impact of key technology focus areas on STEM teaching and learning advancing the key technology focus areas, including engaging industry and labor organizations in research and innovation programs;

''(iii) may provide funds to any other Federal agencies for intramural or extramural work in the key technology focus areas through research, manufacturing, or other means;

''(iv) may make awards under the SBIR and STTR programs (as defined in section 9(e) of the Small Business Act (15 U.S.C. 638(e)); and

"(v) may enter into and perform such contracts, other transactions, or other arrangements, or modifications thereof, as may be necessary in the conduct of the work of the Directorate and on such terms as the Director considers appropriate, in furtherance of the purposes of this Act.

"(B) REPORTS.—Not later than 180 days after the date of enactment of the Endless Frontier Act, the Director, in coordination with the Secretary of State and the Director of the Office of Science and Technology Policy, shall prepare and submit to the relevant congressional committees—

"(i) a plan to seek out additional investments from—

"(I) certain designated countries; and

"(II) entities other than institutions of higher education; and

"(ii) the planned activities of the Directorate to secure federally funded science and technology pursuant to section 1746 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92)

and section 223 of William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283).

''(C) ANNUAL BRIEFING.—Each year, the Director shall formally request a briefing from the Secretary of Defense, the Secretary of Commerce, the Director of the Federal Bureau of Investigation, the Director of National Intelligence, and as appropriate other department or agency heads regarding their efforts to preserve the United States' advantages generated by the activity of the Directorate.

''(4) INTERAGENCY COOPERATION.—

''(A) IN GENERAL.—In carrying out this section, the Director and other Federal research agencies, in consultation with the United States Patent and Trademark Office where appropriate, shall work cooperatively with each other to further the goals of this section in the key technology focus areas.

''(B) COMPTROLLER GENERAL REPORT.—Each year, the Comptroller General of the United States shall prepare and submit a report to Congress, and shall simultaneously submit

the report to the Director and the Director of the Office of Science and Technology Policy, describing the interagency cooperation that occurred during the preceding year pursuant to this paragraph, including a list of—

"(i) any funds provided under paragraph (3)(A)(ii) to other divisions of the Foundation; and

"(ii) any funds provided under paragraph (3)(A)(iii) to other Federal research agencies.

"(5) PROVIDING SCHOLARSHIPS, FELLOWSHIPS, AND OTHER STUDENT SUPPORT.—

"(A) IN GENERAL.—The Director, acting through the Directorate, shall fund undergraduate scholarships, graduate fellowships and traineeships, and postdoctoral awards in the key technology focus areas.

"(B) IMPLEMENTATION.—The Director may carry out subparagraph (A) by providing funds—

"(i) for making awards—

"(I) directly to students; and

"(II) to institutions of higher education or consortia of institutions

of higher education, including those institutions or consortia involved in operating university technology centers established under paragraph (6); and

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

"(C) BROADENING PARTICIPATION.—In carrying out this paragraph, the Director shall work to increase the participation of underrepresented populations in fields related to the key technology focus areas. For that purpose, the Director may take such steps as establishing or augmenting programs targeted at underrepresented populations, and supporting traineeships or other relevant programs at institutions of higher education with high enrollments of underrepresented populations.

"(D) INNOVATION.—In carrying out this paragraph, the Director shall encourage innovation in graduate education, including through encouraging institutions of higher education to offer graduate students opportunities to gain

experience in industry or government as part of their graduate training, and through support for students in professional masters programs related to the key technology focus areas.

''(E) SUPPLEMENT, NOT SUPPLANT.—The Director shall ensure that funds made available under this paragraph shall be used to create additional support for postsecondary students and shall not displace funding for any other available support.

''(6) UNIVERSITY TECHNOLOGY CENTERS.—

''(A) IN GENERAL.—From amounts made available to the Directorate, the Director shall, through a competitive application and selection process, make awards to institutions of higher education or consortia described in paragraph (3)(A)(i)(III) to establish university technology centers.

''(B) USES OF FUNDS.—

''(i) IN GENERAL.—A center established under an award under subparagraph (A)—

''(I) shall use support provided under such subparagraph—

"(aa) to carry out basic and translational research to advance innovation in the key technology focus areas; and

"(bb) to further the development and commercialization of innovations, including inventions, in the key technology focus areas, including—

"(AA) innovations derived from research carried out under item (aa), through such activities as translational research, proof-of-concept development, and prototyping, in order to reduce the cost, time, and risk of commercializing new technologies;

"(BB) to promote patenting and commercialization of inventions derived from research carried out under item (aa); and

"(CC) through the use of public-private partnerships; and

"(II) may use support provided under such subparagraph—

"(aa) for the costs of equipment;

"(bb) for the costs associated with technology transfer and commercialization, including patenting and licensing; or

"(cc) for other activities or costs necessary to accomplish the purposes of this section, including for operations and staff.

"(ii) SUPPORT OF REGIONAL TECHNOLOGY HUBS.—Each center established under subparagraph (A) may support and participate in, as appropriate, the activities of any regional technology hub designated under section 28(b)(1)(A) of the Stevenson-Wydler Technology Innovation Act of 1980.

"(C) SELECTION PROCESS.—In selecting recipients under this paragraph, the Director shall consider—

"(i) the capacity of the applicant to pursue and advance basic and translational research;

"(ii) the extent to which the applicant's proposed research would be likely to advance progress in 1 or more key technology focus areas;

"(iii) the extent to which the applicant's proposal would broaden participation by underrepresented populations in those areas;

"(iv) the capacity of the applicant to engage industry, labor, and other appropriate organizations on any advances;

"(v) whether the applicant's proposed research will require or contribute to growth in domestic manufacturing capacity and job creation;

"(vi) the quality of plans for dissemination of research and technology results;

"(vii) how the applicant will encourage the training and participation of entre-

preneurs and the translation of research results to practice, including the development of new businesses;

''(viii) how the applicant will encourage the participation of inventors and entrepreneurs and the development of new businesses;

''(ix) regional and geographic diversity;

''(x) in the case of a consortium, the extent to which the proposal includes institutions listed in item (bb) or (cc) of paragraph (3)(A)(i)(III); and

''(xi) the amount of funds from industry organizations described in subparagraph (D)(ii) the applicant would use towards establishing the center under subparagraph (A).

''(D) REQUIREMENTS.—The Director shall ensure that any institution of higher education or consortium receiving an award under subparagraph (A) has—

''(i) the capacity or the ability to acquire the capacity to advance the goals described in subsection (b)(1); and

"(ii) secured contributions for establishing the center under subparagraph (A) from industry organizations in an amount not less than 10 percent of the total amount of the award the institution or consortium would receive under this section.

"(7) MOVING TECHNOLOGY FROM LABORATORY TO MARKET.—

"(A) PROGRAM AUTHORIZED.—

"(i) IN GENERAL.—The Director, in coordination with the Director of the National Institute of Standards and Technology, shall establish a program in the Directorate to make awards, on a competitive basis, to institutions of higher education or consortia described in paragraph (3)(A)(i)(III)—

"(I) to build capacity at an institution of higher education and facilitate collaboration with firms in the key technology focus areas to increase the likelihood that new technologies in the key technology focus areas will

succeed in the commercial market; and

"(II) with the goal of promoting experiments with a range of models that institutions of higher education could use to—

"(aa) enable new technologies and inventions to mature to the point where the technologies are more likely to succeed in the commercial market and promote the creation of high-quality jobs in the United States; and

"(bb) reduce the risks to commercial success for new technologies and inventions earlier in their development.

"(ii) USE FOR TRAINING.—An award under this subparagraph for a purpose described in subclause (I) or (II) of clause (i) may also enable the institution of higher education or consortium to provide training and support to scientists, engineers, and inventors who are interested in re-

search, technology transfer, and commercialization, including patenting and licensing, if the use is included in the proposal submitted under subparagraph (B).

''(B) PROPOSALS.—An institution of higher education or consortium desiring an award 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 broader impact of the proposal;

''(ii) the steps the applicant is studying or will take to enable technology transfer to reduce the risks for commercialization for new technologies, including how the applicant will collaborate with firms in the key technology focus areas;

''(iii) why such steps are likely to be effective;

''(iv) how such steps differ from previous efforts to reduce the risks for commercialization for new technologies;

"(v) whether the commercial viability of any new technologies will promote the creation of high-quality jobs in the United States;

"(vi) how the applicant will encourage the participation of inventors and entrepreneurs and the development of new businesses; and

"(vii) how the applicant will encourage the training and participation of entrepreneurs and the translation of research results to practice, including the development of new businesses.

"(C) USE OF FUNDS.—A recipient of an award under this paragraph shall use award funds to reduce the risks for commercialization for new technologies developed on campus, which may include—

"(i) creating and funding competitions to allow entrepreneurial ideas from institutions of higher education to illustrate their commercialization potential;

"(ii) facilitating relationships among local and national business leaders, includ-

ing investors, and potential entrepreneurs to encourage successful commercialization;

''(iii) creating entities that could enable researchers at institutions of higher education to further develop new technology, through patient capital investment, advice, staff support, or other means;

''(iv) providing facilities for start-up companies where technology maturation could occur;

''(v) covering legal and other fees associated with technology transfer and commercialization, including patenting and licensing; and

''(vi) revising institution policies, including policies related to intellectual property and faculty entrepreneurship, to accomplish the goals of this paragraph.

''(D) REPORTING ON COMMERCIALIZATION BASED ON METRICS.—The Director shall establish metrics related to commercialization and require each recipient of an award under this paragraph to annually report to the Director on such metrics.

''(8) TEST BEDS.—

"(A) PROGRAM AUTHORIZED.—

"(i) IN GENERAL.—The Director, in coordination with the Director of the National Institute of Standards and Technology, shall establish a program in the Directorate to make awards, on a competitive basis, to institutions of higher education or consortia described in paragraph (3)(A)(i)(III) to establish and operate test beds and fabrication facilities to advance the operation, integration, deployment, and, as appropriate, manufacturing of new, innovative technologies in the key technology focus areas, which may include hardware or software. The goal of such test beds and facilities shall be to accelerate the movement of innovative technologies into the commercial market through the private sector.

"(ii) COORDINATION.—In establishing the program under clause (i), the Director shall ensure coordination in establishing new test beds under this section with existing test beds established under Manufac-

turing USA to avoid duplication and maximize the use of Federal resources.

''(B) PROPOSALS.—A proposal submitted under this paragraph shall, at a minimum, describe—

''(i)(I) the technology or technologies that will be the focus of the test bed or fabrication facility;

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

''(III) the expected schedule for completing that work;

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

''(iii) how the applicant will ensure broad access to the facility;

''(iv) how the applicant will collaborate with firms in the key technology focus areas, including through coordinated research and development and funding, to ensure that work in the test bed or facility will contribute to the commercial viability of any technologies and will include col-

laboration from industry partners and labor organizations;

''(v) how the applicant will encourage the participation of inventors and entrepreneurs and the development of new businesses;

''(vi) how the applicant will increase participation by underrepresented populations;

''(vii) how the applicant will demonstrate that the commercial viability of any new technologies will support the creation of high-quality domestic jobs;

''(viii) how the test bed or facility will operate after Federal funding has ended; and

''(ix) how the test bed will disseminate lessons and other technical information to United States firms or allied nation firms in the United States.

''(C) AWARDS.—Awards made under this paragraph shall be for 7 years, with the possibility of 5-year extensions.

''(D) RESULTS.—An awardee under this paragraph may publish and share with the pub-

lic the results of the work conducted under this paragraph.

"(E) INTERAGENCY SEMI-ANNUAL MEETINGS.—The Director, the Director of the National Institute of Standards and Technology, and the heads of other departments and agencies, or their designees, with test bed related equities shall hold an annual meeting to coordinate their respective test bed related investments, future years plan, and other appropriate matters, to avoid conflicts and duplication of efforts. Upon request by Congress, Congress shall be briefed on the results of the meetings.

"(9) INAPPLICABILITY.—Section 5(e)(1) shall not apply to grants, contracts, awards, or other arrangements made under this section.

"(e) AREAS OF FUNDING SUPPORT.—Subject to the availability of funds to carry out this section, the Director shall endeavor, for each fiscal year, to use—

"(1) not less than 35 percent of funds provided to the Directorate for such year to carry out subsection (d)(6);

"(2) not less than 15 percent of such funds to carry out the purpose of subsection (d)(5)—

"(A) with the goal of awarding, across the key technology focus areas—

"(i) not fewer than 1,000 postdoctoral awards;

"(ii) not fewer than 2,000 graduate fellowships and traineeships; and

"(iii) not fewer than 1,000 undergraduate scholarships;

"(B) of which not less than 10 percent of the funds designated under this paragraph shall be used to support additional awards to focus on community college training, education, and teaching programs that increase the participation of underrepresented populations in science, technology, engineering, and mathematics, including technical programs through programs such as the Advanced Technological Education program; and

"(C) if funds remain after carrying out subparagraphs (A) and (B), awards to institutions of higher education to enable the institutions to fund the development and establishment of new or specialized courses of education for graduate, undergraduate, or technical college students;

''(3) not less than 5 percent of such funds to carry out subsection (d)(7);

''(4) not less than 10 percent of such funds to carry out subsection (d)(8);

''(5) not less than 15 percent of such funds to carry out research and related activities pursuant to subclauses (I) and (II) of subsection (d)(3)(A)(ii); and

''(6) not less than 12 percent of such funds to support research in the key technology focus areas through the Established Program to Stimulate Competitive Research under section 113 of the National Science Foundation Authorization Act of 1988 (42 U.S.C. 1862g).

