

116TH CONGRESS
2D SESSION

S. 3933

To restore American leadership in semiconductor manufacturing by increasing Federal incentives in order to enable advanced research and development, secure the supply chain, and ensure long-term national security and economic competitiveness.

IN THE SENATE OF THE UNITED STATES

JUNE 10, 2020

Mr. CORNYN (for himself, Mr. WARNER, Mr. RISCH, Mr. RUBIO, and Ms. SINEMA) introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

To restore American leadership in semiconductor manufacturing by increasing Federal incentives in order to enable advanced research and development, secure the supply chain, and ensure long-term national security and economic competitiveness.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Creating Helpful In-
5 centives to Produce Semiconductors for America Act” or
6 the “CHIPS for America Act”.

1 **SEC. 2. SEMICONDUCTOR INVESTMENT TAX CREDIT.**

2 (a) ESTABLISHMENT OF CREDIT.—Subpart E of part
3 IV of subchapter A of chapter 1 of the Internal Revenue
4 Code of 1986 is amended by inserting after section 48C
5 the following:

6 **“SEC. 48D. QUALIFYING SEMICONDUCTOR EQUIPMENT**
7 **CREDIT.**

8 “(a) IN GENERAL.—For purposes of section 46, the
9 qualifying semiconductor equipment credit for any taxable
10 year is the applicable percentage of—

11 “(1) the basis of any qualified semiconductor
12 equipment placed in service during such taxable
13 year,

14 “(2) any qualified semiconductor manufacturing
15 facility investment expenditures incurred during
16 such taxable year, and

17 “(3) any expenses incurred by the taxpayer dur-
18 ing such taxable year with respect to entering into
19 a lease (including renewal or extension of a lease)
20 for qualified semiconductor equipment.

21 “(b) APPLICABLE PERCENTAGE.—For purposes of
22 subsection (a), the applicable percentage is—

23 “(1) 40 percent in the case of any qualified
24 semiconductor equipment which is placed in service
25 before January 1, 2025, or any qualified semicon-
26 ductor manufacturing facility investmen-

1 tures or expenses described in subsection (a)(3)
2 which are incurred before such date,

3 “(2) 30 percent in the case of any such equip-
4 ment which is placed in service, or any such expendi-
5 tures or expenses which are incurred, after Decem-
6 ber 31, 2024, and before January 1, 2026,

7 “(3) 20 percent in the case of any such equip-
8 ment which is placed in service, or any such expendi-
9 tures or expenses which are incurred, after Decem-
10 ber 31, 2025, and before January 1, 2027, and

11 “(4) 0 percent in the case of any such equip-
12 ment which is placed in service, or any such expendi-
13 tures or expenses which are incurred, after Decem-
14 ber 31, 2026.

15 “(c) QUALIFIED SEMICONDUCTOR EQUIPMENT.—
16 For purposes of this section, the term ‘qualified semicon-
17 ductor equipment’ means any property—

18 “(1) which has been identified by the Secretary,
19 in consultation with the Secretary of Commerce, as
20 machinery or equipment that is designed and used
21 to—

22 “(A) manufacture or process semiconduc-
23 tors, or

24 “(B) perform research with respect to
25 semiconductors,

1 “(2) which is placed in service in the United
2 States by the taxpayer, and

3 “(3) with respect to which depreciation (or am-
4 ortization in lieu of depreciation) is allowable.

5 “(d) QUALIFIED SEMICONDUCTOR MANUFACTURING
6 FACILITY INVESTMENT EXPENDITURES.—For purposes
7 of this section, the term ‘qualified semiconductor manufac-
8 turing facility investment expenditure’ means any amount
9 properly chargeable to capital account—

10 “(1) for property for which depreciation is al-
11 lowable under section 168, and

12 “(2) in connection with the construction or up-
13 grading of any facility located in the United States
14 which substantially operates qualified semiconductor
15 equipment, including—

16 “(A) costs relating to—

17 “(i) acquiring or upgrading an exist-
18 ing building, or

19 “(ii) construction of a new building,
20 and

21 “(B) property such as—

22 “(i) integrated systems, fixtures, pip-
23 ing, movable partitions, and lighting, and

24 “(ii) any property which has been
25 identified by the Secretary, in consultation

1 with the Secretary of Commerce, as nec-
2 essary or adapted to—

3 “(I) reduce contamination, or

4 “(II) control air flow, tempera-
5 ture, humidity, chemical purity, or
6 other environmental conditions or
7 manufacturing tolerances.

