99TH CONGRESS 1ST SESSION

S. 1914

To amend the Stevenson-Wydler Technology Innovation Act of 1980 to permit cooperative agreements between industry and laboratories owned and operated by the Federal Government, and for other purposes.

IN THE SENATE OF THE UNITED STATES

December 9, 1985

Mr. GOBTON (for himself, Mr. DANFORTH, Mr. RIEGLE, Mr. HEFLIN, Mr. GOBE, Mr. ROCKEFELLEB, Mr. DOLE, Mr. HOLLINGS, and Mr. INOUVE) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

- To amend the Stevenson-Wydler Technology Innovation Act of 1980 to permit cooperative agreements between industry and laboratories owned and operated by the Federal Government, and for other purposes.
 - Be it enacted by the Senate and House of Representa tives of the United States of America in Congress assembled,
 That this Act may be cited as the "Federal Technology
 Transfer Act of 1985".

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2 SEC. 2. (a) Section 11(a) of the Stevenson-Wydler 3 Technology Innovation Act of 1980 (15 U.S.C. 3710(a)) is 4 amended—

UTILIZATION OF FEDERAL TECHNOLOGY

5 (1) by inserting "(1)" after "POLICY.—"; and
6 (2) by adding at the end thereof the following:
7 "(2) Each laboratory director shall ensure that efforts to
8 transfer technology are considered positively in laboratory job
9 descriptions, employee promotion policies, and evaluation of
10 the job performance of scientists and engineers in the
11 laboratory.".

12 (b)(1) Section 11(b) of such Act (15 U.S.C. 3710(b)) is 13 amended—

(A) by striking "a total annual budget exceeding
\$20,000,000 shall provide at least one professional individual full-time" and inserting in lieu thereof "200 or
more full-time scientific, engineering, and related technical positions shall provide one or more full-time
equivalent positions";

(B) by striking "requirements set forth in (1) and/
or (2) of this subsection" and inserting in lieu thereof
"requirement set forth in clause (2) of the preceding
sentence"; and

(C) by striking "either requirement (1) or (2)" in
 the last sentence and inserting in lieu thereof "such re quirement".
 (2) Section 11(c) of such Act (15 U.S.C. 3710(c)) is
 amended—
 (A) by amending paragraph (1) to read as follows:

(A) by amending paragraph (1) to read as follows:
"(1) to prepare application assessments for selected research and development projects in which that
laboratory is engaged and which in the opinion of the
laboratory may have potential commercial applications;";

(B) by inserting "all" before "federally owned" inparagraph (2);

14 (C) by striking "the Center for the utilization of
15 Federal Technology" in paragraph (3) and inserting in
16 lieu thereof "the National Technical Information Serv17 ice, the Federal Laboratory Consortium for Technology
18 Transfer,";

(D) by striking "in response to requests from
State and local government officials." in paragraph (4)
and inserting in lieu thereof "to State and local government officials; and"; and

23 (E) by adding at the end thereof the following:

24 "(5) to participate, where feasible, in regional,
25 State, and local government programs designed to fa-

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1	cilitate or stimulate the transfer of technology for the
2	benefit of the region, State, or local jurisdiction in
3	which the federal laboratory is located.".
4	(c) Section 11(d) of such Act (15 U.S.C. 3710(d)) is
5	amended
6	(1) by striking all from "(d)" through "shall—"
7	and inserting in lieu thereof the following:
8	"(d) Dissemination of Technical Information
9	The National Technical Information Service shall-";
10	(2) by striking paragraph (2);
11	(3) by striking "existing" in paragraph (3), and
12	redesignating such paragraph as paragraph (2);
13	(4) by striking paragraph (4) and inserting in lieu
14	thereof the following:
15	"(3) receive requests for technical assistance from
16	State and local governments, respond to such requests
17	with published information available to the Service,
18	and refer such requests to the Federal Laboratory Con-
19	sortium for Technology Transfer to the extent that
20	such requests require a response involving more than
21	the published information available to the Service;";
22	(5) by redesignating paragraphs (5) and (6) as
23	paragraphs (4) and (5), respectively; and
24	(6) by striking "(c)(4)" in paragraph (4), as so re-
25	designated, and inserting in lieu thereof "(c)(3)".