''(f) TECHNICAL ASSISTANCE FOR AWARD RECIPIENTS AND APPLICANTS.—The Director may—

''(1) coordinate with other Federal agencies to establish interagency and multidisciplinary teams to provide technical assistance to recipients of, and prospective applicants for, awards under this section;

''(2) by Federal interagency agreement and notwithstanding any other provision of law, transfer funds available to carry out this section to the head of another Federal agency to facilitate and support the provision of such technical assistance; and

''(3) enter into contracts with third parties to provide such technical assistance.

''(g) AUTHORIZATION OF APPROPRIATIONS AND LIMITATIONS.—

''(1) AUTHORIZATION FOR THE OFFICE OF INSPECTOR GENERAL.—From any amounts appropriated for the Foundation for a fiscal year, there is authorized to be appropriated for necessary expenses of the Office of Inspector General of the Foundation an amount of not less than $10,000,000 in any fiscal year appropriation for the Foundation, for oversight of the programs and activities established under this section in accordance with the Inspector General Act of 1978.

''(2) SUPPLEMENT AND NOT SUPPLANT.—The amounts authorized to be appropriated to carry out this section shall supplement, and not supplant, any other amounts already appropriated to the Foundation or Office of Inspector General of the Foundation.

''(h) RULES OF CONSTRUCTION.—Nothing in this section or any other amendments made to this Act by the Endless Frontier Act shall be construed to alter the mission of any directorate of the Foundation existing prior

to the date of enactment of such Act, or to alter the award selection methods or criteria used by such directorates.''.

(c) CHIEF DIVERSITY OFFICER.—The National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq.), as amended by subsection (b), is further amended by inserting after section 8A the following:

''SEC. 8B. CHIEF DIVERSITY OFFICER.

''(a) CHIEF DIVERSITY OFFICER.—

''(1) APPOINTMENT.—The Director shall appoint a Chief Diversity Officer of the National Science Foundation.

''(2) QUALIFICATIONS.—The Chief Diversity Officer should have significant experience with diversity and inclusion, in particular within the Federal Government and science community.

''(3) OVERSIGHT.—The Chief Diversity Officer shall report directly to the Director in the performance of the duties of the Chief Diversity Officer under this section.

''(b) DUTIES.—The Chief Diversity Officer is responsible for providing advice on policy, oversight, guidance, and coordination with respect to matters of the National Science Foundation related to diversity and inclusion. Other duties may include—

''(1) establishing and maintaining a strategic plan that publicly states a diversity definition, vision, and goals for the National Science Foundation;

''(2) defining a set of strategic metrics that are—

''(A) directly linked to key organizational priorities and goals;

''(B) actionable; and

''(C) actively used to implement the strategic plan under paragraph (1);

''(3) advising in the establishment of training in diversity dynamics and training in practices for leading diverse groups effectively;

''(4) advising in the establishment of a strategic plan for diverse participation by institutions of higher education, including community colleges, historically Black colleges and universities, Tribal colleges or universities, and other minority-serving institutions (as such terms are defined in section 8A(a)), and individuals;

''(5) advising in the establishment of a strategic plan for outreach to, and recruiting from, untapped locations and underrepresented populations; and

''(6) performing such additional duties and exercise such powers as the Director may prescribe.''.

(d) ANNUAL REPORT ON UNFUNDED PRIORITIES.—

(1) ANNUAL REPORT.—Not later than 10 days after the date on which the budget of the President for a fiscal year is submitted to Congress pursuant to section 1105 of title 31, United States Code, the National Science Board shall submit to the President and to Congress a report on the unfunded priorities of the National Science Foundation.

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

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

(i) the proposal success rate;

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

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

(B) a list, in order of priority, of the next activities approved by the National Science Board to be undertaken in the Major Research Equipment and Facilities Construction account.

(e) PILOT PROGRAM.—

(1) IN GENERAL.—The Director, acting through the Directorate, shall establish a 5-year pilot program for awarding grants to eligible partnerships to build research and education capacity at emerging research institutions to enable such institutions to contribute to programs run by the Directorate.

(2) APPLICATIONS.—An eligible partnership seeking a grant under this subsection shall submit an application to the Director at such time, in such manner, and containing such information as the Director may reasonably require, including a statement of how the partnership will use the funds awarded through the grant to achieve a lasting increase in the research and education capacity of each emerging research institution included in the eligible partnership.

(3) ACTIVITIES.—An eligible partnership receiving a grant under this subsection may use the funds awarded through such grant for—

(A) faculty salaries and training;

(B) research experiences for undergraduate and graduate students;

(C) maintenance and repair of research equipment and instrumentation; and

(D) any other activities the Director determines appropriate.

(4) DEFINITIONS.—In this subsection:

(A) DIRECTOR.—The term ''Director'' means the Director of the National Science Foundation.

(B) DIRECTORATE; EMERGING RESEARCH INSTITUTION.—The terms ''Directorate'' and ''emerging research institution'' have the meanings given such terms in section 8A(a) of the National Science Foundation Act of 1950, except that, with respect to the term ''emerging research institution'', the reference in paragraph (4) of such section to an award under section 8A of that Act shall be deemed a reference to a grant under this subsection.

(C) ELIGIBLE PARTNERSHIP.—The term ''eligible partnership'' means a partnership of—

(i) at least 1 emerging research institution; and

(ii) at least 1 institution classified as a very high research activity by the Carnegie Classification of Institutions of Higher Education.

SEC. 4. ENDLESS FRONTIER FUND.

(a) IN GENERAL.—There is authorized to be appropriated a total of $190,000,000,000 for fiscal years 2022 through 2026 for the implementation of this Act and the amendments made by this Act. Such funds shall be available for the implementation of this Act and the amendments made by this Act, and shall be administered by the Director of the Office of Science and Technology Policy (referred to in this section as the ''Director'').

(b) USE OF FUNDS.—

(1) SUBMISSION OF ANNUAL ALLOCATION.—Until the date on which all of the amounts in the Fund described in subsection (a) are expended, the Director shall annually submit to Congress, together with the annual budget of the United States, a list of allocations to agencies and departments to implement this Act and the amendments made by this Act that includes a detailed description of each program proposed to be funded, including the estimated expenditures from the Fund for the program for the applicable fiscal year.

(2) ALTERNATE ALLOCATION.—

(A) IN GENERAL.—The Commerce, Justice, Science, and Related Agencies Appropriations Act for the relevant fiscal year may pro-

vide for alternate allocation of amounts made available under this section.

(B) ALLOCATION BY PRESIDENT.—

(i) NO ALTERNATE ALLOCATIONS.—If Congress has not enacted legislation establishing alternate allocations as described in subparagraph (A) by the date on which the Act making full-year appropriations for Commerce, Justice, Science, and Related Agencies for the applicable fiscal year is enacted into law, amounts made available under this section shall be allocated by the Director.

(ii) INSUFFICIENT ALTERNATE ALLOCATION.—If Congress enacts legislation establishing alternate allocations for amounts made available under this section that are less than the full amount authorized to be appropriated to the Fund for that fiscal year under subsection (a), the difference between the amount authorized to be appropriated and the alternate allocation shall be allocated by the Director.

(c) SENSE OF CONGRESS.—It is the sense of Congress that, during the period of fiscal years 2022 through

2026, the Director shall make available, from amounts made available under subsection (a), not less than—

(1) $10,000,000,000 to the regional technology hub program under section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480), as added by section 7 of this Act;

(2) $100,000,000,000 to the National Science Foundation, of which not less than $2,000,000,000 shall be made available for each of such fiscal years to the Directorate for Technology and Innovation established under section 8A of the National Science Foundation Act of 1950; and

(3) $10,000,000,000 to the National Institute of Standards and Technology.

SEC. 5. STRATEGY AND REPORT ON ECONOMIC SECURITY, SCIENCE, RESEARCH, AND INNOVATION TO SUPPORT THE NATIONAL SECURITY STRATEGY.

(a) DEFINITIONS.—In this section:

(1) APPROPRIATE COMMITTEES OF CONGRESS.—The term ''appropriate committees of Congress'' means—

(A) the Committee on Agriculture, Nutrition, and Forestry, the Committee on Appropriations, the Committee on Armed Services,

the Committee on Banking, Housing, and Urban Affairs, the Committee on the Budget, the Committee on Commerce, Science, and Transportation, the Committee on Energy and Natural Resources, the Committee on Finance, the Committee on Foreign Relations, the Committee on Health, Education, Labor, and Pensions, the Committee on Homeland Security and Governmental Affairs, the Committee on the Judiciary, and the Select Committee on Intelligence of the Senate; and

(B) the Committee on Agriculture, the Committee on Appropriations, the Committee on Armed Services, the Committee on the Budget, the Committee on Education and Labor, the Committee on Energy and Commerce, the Committee on Financial Services, the Committee on Foreign Affairs, the Committee on Homeland Security, the Committee on the Judiciary, the Committee on Oversight and Reform, the Committee on Science, Space, and Technology, the Committee on Ways and Means, and the Permanent Select Committee on Intelligence of the House of Representatives.

(2) KEY TECHNOLOGY FOCUS AREA.—The term ''key technology focus area'' means an area included on the most recent list under section 8A(d)(2) of the National Science Foundation Act of 1950.

(3) NATIONAL SECURITY STRATEGY.—The term ''national security strategy'' means the national security strategy required by section 108 of the National Security Act of 1947 (50 U.S.C. 3043).

(b) STRATEGY AND REPORT.—

(1) IN GENERAL.—In 2021 and in each year thereafter before the applicable date set forth under paragraph (2), the Director of the Office of Science and Technology Policy, in coordination with the Director of the National Economic Council, the Director of the National Science Foundation, the Secretary of Commerce, the Secretary of Energy, the National Security Council, the United States Patent and Trademark Office, and the heads of other relevant Federal agencies and in consultation with relevant industry representatives and labor organizations, shall—

(A) review such strategy, programs, and resources as the Director of the Office of Science and Technology Policy determines pertain to United States national competitiveness

in science, research, innovation, and technology transfer, including patenting and licensing, to support the national security strategy;

(B) develop or revise a strategy for the Federal Government to improve the national competitiveness of the United States in science, research, and innovation to support the national security strategy; and

(C) submit to the appropriate committees of Congress—

(i) a report on the findings of the Director with respect to the review conducted under subparagraph (A); and

(ii) the strategy developed or revised under subparagraph (B).

(2) APPLICABLE DATES.—In each year, the applicable date set forth under this paragraph is as follows:

(A) In 2021, December 31, 2021.

(B) In 2022 and every year thereafter—

(i) in any year in which a new President is inaugurated, October 1 of that year; and

(ii) in any other year, the date that is 90 days after the date of the transmission

to Congress in that year of the national security strategy.

(c) ELEMENTS.—

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

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

(B) A description of the prioritized economic security interests and objectives, including domestic job creation, of the United States relating to science, research, and innovation and an assessment of how investment in civilian and military science and technology can advance those objectives.

(C) An assessment of how regional efforts are contributing and could contribute to the innovation capacity of the United States, including—

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

(ii) regional factors that are contributing or could contribute positively to innovation.

(D) An assessment of—

(i) workforce needs for competitiveness and national security in key technology areas; and

(ii) Federal support needed—

(I) to expand domestic and international student pathways into key technology areas; and

(II) to improve workforce development and employment systems, as well as programs and practices to upskill incumbent workers.

(E) An assessment of barriers to competitiveness in key technology focus areas and barriers to the development and evolution of start-ups, small and mid-sized business entities, and industries in key technology focus areas.

(F) An assessment of the effectiveness of the Federal Government, federally funded research and development centers, and national labs in supporting and promoting technology commercialization and technology transfer, in-

cluding an assessment of the adequacy of Federal research and development funding in promoting competitiveness and the development of new technologies.

(G) An assessment of manufacturing capacity, logistics, and supply chain dynamics of major export sectors, including access to a skilled workforce, physical infrastructure, and broadband network infrastructure.

(H) An assessment of how the Federal Government is increasing the participation of underrepresented populations in science, research, innovation, and manufacturing.

(I) An assessment of the effectiveness of the Federal Government, Federally funded research and development centers, and national laboratories in transitioning technologies and processes that emerge from Federally funded research to new domestic manufacturing growth and job creation across sectors in the United States.

(2) STRATEGY.—Each strategy submitted under subsection (b)(1)(C)(ii) shall include the following:

(A) A plan to utilize available tools to address or minimize the leading threats and challenges and to take advantage of the leading opportunities, including the following:

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

(ii) Specific plans to support public and private sector investment in research, technology development, education and workforce development, and domestic manufacturing in key technology focus areas supportive of the national economic competitiveness of the United States and to foster the prudent use of public-private partnerships.

(iii) Specific plans to promote environmental stewardship and fair competition for United States workers.

(iv) A description of—

(I) how the strategy submitted under subsection (b)(1)(C)(ii) supports the national security strategy; and

(II) how the strategy submitted under such subsection is integrated and coordinated with the most recent national defense strategy under section 113(g) of title 10, United States Code.

(v) A plan to encourage the governments of countries that are allies or partners of the United States to cooperate with the execution of the strategy submitted under subsection (b)(1)(C)(ii), where appropriate.

(vi) A plan to encourage certain international and multilateral organizations to support the implementation of such strategy.

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

(viii) A plan for strengthening the industrial base of the United States.

(B) An identification of additional resources, administrative action, or legislative ac-

tion recommended to assist with the implementation of such strategy.

(d) FORM OF REPORTS AND STRATEGIES.—Each report and strategy submitted under subsection (b)(1)(C) shall be submitted in unclassified form, but may include a classified annex.