8 “(e) CERTAIN PROGRESS EXPENDITURE RULES
9 MADE APPLICABLE.—Rules similar to the rules of sub-
10 sections (c)(4) and (d) of section 46 (as in effect on the
11 day before the date of the enactment of the Revenue Rec-
12 onciliation Act of 1990) shall apply for purposes of sub-
13 section (a).

14 “(f) TREATMENT OF CREDIT.—The amount of the
15 credit determined under this section with respect to any
16 qualified semiconductor equipment placed in service before
17 January 1, 2027, or any qualified semiconductor manufac-
18 turing facility investment expenditures incurred before
19 such date, shall be treated as a credit allowable under sub-
20 part C (and not allowable under section 38).

21 “(g) DENIAL OF DOUBLE BENEFIT.—

22 “(1) REDUCTION OF BASIS.—If a credit is de-
23 termined under this section with respect to any
24 property, the basis of such property shall be reduced
25 by the amount of the credit so determined.

1 “(2) OTHER CREDITS.—No credit shall be al-
2 lowed under any provision of this chapter with re-
3 spect to any amount taken in account in determining
4 the credit allowed to a taxpayer under this section.

5 “(h) RULES RELATING TO LEASED PROPERTY.—For
6 purposes of subsection (a)(3), rules similar to the rules
7 under section 48(d) (as in effect on the day before the
8 date of the enactment of the Revenue Reconciliation Act
9 of 1990) shall apply.

10 “(i) DISALLOWANCE.—No credit shall be allowed
11 under this section with respect to any qualified semicon-
12 ductor equipment which is used predominantly outside the
13 United States.

14 “(j) PARTNERSHIPS.—In the case of a credit under
15 subsection (a) which is determined at the partnership
16 level, with respect to any partner which is exempt from
17 taxation under section 501(a), such partner may elect to
18 transfer their distributive share of such credit to any other
19 partner in the partnership.

20 “(k) REGULATIONS.—The Secretary shall prescribe
21 such regulations or other guidance as may be necessary
22 to carry out the purposes of this section, including any
23 such measures as are deemed appropriate to avoid abuse
24 or fraud with respect to the credit allowed under this sec-
25 tion.”.

1 (b) TAX ON BASE EROSION PAYMENTS OF TAX-
 2 PAYERS WITH SUBSTANTIAL GROSS RECEIPTS.—Section
 3 59A(b)(1)(B)(ii) of the Internal Revenue Code of 1986 is
 4 amended—

5 (1) in subclause (II), by striking the period at
 6 the end and inserting “, plus”, and

7 (2) by adding at the end the following:

8 “(III) the credit determined
 9 under section 48D for the taxable
 10 year.”.

11 (c) INVESTMENT CREDIT.—Section 46 of the Inter-
 12 nal Revenue Code of 1986 is amended by striking “and”
 13 at the end of paragraph (5), by striking the period at the
 14 end of paragraph (6) and inserting “, and”, and by adding
 15 at the end the following new paragraph:

16 “(7) the qualifying semiconductor equipment
 17 credit.”.

18 (d) CLERICAL AMENDMENT.—The table of sections
 19 for subpart E of part IV of subchapter A of chapter 1
 20 of the Internal Revenue Code of 1986 is amended by in-
 21 serting after the item relating to section 48C the following
 22 new item:

“Sec. 48D. Qualifying semiconductor equipment credit.”.

23 (e) EFFECTIVE DATE.—The amendments made by
 24 this section shall apply to any qualified semiconductor
 25 equipment (as defined in subsection (c) of section 48D)

1 placed in service after the date of enactment of this Act,
2 or any qualified semiconductor manufacturing facility in-
3 vestment expenditure (as defined in subsection (d) of such
4 section) incurred after such date.