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(d) Section 11(e) of such Act (15 U.S.C. 3710(e)) is 1 amended by striking "Center for the Utilization of Federal $\mathbf{2}$ Technology" and inserting in lieu thereof "Assistant Secre-3 tary for Productivity, Technology, and Innovation". 4 $\mathbf{5}$ ESTABLISHMENT OF FEDERAL LABORATORY CONSORTIUM 6 FOR TECHNOLOGY TRANSFER SEC. 3. Section 11 of the Stevenson-Wydler Technolo-7 gy Innovation Act of 1980 (15 U.S.C. 3710), as amended by 8 section 2 of this Act, is further amended-9 10 (1) by redesignating subsection (e) as subsection (f): and 11 12 (2) by inserting after subsection (d) the following: 13 "(e) ESTABLISHMENT OF FEDERAL LABORATORY 14 CONSORTIUM FOR TECHNOLOGY TRANSFER.—(1) There is established the Federal Laboratory Consortium for Technolo-15 gy Transfer (hereinafter referred to as the 'Consortium') 16 17 which, in cooperation with Federal laboratories and the private sector, shall— 18 "(A) develop and, with the consent of the Federal 19 20 laboratory concerned, administer techniques, training 21 courses, and materials concerning technology transfer to increase the awareness of Federal laboratory em-22

ployees regarding the commercial potential of laboratory technology and innovations;

25 "(B) furnish advice and assistance requested by
26 Federal agencies and laboratories for use in their techs 1914 IS

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nology transfer programs (including the planning of
seminars for small business and other industry);
"(C) provide a clearinghouse, at the laboratory
level, for requests for technical assistance from States
and units of local governments, businesses, industrial
development organizations, not-for-profit organizations
(including universities), Federal agencies and laborato-
ries, and other persons, and—
"(i) to the extent that a response to such re-
quests can be made with published information
available to the National Technical Information
Service, refer such requests to that Service; and
"(ii) otherwise refer such requests to the ap-
propriate Federal laboratories and agencies;
"(D) facilitate communication and coordination be-
tween Offices of Research and Technology Applica-
tions of Federal laboratories;
"(E) utilize (with the consent of the agency in-
volved) the expertise and services of the National Sci-
ence Foundation, the Department of Commerce, the
National Aeronautics and Space Administration, and
other Federal agencies, as necessary;
"(F) with the consent of any Federal laboratory,

facilitate the use by such laboratory of appropriate

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technology transfer mechanisms such as personnel ex changes and computer-based systems;

"(G) with the consent of any Federal laboratory,
assist such laboratory to establish technical volunteer
service programs for the purpose of providing technical
assistance to communities related to such laboratory;
and

8 "(H) facilitate communication and cooperation be-9 tween Offices of Research and Technology Applica-10 tions of Federal laboratories and regional, State, and 11 local technology transfer organizations.

12 "(2) The membership of the Consortium shall consist of the Federal laboratories described in clause (1) of subsection 13 (b) and such other laboratories as may choose to join the 14 15 Consortium. The representatives to the Consortium shall in-16 clude a senior staff member of each Federal laboratory which 17 is a member of the Consortium and a representative appointed from each Federal agency with one or more member 18 laboratories. 19

20 "(3) The representatives to the Consortium shall elect a21 Chairman of the Consortium.

"(4) The Director of the National Bureau of Standards
shall provide the Consortium, on a reimbursable basis, with
administrative services, such as office space, personnel, and

support services of the Bureau, as requested by the Consor tium and approved by such Director.

3 "(5) Not later than 1 year after the date of the enactment of this subsection, and every year thereafter, the Chair-4 $\mathbf{5}$ man of the Consortium shall submit a report to the President, to the appropriate authorization and appropriation commit-6 tees of both Houses of the Congress, and to each agency with 7 respect to which a transfer of funding is made (for the fiscal 8 year or years involved) under paragraph (6), concerning the 9 10 activities of the Consortium and the expenditures made by it 11 under this subsection during the year for which the report is 12made.

"(6)(A) Subject to subparagraph (B), an amount equal to 13 0.005 percent of that portion of the research and develop-14 ment budget of each Federal agency that is to be utilized by 15the laboratories of such agency for a fiscal year referred to in 1617 subparagraph (B)(ii) shall be transferred by such agency to 18 the National Bureau of Standards at the beginning of the fiscal year involved. Amounts so transferred shall be provided 19 20by the Bureau to the Consortium for the purpose of carrying out activities of the Consortium under this subsection. $\mathbf{21}$

22 "(B) A transfer may be made by any Federal agency
23 under subparagraph (A), for any fiscal year, only if—

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"(i) the amount so transferred by that agency (as
 determined under such subparagraph) would exceed
 \$10,000; and

4 "(ii) such transfer is made with respect to the 5 fiscal year 1987, 1988, 1989, 1990, or 1991.