SEC. 6. SUPPLY CHAIN RESILIENCY PROGRAM.

(a) DEFINITIONS.—In this section:

(1) CRITICAL INDUSTRY.—The term ''critical industry'' means—

(A) key technology focus areas, as defined in section 8A(a) of the National Science Foundation Act of 1950, as added by section 3(b) of this Act; and

(B) areas identified by the industrial review in subsection (g).

(2) FOREIGN ENTITY.—The term ''foreign entity''—

(A) means—

(i) the government of a foreign country;

(ii) a foreign political party;

(iii) an individual who is not a protected individual (as defined in section

274B(a)(3) of the Immigration and Nationality Act (8 U.S.C. 1324b(a)(3))); or

(iv) a partnership, association, corporation, organization, or other combination of persons organized under the laws of, or having its principal place of business in, a foreign country; and

(B) includes—

(i) any person owned by, controlled by, or subject to the jurisdiction or direction of, a person described in subparagraph (A);

(ii) any person, wherever located, that acts as an agent, representative, or employee of a person described in subparagraph (A);

(iii) any person that acts in any other capacity at the order or request, or under the direction or control, of—

(I) a person described in subparagraph (A); or

(II) a person, the activities of which are directly or indirectly supervised, directed, controlled, financed, or subsidized in whole or in majority

part by a person described in subparagraph (A);

(iv) any person that directly or indirectly through any contract, arrangement, understanding, relationship, or otherwise owns not less than 25 percent of the equity interests of a person described in subparagraph (A);

(v) any person with significant responsibility to control, manage, or direct a person described in subparagraph (A);

(vi) any individual, wherever located, who is a citizen or resident of a country controlled by a person described in subparagraph (A); and

(vii) any corporation, partnership, association, or other organization organized under the laws of a country controlled by a person described in subparagraph (A).

(3) FOREIGN ENTITY OF CONCERN.—The term ''foreign entity of concern'' means a foreign entity that is—

(A) designated as a foreign terrorist organization by the Secretary of State under section

219(a) of the Immigration and Nationality Act (8 U.S.C. 1189(a));

(B) included on the list of specially designated nationals and blocked persons maintained by the Office of Foreign Assets Control of the Department of the Treasury (commonly known as the ''SDN list'');

(C) owned by, controlled by, or subject to the jurisdiction or direction of a government of a foreign country that is a covered nation (as defined in section 2533c(d) of title 10, United States Code);

(D) alleged by the Attorney General to have been involved in activities for which a conviction was obtained under—

(i) chapter 37 of title 18, United States Code (commonly known as the ''Espionage Act'');

(ii) section 951 or 1030 of title 18, United States Code;

(iii) chapter 90 of title 18, United States Code (commonly known as the ''Economic Espionage Act of 1996'');

(iv) the Arms Export Control Act (22 U.S.C. 2751 et seq.);

(v) section 224, 225, 226, 227, or 236 of the Atomic Energy Act of 1954 (42 U.S.C. 2274, 2275, 2276, 2277, and 2284);

(vi) the Export Control Reform Act of 2018 (50 U.S.C. 4801 et seq.); or

(vii) the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.); or

(E) determined by the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence, to be engaged in unauthorized conduct that is detrimental to the national security or foreign policy of the United States.

(4) LABOR ORGANIZATION.—The term ''labor organization'' has the meaning given such term in section 8A(a) of the National Science Foundation Act of 1950.

(5) PROGRAM.—The term ''program'' means the supply chain resiliency and crisis response program established under subsection (b).

(6) RELEVANT COMMITTEES OF CONGRESS.—The term ''relevant committees of Congress'' means—

(A) the Committee on Commerce, Science, and Transportation of the Senate;

(B) the Committee on Appropriations of the Senate;

(C) the Committee on Science, Space, and Technology of the House of Representatives;

(D) the Committee on Energy and Commerce of the House of Representatives; and

(E) the Committee on Appropriations of the House of Representatives.

(7) SECRETARY.—The term ''Secretary'' means the Secretary of Commerce.

(8) SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUAL.—The term ''socially and economically disadvantaged individual'' means a socially and economically disadvantaged individual for the purposes of section 8(d) of the Small Business Act (15 U.S.C. 637(d)) and any rules issued under such section 8(d).

(b) ESTABLISHMENT.—The Secretary shall establish in the Department of Commerce a supply chain resiliency and crisis response program to carry out the activities described in subsection (d).

(c) MISSION AND PRIORITIES.—

(1) MISSION.—The mission of the program is to—

(A) ensure the leadership of the Federal Government with respect to industries that are essential to the mid-term and long-term national security and economic competitiveness of the United States; and

(B) coordinate the efforts of the Federal Government with industry, labor organizations, and State, local, territorial, and Tribal governments in responding to supply chain crises.

(2) PRIORITIES.—The program, and the associated supply chain resiliency fund described in subsection (f), shall—

(A) in partnership with the private sector, build resilient and secure supply chains (including through the mid-term and long-term onshoring and diversification of key supply chains) that can ensure the access of the United States to critical goods and services in the face of shocks, including pandemic and biological threats, cyberattacks, extreme weather events, terrorist and geopolitical attacks, and economic competition;

(B) enhance domestic innovation and manufacturing capacity across the United States, including in de-industrialized areas, economically distressed regions, rural areas, and historically marginalized communities;

(C) improve the competitiveness of small and medium-sized businesses, and businesses owned and controlled by socially and economically disadvantaged individuals, women, veterans, or other individuals from underrepresented populations, to support more resilient domestic supply chains in critical industries;

(D) support high-quality domestic jobs in critical industries and associated supply chains, including for underrepresented and disadvantaged populations; and

(E) support collaboration with allies and partners who share the values of the United States to build resilient global supply chains and stockpile essential goods.

(d) ACTIVITIES.—Under the program, the Assistant Secretary of Commerce for Economic Development, in coordination with the Under Secretary of Commerce for Standards and Technology, the Under Secretary of Commerce for Industry and Security, the Executive Director

of the SelectUSA Initiative established under Executive Order 13577 (15 U.S.C. 1512 note), and the Under Secretary of Commerce for International Trade (acting through the Assistant Secretary of Commerce for Industry and Analysis), shall carry out activities—

(1) to identify and monitor current and future key supply chain gaps and vulnerabilities in critical industries;

(2) to develop or identify opportunities to build domestic capacity to address supply chain gaps and vulnerabilities in critical industries;

(3) to partner with the private sector to make investments and purchases through the supply chain resiliency fund described in subsection (f) to support the domestic production of critical goods and strengthen domestic supply chains in critical industries, including investments that upgrade, re-equip, expand, or establish an industrial or manufacturing facility;

(4) to collaborate with the Director of the Office of Management and Budget, the Secretary of Defense, the Secretary of Energy, the Director of National Intelligence, the Director of the National Science Foundation, and, as appropriate, the heads

of other Federal departments and agencies to invest in urgent domestic supply chain gaps;

(5) to establish and manage partnerships between the Federal Government and industry, labor organizations, and State, local, territorial, and Tribal governments to respond to crises;

(6) to coordinate the distribution of critical resources to areas that have the greatest needs during crises;

(7) to develop contingency plans to ensure a robust domestic supply chain response for potential crises; and

(8) to ensure that the allies and foreign partners of the United States have supply chains that are capable of supporting critical industries.

(e) AUTHORITIES.—The Secretary may—

(1) request information on known risks in supply chains from private sector entities, including single-sourcing risk, the financial risk of suppliers, exposure to hazards relating to extreme weather events, intellectual property risk, cybersecurity risk, and geopolitical risk;

(2) request that an entity submit information on the known supply chain vulnerabilities of the entity;

(3) establish advisory boards and councils with authority to—

(A) request technical, engineering, and operational data directly from the private sector;

(B) directly receive whistleblower complaints with appropriate protection; and

(C) identify key competitiveness challenges in critical industries;

(4) enter into agreements with allies and partner governments regarding supply chain security assurances; and

(5) with the approval of the Committee on Appropriations of the Senate and the Committee on Appropriations of the House of Representatives, transfer funds to, or receive funds from, other departments and agencies to implement the program.

(f) SUPPLY CHAIN RESILIENCY FUND.—

(1) IN GENERAL.—In carrying out activities under the program, the Secretary may, as appropriate, provide Federal financial and technical assistance through a supply chain resiliency fund (referred to in this section as the ''Fund''), including through—

(A) direct loans, loan guarantees, bond guarantees, grants, and cooperative agreements;

(B) purchase commitments and cost sharing with nongovernmental sources, for the private sector to develop manufacturing and production capabilities;

(C) the installation or purchase of equipment;

(D) incentive prizes;

(E) milestone payments;

(F) awards to, or contracts with, independent nonprofit organizations or nonprofit corporations to—

(i) make investments and other financial awards; or

(ii) provide in-kind services; and

(G) other transaction authority to accelerate the development or prototyping and production of advanced technology projects.

(2) FOREIGN DIRECT INVESTMENT PROJECTS.—The Secretary shall evaluate any foreign direct investment project to be supported by the program, including any assistance provided through the Fund, in accordance with the process established

by the Committee on Foreign Investment in the United States.

(3) REQUIREMENTS FOR ASSISTANCE.—

(A) IN GENERAL.—In providing assistance through the Fund, the Secretary shall consider the following factors:

(i) Whether the project or initiative to which the assistance relates is in the interests of the United States.

(ii) How the project or initiative to which the assistance relates accomplishes the mission and priorities of the program.

(iii) The non-Federal cost share provided by the recipient of the assistance.

(iv) When applicable, the extent of the commitment from the recipient of the funding to expand high-quality employment opportunities for underrepresented and disadvantaged populations through the project or initiative to which the assistance relates.

(B) PROHIBITION.—The Secretary may not provide assistance through the Fund if the Secretary determines that the recipient of the assistance is a foreign entity of concern.

(4) EXTERNAL ADVISORY BOARD.—

(A) IN GENERAL.—The Fund shall have an oversight board that—

(i) shall be comprised of members who represent both national security and economic competitiveness stakeholders, including representatives of labor organizations and small businesses; and

(ii) may—

(I) offer guidance and direction regarding assistance provided through the Fund; and

(II) monitor, and provide recommendations regarding, the assistance provided through the Fund.

(B) CONFLICTS OF INTEREST.—No member of the oversight board described in subparagraph (A) may, in any manner, directly or indirectly, participate in the deliberation regarding, or the determination of, any question affecting—

(i) the personal interests of that member; or

(ii) the interests of any corporation, partnership, or association in which that

member is directly or indirectly personally interested.

(C) APPLICABILITY OF FACA.—The Federal Advisory Committee Act (5 U.S.C. App.) shall apply with respect to the oversight board described in subparagraph (A) and the activities of the oversight board, except that section 14 of that Act shall not so apply.

(5) SMALL AND DISADVANTAGED BUSINESS MANDATES.—The Fund may have set asides, preferences, or explicit mandates to assist or benefit small and medium-sized businesses and businesses owned and controlled by socially and economically disadvantaged individuals, women, veterans, or other individuals from underrepresented populations.

(6) PROTECTION OF TAXPAYER FUNDS.—The Fund may place restrictions on executive compensation and shareholder activities to ensure taxpayer investments are being protected, including explicit time limits on the length of the restrictions.

(7) RECORDS.—

(A) IN GENERAL.—With respect to assistance provided under this section through the Fund, the recipient of the assistance and any other appropriate party shall keep such records

and other pertinent documents as the Secretary shall prescribe by regulation, including such records as the Secretary may require to facilitate an effective audit.

(B) ACCESS.—The Secretary and the Comptroller General of the United States, or any duly authorized representative of either such official, shall have access to the records and documents described in subparagraph (A) for the purposes of conducting an audit.

(8) TERMS.—

(A) IN GENERAL.—The Secretary may establish the terms of any assistance provided through the Fund.

(B) PUBLIC AVAILABILITY.—The Secretary shall make all terms described in subparagraph (A) available to the public, including copies of any contracts relating to the assistance described in that subparagraph.

(9) AMOUNT OF ASSISTANCE.—

(A) IN GENERAL.—Subject to subparagraph (B), the Secretary may determine the appropriate amount, and the type of funding, with respect to assistance provided through the Fund.

(B) NOTIFICATION.—Not later than 15 days before the date on which the Secretary makes any commitment to provide assistance through the Fund in an amount that is more than $10,000,000, the Secretary shall submit to the relevant committees of Congress a notification regarding that commitment.

(10) CLAWBACK REQUIREMENTS AND OTHER REGULATIONS.—The Secretary shall prescribe regulations to carry out this subsection, which shall include policies relating to the circumstances under which the Secretary may recover assistance provided through the Fund and any other policies, procedures, or information necessary to implement this subsection.

(11) TECHNICAL ASSISTANCE.—In carrying out activities under the program through the Fund, the Secretary may provide technical assistance, including in coordination with the program established under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) and the Manufacturing USA Program established under section 34 of that Act (15 U.S.C. 278s).

(12) AUDIT.—

(A) ANNUAL INDEPENDENT AUDITS.—The Secretary shall enter into an arrangement with an independent auditor to conduct annual evaluations of assistance provided through the Fund under this section.

(B) COMPTROLLER GENERAL REVIEW.—The Comptroller General of the United States shall conduct a biennial review of the administration by the Secretary of the Fund under this section.

(C) REPORTS.—The results of each audit conducted under subparagraph (A), and each review conducted under subparagraph (B), shall be submitted to the relevant committees of Congress.