5 **SEC. 3. BUILDING UNITED STATES CAPACITY FOR VERI-**
6 **FICATION AND MANUFACTURING OF AD-**
7 **VANCED MICROELECTRONICS.**

8 (a) PROGRAM.—The Secretary of Commerce, acting
9 through the Director of the National Institute of Stand-
10 ards and Technology, shall carry out a program of re-
11 search and development investment to enable advances
12 and breakthroughs in measurement science, standards,
13 material characterization, instrumentation, testing, and
14 manufacturing capabilities that will accelerate the under-
15 lying research and development for design, development,
16 and manufacturability of next generation microelectronics
17 and ensure the competitiveness and leadership of the
18 United States within this sector.

19 (b) COMPONENTS.—The program required by sub-
20 section (a) shall cover the following:

21 (1) Advanced metrology and characterization
22 for manufacturing of microchips using 3 nanometer
23 transistor processes or more advanced processes.

24 (2) Metrology for security and supply chain
25 verification.

1 (3) Creation of a Manufacturing USA institute
2 described in section 34(d) of the National Institute
3 of Standards and Technology Act (15 U.S.C.
4 278s(d)) that is focused on semiconductor manufac-
5 turing. Such institute may emphasize the following:

6 (A) Research to support the virtualization
7 and automation of maintenance of semicon-
8 ductor machinery.

9 (B) Development of new advanced test, as-
10 ssembly and packaging capabilities.

11 (C) Developing and deploying educational
12 and skills training curricula needed to support
13 the industry sector and ensure the U.S. can
14 build and maintain a trusted and predictable
15 talent pipeline.

16 (c) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to the Secretary
18 amounts as follows:

19 (1) To carry out subsection (b)(1), \$10,000,000
20 for each of fiscal years 2021 through 2025.

21 (2) To carry out subsection (b)(2), \$10,000,000
22 for each of fiscal years 2021 through 2025.

23 (3) To carry out subsection (b)(3), \$30,000,000
24 for each of fiscal years 2021 through 2025.

1 **SEC. 4. FEDERAL GRANTS TO MATCH STATE INCENTIVES.**

2 (a) DEFINITIONS.—In this section—

3 (1) the term “appropriate committees of Con-
4 gress” means—

5 (A) the Select Committee on Intelligence,
6 the Committee on Commerce, Science, and
7 Transportation, the Committee on Foreign Re-
8 lations, the Committee on Armed Services, and
9 the Committee on Homeland Security and Gov-
10 ernmental Affairs of the Senate; and

11 (B) the Permanent Select Committee on
12 Intelligence, the Committee on Energy and
13 Commerce, the Committee on Foreign Affairs,
14 the Committee on Armed Services, the Com-
15 mittee on Science, Space, and Technology, and
16 the Committee on Homeland Security of the
17 House of Representatives;

18 (2) the term “covered incentive”—

19 (A) means an incentive offered by a gov-
20 ernmental entity to a private entity for the pur-
21 poses of building within the jurisdiction of the
22 governmental entity a fabrication (or other es-
23 sential) facility relating to the manufacturing of
24 semiconductors; and

25 (B) includes any tax incentive (such as an
26 incentive or reduction with respect to employ-

1 ment or payroll taxes or a tax abatement with
2 respect to personal or real property), a work-
3 force-related incentive (including a grant agree-
4 ment relating to workforce training or voca-
5 tional education), any concession with respect
6 to real property, and any other incentive deter-
7 mined appropriate by the Secretary, in con-
8 sultation with the Secretary of State;

9 (3) the term “governmental entity” means a
10 State or local government; and

11 (4) the term “Secretary” means the Secretary
12 of Commerce.

13 (b) GRANTS.—

14 (1) IN GENERAL.—The Secretary shall establish
15 in the Department of Commerce a program that, in
16 accordance with the requirements of this section,
17 provides grants to governmental entities that offer
18 covered incentives.

19 (2) PROCEDURE.—

20 (A) IN GENERAL.—A governmental entity
21 that offers a covered incentive and that desires
22 to receive a grant under this subsection shall
23 submit to the Secretary an application that de-
24 scribes the covered incentive offered by the gov-
25 ernmental entity.

1 (B) CONDITIONS FOR APPROVAL.—The
2 Secretary shall approve an application sub-
3 mitted by a governmental entity under subpara-
4 graph (A)—

5 (i) upon confirmation by the Secretary
6 that the private entity to which the govern-
7 mental entity has offered the covered in-
8 centive to which the application relates has
9 agreed to build in the applicable jurisdic-
10 tion a facility described in subsection
11 (a)(2)(A); and

12 (ii) if the Secretary determines that
13 building the facility described in clause (i)
14 is in the interest of the United States.

