

116<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 7178

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.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 11, 2020

Mr. McCAUL (for himself and Ms. MATSUI) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committees on Ways and Means, Armed Services, Financial Services, Energy and Commerce, and Foreign Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## 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,*

1 **SECTION 1. SHORT TITLE.**

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

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

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

10 **“SEC. 48D. QUALIFYING SEMICONDUCTOR EQUIPMENT**  
11 **CREDIT.**

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

15 “(1) the basis of any qualified semiconductor  
16 equipment placed in service during such taxable  
17 year,

18 “(2) any qualified semiconductor manufacturing  
19 facility investment expenditures incurred during  
20 such taxable year, and

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

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

1           “(1) 40 percent in the case of any qualified  
2 semiconductor equipment which is placed in service  
3 before January 1, 2025, or any qualified semicon-  
4 ductor manufacturing facility investment expendi-  
5 tures or expenses described in subsection (a)(3)  
6 which are incurred before such date,

7           “(2) 30 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, 2024, and before January 1, 2026,

11           “(3) 20 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, 2025, and before January 1, 2027, and

15           “(4) 0 percent in the case of any such equip-  
16 ment which is placed in service, or any such expendi-  
17 tures or expenses which are incurred, after Decem-  
18 ber 31, 2026.

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

22           “(1) which has been identified by the Secretary,  
23 in consultation with the Secretary of Commerce, as  
24 machinery or equipment that is designed and used  
25 to—

1           “(A) manufacture or process semiconduc-  
2           tors, or

3           “(B) perform research with respect to  
4           semiconductors,

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

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

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

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

16               “(2) in connection with the construction or up-  
17               grading of any facility located in the United States  
18               which substantially operates qualified semiconductor  
19               equipment, including—

20                       “(A) costs relating to—

21                               “(i) acquiring or upgrading an exist-  
22                               ing building, or

23                               “(ii) construction of a new building,  
24                               and

25                       “(B) property such as—

1 “(i) integrated systems, fixtures, pip-  
2 ing, movable partitions, and lighting, and

3 “(ii) any property which has been  
4 identified by the Secretary, in consultation  
5 with the Secretary of Commerce, as nec-  
6 essary or adapted to—

7 “(I) reduce contamination, or

8 “(II) control air flow, tempera-  
9 ture, humidity, chemical purity, or  
10 other environmental conditions or  
11 manufacturing tolerances.

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

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

25 “(g) DENIAL OF DOUBLE BENEFIT.—

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

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

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

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

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

24          “(k) REGULATIONS.—The Secretary shall prescribe  
25          such regulations or other guidance as may be necessary

1 to carry out the purposes of this section, including any  
2 such measures as are deemed appropriate to avoid abuse  
3 or fraud with respect to the credit allowed under this sec-  
4 tion.”.

5 (b) TAX ON BASE EROSION PAYMENTS OF TAX-  
6 PAYERS WITH SUBSTANTIAL GROSS RECEIPTS.—Section  
7 59A(b)(1)(B)(ii) of the Internal Revenue Code of 1986 is  
8 amended—

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

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

12 “(III) the credit determined  
13 under section 48D for the taxable  
14 year.”.

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

20 “(7) the qualifying semiconductor equipment  
21 credit.”.

22 (d) CLERICAL AMENDMENT.—The table of sections  
23 for subpart E of part IV of subchapter A of chapter 1  
24 of the Internal Revenue Code of 1986 is amended by in-

1 serting after the item relating to section 48C the following  
2 new item:

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

3 (e) EFFECTIVE DATE.—The amendments made by  
4 this section shall apply to any qualified semiconductor  
5 equipment (as defined in subsection (c) of section 48D)  
6 placed in service after the date of enactment of this Act,  
7 or any qualified semiconductor manufacturing facility in-  
8 vestment expenditure (as defined in subsection (d) of such  
9 section) incurred after such date.

10 **SEC. 3. BUILDING UNITED STATES CAPACITY FOR**  
11 **VERIFICATION AND MANUFACTURING OF AD-**  
12 **VANCED MICROELECTRONICS.**

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

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

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

4           (2) Metrology for security and supply chain  
5 verification.