(g) INDUSTRIAL REVIEW ON SUPPLY CHAIN RESILIENCY AND DOMESTIC MANUFACTURING.—Not later than 90 days after the date of enactment of this Act, and not less frequently than every 2 years thereafter, the Secretary shall conduct a review, in coordination with other relevant Federal departments and agencies, to be submitted to the relevant committees of Congress—

(1) identifying—

(A) technologies critical to economic competitiveness and national security; and

(B) supplies critical to the crisis preparedness of the United States, such as medical supplies, personal protective equipment, disaster response necessities, electrical generation technology, materials essential to infrastructure repair and renovation, and other supplies identified by the Secretary;

(2) describing—

(A) the current domestic manufacturing base and supply chains for those technologies and supplies, including raw materials, production equipment, and other goods essential to the production of those technologies and supplies; and

(B) the ability of the United States to maintain readiness and to surge produce those technologies and supplies in response to an emergency;

(3) identifying defense, intelligence, homeland, economic, domestic labor supply, natural, geopolitical, or other contingencies that may disrupt, strain, compromise, or eliminate the supply chain for those technologies and supplies;

(4) assessing the resiliency and capacity of the domestic manufacturing base, supply chains, and

workforce to support the need for those technologies and supplies, including any single points of failure in those supply chains;

(5) assessing flexible manufacturing capacity available in the United States in cases of emergency;

(6) making specific recommendations to improve the security and resiliency of domestic manufacturing capacity and supply chains, including the development of sector-based plans for re-shoring manufacturing and for supply chain optimization designed to help manufacturers build domestic supply chains and a domestic workforce in critical technologies and supplies by—

(A) developing long-term strategies;

(B) increasing visibility throughout multiple supplier tiers;

(C) identifying and mitigating risks, including the financial and operational risks of a supply chain, vulnerabilities to extreme weather events, cyberattacks, pandemic and biological threats, terrorist and geopolitical attacks, and other emergencies, and exposure to gaps in domestic sourcing and import exposure;

(D) identifying enterprise resource planning systems that are compatible across supply

chain tiers and are affordable for small and medium-sized enterprises;

(E) understanding the total cost of ownership, total value contribution, and other best practices that encourage strategic partnerships throughout the supply chain;

(F) understanding Federal procurement opportunities to fulfill requirements for buying domestically sourced goods and services and fill gaps in domestic purchasing;

(G) understanding how advanced digital technology, including artificial intelligence, robotics, 3D printing, and cloud computing—

(i) can improve the security and resiliency of domestic manufacturing capacity and supply chains; and

(ii) will affect the number and quality of jobs in the United States;

(H) identifying policies to maximize domestic job retention and creation, including workforce development programs; and

(I) identifying such other services as the Secretary considers necessary;

(7) providing guidance on technologies and supplies to be prioritized for assistance through the

Fund and other activities under the Department of Commerce, the National Science Foundation, and other relevant Federal agencies;

(8) reviewing the sourcing of key goods from allies and partners, including recommendations for coordination with allies and partners on sourcing critical products where appropriate; and

(9) monitoring and strengthening the financial and operational health of small and medium enterprises in domestic supply chains to mitigate risks and ensure diverse, competitive supplier markets that are less vulnerable to single points of failure.

(h) ADDITIONAL HIRING AUTHORITY.—

(1) IN GENERAL.—To the extent needed to carry out the program, the Secretary may—

(A) utilize hiring authorities under section 3372 of title 5, United States Code, to staff the program with employees from other Federal agencies, institutions of higher education, and other organizations as described in that section with relevant experience in supply chain management and investment in the same manner and subject to the same conditions that apply to such individuals utilized to accomplish other missions of the Department of Commerce;

(B) appoint and fix the compensation of such temporary personnel as may be necessary to implement the requirements of this section relating to the program, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service; and

(C) appoint an individual appointed under subparagraph (B), after serving continuously for not less than 2 years, to a position in the Department of Commerce in the same manner that an employee serving in a position in the competitive service may be transferred, reassigned, or promoted.

(2) NO REIMBURSEMENT.—Any assignment provided under paragraph (1)(A) shall be made without reimbursement.

(3) EFFECT OF APPOINTMENT.—An individual appointed as described in paragraph (1)(C) shall be considered to be appointed under a career-conditional appointment, unless the individual, as of the date on which the individual is appointed, has completed a sufficient amount of creditable service to attain a permanent career appointment.

(i) SEMICONDUCTOR INCENTIVES.—

(1) IN GENERAL.—The Secretary shall carry out the program established under section 9902 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283) as part of the program.

(2) TECHNICAL AND CONFORMING AMENDMENT.—Section 9902(a)(1) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116–283) is amended by striking ''in the Department of Commerce'' and inserting ''as part of the program established under section 6 of the Endless Frontier Act''.

(j) REPORT TO CONGRESS.—Concurrent with the annual submission by the President of a budget under section 1105 of title 31, United States Code, the Secretary shall submit to the relevant committees of Congress a report that contains a summary of all activities carried out under this section for the year covered by the report.

(k) MAINTENANCE OF STANDARDS.—A recipient of assistance provided under this section, including assistance provided through the Fund, shall be required to comply with the requirements of title VI of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3211 et seq.), except to the extent that the Secretary determines that any such requirement is manifestly incompatible with

or inapposite to a project other than a project assisted under such title.

(l) FUNDING.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary such sums as may be necessary carry out this section, which shall remain available until expended.

(2) INSPECTOR GENERAL FUNDING.—Of the amounts made available in a fiscal year to carry out this section, not more than 2 percent of those amounts shall be available to the Inspector General of the Department of Commerce to conduct oversight activities with respect to the program.

(3) TRANSFERS.—Of the amounts made available in a fiscal year to carry out this section, the Secretary may transfer not more than 5 percent of those amounts to the account under the heading ''Department of Commerce—Salaries and Expenses'' to provide for administration and oversight activities relating to the program.

SEC. 7. REGIONAL TECHNOLOGY HUB PROGRAM.

(a) IN GENERAL.—The Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480; 15 U.S.C. 3701 et seq.) is amended—

(1) by redesignating section 28 as section 30; and

(2) by inserting after section 27 the following:

"SEC. 28. REGIONAL TECHNOLOGY HUB PROGRAM.

"(a) DEFINITIONS.—In this section:

"(1) APPRENTICESHIP.—The term 'apprenticeship' means an apprenticeship program that is registered by the Office of Apprenticeship or a State apprenticeship agency under the Act of August 16, 1937 (commonly known as the 'National Apprenticeship Act') (50 Stat. 664, chapter 663; 29 U.S.C. 50 et seq.), including, as in effect on December 30, 2019, any requirement, standard, or rule promulgated under that Act.

"(2) APPROPRIATE COMMITTEES OF CONGRESS.—The term 'appropriate committees of Congress' means—

"(A) the Committee on Commerce, Science, and Transportation, the Committee on Environment and Public Works, and the Committee on Appropriations of the Senate; and

"(B) the Committee on Science, Space, and Technology, the Committee on Transportation and Infrastructure, and the Committee

on Appropriations of the House of Representatives.

''(3) COOPERATIVE EXTENSION.—The term 'cooperative extension' means the extension services established at the land-grant colleges and universities under the Smith-Lever Act of May 8, 1914 (7 U.S.C. 341 et seq.).

''(4) KEY TECHNOLOGY FOCUS AREAS.—The term 'key technology focus areas' means the areas included on the most recent list under section 8A(d)(2) of the National Science Foundation Act of 1950.

''(5) LABOR ORGANIZATION.—The term 'labor organization' has the meaning given such term in section 8A(a) of the National Science Foundation Act of 1950.

''(6) LARGE METROPOLITAN COMMUNITIES.—The term 'large metropolitan community' means a metropolitan statistical area with a population of more than 500,000.

''(7) 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).

''(8) MANUFACTURING USA INSTITUTE.—The term 'Manufacturing USA institute' means an Manufacturing USA institute described in section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d)).

''(9) MID-SIZED METROPOLITAN COMMUNITIES.—The term 'mid-sized metropolitan community' means a metropolitan statistical area with a population of more than 200,000 and not more than 500,000.

''(10) OTHER TECHNOLOGY AND INNOVATION SECTORS CRITICAL TO NATIONAL AND ECONOMIC SECURITY.—The term 'other technology and innovation sectors critical to national and economic security' means other technology and innovation sectors that the Secretary of Commerce determines are critical to national and economic security.

''(11) SMALL AND RURAL COMMUNITIES.—The term 'small and rural community' means a noncore area, a micropolitan area, or a small metropolitan statistical area with a population of not more than 200,000.

''(12) VENTURE DEVELOPMENT ORGANIZATION.—The term 'venture development organization' means a State or nonprofit organization that con-

tributes to regional or sector-based economic prosperity by providing services for the purposes of—

"(A) accelerating the commercialization of research;

"(B) strengthening the competitive position of industry through the development, commercial adoption, or deployment of technology; and

"(C) providing Federal financial assistance, loans, direct financial investment, or in-kind services to commercialize technology.

"(b) REGIONAL TECHNOLOGY HUB PROGRAM.—

"(1) IN GENERAL.—The Secretary of Commerce shall carry out a program—

"(A) to designate eligible consortia as regional technology hubs that create the conditions, within a region, to facilitate activities that—

"(i) enable United States leadership in a key technology focus area, complementing the Federal research and development investments under section 8A of the National Science Foundation Act of 1950, or other technology and innovation sectors critical to national and economic security;

"(ii) support regional economic development that diffuses innovation capacity around the United States, enabling better broad-based growth and competitiveness in key technology focus areas;

"(iii) support domestic job creation; and

"(iv) otherwise support the purposes set forth under paragraph (2);

"(B) to support regional technology hubs designated under subparagraph (A); and

"(C) to conduct ongoing research, evaluation, analysis, and dissemination of best practices for regional development and competitiveness in technology and innovation.

"(2) PURPOSES.—The purposes of the program carried out under paragraph (1) are as follows:

"(A) To designate eligible consortia as regional technology hubs throughout the United States that create the conditions within a region to facilitate activities that establish the global competitive edge of the United States in the 21st century across a range of technology and innovation sectors critical to national and economic security, including to encourage lower-

cost but economically viable technology hubs in the United States to reduce technology offshoring.

''(B) To encourage new and constructive collaboration among local, State, and Federal government entities, academia, private industry, and labor organizations to mobilize investment, talent, entrepreneurship, and innovation for research, development, deployment, and manufacturing in a range of technology and innovation sectors critical to national and economic security.

''(C) To assist regions across the United States, including small cities and rural areas, to develop and implement strategies to improve domestic supply chains in technology and innovation sectors and to enable broad-based economic growth, job creation and competitiveness in the United States.

''(3) ADMINISTRATION.—The Secretary shall carry out this section through the Assistant Secretary of Commerce for Economic Development, in coordination with the Under Secretary of Commerce for Standards and Technology.

''(c) ELIGIBLE CONSORTIA.—For purposes of this section, an eligible consortium is a consortium that—

''(1) includes—

''(A) an institution of higher education;

''(B) a local or Tribal government or other political subdivision of a State;

''(C) a representative appointed by the governor of the State or States that is representative of the geographic coverage of the regional technology hub;

''(D) an economic development organization or similar entity that is focused primarily on improving science, technology, innovation, or entrepreneurship;

''(E) an industry organization or firm or firms in a relevant technology or innovation sector; and

''(F) a labor organization; and

''(2) may include 1 or more—

''(A) nonprofit economic development entities with relevant expertise, including a district organization (as defined in section 300.3 of title 13, Code of Federal Regulations, or successor regulation);

''(B) venture development organizations;

"(C) financial institutions and investment funds;

"(D) primary and secondary educational institutions, including career and technical education schools;

"(E) workforce training organizations, including State and local workforce development boards as established under section 101 of the Workforce Investment and Opportunity Act (29 U.S.C. 3111);

"(F) industry associations;

"(G) National Laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

"(H) Federal laboratories;

"(I) manufacturing extension centers;

"(J) Manufacturing USA institutes;

"(K) institutions receiving an award under paragraph (6) or (7) of section 8A(d) of the National Science Foundation Act of 1950; and

"(L) a cooperative extension.

"(d) DESIGNATION OF REGIONAL TECHNOLOGY HUBS.—

"(1) IN GENERAL.—The Secretary shall use a competitive process for the designation of regional technology hubs under subsection (b)(1)(A).

"(2) NUMBER OF REGIONAL TECHNOLOGY HUBS.—During the 5-year period beginning on the date of the enactment of the Endless Frontier Act, the Secretary shall designate not fewer than 10 and not more than 15 eligible consortia as regional technology hubs under subsection (b)(1)(A), if the Secretary has received a sufficient number of qualified applications and appropriations to carry out this section.

"(3) GEOGRAPHIC DISTRIBUTION.—In conducting the competitive process under paragraph (1), the Secretary shall ensure geographic distribution in the designation of regional technology hubs by—

"(A) aiming to designate regional technology hubs in as many regions of the United States as possible; and

"(B) focusing on localities that have clear potential and relevant assets for developing a self-sustaining competitive position in a technology or innovation sector but have not yet become leading technology centers.

"(4) ELIGIBLE CONSORTIA THAT SERVE SMALL AND RURAL COMMUNITIES.—Under subsection (b)(1)(A), the Secretary shall designate at least 3 eligible consortia that—

"(A) serve small and rural communities; and

"(B) have received a grant under section 29.

"(5) EPSCoR.—The Secretary shall ensure that, of the eligible consortia designated as regional technology hubs under subsection (b)(1)(A), not fewer than 7 of such consortia include at least 1 State that is eligible to receive funding from the Established Program to Stimulate Competitive Research of the National Science Foundation.