15 (3) AMOUNT.—The amount of a grant provided
16 by the Secretary to a governmental entity under this
17 subsection shall be in an amount that is not less
18 than the value of the applicable covered incentive of-
19 fered by the governmental entity, as determined by
20 the Secretary.

21 (4) CLAWBACK.—The Secretary shall recover
22 the full amount of a grant made to a governmental
23 entity under this subsection with respect to a cov-
24 ered incentive offered by the governmental entity
25 if—

1 (A) as of the date that is 5 years after the
2 date on which the Secretary makes the grant,
3 the facility to which the covered incentive re-
4 lates has not been completed; or

5 (B) during the term of the grant, the pri-
6 vate entity to which the covered incentive was
7 offered engages in any joint research or tech-
8 nology licensing effort—

9 (i) with the Government of the Peo-
10 ple’s Republic of China, the Government of
11 the Russian Federation, the Government of
12 Iran, or the Government of North Korea;
13 and

14 (ii) that relates to a sensitive tech-
15 nology or product, as determined by the
16 Secretary.

17 (c) CONSULTATION AND COORDINATION RE-
18 QUIRED.—In carrying out the program established under
19 subsection (b), the Secretary shall consult and coordinate
20 with the Secretary of State.

21 (d) GAO REVIEWS.—The Comptroller General of the
22 United States shall—

23 (1) not later than 2 years after the date of en-
24 actment of this Act, and biennially thereafter until
25 the date that is 10 years after that date of enact-

1 ment, conduct a review of the program established
2 under subsection (b), which shall include a deter-
3 mination of the number of grants made under that
4 program during the period covered by the review
5 that failed to comply with a requirement under this
6 section; and

7 (2) submit to the appropriate committees of
8 Congress the results of each review conducted under
9 paragraph (1).

10 (e) TRUST FUND.—

11 (1) ESTABLISHMENT.—There is established in
12 the Treasury of the United States a trust fund (re-
13 ferred to in this subsection as the “Trust Fund”),
14 consisting of amounts transferred to the Trust Fund
15 under paragraph (2) and any amounts that may be
16 credited to the Trust Fund under paragraph (3).

17 (2) TRANSFER OF AMOUNTS.—

18 (A) IN GENERAL.—Subject to subpara-
19 graph (B), the Secretary of the Treasury shall
20 transfer to the Trust Fund, from the general
21 fund of the Treasury, for fiscal year 2021 and
22 each fiscal year thereafter, an amount equiva-
23 lent to the amount received into the general
24 fund during that fiscal year and attributable to

1 duties imposed under section 301 of the Trade
2 Act of 1974 (19 U.S.C. 2411).

3 (B) LIMITATIONS.—

4 (i) LIMITATION ON TRANSFERS.—The
5 amount transferred to the Trust Fund
6 under subparagraph (A) in a fiscal year
7 may not exceed \$10,000,000,000.

8 (ii) LIMITATION ON TOTAL BAL-
9 ANCE.—The total amount in the Trust
10 Fund at any one time may not exceed
11 \$10,000,000,000.

12 (C) FREQUENCY OF TRANSFERS.—The
13 Secretary shall transfer amounts required to be
14 transferred to the Trust Fund under this para-
15 graph not less frequently than quarterly from
16 the general fund of the Treasury to the Trust
17 Fund.

18 (3) INVESTMENT OF AMOUNTS.—

19 (A) INVESTMENT OF AMOUNTS.—The Sec-
20 retary shall invest such portion of the Trust
21 Fund as is not required to meet current with-
22 drawals in interest-bearing obligations of the
23 United States or in obligations guaranteed as to
24 both principal and interest by the United
25 States.

1 (B) INTEREST AND PROCEEDS.—The in-
2 terest on, and the proceeds from the sale or re-
3 demption of, any obligations held in the Trust
4 Fund shall be credited to and form a part of
5 the Trust Fund.

6 (4) AVAILABILITY OF AMOUNTS IN TRUST
7 FUND.—Amounts in the Trust Fund shall be avail-
8 able, as provided in advance in an appropriations
9 Act, to the Secretary to make grants under this sec-
10 tion.