6           (3) Creation of a Manufacturing USA institute  
7 described in section 34(d) of the National Institute  
8 of Standards and Technology Act (15 U.S.C.  
9 278s(d)) that is focused on semiconductor manufac-  
10 turing. Such institute may emphasize the following:

11                   (A) Research to support the virtualization  
12 and automation of maintenance of semicon-  
13 ductor machinery.

14                   (B) Development of new advanced test, as-  
15 sembly and packaging capabilities.

16                   (C) Developing and deploying educational  
17 and skills training curricula needed to support  
18 the industry sector and ensure the U.S. can  
19 build and maintain a trusted and predictable  
20 talent pipeline.

21           (c) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated to the Secretary  
23 amounts as follows:

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

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

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

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

6 (a) DEFINITIONS.—In this section—

7           (1) the term “appropriate committees of Con-  
8 gress” means—

9                   (A) the Select Committee on Intelligence,  
10 the Committee on Commerce, Science, and  
11 Transportation, the Committee on Foreign Re-  
12 lations, the Committee on Armed Services, and  
13 the Committee on Homeland Security and Gov-  
14 ernmental Affairs of the Senate; and

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

22           (2) the term “covered incentive”—

23                   (A) means an incentive offered by a gov-  
24 ernmental entity to a private entity for the pur-  
25 poses of building within the jurisdiction of the

1 governmental entity a fabrication (or other es-  
2 sential) facility relating to the manufacturing of  
3 semiconductors; and

4 (B) includes any tax incentive (such as an  
5 incentive or reduction with respect to employ-  
6 ment or payroll taxes or a tax abatement with  
7 respect to personal or real property), a work-  
8 force-related incentive (including a grant agree-  
9 ment relating to workforce training or voca-  
10 tional education), any concession with respect  
11 to real property, and any other incentive deter-  
12 mined appropriate by the Secretary, in con-  
13 sultation with the Secretary of State;

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

16 (4) the term “Secretary” means the Secretary  
17 of Commerce.

18 (b) GRANTS.—

19 (1) IN GENERAL.—The Secretary shall establish  
20 in the Department of Commerce a program that, in  
21 accordance with the requirements of this section,  
22 provides grants to governmental entities that offer  
23 covered incentives.

24 (2) PROCEDURE.—

1           (A) IN GENERAL.—A governmental entity  
2 that offers a covered incentive and that desires  
3 to receive a grant under this subsection shall  
4 submit to the Secretary an application that de-  
5 scribes the covered incentive offered by the gov-  
6 ernmental entity.

7           (B) CONDITIONS FOR APPROVAL.—The  
8 Secretary shall approve an application sub-  
9 mitted by a governmental entity under subpara-  
10 graph (A)—

11                   (i) upon confirmation by the Secretary  
12 that the private entity to which the govern-  
13 mental entity has offered the covered in-  
14 centive to which the application relates has  
15 agreed to build in the applicable jurisdic-  
16 tion a facility described in subsection  
17 (a)(2)(A); and

18                   (ii) if the Secretary determines that  
19 building the facility described in clause (i)  
20 is in the interest of the United States.

21           (3) AMOUNT.—The amount of a grant provided  
22 by the Secretary to a governmental entity under this  
23 subsection shall be in an amount that is not less  
24 than the value of the applicable covered incentive of-

1       ferred by the governmental entity, as determined by  
2       the Secretary.

3           (4) CLAWBACK.—The Secretary shall recover  
4       the full amount of a grant made to a governmental  
5       entity under this subsection with respect to a cov-  
6       ered incentive offered by the governmental entity  
7       if—

8           (A) as of the date that is 5 years after the  
9       date on which the Secretary makes the grant,  
10      the facility to which the covered incentive re-  
11      lates has not been completed; or

12          (B) during the term of the grant, the pri-  
13      vate entity to which the covered incentive was  
14      offered engages in any joint research or tech-  
15      nology licensing effort—

16           (i) with the Government of the Peo-  
17      ple’s Republic of China, the Government of  
18      the Russian Federation, the Government of  
19      Iran, or the Government of North Korea;  
20      and

21           (ii) that relates to a sensitive tech-  
22      nology or product, as determined by the  
23      Secretary.