"(6) RELATION TO CERTAIN GRANT AWARDS.—The Secretary may not require an eligible consortium to receive a grant under section 29 in order to be designated as a regional technology under subsection (b)(1)(A) of this section.

"(e) GRANTS AND COOPERATIVE AGREEMENTS.—

"(1) IN GENERAL.—The Secretary shall carry out subparagraph (B) of subsection (b)(1) through the award of grants or cooperative agreements to eli-

gible consortia designated under subparagraph (A) of such subsection.

''(2) TERM.—

''(A) IN GENERAL.—The term of a grant or cooperative agreement awarded under paragraph (1) shall be for such period as the Secretary considers appropriate.

''(B) RENEWAL.—The Secretary may renew a grant or cooperative agreement awarded to an eligible consortia under paragraph (1) as the Secretary considers appropriate if the Secretary determines pursuant to subsection (i) that the performance of the eligible consortia is satisfactory.

''(3) MATCHING REQUIRED.—

''(A) IN GENERAL.—Except in the case of an eligible consortium described in subparagraph (B), the total Federal financial assistance awarded in a given year to an eligible consortium in support of the eligible consortium's operation as a regional technology hub under this section shall not exceed amounts as follows:

''(i) In first year of the grant or cooperative agreement, 90 percent of the total

operating and maintenance costs of the regional technology hub in that fiscal year.

''(ii) In second year of the grant or cooperative agreement, 85 percent of the total operating and maintenance costs of the regional technology hub in that fiscal year.

''(iii) In third year of the grant or cooperative agreement, 80 percent of the total operating and maintenance costs of the regional technology hub in that fiscal year.

''(iv) In fourth year of the grant or cooperative agreement and each year thereafter, 75 percent of the total operating and maintenance costs of the regional technology hub in that fiscal year.

''(B) SMALL AND RURAL COMMUNITIES AND INDIAN TRIBES.—The total Federal financial assistance awarded in a given year to an eligible consortium in support of the eligible consortium's operation as a regional technology hub under this section shall not exceed amounts as follows:

"(i) In the case of an eligible consortium that represents a small and rural community, in a fiscal year, 90 percent of the total funding of the regional technology hub in that fiscal year.

"(ii) In the case of an eligible consortium that is led by a Tribal government, in a fiscal year, 100 percent of the total funding of the regional technology hub in that fiscal year.

"(C) IN-KIND CONTRIBUTIONS.—For purposes of this paragraph, in-kind contributions may be used for all or part of the non-Federal share of the total funding of a regional technology hub in a fiscal year.

"(4) USE OF GRANT AND COOPERATIVE AGREEMENT FUNDS.—The recipient of a grant or cooperative agreement awarded under paragraph (1) shall use the grant or cooperative agreement for multiple activities determined appropriate by the Secretary, including—

"(A) the permissible activities set forth under section 27(c)(2); and

"(B) activities in support of key technology focus areas and other technology and innova-

tion sectors critical to national and economic security—

"(i) to develop the region's skilled workforce through the training and retraining of workers, partnerships with labor organizations and labor-management organizations, and skills-based education, including the alignment of career technical training and educational programs in the region's elementary and secondary schools and institutions of higher education;

"(ii) to develop regional strategies for infrastructure and site development in support of the regional technology hub's plans and programs;

"(iii) to support business activity that makes domestic supply chain more resilient and encourages the growth of coordinated multiparty systems in the United States and creation and growth of business entities;

"(iv) to attract new private, public, and philanthropic investment in the region for developing innovation capacity, including establishing regional venture and loan

funds for financing technology commercialization, new business formation, and business expansions;

''(v) to further the development, deployment, and domestic manufacturing of technologies in the key technology focus areas and other technology and innovation sectors critical to national and economic security, including innovations derived from research conducted at institutions of higher education or other research entities, including research conducted by federally-funded research and development centers, National Laboratories, Federal laboratories, Manufacturing USA institutes, university technology centers established under paragraph (6) of section 8A(d) of the National Science Foundation Act of 1950, the program established under paragraph (7) of such section 8A(d), test beds established and operated under paragraph (8) of such section 8A(d), or other Federal research entities, through activities that may include—

''(I) proof-of-concept development and prototyping;

''(II) technology transfer and commercialization, including patenting and licensing;

''(III) public-private partnerships in order to reduce the cost, time, and risk of commercializing new technologies;

''(IV) creating and funding competitions to allow entrepreneurial ideas from institutions of higher education to illustrate their commercialization and domestic job creation potential;

''(V) facilitating relationships between local and national business leaders and potential entrepreneurs to encourage successful commercialization;

''(VI) creating and funding not-for-profit entities that could enable researchers at institutions of higher education and other research entities to further develop new technology,

through patient funding, advice, staff support, or other means;

''(VII) providing facilities for start-up companies where technology maturation could occur; and

''(VIII) commercialization, deployment, and adoption of the technologies that lead to domestic manufacturing of such technologies; and

''(vi) to carry out such other activities as the Secretary considers appropriate to improve United States competitiveness and regional economic development to support a key technology focus area and that would further the purposes of this section.

''(5) MAINTENANCE OF STANDARDS.—A recipient of support provided under subsection (b)(1)(B) shall be required to comply with the requirements of title VI of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3211 et seq.), except to the extent that the Secretary determines that any such requirement is manifestly incompatible with or inapposite to a project other than a project assisted under such title.

''(f) APPLICATIONS.—An eligible consortium seeking designation as a regional technology hub under subparagraph (A) of subsection (b)(1) and support under subparagraph (B) of such subsection shall submit to the Secretary an application therefor at such time, in such manner, and containing such information as the Secretary may specify.

''(g) CONSIDERATIONS FOR DESIGNATION AND AWARD OF GRANTS AND COOPERATIVE AGREEMENTS.—In selecting an eligible consortium that submitted an application under subsection (f) for designation and support under subsection (b)(1), the Secretary shall consider, at a minimum, the following:

''(1) The potential of the eligible consortium to advance the research, development, deployment, and domestic manufacturing of technologies in a key technology focus area or other technology or innovation sector critical to national and economic security.

''(2) The likelihood of positive regional economic effect, including increasing the number of high wage domestic jobs, and creating new economic opportunities for economically disadvantaged and underrepresented populations.

''(3) How the eligible consortium plans to integrate with and leverage the resources of 1 or more federally-funded research and development centers,

National Laboratories, Federal laboratories, Manufacturing USA institutes, university technology centers established under paragraph (6) of section 8A(d) of the National Science Foundation Act of 1950, the program established under paragraph (7) of such section 8A(d), test beds established and operated under paragraph (8) of such section 8A(d), or other Federal research entities.

''(4) How the eligible consortium will engage with the private sector, including small- and medium-sized enterprises to commercialize new technologies and improve the resiliency of domestic supply chains in a key technology focus area or other technology or innovation sector critical to national and economic security.

''(5) How the eligible consortium will carry out workforce development and skills acquisition programming, including through the use of apprenticeships, mentorships, partnerships with State and local workforce development boards, institutions of higher education, including community colleges, historically Black colleges and universities, Tribal colleges and universities, and minority serving institutions, labor organizations, labor-management organizations, and workforce development programs, and other related

activities authorized by the Secretary, to support the development of a key technology focus area or other technology or innovation sector critical to national and economic security.

''(6) How the eligible consortium will improve science, technology, engineering, and mathematics education programs in the identified region in elementary and secondary school and higher education institutions located in the identified region to support the development of a key technology focus area or other technology or innovation sector critical to national and economic security.

''(7) How the eligible consortium plans to develop partnerships with venture development organizations and sources of private investment in support of private sector activity, including launching new or expanding existing companies, in a key technology focus area or other technology or innovation sector critical to national and economic security.

''(8) How the eligible consortium plans to organize the activities of regional partners in the public, private, philanthropic, and organized labor sectors in support of the proposed regional technology hub, including the development of necessary infrastructure improvements and site preparation.

''(9) How the eligible consortium will foster racial equity and inclusive growth, including by leveraging minority serving institutions, preventing gentrification, combating segregation, promoting the inclusion of underrepresented residents, and ensuring affordable housing options.

''(10) How the eligible consortium will ensure that growth in technology and innovation sectors produces broadly shared opportunity across the identified region, including for economic disadvantaged and underrepresented populations and rural areas.

''(11) The likelihood that the region served by the eligible consortium will be able to become a self-sustaining globally leading technology hub once Federal support ends.

''(h) COORDINATION AND COLLABORATION.—

''(1) COORDINATION WITH NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY PROGRAMS.—

''(A) COORDINATION REQUIRED.—The Secretary shall coordinate the activities of regional technology hubs designated under this title, the Hollings Manufacturing Extension Partnership, and the Manufacturing USA Program with each other to the degree that doing

so does not diminish the effectiveness of the ongoing activities of a manufacturing extension center or a Manufacturing USA institute.

''(B) ELEMENTS.—Coordination by the Secretary under subparagraph (A) may include the following:

''(i) The alignment of activities of the Hollings Manufacturing Extension Partnership with the activities of regional technology 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.

''(2) INTERAGENCY COLLABORATION.—

''(A) IN GENERAL.—In selecting and assisting regional technology hubs designated under subsection (b)(1)(A), the Secretary—

''(i) shall collaborate, to the extent possible, with the interagency advisory committee established under subparagraph (B)

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

"(iii) may accept funds from other Federal agencies to support grants and activities under this title.

"(B) INTERAGENCY ADVISORY COMMITTEE.—

"(i) ESTABLISHMENT.—The Secretary shall establish an interagency advisory committee to coordinate with the Secretary in the designation of regional technology hubs under subparagraph (A) of subsection (b)(1) and in the selection of eligible consortia to receive support under subparagraph (B) of such subsection.

"(ii) COMPOSITION.—The interagency advisory committee established under clause (i) shall be composed of the following (or their designees):

"(I) The Secretary of Commerce.

"(II) The Secretary of Education.

"(III) The Administrator of the Small Business Administration.

"(IV) The Deputy Secretary for Housing and Urban Development.

"(V) The Director of the Community Development Financial Institution Fund.

"(VI) The Director of the National Science Foundation.

"(VII) The Director of the National Institute of Standards and Technology.

"(VIII) The Director of the National Economic Council.

"(IX) The Assistant Secretary of Commerce for Economic Development.

"(X) The Assistant Secretary for Employment and Training.

"(XI) The Director of the Office of Science and Technology Policy.

"(XII) The Under Secretary of Defense for Research and Engineering.

"(XIII) The Under Secretary for Science of the Department of Energy.

"(XIV) The Director of the National Institutes of Health.

"(XV) The Under Secretary for Science and Technology of the Department of Homeland Security.

"(XVI) The Administrator of the National Aeronautics and Space Administration.

"(XVII) The Director of the Office of Management and Budget.

"(XVIII) Such other Federal officials as the Secretary of Commerce considers appropriate.

"(iii) CHAIRPERSON.—The Secretary of Commerce shall be the chairperson of the interagency advisory committee established under clause (i).

"(3) SETTING GOALS FOR FEDERALLY FUNDED REGIONS SERVED BY RESEARCH IN REGIONAL TECHNOLOGY HUBS.—

"(A) IN GENERAL.—The Director of the Office of Science and Technology Policy and the Director of the Office of Management and Budget shall coordinate with the each head of a Federal agency that conducts research to set

goals for doubling the amount of Federally-funded research awarded, as in effect on the day before the date of the enactment of the Endless Frontier Act, to regions served by regional technology hubs designated under subsection (b)(1)(A).

''(B) ANNUAL REPORTS.—Not less frequently than once each year, the Director of the Office of Science and Technology Policy and the Director of the Office of Management and Budget shall submit to the appropriate committees of Congress an annual report on progress made relating to the goals set under subparagraph (A).

''(i) PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.—

''(1) METRICS, STANDARDS, AND ASSESSMENT.—For each grant and cooperative agreement awarded under subsection (e)(1) for a regional technology hub, the Secretary shall—

''(A) develop metrics to assess the effectiveness of the activities funded in making progress toward the purposes set forth under subsection (b)(2), which may include—

"(i) research supported in a key technology focus area;

"(ii) commercialization activities undertaken by each regional technology hub that is designated and supported under subsection (b)(1);

"(iii) educational and workforce development improvements undertaken by each regional technology hub that is designated and supported under subsection (b)(1);

"(iv) sources of matching funds for each regional technology hub that is designated and supported under subsection (b)(1); and

"(v) domestic job creation, patent awards, and business formation and expansion relating to the activities of the regional technology hub that is designated and supported under subsection (b)(1);

"(B) establish standards for the performance of the regional technology hub that are based on the metrics developed under subparagraph (A); and

"(C) 4 years after the initial award under subsection (e)(1) and every 2 years thereafter

until Federal financial assistance under this section for the regional technology hub is discontinued, conduct an assessment of the regional technology hub to confirm whether the performance of the regional technology hub is meeting the standards for performance established under subparagraph (B) of this paragraph.

''(2) FINAL REPORTS BY RECIPIENTS OF ASSISTANCE.—

''(A) IN GENERAL.—The Secretary shall require each eligible consortium that receives a grant or cooperative agreement under subsection (e)(1) for support of a regional technology hub, as a condition of receipt of such grant or cooperative agreement, submit to the Secretary, not later than 90 days after the last day of the term of the grant or cooperative agreement, a report on the activities of the regional technology hub supported by the grant or cooperative agreement.

''(B) CONTENTS OF REPORT.—Each report submitted by an eligible consortium under subparagraph (A) shall include the following:

"(i) A detailed description of the activities carried out by the eligible consortium using the assistance described in subparagraph (A), including the following:

"(I) A description of each project the eligible consortium completed using such assistance.