11 **SEC. 5. DEPARTMENT OF DEFENSE SUPPORT FOR SEMI-**
12 **CONDUCTOR TECHNOLOGIES AND RELATED**
13 **TECHNOLOGIES.**

14 (a) RDT&E AND WORKFORCE TRAINING EF-
15 FORTS.—

16 (1) IN GENERAL.—The Secretary of Defense
17 shall, in consultation with the Secretary of Com-
18 merce and the Secretary of Labor, establish and im-
19 plement a priority in the use of amounts available to
20 the Department of Defense for research, develop-
21 ment, test, and evaluation, and for workforce train-
22 ing, for programs, projects, and activities in connec-
23 tion with semiconductor technologies and related
24 technologies.

1 (2) DISCHARGE.—The Secretary of Defense
2 shall carry out paragraph (1) through the Office of
3 the Under Secretary of Defense for Research and
4 Engineering or such other component of the Depart-
5 ment of Defense as the Secretary considers appro-
6 priate.

7 (3) FUNDING.—Of the amount authorized to be
8 appropriated for each fiscal year for the Department
9 of Defense for research, development, test, and eval-
10 uation, not less the \$50,000,000 shall be available in
11 such fiscal year for programs, projects, and activities
12 described in paragraph (1) in furtherance of the pri-
13 ority required by that paragraph.

14 (b) DPA EFFORTS.—

15 (1) IN GENERAL.—Not later than 120 days
16 after the date of the enactment of this Act, the
17 President shall submit to Congress a report on, and
18 shall commence implementation of, a plan for use by
19 the Department of Defense of authorities available
20 in title III of the Defense Production Act of 1950
21 (50 U.S.C. 4531 et seq.) to establish and enhance
22 a domestic production capability for semiconductor
23 technologies and related technologies, if funding is
24 available for that purpose.

1 (2) CONSULTATION.—The President shall de-
2 velop the plan required by paragraph (1) in con-
3 sultation with the Secretary of Defense, the Sec-
4 retary of State, the Secretary of Commerce, and ap-
5 propriate stakeholders in the private sector.

6 **SEC. 6. DEPARTMENT OF COMMERCE STUDY ON STATUS OF**
7 **SEMICONDUCTOR TECHNOLOGIES IN THE**
8 **UNITED STATES INDUSTRIAL BASE.**

9 (a) IN GENERAL.—Commencing not later than 90
10 days after the date of the enactment of this Act, the Sec-
11 retary of Commerce shall undertake a survey, using au-
12 thorities in section 705 of the Defense Production Act (50
13 U.S.C. 4555), to assess the capabilities of the United
14 States industrial base to support the national defense in
15 light of the global nature of the supply chain and signifi-
16 cant interdependencies between the United States indus-
17 trial base and the industrial base of foreign countries with
18 respect to the manufacture and design of semiconductors.

19 (b) RESPONSE TO SURVEY.—The Secretary shall en-
20 sure compliance with the survey from among all relevant
21 potential respondents, including the following:

22 (1) Corporations, partnerships, associations, or
23 any other organized groups domiciled and with sub-
24 stantial operations in the United States.

1 (2) Corporations, partnerships, associations, or
2 any other organized groups domiciled in the United
3 States with operations outside the United States.

4 (3) Foreign domiciled corporations, partner-
5 ships, associations, or any other organized groups
6 with substantial operations or business presence in,
7 or substantial revenues derived from, the United
8 States.

9 (4) Foreign domiciled corporations, partner-
10 ships, associations, or any other organized groups in
11 defense treaty or assistance countries where the pro-
12 duction of the entity concerned involves critical tech-
13 nologies covered by section 3.

14 (c) INFORMATION REQUESTED.—The information
15 sought from a responding entity pursuant to the survey
16 required by subsection (a) shall include, at minimum, in-
17 formation on the following with respect to the manufac-
18 ture or design of semiconductors by such entity:

19 (1) An identification of the geographic scope of
20 operations.

21 (2) Information on relevant cost structures.

22 (3) An identification of types of semiconductor
23 equipment in operation at such entity.

1 (4) An identification of all relevant raw mate-
2 rials and semi-finished goods and components
3 sourced domestically and abroad by such entity.