24          (c) CONSULTATION AND COORDINATION RE-  
25      QUIRED.—In carrying out the program established under

1 subsection (b), the Secretary shall consult and coordinate  
2 with the Secretary of State.

3 (d) GAO REVIEWS.—The Comptroller General of the  
4 United States shall—

5 (1) not later than 2 years after the date of en-  
6 actment of this Act, and biennially thereafter until  
7 the date that is 10 years after that date of enact-  
8 ment, conduct a review of the program established  
9 under subsection (b), which shall include a deter-  
10 mination of the number of grants made under that  
11 program during the period covered by the review  
12 that failed to comply with a requirement under this  
13 section; and

14 (2) submit to the appropriate committees of  
15 Congress the results of each review conducted under  
16 paragraph (1).

17 (e) TRUST FUND.—

18 (1) ESTABLISHMENT.—There is established in  
19 the Treasury of the United States a trust fund (re-  
20 ferred to in this subsection as the “Trust Fund”),  
21 consisting of amounts transferred to the Trust Fund  
22 under paragraph (2) and any amounts that may be  
23 credited to the Trust Fund under paragraph (3).

24 (2) TRANSFER OF AMOUNTS.—

1 (A) IN GENERAL.—Subject to subpara-  
2 graph (B), the Secretary of the Treasury shall  
3 transfer to the Trust Fund, from the general  
4 fund of the Treasury, for fiscal year 2021 and  
5 each fiscal year thereafter, an amount equiva-  
6 lent to the amount received into the general  
7 fund during that fiscal year and attributable to  
8 duties imposed under section 301 of the Trade  
9 Act of 1974 (19 U.S.C. 2411).

10 (B) LIMITATIONS.—

11 (i) LIMITATION ON TRANSFERS.—The  
12 amount transferred to the Trust Fund  
13 under subparagraph (A) in a fiscal year  
14 may not exceed \$10,000,000,000.

15 (ii) LIMITATION ON TOTAL BAL-  
16 ANCE.—The total amount in the Trust  
17 Fund at any one time may not exceed  
18 \$10,000,000,000.

19 (C) FREQUENCY OF TRANSFERS.—The  
20 Secretary shall transfer amounts required to be  
21 transferred to the Trust Fund under this para-  
22 graph not less frequently than quarterly from  
23 the general fund of the Treasury to the Trust  
24 Fund.

25 (3) INVESTMENT OF AMOUNTS.—

1 (A) INVESTMENT OF AMOUNTS.—The Sec-  
2 retary shall invest such portion of the Trust  
3 Fund as is not required to meet current with-  
4 draws in interest-bearing obligations of the  
5 United States or in obligations guaranteed as to  
6 both principal and interest by the United  
7 States.

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

13 (4) AVAILABILITY OF AMOUNTS IN TRUST  
14 FUND.—Amounts in the Trust Fund shall be avail-  
15 able, as provided in advance in an appropriations  
16 Act, to the Secretary to make grants under this sec-  
17 tion.

18 **SEC. 5. DEPARTMENT OF DEFENSE SUPPORT FOR SEMI-**  
19 **CONDUCTOR TECHNOLOGIES AND RELATED**  
20 **TECHNOLOGIES.**

21 (a) RDT&E AND WORKFORCE TRAINING EF-  
22 FORTS.—

23 (1) IN GENERAL.—The Secretary of Defense  
24 shall, in consultation with the Secretary of Com-  
25 merce and the Secretary of Labor, establish and im-

1       plement a priority in the use of amounts available to  
2       the Department of Defense for research, develop-  
3       ment, test, and evaluation, and for workforce train-  
4       ing, for programs, projects, and activities in connec-  
5       tion with semiconductor technologies and related  
6       technologies.

7           (2) DISCHARGE.—The Secretary of Defense  
8       shall carry out paragraph (1) through the Office of  
9       the Under Secretary of Defense for Research and  
10      Engineering or such other component of the Depart-  
11      ment of Defense as the Secretary considers appro-  
12      priate.

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

20      (b) DPA EFFORTS.—

21          (1) IN GENERAL.—Not later than 120 days  
22      after the date of the enactment of this Act, the  
23      President shall submit to Congress a report on, and  
24      shall commence implementation of, a plan for use by  
25      the Department of Defense of authorities available

1 in title III of the Defense Production Act of 1950  
2 (50 U.S.C. 4531 et seq.) to establish and enhance  
3 a domestic production capability for semiconductor  
4 technologies and related technologies, if funding is  
5 available for that purpose.