6 "(C) The heads of Federal agencies and their designees, 7 and the directors of Federal laboratories, may provide such 8 additional support for operations of the Consortium as they 9 consider appropriate.".

10 FUNCTIONS OF THE SECRETARY OF COMMERCE

11 SEC. 4. Section 11 of such Act (15 U.S.C. 3710), as 12 amended by this Act, is further amended by adding at the end 13 thereof the following:

14 "(g) FUNCTIONS OF THE SECRETARY.—(1) The Secre15 tary, in consultation with other Federal agencies, may—

"(A) make available to interested agencies the expertise of the Department of Commerce regarding the
commercial potential of inventions and methods and
options for commercialization which are available to
Federal laboratories, including research and development limited partnerships;

"(B) develop and disseminate to appropriate
agency and laboratory personnel model provisions for
use on a voluntary basis in cooperative research and
development arrangements; and

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1 "(C) furnish advice and assistance, upon request, $\mathbf{2}$ to Federal agencies concerning their cooperative re-3 search and development programs and projects. "(2) Two years after the date of enactment of this sub-4 section, and every two years thereafter, the Secretary shall 5 6 submit a report to the President and the Congress on the use by the agencies and the Secretary of the authorities specified 7 in this Act. Other Federal agencies shall, to the extent per-8 9 mitted by law, provide the Secretary with all information 10 necessary to prepare such reports.". 11 COOPERATIVE RESEARCH AND DEVELOPMENT 12 AGREEMENTS 13 SEC. 5. The Stevenson-Wydler Technology Innovation Act of 1980 is amended by redesignating sections 12 through 14 15 as sections 15 through 18, respectively, and by inserting 15after section 11 the following: 16 17 "SEC. 12. COOPERATIVE RESEARCH AND DEVELOPMENT 18 AGREEMENTS. 19 "(a) GENEBAL AUTHORITY.—(1) Each Federal agency 20may permit the director of any of its Government-operated Federal laboratories-21 22"(A) to enter into cooperative research and devel-23opment arrangements (subject to such regulations or 24 review procedures as the agency considers appropriate) 25with other Federal agencies, units of State or local

government, industrial organizations (including corpo-

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1 rations, partnerships and limited partnerships), public 2 and private foundations, nonprofit organizations (in-3 cluding universities), or other persons (including licensees of inventions owned by the Federal agency); and 4 5 "(B) to negotiate licensing agreements under sec-6 tion 207 of title 35, United States Code, or other au-7 thorities for Government-owned inventions made at the 8 laboratory and other inventions of Federal employees 9 that may be voluntarily assigned to the Government. 10 "(2) Under arrangements entered into pursuant to paragraph (1), a laboratory may— 11

12 "(A) accept funds, services, and property from
13 collaborating parties and provide services and property
14 to collaborating parties;

15 "(B) grant or agree to grant in advance to a collaborating party patent licenses, assignments, or options thereto, in any invention made by a Federal employee under the arrangement, retaining such rights as the Federal agency considers appropriate;

"(C) waive, in whole or in part, any right of ownership which the Government may have under any
other statute to any inventions made by a collaborating
party or employee of a collaborating party under the
arrangement; and

1 "(D) to the extent consistent with any applicable $\mathbf{2}$ agency requirements, permit employees or former em-3 ployees of the laboratory to participate in efforts to 4 commercialize inventions they made while in the serv-5 ice of the United States. 6 "(3) Each agency shall maintain a record of all agree-7 ments entered into under this section. 8 "(b) DEFINITION.—As used in this section, the term— 9 "(1) 'cooperative research and development agree-10 ment' means any agreement between one or more Fed-11 eral laboratories and one or more non-Federal parties 12under which the Government provides personnel, serv-13 ices, facilities, equipment, or other resources (but not 14 funds to non-Federal parties) and the non-Federal par-15ties provide funds, personnel, srvices, facilities, equip-16 ment, or other resources toward the conduct of speci-17 fied research or development efforts which are consist-18 ent with the missions of the agency, except that such 19 term does not include a procurement contract or coop-20 erative agreement as those terms are used in sections 21 6303, 6304, and 6305 of title 31, United States Code; 22 and

23 "(2) 'laboratory' means a facility or group of fa24 cilities owned, leased, or otherwise used by a Federal
25 agency, a substantial purpose of which is the perform-

ance of research and development by employees of the
 Federal Government.".