4 (5) Specifications of the semiconductors manu-
5 factured or designed by such entity, descriptions of
6 the end-uses of such semiconductors, and a descrip-
7 tion of any technical support provided to end-users
8 of such semiconductors by such entity.

9 (6) Information on domestic and export market
10 sales by such entity.

11 (7) Information on the financial performance,
12 including income and expenditures, of such entity.

13 (8) A list of all foreign and domestic subsidies,
14 and any other financial incentives, received by such
15 entity in each market in which such entity operates.

16 (9) A list of information requests from the Peo-
17 ple's Republic of China to such entity, and a de-
18 scription of the nature of each request and the type
19 of information provided.

20 (10) Information on any joint ventures, tech-
21 nology licensing agreements, and cooperative re-
22 search or production arrangements of such entity.

23 (11) A description of efforts by such entity to
24 evaluate and control supply chain risks it faces.

1 (12) A list and description of any sales, licens-
2 ing agreements, or partnerships between such entity
3 and the People’s Liberation Army or People’s Armed
4 Police, including any business relationships with en-
5 tities through which such sales, licensing agree-
6 ments, or partnerships may occur.

7 **SEC. 7. FUNDING FOR DEVELOPMENT AND ADOPTION OF**
8 **SECURE MICROELECTRONICS AND SECURE**
9 **MICROELECTRONICS SUPPLY CHAINS.**

10 (a) MULTILATERAL MICROELECTRONICS SECURITY
11 FUND.—

12 (1) ESTABLISHMENT OF FUND.—There is es-
13 tablished in the Treasury of the United States a
14 trust fund, to be known as the “Multilateral Micro-
15 electronics Security Fund” (in this section referred
16 to as the “Fund”), consisting of amounts deposited
17 into the Trust Fund under paragraph (2) and any
18 amounts that may be credited to the Trust Fund
19 under paragraph (3).

20 (2) AUTHORIZATION OF APPROPRIATIONS.—
21 There are authorized to be appropriated
22 \$750,000,000 to be deposited in the Fund.

23 (3) INVESTMENT OF AMOUNTS.—

24 (A) INVESTMENT OF AMOUNTS.—The Sec-
25 retary of the Treasury shall invest such portion

1 of the Fund as is not required to meet current
2 withdrawals in interest-bearing obligations of
3 the United States or in obligations guaranteed
4 as to both principal and interest by the United
5 States.

6 (B) INTEREST AND PROCEEDS.—The in-
7 terest on, and the proceeds from the sale or re-
8 demption of, any obligations held in the Fund
9 shall be credited to and form a part of the
10 Fund.

11 (4) USE OF FUND.—

12 (A) IN GENERAL.—Subject to subpara-
13 graph (B), amounts in the Fund shall be avail-
14 able, as provided in advance in an appropria-
15 tions Act, to the Secretary of State—

16 (i) to provide funding through the
17 common funding mechanism described in
18 subsection (b)(1) to support the develop-
19 ment and adoption of secure microelec-
20 tronics and secure microelectronics supply
21 chains; and

22 (ii) to otherwise carry out this section.

23 (B) AVAILABILITY CONTINGENT ON INTER-
24 NATIONAL AGREEMENT.—Amounts in the Fund
25 shall be available to the Secretary of State on

1 and after the date on which the Secretary en-
2 ters into an agreement with the governments of
3 countries that are partners of the United States
4 to participate in the common funding mecha-
5 nism under paragraph (1) of subsection (b) and
6 the commitments described in paragraph (2) of
7 that subsection.

8 (5) AVAILABILITY OF AMOUNTS.—

9 (A) IN GENERAL.—Amounts in the Fund
10 shall remain available through the end of the
11 tenth fiscal year beginning after the date of the
12 enactment of this Act.

13 (B) REMAINDER TO TREASURY.—Any
14 amounts remaining in the Fund after the end
15 of the fiscal year described in subparagraph (A)
16 shall be deposited in the general fund of the
17 Treasury.