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

11 **SEC. 6. DEPARTMENT OF COMMERCE STUDY ON STATUS OF**  
12 **SEMICONDUCTOR TECHNOLOGIES IN THE**  
13 **UNITED STATES INDUSTRIAL BASE.**

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

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

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

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

10 (3) Foreign domiciled corporations, partner-  
11 ships, associations, or any other organized groups  
12 with substantial operations or business presence in,  
13 or substantial revenues derived from, the United  
14 States.

15 (4) Foreign domiciled corporations, partner-  
16 ships, associations, or any other organized groups in  
17 defense treaty or assistance countries where the pro-  
18 duction of the entity concerned involves critical tech-  
19 nologies covered by section 3.

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

1           (1) An identification of the geographic scope of  
2 operations.

3           (2) Information on relevant cost structures.

4           (3) An identification of types of semiconductor  
5 equipment in operation at such entity.

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

9           (5) Specifications of the semiconductors manu-  
10 factured or designed by such entity, descriptions of  
11 the end-uses of such semiconductors, and a descrip-  
12 tion of any technical support provided to end-users  
13 of such semiconductors by such entity.

14           (6) Information on domestic and export market  
15 sales by such entity.

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

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

21           (9) A list of information requests from the Peo-  
22 ple's Republic of China to such entity, and a de-  
23 scription of the nature of each request and the type  
24 of information provided.

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

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

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

12 **SEC. 7. FUNDING FOR DEVELOPMENT AND ADOPTION OF**  
13                           **SECURE MICROELECTRONICS AND SECURE**  
14                           **MICROELECTRONICS SUPPLY CHAINS.**

15          (a) MULTILATERAL MICROELECTRONICS SECURITY  
16 **FUND.—**

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

1           (2) AUTHORIZATION OF APPROPRIATIONS.—

2           There are authorized to be appropriated  
3           \$750,000,000 to be deposited in the Fund.

4           (3) INVESTMENT OF AMOUNTS.—

5           (A) INVESTMENT OF AMOUNTS.—The Sec-  
6           retary of the Treasury shall invest such portion  
7           of the Fund as is not required to meet current  
8           withdrawals in interest-bearing obligations of  
9           the United States or in obligations guaranteed  
10          as to both principal and interest by the United  
11          States.

12          (B) INTEREST AND PROCEEDS.—The in-  
13          terest on, and the proceeds from the sale or re-  
14          demption of, any obligations held in the Fund  
15          shall be credited to and form a part of the  
16          Fund.

17          (4) USE OF FUND.—

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

22                  (i) to provide funding through the  
23                  common funding mechanism described in  
24                  subsection (b)(1) to support the develop-  
25                  ment and adoption of secure microelec-

1                   tronics and secure microelectronics supply  
2                   chains; and

3                   (ii) to otherwise carry out this section.

4                   (B) AVAILABILITY CONTINGENT ON INTER-  
5                   NATIONAL AGREEMENT.—Amounts in the Fund  
6                   shall be available to the Secretary of State on  
7                   and after the date on which the Secretary en-  
8                   ters into an agreement with the governments of  
9                   countries that are partners of the United States  
10                  to participate in the common funding mecha-  
11                  nism under paragraph (1) of subsection (b) and  
12                  the commitments described in paragraph (2) of  
13                  that subsection.

14                  (5) AVAILABILITY OF AMOUNTS.—

15                  (A) IN GENERAL.—Amounts in the Fund  
16                  shall remain available through the end of the  
17                  tenth fiscal year beginning after the date of the  
18                  enactment of this Act.

19                  (B) REMAINDER TO TREASURY.—Any  
20                  amounts remaining in the Fund after the end  
21                  of the fiscal year described in subparagraph (A)  
22                  shall be deposited in the general fund of the  
23                  Treasury.