3 "(c) RELATIONSHIP TO OTHER LAWS.—Nothing in
4 this section is intended to limit or diminish existing authori5 ties of any agency.".

6 REWARDS FOR SCIENTIFIC, ENGINEERING, AND
7 TECHNICAL PERSONNEL OF FEDERAL AGENCIES
8 SEC. 6. The Stevenson-Wydler Technology Innovation
9 Act of 1980, as amended by this Act, is further amended by
10 inserting after section 12 the following:

 11 "SEC. 13. REWARDS FOR SCIENTIFIC, ENGINEERING, AND

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 TECHNICAL PERSONNEL OF FEDERAL AGEN

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14 "(a) CASH AWARDS PROGRAM.—The head of each 15 Federal agency that is making expenditures at a rate of more 16 than \$50,000,000 per fiscal year for research and develop-17 ment in its Government-operated laboratories shall use the 18 appropriate statutory authority to develop and implement a 19 cash awards program to reward its scientific, engineering, 20 and technical personnel for—

"(1) inventions, innovations, or other outstanding
scientific or technological contributions of value to the
United States due to commercial applications or due to
contributions to missions of the Federal agency or the
Federal Government; or

1 "(2) exemplary activities that promote the domes-2 tic transfer of science and technology developed within 3 the Federal Government and result in utilization of 4 such science and technology by American industry or 5 business, universities, State or local governments, or 6 other non-Federal parties.

"(b) PAYMENT OF ROYALTIES.—Any royalties or other 7 8 income received by an agency from the licensing or assign-9 ment of inventions under this section or under section 207 of title 35, United States Code, or other authority shall be 10 transferred to the agency's Government-operated laboratories 11 with a substantial percentage being returned to the laborato-1213 ries whose inventions produced the royalties or income. Such royalties or income shall be disposed of as follows: 14

"(1) At least 15 percent of the royalties or other 15 16 income received each year by the laboratory on account of any invention shall be paid to the inventor or 17 18 coinventors if they were employees of the agency at 19 the time the invention was made. Payments made 20under this paragraph are in addition to the regular pay 21 of the employee and to any awards made to that em-22ployee, and such payments shall not affect the entitle-23 ment or limit the amount of the regular pay, annuity, 24 or other awards to which the employee is otherwise 25entitled or for which the employee is otherwise eligible.

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1	"(2) The balance of any royalties or related
2	income earned during any fiscal year after paying the
3	inventors' portions under paragraph (1) may be re-
4	tained by the laboratory up to the limits specified in
5	this paragraph, and used—
6	"(A) for mission-related research and devel-
7	opment of the laboratory;
8	"(B) to support development and education
9	programs for employees of the laboratory;
10	"(C) to reward employees of the laboratory
11	for contributing to the development of new tech-
12	nologies and assisting in the transfer of technolo-
13	gy to the private sector, and for inventions of
14	value to the Government that will not produce
15	royalties;
16	"(D) to further scientific exchange to and
17	from the laboratory; and
18	"(E) for payment of patenting costs and fees
19	and other expenses incidental to promoting, ad-
20	ministering, and licensing inventions, including the
21	fees or costs for services of other agencies or
22	other persons or organizations for invention man-
23	agement and licensing services.
24	If the balance for any laboratory after paying the in-
25	ventors' shares under paragraph (1) exceeds 5 percent

1 of the annual budget of the laboratory, 75 percent of 2 the excess shall be paid to the Treasury of the United 3 States and the remaining 25 percent shall be used for the purposes listed in subparagraphs (A) through (E), 4 $\mathbf{5}$ by the end of the fiscal year subsequent to the one in 6 which they were received. Any funds not so used or 7 obligated by the end of such fiscal year shall be paid to 8 the Treasury of the United States.

9 "(c) ASSIGNED INVENTIONS.—If the invention was one 10 assigned to the agency either (1) by a contractor, grantee, or 11 the recipient of a cooperative agreement of the agency, or (2) 12 by an employee of the agency that was not working in the 13 laboratory at the time the invention was made, the agency 14 unit that funded or employed or assigned the assignee shall, 15 for purposes of this section, be considered to be a laboratory.