18 (b) COMMON FUNDING MECHANISM FOR DEVELOP-
19 MENT AND ADOPTION OF SECURE MICROELECTRONICS
20 AND SECURE MICROELECTRONICS SUPPLY CHAINS.—

21 (1) IN GENERAL.—The Secretary of State, in
22 consultation with the Secretary of Commerce, the
23 Secretary of Defense, the Secretary of Homeland Se-
24 curity, the Secretary of the Treasury, and the Direc-
25 tor of National Intelligence, shall seek to establish a

1 common funding mechanism, in coordination with
2 the governments of countries that are partners of
3 the United States, that uses amounts from the
4 Fund, and amounts committed by such governments,
5 to support the development and adoption of secure
6 microelectronics and secure microelectronics supply
7 chains.

8 (2) MUTUAL COMMITMENTS.—The Secretary of
9 State, in consultation with the United States Trade
10 Representative and the Secretary of Commerce, shall
11 seek to negotiate a set of mutual commitments with
12 the governments of countries that are partners of
13 the United States upon which to condition any ex-
14 penditure of funds pursuant to the common funding
15 mechanism described in paragraph (1). Such com-
16 mitments shall, at a minimum—

17 (A) establish transparency requirements
18 for any subsidies or other financial benefits (in-
19 cluding revenue foregone) provided to microelec-
20 tronics firms located in or outside such coun-
21 tries;

22 (B) establish consistent policies with re-
23 spect to countries that—

24 (i) are not participating in the com-
25 mon funding mechanism; and

1 (ii) do not meet transparency require-
2 ments established under subparagraph (A);

3 (C) promote harmonized treatment of
4 microelectronics and verification processes for
5 items being exported to a country considered a
6 national security risk by a country participating
7 in the common funding mechanism;

8 (D) establish consistent policies and com-
9 mon external policies to address nonmarket
10 economies as the behavior of such countries
11 pertains to microelectronics; and

12 (E) align policies on supply chain integrity
13 and microelectronics security.

14 (c) ANNUAL REPORT TO CONGRESS.—Not later than
15 one year after the date of the enactment of this Act, and
16 annually thereafter for each fiscal year during which
17 amounts in the Fund are available under subsection
18 (a)(3), the Secretary of State shall submit to Congress a
19 report on the status of the implementation of this section
20 that includes a description of—

21 (1) any commitments made by the governments
22 of countries that are partners of the United States
23 to providing funding for the common funding mecha-
24 nism described in subsection (b)(1) and the specific
25 amount so committed;

1 (2) the criteria established for expenditure of
2 funds through the common funding mechanism;

3 (3) how, and to whom, amounts have been ex-
4 pended from the Fund;

5 (4) amounts remaining in the Fund;

6 (5) the progress of the Secretary of State to-
7 ward entering into an agreement with the govern-
8 ments of countries that are partners of the United
9 States to participate in the common funding mecha-
10 nism and the commitments described in subsection
11 (b)(2); and

12 (6) any additional authorities needed to en-
13 hance the effectiveness of the Fund in achieving the
14 security goals of the United States.

15 **SEC. 8. ADVANCED SEMICONDUCTOR RESEARCH AND DE-**
16 **SIGN.**

17 (a) APPROPRIATE COMMITTEES OF CONGRESS.—In
18 this section, the term “appropriate committees of Con-
19 gress” means—

20 (1) the Select Committee on Intelligence, the
21 Committee on Commerce, Science, and Transpor-
22 tation, the Committee on Foreign Relations, the
23 Committee on Armed Services, and the Committee
24 on Homeland Security and Governmental Affairs of
25 the Senate; and

1 (2) the Permanent Select Committee on Intel-
2 ligence, the Committee on Energy and Commerce,
3 the Committee on Foreign Affairs, the Committee
4 on Armed Services, the Committee on Science,
5 Space, and Technology, and the Committee on
6 Homeland Security of the House of Representatives.

7 (b) SENSE OF CONGRESS.—It is the sense of Con-
8 gress that the leadership of the United States in semicon-
9 ductor technology and innovation is critical to the eco-
10 nomic growth and national security of the United States.

11 (c) SUBCOMMITTEE ON SEMICONDUCTOR LEADER-
12 SHIP.—

13 (1) ESTABLISHMENT REQUIRED.—The Presi-
14 dent shall establish in the National Science and
15 Technology Council a subcommittee on matters re-
16 lating to leadership of the United States in semicon-
17 ductor technology and innovation.