1 (b) COMMON FUNDING MECHANISM FOR DEVELOP-  
2 MENT AND ADOPTION OF SECURE MICROELECTRONICS  
3 AND SECURE MICROELECTRONICS SUPPLY CHAINS.—

4 (1) IN GENERAL.—The Secretary of State, in  
5 consultation with the Secretary of Commerce, the  
6 Secretary of Defense, the Secretary of Homeland Se-  
7 curity, the Secretary of the Treasury, and the Direc-  
8 tor of National Intelligence, shall seek to establish a  
9 common funding mechanism, in coordination with  
10 the governments of countries that are partners of  
11 the United States, that uses amounts from the  
12 Fund, and amounts committed by such governments,  
13 to support the development and adoption of secure  
14 microelectronics and secure microelectronics supply  
15 chains.

16 (2) MUTUAL COMMITMENTS.—The Secretary of  
17 State, in consultation with the United States Trade  
18 Representative and the Secretary of Commerce, shall  
19 seek to negotiate a set of mutual commitments with  
20 the governments of countries that are partners of  
21 the United States upon which to condition any ex-  
22 penditure of funds pursuant to the common funding  
23 mechanism described in paragraph (1). Such com-  
24 mitments shall, at a minimum—

1 (A) establish transparency requirements  
2 for any subsidies or other financial benefits (in-  
3 cluding revenue foregone) provided to microelec-  
4 tronics firms located in or outside such coun-  
5 tries;

6 (B) establish consistent policies with re-  
7 spect to countries that—

8 (i) are not participating in the com-  
9 mon funding mechanism; and

10 (ii) do not meet transparency require-  
11 ments established under subparagraph (A);

12 (C) promote harmonized treatment of  
13 microelectronics and verification processes for  
14 items being exported to a country considered a  
15 national security risk by a country participating  
16 in the common funding mechanism;

17 (D) establish consistent policies and com-  
18 mon external policies to address nonmarket  
19 economies as the behavior of such countries  
20 pertains to microelectronics; and

21 (E) align policies on supply chain integrity  
22 and microelectronics security.

23 (c) ANNUAL REPORT TO CONGRESS.—Not later than  
24 one year after the date of the enactment of this Act, and  
25 annually thereafter for each fiscal year during which

1 amounts in the Fund are available under subsection  
2 (a)(3), the Secretary of State shall submit to Congress a  
3 report on the status of the implementation of this section  
4 that includes a description of—

5           (1) any commitments made by the governments  
6           of countries that are partners of the United States  
7           to providing funding for the common funding mecha-  
8           nism described in subsection (b)(1) and the specific  
9           amount so committed;

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

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

14           (4) amounts remaining in the Fund;

15           (5) the progress of the Secretary of State to-  
16           ward entering into an agreement with the govern-  
17           ments of countries that are partners of the United  
18           States to participate in the common funding mecha-  
19           nism and the commitments described in subsection  
20           (b)(2); and

21           (6) any additional authorities needed to en-  
22           hance the effectiveness of the Fund in achieving the  
23           security goals of the United States.

1 **SEC. 8. ADVANCED SEMICONDUCTOR RESEARCH AND DE-**  
2 **SIGN.**

3 (a) **APPROPRIATE COMMITTEES OF CONGRESS.**—In  
4 this section, the term “appropriate committees of Con-  
5 gress” means—

6 (1) the Select Committee on Intelligence, the  
7 Committee on Commerce, Science, and Transpor-  
8 tation, the Committee on Foreign Relations, the  
9 Committee on Armed Services, and the Committee  
10 on Homeland Security and Governmental Affairs of  
11 the Senate; and

12 (2) the Permanent Select Committee on Intel-  
13 ligence, the Committee on Energy and Commerce,  
14 the Committee on Foreign Affairs, the Committee  
15 on Armed Services, the Committee on Science,  
16 Space, and Technology, and the Committee on  
17 Homeland Security of the House of Representatives.

18 (b) **SENSE OF CONGRESS.**—It is the sense of Con-  
19 gress that the leadership of the United States in semicon-  
20 ductor technology and innovation is critical to the eco-  
21 nomic growth and national security of the United States.

22 (c) **SUBCOMMITTEE ON SEMICONDUCTOR LEADER-**  
23 **SHIP.**—

24 (1) **ESTABLISHMENT REQUIRED.**—The Presi-  
25 dent shall establish in the National Science and  
26 Technology Council a subcommittee on matters re-

1       lating to leadership of the United States in semicon-  
2       ductor technology and innovation.