"(II) An explanation of how each project described in subclause (I) achieves a specific goal under this section in the region of the regional technology hub of the eligible consortium with respect to—

"(aa) the resiliency of a supply chain;

"(bb) research, development, and deployment of a critical technology;

"(cc) workforce training and development;

"(dd) domestic job creation; or

"(ee) entrepreneurship.

"(ii) A discussion of any obstacles encountered by the eligible consortium in the

implementation of the regional technology hub and how the eligible entity overcame those obstacles.

''(iii) An evaluation of the success of the projects supported by the eligible consortium to implement the regional technology hub using the performance standards and measures established under paragraph (1), including an evaluation of the planning process and how the project contributes to carrying out the comprehensive strategy for the regional technology hub if the regional technology hub has such a strategy.

''(iv) The effectiveness of the eligible consortium in ensuring that, in the region of the eligible consortium's regional technology hub, growth in technology and innovation sectors produces broadly shared opportunity across the region, including for economic disadvantaged and underrepresented populations and rural areas.

''(v) Information regarding such other matters as the Secretary may require.

''(3) INTERIM REPORTS BY RECIPIENTS OF ASSISTANCE.—In addition to requiring submittal of final reports under paragraph (2)(A), the Secretary may require an eligible consortium described in such paragraph to submit to the Secretary such interim reports as the Secretary considers appropriate.

''(4) ANNUAL REPORTS TO CONGRESS.—Not less frequently than once each year, the Secretary shall submit to the appropriate committees of Congress an annual report on the results of the assessments conducted by the Secretary under paragraph (1)(C) during the period covered by the report.

''(j) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $9,425,000,000 for the period of fiscal years 2022 through 2026.''.

(b) INITIAL DESIGNATIONS AND AWARDS.—

(1) COMPETITION REQUIRED.—Not later than 180 days after the date of the enactment of this Act, the Secretary of Commerce shall commence a competition under subsection (d)(1) of section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480), as added by subsection (a).

(2) DESIGNATION AND AWARD.—Not later than 1 year after the date of the enactment of this Act, if the Secretary has received at least 1 application under subsection (f) of such section from an eligible consortium whom the Secretary considers suitable for designation under subsection (b)(1)(A) of such section, the Secretary shall—

(A) designate at least 1 regional technology hub under subsection (b)(1)(A) of such section; and

(B) award a grant or cooperative agreement under subsection (e)(1) of such section to each regional technology hub designated pursuant to subparagraph (A) of this paragraph.

SEC. 8. COMPREHENSIVE REGIONAL TECHNOLOGY STRATEGY GRANT PROGRAM.

The Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480; 15 U.S.C. 3701 et seq.), as amended by section 7, is further amended, by inserting after section 28, as added by such section, the following:

"SEC. 29. COMPREHENSIVE REGIONAL TECHNOLOGY STRATEGY GRANT PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) LABOR ORGANIZATION.—The term 'labor organization' has the meaning given such term in

section 8A(a) of the National Science Foundation Act of 1950.

''(2) REGIONAL TECHNOLOGY HUB.—The term 'regional technology hub' means a consortium designated as a regional technology hub under section 28(b)(1)(A).

''(3) SMALL AND RURAL COMMUNITIES; MID-SIZED METROPOLITAN COMMUNITIES; LARGE METROPOLITAN COMMUNITIES.—The terms 'small and rural communities', 'mid-sized metropolitan communities', and 'large metropolitan communities' have the meanings given such terms in section 28(a).

''(4) TECHNOLOGY AND INNOVATION SECTORS CRITICAL TO NATIONAL AND ECONOMIC SECURITY.—The term 'technology and innovation sectors critical to national and economic security' means technology and innovation sectors that the Secretary of Commerce determines are critical to national and economic security.

''(b) GRANT PROGRAM REQUIRED.—The Secretary of Commerce shall establish a program to award grants to eligible consortia to carry out projects—

''(1) to coordinate locally defined planning processes, across jurisdictions and agencies, relating to

developing a comprehensive regional technology strategy;

''(2) to identify regional partnerships for developing and implementing a comprehensive regional technology strategy;

''(3) to conduct or update assessments to determine regional needs and promote economic and community development related to the resiliency of a domestic supply chains, competitiveness of the region, and domestic job creation in technology and innovation sectors critical to national and economic security;

''(4) to develop or update goals and strategies to implement an existing comprehensive regional plan related to enhancing the resiliency of domestic supply chains, competitiveness of the region, and domestic job creation in technology and innovation sectors critical to national and economic security; and

''(5) to identify local zoning and other code changes necessary to implement a comprehensive regional technology strategy, including promoting sustainable development within the identified region.

''(c) ELIGIBLE CONSORTIA.—For purposes of this section, an eligible consortium is any consortium described by section 28(c).

"(d) GRANTS.—

"(1) DIVERSITY OF RECIPIENTS.—In awarding grants under this section, the Secretary shall ensure geographic diversity among, and adequate representation from, each of the following:

"(A) Small and rural communities.

"(B) Mid-sized metropolitan communities.

"(C) Large metropolitan communities.

"(2) AWARDS TO SMALL AND RURAL COMMUNITIES.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the Secretary shall—

"(i) award not less than 25 percent of the funds under this section to eligible consortia that represent all or part of a small and rural community; and

"(ii) ensure diversity among the geographic regions and the size of the population of the communities served by recipients of grants that are eligible consortia that represent all or part of a small and rural community.

"(B) INSUFFICIENT APPLICATIONS.—If the Secretary determines that an insufficient number of sufficient quality applications for

grants under this section have been submitted by eligible consortia that represent all or part of a small and rural community, the Secretary may reduce the percentage threshold set forth in subparagraph (A)(i).

''(3) FEDERAL SHARE.—

''(A) IN GENERAL.—Except as provided in subparagraph (B), the Federal share of the cost of a project carried out using a grant awarded under this section may not exceed 80 percent.

''(B) EXCEPTIONS.—

''(i) SMALL AND RURAL COMMUNITIES.—In the case of an eligible consortium that represents all or part of a small and rural community, the Federal share of the cost of a project carried out using a grant awarded under this section may be up to 90 percent of the total cost of the project.

''(ii) INDIAN TRIBES.—In the case of an eligible consortium that is led by a Tribal government, the Federal share of the cost of a project carried out using a grant under the grant awarded under this

section may be up to 100 percent of the total cost of the project.

''(C) NON-FEDERAL SHARE.—

''(i) IN-KIND CONTRIBUTIONS.—For the purposes of this paragraph, in-kind contributions may be used for all or part of the non-Federal share of the cost of a project carried out using a grant awarded under this section.

''(ii) OTHER FEDERAL FUNDING.—Federal funding from sources other than a grant awarded under this section may not be used for the non-Federal share of the cost of a project carried out using a grant under this section.

''(4) AVAILABILITY AND OBLIGATION OF GRANT AMOUNTS.—

''(A) IN GENERAL.—An eligible consortium that receives a grant under this section shall, as a condition on receipt of grant amounts—

''(i) obligate any grant amounts received under this section not later than 1 year after the date on which the eligible consortium enters into an agreement under subsection (g); and

"(ii) expend any grant amounts received under this section not later than 2 years after the date on which the eligible consortium enters into an agreement under subsection (g).

"(B) UNOBLIGATED AMOUNTS.—After the date described in subparagraph (A)(i), any amounts awarded to an eligible consortium under this section that remain unobligated by the eligible consortium shall be returned to the Secretary and made available to the Secretary for the award of grants to other eligible consortia under this section.

"(5) MAINTENANCE OF STANDARDS.—A recipient of a grant awarded under subsection (b) shall be required to comply with the requirements of title VI of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3211 et seq.), except to the extent that the Secretary determines that any such requirement is manifestly incompatible with or inapposite to a project other than a project assisted under such title.

"(e) APPLICATION.—

"(1) IN GENERAL.—An eligible consortium seeking a grant under this section shall submit to

the Secretary an application therefor at such time and in such manner as the Secretary shall prescribe.

''(2) CONTENTS.—Each application submitted under paragraph (1) shall include the following:

''(A) A description of the boundaries of the region served by the eligible consortium.

''(B) A description of the research, technology development, or manufacturing concentration of the eligible consortium.

''(C) An integrated assessment of the local industrial ecosystem of the region described in subparagraph (A), which may include assessment of workforce and training, including partnerships with labor organizations, supplier network, research and innovation, infrastructure and site development, trade and international investment, operational improvements, and capital access components needed for manufacturing activities in such region.

''(D) A description of how a grant under this section may assist in developing components of such local industrial ecosystem (selected by the consortium)—

''(i) by making specific investments to address gaps in such ecosystem; and

"(ii) by making the research, technology development, and manufacturing of the region of the consortium uniquely competitive.

"(E) A description of the process by which a comprehensive regional technology strategy will be developed by the eligible consortium to address gaps in such local industrial ecosystem and to strengthen the resiliency of supply chains, competitiveness of the identified region, and domestic job creation in technology and innovation sectors critical to national and economic security.

"(F) A description of the outcome-based metrics, benchmarks, and milestones that the eligible consortium will develop to gauge performance of the strategy of the consortium to improve the research, development, deployment, and manufacturing of critical technology and innovation in the region of the consortium.

"(G) A budget for the projects that the eligible consortium plans to carry out using grant amounts awarded under this section, including the anticipated Federal share of the cost of

each project and a description of the sources of the non-Federal share.

''(H) The designation of a lead agency or organization, which may be the eligible consortium, to receive and manage any funds received by the eligible consortium under this section.

''(I) A signed copy of a memorandum of understanding among members of the eligible consortium that demonstrates—

''(i) the creation of an eligible consortium;

''(ii) a description of the nature and extent of planned collaboration between members of the eligible consortium;

''(iii) a commitment to develop a comprehensive regional technology strategy; and

''(iv) a commitment to implement the strategy after the strategy is developed.

''(J) Such other matters as the Secretary considers appropriate.

''(3) EVALUATION OF APPLICATIONS.—The Secretary shall evaluate each application received under paragraph (1) to determine whether the applicant demonstrates—

"(A) a significant level of regional cooperation in their proposal;

"(B) the technical capacity of the eligible consortium to carry projects proposed in the application, including established performance in or a plan to improve performance in—

"(i) science, technology, engineering, and mathematics spending per capita;

"(ii) the number of patents per 100,000 residents;

"(iii) the share of the population in the applicable region with a Bachelor of Arts degree or a higher degree; and

"(iv) the number of university degrees in science, technology, engineering, and mathematics per capita;

"(C) a focus on building a regional ecosystem to attract and build upon research investment to develop, deploy, and manufacture domestically critical technologies that improve the resiliency of supply chains, competitiveness of the identified region, and the creation of quality jobs;

"(D) the extent to which the consortium has developed partnerships throughout an en-

tire region, including, as appropriate, partnerships with federally funded research and development centers, National Laboratories, Federal laboratories, Manufacturing USA institutes described in section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d)), university technology centers established under paragraph (6) of section 8A(d) of the National Science Foundation Act of 1950, the program established under paragraph (7) of such section 8A(d), test beds established and operated under paragraph (8) of such section 8A(d), or other Federal research entities;

''(E) integration with local efforts in inclusive economic development and job creation;

''(F) a plan for implementing a comprehensive regional technology strategy through regional infrastructure, workforce, and supply chain investment plans and local land use plans;

''(G) diversity among the geographic regions and the size of the population of the communities served by recipients of grants under this section;

''(H) a commitment to seeking substantial public input during the planning process and public participation in the development of the comprehensive regional plan;

''(I) a plan for formal collaboration with labor organizations; and

''(J) such other qualities as the Secretary considers appropriate.

''(f) USE OF GRANT FUNDS.—An eligible consortium that receives a grant under this section shall use the amount of such grant to carry out a project that includes 1 or more of the following activities:

''(1) Coordinating locally defined planning processes across jurisdictions and agencies.

''(2) Identifying potential regional partnerships for developing and implementing a comprehensive regional technology strategy.

''(3) Conducting or updating assessments to determine regional needs, which may include—

''(A) workforce development;

''(B) supply chain development;

''(C) increasing innovation readiness, including expanding research and technology development facilities and developing the local

science, technology, engineering, and mathematics workforce;

"(D) site preparation;

"(E) community and economic development to attract and support workers and firms; and

"(F) and other such needs as determined by the consortium.

"(4) Developing or updating—

"(A) a comprehensive regional plan; or

"(B) goals and strategies to implement an existing comprehensive regional plan for the purposes of strengthening domestic supply chain resiliency, competitiveness, and job creation in critical technology and innovation sectors for national and economic security.

"(5) Implementing local zoning and other code changes necessary to implement a comprehensive regional plan and promote sustainable development.

"(g) GRANT AGREEMENT.—Each eligible consortium that receives a grant under this section shall, as a condition on receipt of grant amounts, agree to establish, in coordination with the Secretary, performance measures, reporting requirements, and such other requirements as the Secretary determines are necessary, that must be met

at the end of each year in which the eligible consortium receives funds under this section.

''(h) REPORTS BY RECIPIENTS OF GRANTS.—

''(1) FINAL REPORTS.—Not later than 90 days after the date on which a grant agreement into which an eligible consortium entered under subsection (g) expires, the eligible consortium shall submit to the Secretary a final report on the project the eligible consortium carried out under subsection (f) using the amounts of the grant awarded to the eligible consortium under this section.

''(2) CONTENTS.—Each report submitted under paragraph (1) shall include the following:

''(A) A detailed explanation of the activities undertaken using the grant, including an explanation of the completed project and how it achieves specific domestic supply chain resiliency, research, development, and deployment of critical technologies, workforce development, domestic job creation, and entrepreneurship goals within the region served by the eligible consortium.