18 (2) DUTIES.—The duties of the subcommittee
19 established under paragraph (1) are as follows:

20 (A) NATIONAL STRATEGY ON SEMICON-
21 DUCTOR RESEARCH.—

22 (i) DEVELOPMENT.—In coordination
23 with the Secretary of Defense, the Sec-
24 retary of Energy, the Secretary of State,
25 the Secretary of Commerce, the National

1 Science Foundation, and the Director of
2 the National Institute of Standards and
3 Technology and in consultation with the
4 semiconductor industry and academia, de-
5 velop a national strategy on semiconductor
6 research, including guidance for the fund-
7 ing of research.

8 (ii) REPORTING AND UPDATES.—Not
9 less frequently than once every 5 years, to
10 update the strategy developed under clause
11 (i) and to submit the revised strategy to
12 the appropriate committees of Congress.

13 (B) FOSTERING COORDINATION OF RE-
14 SEARCH AND DEVELOPMENT.—To foster the co-
15 ordination of semiconductor research and devel-
16 opment.

17 (d) ADVANCED PACKAGING NATIONAL MANUFAC-
18 TURING INSTITUTE.—

19 (1) AUTHORIZATION.—The Secretary of Com-
20 merce may, in coordination with the private sector,
21 establish in the Department of Commerce an insti-
22 tute on advanced packaging and manufacturing.

23 (2) FUNCTIONS.—The functions of the institute
24 established under paragraph (1) shall be as follows:

1 (A) To establish United States leadership
2 in advanced microelectronic packaging.

3 (B) To promote standards development for
4 such packaging.

5 (C) To foster public-private partnerships
6 relevant to such packaging.

7 (D) To develop research and development
8 programs to advance technology development
9 relevant to such packaging.

10 (E) To establish an investment fund—

11 (i) to support a startup domestic ad-
12 vanced microelectronic packaging eco-
13 system;

14 (ii) to accelerate technology transfer;
15 and

16 (iii) to ensure domestic supply chains;
17 and

18 (F) to work with the Secretary of Labor
19 and the private sector to develop workforce
20 training programs and apprenticeships in ad-
21 vanced microelectronic packaging capabilities.

22 (e) AUTHORIZATIONS OF APPROPRIATIONS.—

23 (1) NATIONAL SEMICONDUCTOR TECHNOLOGY
24 CENTER.—There is authorized to be appropriated to
25 establish a national semiconductor technology center

1 to conduct research and prototyping of advance
2 semiconductors with participation of the private sec-
3 tor, the Secretary of Defense, the Secretary of En-
4 ergy, the National Science Foundation, and the Di-
5 rector of the National Institute of Standards and
6 Technology, \$3,000,000,000 for fiscal year 2021,
7 with such amount to remain available for such pur-
8 pose through fiscal year 2030.

9 (2) ELECTRONICS RESURGENCE INITIATIVE.—
10 There is authorized to be appropriated to carry out
11 the Electronics Resurgence Initiative of the Defense
12 Advanced Research Projects Agency,
13 \$2,000,000,000 for fiscal year 2021, with such
14 amount to remain available for such purpose
15 through fiscal year 2025.

16 (3) SEMICONDUCTOR BASIC RESEARCH AT NA-
17 TIONAL SCIENCE FOUNDATION.—There is authorized
18 to be appropriated to carry out programs at the Na-
19 tional Science Foundation on semiconductor basic
20 research, \$3,000,000,000 for fiscal year 2021, with
21 such amount to remain available for such purpose
22 through fiscal year 2025.

23 (4) SEMICONDUCTOR BASIC RESEARCH AT DE-
24 PARTMENT OF ENERGY.—There is authorized to be
25 appropriated to carry out programs at the Depart-

1 ment of Energy on semiconductor basic research,
2 \$2,000,000,000 for fiscal year 2021, with such
3 amount to remain available for such purpose
4 through fiscal year 2025.

5 (5) ADVANCED PACKAGING NATIONAL MANU-
6 FACTURING INSTITUTE.—There is authorized to be
7 appropriated to carry out subsection (d),
8 \$5,000,000,000 for fiscal year 2021, with such
9 amount to remain available for such purpose
10 through fiscal year 2025—

11 (A) of which, \$500,000,000 shall be avail-
12 able to carry out paragraph (2)(D) of such sub-
13 section; and

14 (B) of which, \$500,000,000 shall be avail-
15 able to carry out paragraph (2)(E) of such sub-
16 section.

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