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

5                       (A) NATIONAL STRATEGY ON SEMICON-  
6       DUCTOR RESEARCH.—

7                               (i) DEVELOPMENT.—In coordination  
8       with the Secretary of Defense, the Sec-  
9       retary of Energy, the Secretary of State,  
10      the Secretary of Commerce, the National  
11      Science Foundation, and the Director of  
12      the National Institute of Standards and  
13      Technology and in consultation with the  
14      semiconductor industry and academia, de-  
15      velop a national strategy on semiconductor  
16      research, including guidance for the fund-  
17      ing of research.

18                              (ii) REPORTING AND UPDATES.—Not  
19      less frequently than once every 5 years, to  
20      update the strategy developed under clause  
21      (i) and to submit the revised strategy to  
22      the appropriate committees of Congress.

23                       (B) FOSTERING COORDINATION OF RE-  
24      SEARCH AND DEVELOPMENT.—To foster the co-

1           ordination of semiconductor research and devel-  
2           opment.

3           (d) ADVANCED PACKAGING NATIONAL MANUFAC-  
4           TURING INSTITUTE.—

5           (1) AUTHORIZATION.—The Secretary of Com-  
6           merce may, in coordination with the private sector,  
7           establish in the Department of Commerce an insti-  
8           tute on advanced packaging and manufacturing.

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

11           (A) To establish United States leadership  
12           in advanced microelectronic packaging.

13           (B) To promote standards development for  
14           such packaging.

15           (C) To foster public-private partnerships  
16           relevant to such packaging.

17           (D) To develop research and development  
18           programs to advance technology development  
19           relevant to such packaging.

20           (E) To establish an investment fund—

21           (i) to support a startup domestic ad-  
22           vanced microelectronic packaging eco-  
23           system;

24           (ii) to accelerate technology transfer;

25           and

1 (iii) to ensure domestic supply chains;

2 and

3 (F) to work with the Secretary of Labor

4 and the private sector to develop workforce

5 training programs and apprenticeships in ad-

6 vanced microelectronic packaging capabilities.

7 (e) AUTHORIZATIONS OF APPROPRIATIONS.—

8 (1) NATIONAL SEMICONDUCTOR TECHNOLOGY

9 CENTER.—There is authorized to be appropriated to

10 establish a national semiconductor technology center

11 to conduct research and prototyping of advance

12 semiconductors with participation of the private sec-

13 tor, the Secretary of Defense, the Secretary of En-

14 ergy, the National Science Foundation, and the Di-

15 rector of the National Institute of Standards and

16 Technology, \$3,000,000,000 for fiscal year 2021,

17 with such amount to remain available for such pur-

18 pose through fiscal year 2030.

19 (2) ELECTRONICS RESURGENCE INITIATIVE.—

20 There is authorized to be appropriated to carry out

21 the Electronics Resurgence Initiative of the Defense

22 Advanced Research Projects Agency,

23 \$2,000,000,000 for fiscal year 2021, with such

24 amount to remain available for such purpose

25 through fiscal year 2025.

1           (3) SEMICONDUCTOR BASIC RESEARCH AT NA-  
2           TIONAL SCIENCE FOUNDATION.—There is authorized  
3           to be appropriated to carry out programs at the Na-  
4           tional Science Foundation on semiconductor basic  
5           research, \$3,000,000,000 for fiscal year 2021, with  
6           such amount to remain available for such purpose  
7           through fiscal year 2025.

8           (4) SEMICONDUCTOR BASIC RESEARCH AT DE-  
9           PARTMENT OF ENERGY.—There is authorized to be  
10          appropriated to carry out programs at the Depart-  
11          ment of Energy on semiconductor basic research,  
12          \$2,000,000,000 for fiscal year 2021, with such  
13          amount to remain available for such purpose  
14          through fiscal year 2025.

15          (5) ADVANCED PACKAGING NATIONAL MANU-  
16          FACTURING INSTITUTE.—There is authorized to be  
17          appropriated to carry out subsection (d),  
18          \$5,000,000,000 for fiscal year 2021, with such  
19          amount to remain available for such purpose  
20          through fiscal year 2025—

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

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

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