''(B) A discussion of any obstacles encountered in the planning process of the eligible con-

sortium and how the eligible consortium overcame the obstacles.

"(C) An evaluation of the success of the project using the performance standards and measures established under subsection (g), including an evaluation of the planning process and how the project contributes to carrying out the comprehensive regional technology strategy.

"(D) The progress of the region identified by the consortium toward becoming a regional technology hub.

"(E) The effectiveness of the region identified by the consortium in ensuring that growth in innovation sectors produces broadly shared opportunity in the region.

"(F) Such other information as the Secretary may require.

"(3) INTERIM REPORTS.—The Secretary may require, as a condition on receipt of a grant under this section, an eligible consortium to submit an interim report, before the date on which a project for which a grant is awarded under this section is completed.

"(i) TECHNICAL ASSISTANCE FOR GRANT RECIPIENTS AND APPLICANTS.—The Secretary may—

''(1) coordinate with other Federal agencies to establish interagency and multidisciplinary teams to provide technical assistance to recipients of, and prospective applicants for, grants under this section;

''(2) by Federal interagency agreement, transfer funds to another Federal agency to facilitate and support the provision of such technical assistance; and

''(3) enter into contracts with third parties to provide technical assistance to grant recipients and prospective applicants for grants under this section.

''(j) AUTHORIZATION OF APPROPRIATIONS.—

''(1) AUTHORIZATION.—There are authorized to be appropriated to the Secretary for the award of grants under this section, to remain available until expended, amounts as follows:

''(A) $100,000,000 for each of fiscal years 2022 and 2023.

''(B) $125,000,000 for each of fiscal years 2024 through 2026.

''(2) TECHNICAL ASSISTANCE.—The Secretary may use not more than 5 percent of the amounts made available under this subsection for a fiscal year for technical assistance under subsection (i).''.

SEC. 9. IMPROVEMENTS TO AUTHORITY FOR GRANT PROGRAM ON EXPANSION OF STEM APPRENTICESHIP PROGRAMS.

Section 30 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3723), as redesignated by section 7(a)(1), is amended to read as follows:

"SEC. 30. STEM APPRENTICESHIP PROGRAMS.

''(a) DEFINITIONS.—In this section:

''(1) APPRENTICESHIP PROGRAM.—The term 'apprenticeship program' means an apprenticeship program that is registered by the Office of Apprenticeship or a State apprenticeship agency under the Act of August 16, 1937 (commonly known as the 'National Apprenticeship Act') (50 Stat. 664, chapter 663; 29 U.S.C. 50 et seq.), including, as in effect on December 30, 2019, any requirement, standard, or rule promulgated under that Act.

''(2) ELIGIBLE RECIPIENT.—The term 'eligible recipient' means—

''(A) a State;

''(B) an Indian tribe;

''(C) a city or other political subdivision of a State;

''(D) an entity that—

''(i) is a nonprofit organization, an institution of higher education, a labor orga-

nization, a public-private partnership, a science or research park, a Federal laboratory, or an economic development organization or similar entity; and

''(ii) has an application that is supported by a State, a political subdivision of a State, or a native organization; or

''(E) a consortium of any of the entities described in paragraphs (1) through (5).

''(3) LABOR ORGANIZATION.—The term 'labor organization' has the meaning given such term in section 8A(a) of the National Science Foundation Act of 1950.

''(4) STEM.—The term 'STEM' means science, technology, engineering, and mathematics.

''(b) GRANT PROGRAM AUTHORIZED.—The Secretary of Commerce may carry out a grant program—

''(1) to identify the need for STEM workers; and

''(2) to expand STEM apprenticeship programs.

''(c) NEEDS ASSESSMENT GRANTS.—In carrying out a grant program under subsection (b), the Secretary may provide a grant to an eligible recipient to conduct a needs assessment to identify—

"(1) the unmet need of a region's employer base for skilled STEM workers;

"(2) the potential of STEM apprenticeships to address the unmet need described in paragraph (1); and

"(3) any barriers to addressing the unmet need described in paragraph (1).

"(d) APPRENTICESHIP EXPANSION GRANTS.—In carrying out a program under subsection (b), the Secretary may provide a grant to an eligible recipient that has conducted a needs assessment as described in subsection (c)(1) to develop infrastructure to expand STEM apprenticeship programs.

"(e) PREFERENCE.—In awarding a grant under a grant program under subsection (b), the Secretary shall give preference to an eligible recipient—

"(1) with demonstrated success in administering apprenticeship programs and other workforce development models; and

"(2) that demonstrates a commitment to serving individuals—

"(A) from underrepresented populations; or

"(B) who face barriers to employment, including—

''(i) long-term unemployment;

''(ii) past incarceration; or

''(iii) veteran or disability status.

''(f) DISSEMINATION OF APPRENTICESHIP INFORMATION.—The Secretary shall disseminate findings from research on apprenticeship programs to businesses and other relevant stakeholders, including—

''(1) institutions of higher education;

''(2) State and local chambers of commerce;

''(3) workforce training organizations; and

''(4) labor organizations.

''(g) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $50,000,000 for each of fiscal years 2022 through 2030.''.

SEC. 10. COORDINATION WITH THE MINORITY BUSINESS DEVELOPMENT AGENCY IN REGIONS SERVED BY REGIONAL TECHNOLOGY HUBS.

The Secretary of Commerce, acting through the National Director of the Minority Business Development Agency, may make available dedicated assistance through the programs of the Minority Business Development Agency to eligible consortia described in subsection (c) of section 28 of the Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96–480), as added by section 7 of this Act, located within each region served by a re-

gional technology hub designated under subsection (b)(1)(A) of such section 28, as so added, to provide support to minority businesses to increase participation of such businesses in the activities of such eligible consortia.

SEC. 11. MANUFACTURING USA PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ALLIANCE MANUFACTURING USA INSTITUTE.—The term ''alliance Manufacturing USA institute'' means a Manufacturing USA institute described in paragraph (3) of section 34(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(d)).

(2) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term ''historically Black college or university'' has the meaning given the term ''part B institution'' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061)).

(3) LABOR ORGANIZATION.—The term ''labor organization'' has the meaning given such term in section 8A(a) of the National Science Foundation Act of 1950.

(4) MANUFACTURING USA INSTITUTE.—The term ''Manufacturing USA institute'' means an institute described in section 34(d) of the National In-

stitute of Standards and Technology Act (15 U.S.C. 278s(d)).

(5) MANUFACTURING USA NETWORK.—The term ''Manufacturing USA Network'' means the network established under section 34(c) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(c)).

(6) MANUFACTURING USA PROGRAM.—The term ''Manufacturing USA Program'' means the program established under section 34(b)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(b)(1)).

(7) MINORITY-SERVING INSTITUTION.—The term ''minority-serving institution'' means an eligible institution described in section 371(a) of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

(8) NATIONAL PROGRAM OFFICE.—The term ''National Program Office'' means the National Program Office established under section 34(h)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(h)(1)).

(9) TRADITIONAL MANUFACTURING USA INSTITUTE.—The term ''traditional Manufacturing USA

institute'' means a Manufacturing USA institute that is not an alliance Manufacturing USA institute.

(10) TRIBAL COLLEGE OR UNIVERSITY.—The term ''Tribal college or university'' has the meaning given the term in section 316(b)(3) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)(3)).

(b) AUTHORIZATION OF APPROPRIATIONS FOR EXPANSION OF MANUFACTURING USA PROGRAM.—

(1) IN GENERAL.—There is authorized to be appropriated $2,410,000,000 for the period of fiscal years 2021 through 2025 for the Director of the National Institute of Standards and Technology to carry out the Manufacturing USA Program and to expand such program to include at least 45 Manufacturing USA institutes.

(2) TRADITIONAL MANUFACTURING USA INSTITUTES.—

(A) IN GENERAL.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), $1,500,000,000 shall be available for the period described in such paragraph to support the establishment of at least 3 traditional Manufacturing USA institutes each year during that period.

(B) FINANCIAL ASSISTANCE.—The Director shall support the establishment of traditional Manufacturing USA institutes under subparagraph (A) through the award of financial assistance under section 34(e) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(e)).

(3) ALLIANCE MANUFACTURING USA INSTITUTES.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), $375,000,000 shall be available for the period described in such paragraph to establish not fewer than 3 alliance Manufacturing USA institutes each year during that covered period as designated by the Director of the National Institute of Standards and Technology for a Federal commitment of at least 5 years.

(4) COMMERCIALIZATION, WORKFORCE TRAINING, AND SUPPLY CHAIN INVESTMENT.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), $100,000,000 shall be available for the period described in such paragraph to support such programming for commercialization, workforce training, and supply chain

activities across the Manufacturing USA Network as the Director considers appropriate.

(5) ONGOING SUPPORT FOR EXISTING MANUFACTURING USA INSTITUTES.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), $375,000,000 shall be available for the period described in such paragraph to support Manufacturing USA institutes that were in effect on the day before the date of the enactment of this Act, and $5,000,000 shall be available to each such Manufacturing USA institute each year for such period for ongoing operation of the institutes, including operational overhead, workforce training, and supply chain activities.

(6) MANAGEMENT OF INTERAGENCY SOLICITATIONS AND ONGOING MANAGEMENT.—Of the amounts appropriated pursuant to the authorization of appropriations in paragraph (1), $20,000,000 shall be available annually for the period described in such paragraph for the National Program Office to coordinate the activities of the Manufacturing USA Network and manage interagency solicitations.

(c) COORDINATION BETWEEN MANUFACTURING USA PROGRAM AND HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.—The Secretary of Commerce shall

coordinate the activities of the Manufacturing USA Program and the activities of Hollings Manufacturing Extension Partnership with each other to the degree that doing so does not diminish the effectiveness of the ongoing activities of a Manufacturing USA institute or a Center (as the term is defined in section 25(a) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(a)), including Manufacturing USA institutes contracting with a Center (as so defined) to provide services relating to the mission of the Hollings Manufacturing Extension Partnership, including outreach, technical assistance, workforce development, and technology transfer and adoption assistance to small and medium-sized manufacturers.

(d) WORKER ADVISORY COUNCIL FOR MANUFACTURING USA PROGRAM.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The Secretary of Commerce shall, in coordination with the Secretary of Labor, the Secretary of Defense, the Secretary of Energy, and the Secretary of Education, establish an advisory council for the Manufacturing USA Program on the development and dissemination of techniques, policies, and investments for high-road labor practices,

worker adaptation and success with technological change, and increased worker participation across the Manufacturing USA Network.

(B) MEMBERSHIP.—The council established under subparagraph (A) shall be composed of not fewer than 15 members appointed by the Secretary of Commerce, of whom—

(i) five shall be from labor organizations;

(ii) five shall be from educational institutions; and

(iii) five shall be from labor-management training, workforce development, and nonprofit organizations, including those that focus on workforce diversity and inclusion.

(C) PERIOD OF APPOINTMENT; VACANCIES.—

(i) IN GENERAL.—Each member of the council established under subparagraph (A) shall be appointed for a term of 3 years with the ability to renew the appointment for no more than 2 terms.

(ii) VACANCIES.—Any member appointed to fill a vacancy occurring before

the expiration of the term for which the member's predecessor was appointed shall be appointed only for the remainder of that term. A member may serve after the expiration of that term until a successor has been appointed.

(D) MEETINGS.—

(i) INITIAL MEETING.—Not later than 180 days after the date of enactment of this Act, the council established under subparagraph (A) shall hold the first meeting.

(ii) ADDITIONAL MEETINGS.—After the first meeting of the council, the council shall meet upon the call of the Secretary, and at least once every 180 days thereafter.

(iii) QUORUM.—A majority of the members of the council shall constitute a quorum, but a lesser number of members may hold hearings.

(E) CHAIRPERSON AND VICE CHAIRPERSON.—The Secretary shall elect 1 member of the council established under subparagraph (A) to serve as the chairperson of the council

and 1 member of the council to serve as the vice chairperson of the council.

(2) DUTIES OF THE COUNCIL.—The council established under paragraph (1)(A) shall provide advice and recommendations to the Secretary of Commerce on matters concerning investment in and support of the manufacturing workforce relating to the following:

(A) Worker participation, including through labor organizations, in the planning and deployment of new technologies across an industry and within workplaces.

(B) Policies to help workers adapt to technological change, including training and education priorities for the Federal Government and for employer investments in workers.

(C) Assessments of impact on workers of development of new technologies and processes by the Manufacturing USA institutes.

(D) Management practices that prioritize job quality, worker protection, worker participation and power in decision making, and investment in worker career success.

(E) Policies and procedures to prioritize diversity and inclusion in the manufacturing

and technology workforce by expanding access to job, career advancement, and management opportunities for underrepresented populations.

(F) Assessments of technology improvements achieved by the Manufacturing USA institutes and the degree of domestic deployment of each new technology.

(G) Such other matters as the Secretary considers appropriate.

(3) REPORT.—

(A) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this paragraph, the term ''appropriate committees of Congress'' means—

(i) the Committee on Health, Education, Labor, and Pensions, the Committee on Commerce, Science, and Transportation, the Committee on Energy and Natural Resources, the Committee on Armed Services, and the Committee on Appropriations of the Senate; and

(ii) the Committee on Education and Labor, the Committee on Science, Space, and Technology, the Committee on Energy and Commerce, the Committee on Armed

Services, and the Committee on Appropriations of the House of Representatives.

(B) REPORT REQUIRED.—Not later than 180 days after the date on which the council established under paragraph (1)(A) holds its initial meeting under paragraph (1)(D)(i) and annually thereafter, the council shall submit to the appropriate committees of Congress a report containing a detailed statement of the advice and recommendations of the council pursuant to paragraph (2).

(4) COMPENSATION.—

(A) PROHIBITION OF COMPENSATION.—Members of the Council may not receive additional pay, allowances, or benefits by reason of their service on the Council.

(B) TRAVEL EXPENSES.—Each member shall receive travel expenses, including per diem in lieu of subsistence, in accordance with applicable provisions under subchapter I of chapter 57 of title 5, United States Code.

(5) FACA APPLICABILITY.—

(A) IN GENERAL.—In discharging its duties under this subsection, the council established under paragraph (1)(A) shall function

solely in an advisory capacity, in accordance with the Federal Advisory Committee Act (5 U.S.C. App.).

(B) EXCEPTION.—Section 14 of the Federal Advisory Committee Act shall not apply to the Council.

(e) PARTICIPATION OF MINORITY-SERVING INSTITUTIONS, HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, AND TRIBAL COLLEGES AND UNIVERSITIES.—

(1) IN GENERAL.—The Secretary of Commerce shall coordinate with existing and new Manufacturing USA institutes to integrate covered entities as active members of the Manufacturing USA institutes, including through the development of preference criteria for proposals to create new Manufacturing USA institutes or renew existing Manufacturing USA institutes that include meaningful participation from a covered entity or that are led by a covered entity.

(2) COVERED ENTITIES.—For purposes of this subsection, a covered entity is—

(A) a minority-serving institution;

(B) an historically Black college or university; or

(C) a Tribal college or university.

(f) DEPARTMENT OF COMMERCE POLICIES TO PROMOTE DOMESTIC PRODUCTION OF TECHNOLOGIES DEVELOPED UNDER MANUFACTURING USA PROGRAM.—

(1) DEFINITION OF DOMESTIC.—In this subsection, the term ''domestic'', with respect to development or production means development or production by, or with respect to source means the source is, a person incorporated or formed in the United States—

(A) that is not under foreign ownership, control, or influence (FOCI) as defined in section 847 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92);

(B) whose beneficial owners, as defined in section 847 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92), are United States persons;

(C) whose management are United States citizens;

(D) whose principal place of business is in the United States; and

(E) who is not—

(i) a foreign incorporated entity that is an inverted domestic corporation or any subsidiary of such entity; or

(ii) any joint venture if more than 10 percent of the joint venture (by vote or value) is held by a foreign incorporated entity that is an inverted domestic corporation or any subsidiary of such entity.

(2) POLICIES.—

(A) IN GENERAL.—The Secretary of Commerce shall establish policies to promote the domestic production of technologies developed by the Manufacturing USA Network.

(B) ELEMENTS.—The policies developed under subparagraph (A) shall include the following:

(i) Measures to partner domestic developers of goods, services, or technologies by Manufacturing USA Network activities with domestic manufacturers and sources of financing.

(ii) Measures to develop and provide incentives to promote transfer of intellectual property and goods, services, or technologies developed by Manufacturing USA Network activities to domestic manufacturers.

(iii) Measures to assist with supplier scouting and other supply chain development, including the use of the Hollings Manufacturing Extension Partnership to carry out such measures.

(iv) A process to review and approve or deny any transfer of intellectual property and goods, services, or technologies developed by Manufacturing USA Network activities to outside of the United States, especially to countries of concern, including the People's Republic of China.

(v) Measures to prioritize Federal procurement of goods, services, or technologies developed by the Manufacturing USA Network activities from domestic sources, as appropriate.

(vi) Requirements that all contracts, transactions, and agreements entered into as part of participation in the Manufacturing USA Network shall include conditions where developers of technologies by activities conducted by the Manufacturing USA network who manufacture such technology outside the United States agree

that they shall be required to refund to the United States an appropriate amount of funding, which shall include the amount the Federal Government has contributed and the present value of the future value lost by the United States as a result of such technology being manufactured outside the United States, under reasonable conditions and procedures determined by the Secretary in the interest of protecting taxpayers.

(C) PROCESSES FOR WAIVERS.—The policies established under this paragraph shall include processes to permit waivers, on a case by case basis, for policies that promote domestic production based on cost, availability, severity of technical and mission requirements, emergency requirements, operational needs, other legal or international treaty obligations, or other factors deemed important to the success of the Manufacturing USA Program.

(3) PROHIBITION.—

(A) DEFINITIONS.—In this paragraph, the terms ''beneficial owner'', ''company'', and ''foreign ownership, control, or influence'' have the

meanings given such terms in section 847(a) of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92).

(B) IN GENERAL.—A company of the People's Republic of China may not participate in the Manufacturing USA Program or the Manufacturing USA Network. Any company that engages in joint research and development, technology licensing or transfer, or investment involving technologies that result from the activities of the Manufacturing USA Program or the Manufacturing USA Network with companies in the People's Republic of China or otherwise under the foreign ownership, control or influence of the Government of China or whose beneficial owners are citizens of the People's Republic of China may not participate in the Manufacturing USA Program or the Manufacturing USA Network.

(g) CONSTRUCTION AUTHORITY FOR NATIONAL OFFICE OF THE MANUFACTURING USA NETWORK.—Section 34(h) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(h)) is amended by adding at the end the following:

''(7) CONSTRUCTION AUTHORITY.—The National Program Office may carry out such activities for the construction or improvement of facilities as the Secretary considers appropriate for the National Program Office to carry out the functions set forth under paragraph (2).''.

SEC. 12. HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP AND STRENGTHENING DOMESTIC SUPPLY CHAINS.

(a) ESTABLISHMENT OF EXPANSION AWARDS PROGRAM IN HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.—The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended by inserting after section 25A (15 U.S.C. 278k–1) the following:

''SEC. 25B. EXPANSION AWARDS PROGRAM.

''(a) DEFINITIONS.—The terms used in this section have the meanings given the terms in section 25.

''(b) ESTABLISHMENT.—The Director shall establish within the Hollings Manufacturing Extension Partnership under sections 25 and 26 a program of expansion awards among participants described in subsection (c) of this section for the purposes described in subsection (e) of this section.

''(c) PARTICIPANTS.—Participants receiving awards under this section shall be Centers, or a consortium of Centers.

''(d) AWARD AMOUNTS.—Subject to the availability of appropriations, an award for a recipient under this section shall be in an amount equal to the sum of the following:

''(1) Such amount as the Director considers appropriate as a minimum base funding level for each award under this section.

''(2) Such additional amount as the Director considers in proportion to the manufacturing density of the region of the recipient.

''(3) Such supplemental amounts as the Director considers appropriate.

''(e) PURPOSE OF AWARDS.—An award under this section shall be made for one or more of the following purposes:

''(1) To provide coordinating services on employee engagement, including employee ownership and workforce training, including connecting manufacturers with career and technical education entities, institutions of higher education (including community colleges), workforce development boards, labor organizations, and nonprofit job training pro-

viders to develop and support training and job placement services, including apprenticeship and online learning platforms, for new and incumbent workers, programming to prevent job losses when adopting new technologies and processes, and development of employee ownership practices.

''(2) To provide services to improve the resiliency of domestic supply chains and to mitigate vulnerabilities to cyberattacks, including helping to offset the cost of cybersecurity projects for small manufacturers.

''(3) To expand advanced technology services to small- and medium-sized manufacturers, which may include—

''(A) developing technology demonstration laboratories;

''(B) services for the adoption of advanced technologies, including smart manufacturing technologies and practices; and

''(C) establishing partnerships, for the development, demonstration, and deployment of advanced technologies, with—

''(i) national laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

"(ii) Federal laboratories;

"(iii) Manufacturing USA institutes (as described in section 34(d)); and

"(iv) institutions of higher education.

"(4) To build capabilities across the Hollings Manufacturing Extension Partnership for domestic supply chain resiliency and optimization, including—

"(A) assessment of domestic manufacturing capabilities and inventories, expanded capacity for researching and deploying information on supply chain risk, hidden costs of reliance on offshore suppliers, redesigning products and processes to encourage reshoring, and other relevant topics; and

"(B) expanded services to provide industry-wide support that assists United States manufacturers with reshoring manufacturing to strengthen the resiliency of domestic supply chains, including in critical technology areas and foundational manufacturing capabilities that are key to domestic manufacturing competitiveness and resiliency, including forming, casting, machining, joining, surface treatment, and tooling.

''(f) REIMBURSEMENT.—The Director may reimburse Centers for costs incurred by the Centers under this section.

''(g) APPLICATIONS.—Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the MEP Advisory Board.

''(h) SELECTION.—

''(1) REVIEWED AND MERIT-BASED.—The Director shall ensure that awards under this section are reviewed and merit-based.

''(2) GEOGRAPHIC DIVERSITY.—The Director shall endeavor to have broad geographic diversity among selected proposals.

''(3) CRITERIA.—The Director shall select applications consistent with the purposes identified pursuant to subsection (e) to receive awards that the Director determines will achieve 1 or more of the following:

''(A) Improve the competitiveness of industries in the region in which the Center or Centers are located.

''(B) Create jobs or train newly hired employees.

"(C) Promote the transfer and commercialization of research and technology from institutions of higher education, national laboratories or other federally funded research programs, and nonprofit research institutes.

"(D) Recruit a diverse manufacturing workforce, including through outreach to underrepresented populations, including individuals identified in section 33 or section 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a, 1885b).

"(E) Such other result as the Director determines will advance the objective set forth in section 25(c) or 26.

"(i) PROGRAM CONTRIBUTION.—Recipients of awards under this section shall not be required to provide a matching contribution.

"(j) GLOBAL MARKETPLACE PROJECTS.—In making an award under this section, the Director, in consultation with the MEP Advisory Board and the Secretary, may take into consideration whether an application has significant potential for enhancing the competitiveness of small- and medium-sized United States manufacturers in the global marketplace.

''(k) DURATION.—The Director shall ensure that the duration of an award under this section is aligned and consistent with a Center's cooperative agreement established in section 25(e).''.

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There is authorized to be appropriated to carry out the Hollings Manufacturing Extension Partnership program under sections 25 and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k and 278l) $600,000,000 for each of fiscal years 2022 through fiscal year 2026.

(2) BASE FUNDING.—Of the amounts appropriated pursuant to the authorization in paragraph (1), $270,000,000 shall be available in each fiscal year to carry out the Hollings Manufacturing Extension Partnership as authorized by section 25 of such Act (15 U.S.C. 278k), of which $50,000,000 shall not be subject to cost share requirements under subsection (e)(2) of such section: *Provided*, That the authority made available pursuant to this section shall be elective for any Manufacturing Extension Partnership Center that also receives funding from a State that is conditioned upon the application of a Federal cost sharing requirement.

(3) EXPANSION AWARD PROGRAM.—Of the amounts appropriated pursuant to the authorization in paragraph (1), $330,000,000 shall be available each fiscal year to carry out subsection 25B of such Act.

SEC. 13. TECHNOLOGY COMMERCIALIZATION REVIEW.

(a) KEY TECHNOLOGY FOCUS AREAS DEFINED.—In this section, the term ''key technology focus areas'' means the areas included on the most recent list under section 8A(d)(2) of the National Science Foundation Act of 1950.

(b) REVIEW AND RECOMMENDATIONS REQUIRED.—Not later than 180 days after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy, in consultation with the Director of the National Science Foundation and the Director of the National Institute of Standards and Technology, shall—

(1) review—

(A) the structure of current technology research and commercialization arrangements with regard to public-private partnerships; and

(B) the extent to which intellectual property developed with Federal funding—

(i) has been used by foreign business entities; and

(ii) is being used to manufacture in the United States rather than in other countries;

(2) develop recommendations for such legislative or administrative action as may be necessary—

(A) to further incentivize industry participation in public-private partnerships for the purposes of accelerating technology research and commercialization, including alternate ways of accounting for in-kind contributions and value of partially manufactured products; and

(B) to ensure that intellectual property developed with Federal funding is commercialized in the United States; and

(3) submit to the Secretary of Commerce and Congress—

(A) the findings of the Director of the Office of Science and Technology Policy with respect to the reviews conducted under paragraph (1); and

(B) the recommendations developed under paragraph (2).

SEC. 14. DIRECTOR OF NATIONAL INTELLIGENCE REPORT ON TRENDS IN TECHNOLOGIES OF STRATEGIC IMPORTANCE TO UNITED STATES.

(a) IN GENERAL.—Not less frequently than once every 2 years, the Director of National Intelligence shall submit to Congress a report assessing foreign trends in technologies the Director considers of strategic importance to the United States.

(b) CONTENTS.—The report required by subsection (a) shall including the following:

(1) A list of the 10 technology focus areas that the Director considers to be of the most strategic importance to the United States.

(2) A list of the 10 technology focus areas in which countries that are adversarial to the United States are poised to match or surpass the technological leadership of the United States.

SEC. 15. COORDINATION OF ACTIVITIES.

The Director of the Office of Science and Technology Policy, the Director of the National Economic Council, the Director of the National Science Foundation, the Secretary of Commerce, and the Secretary of Energy shall, as applicable, coordinate with respect to activities of—

(1) the university technology centers established under section 8A(d)(6) of the National Science Foundation Act of 1950;

(2) the regional technology hubs under section 28 of the Stevenson-Wydler Technology Innovation Act of 1980, as added by section 7;

(3) the Manufacturing USA Program established under section 34(b)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278s(b)(1));

(4) Federally funded research and development centers;

(5) National Laboratories, as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801); and

(6) Federal laboratories, as defined in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703).