16 "(d) REPORTS.—In making their annual budget submis-17 sions, Federal agencies shall submit to the appropriate au-18 thorization and appropriation committees of both Houses of 19 the Congress summaries of the amount of royalties or other 20 income received and expenditures made (including inventor 21 awards) under this section.".

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EMPLOYEE ACTIVITIES

SEC. 7. The Stevenson-Wydler Technology Innovation
Act of 1980, as amended by this Act, is further amended by
inserting after section 13 the following:

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"SEC. 14. EMPLOYEE ACTIVITIES.

 $\mathbf{2}$ "(a) IN GENERAL.—If a Federal agency which has the 3 right of ownership to an invention under this Act does not 4 intend to file for a patent application or otherwise to promote commercialization of such invention, the agency may allow $\mathbf{5}$ the inventor, if the inventor is a Government employee or 6 7 former employee who made the invention during the course 8 of employment with the Government, to retain title to the 9 invention (subject to reservation by the Government of a non-10 exclusive, nontransferrable, irrevocable, paid up license to 11 practice or have practiced the invention throughout the world by or on behalf of the Government). In addition, the agency 12 may condition the inventor's right to title on the timely filing 13 14 of a patent application in cases when the Government determines that it has or may have a need to practice the 15 16 invention.

17 "(b) DEFINITION.—For purposes of this section, Feder18 al employees include 'special Government employees' as de19 fined in section 202 of title 18, United States Code.

20 "(c) RELATIONSHIP TO OTHER LAWS.—Nothing in 21 this section is intended to limit or diminish existing authori-22 ties of any agency.".

23 MISCELLANEOUS AND CONFORMING AMENDMENTS
24 SEC. 8. (a) Section 10 of the Stevenson-Wydler Tech25 nology Innovation Act of 1980 (15 U.S.C. 3709) is repealed.

(b)(1) Section 3(2) of such Act (15 U.S.C. 3702(2)) is
 amended by striking "centers for industrial technology" and
 inserting in lieu thereof "cooperative research centers".

4 (2) Section 4 of such Act (15 U.S.C. 3703) is 5 amended—

6 (A) by striking "Industrial Technology" in para7 graph (1) and inserting in lieu thereof "Productivity,
8 Technology, and Innovation";

9 (B) by striking "'Director' means the Director of 10 the Office of Industrial Technology" in paragraph (3) 11 and inserting in lieu thereof "'Assistant Secretary' 12 means the Assistant Secretary for Productivity, Tech-13 nology, and Innovation";

14 (C) by striking "Centers for Industrial Tech15 nology" in paragraph (4) and inserting in lieu thereof
16 "Cooperative Research Centers";

17 (D) by striking paragraph (6), and redesignating 18 paragraphs (7) and (8) as paragraphs (6) and (7), re-19 spectively; and

20 (E) by striking "owned and funded" in paragraph 21 (6), as so redesignated, and inserting in lieu thereof 22 "owned, leased, or otherwise used by a Federal agency 23 and funded".

(3) Section 5(a) of such Act (15 U.S.C. 3704(a)) is 1 2 amended by striking "Industrial Technology" and inserting in lieu thereof "Productivity, Technology, and Innovation". 3 (4) Section 5(b) of such Act (15 U.S.C. 3704(b)) is 4 amended by striking "DIRECTOR" and inserting in lieu there- $\mathbf{5}$ of "ASSISTANT SECRETARY", and by striking all from "a 6 Director of the Office" and inserting in lieu thereof "an 7 8 Assistant Secretary for Productivity, Technology, and Innovation.". 9

10 (5) Section 5(c) of such Act (15 U.S.C. 3704(c)) is
11 amended by striking "the Director" each place it appears and
12 inserting in lieu thereof "the Assistant Secretary".

13 (6) The heading of section 6 of such Act is amended to14 read as follows:

15 "SEC. 6. COOPERATIVE RESEARCH CENTERS.".

16 (7) Section 6(a) of such Act (15 U.S.C. 3705(a)) is 17 amended by striking "Centers for Industrial Technology" 18 and inserting in lieu thereof "Cooperative Research 19 Centers".

20 (8) Section 6(b)(1) of such Act (15 U.S.C. 3705(b)(1)) is
21 amended by striking "basic and applied".

22 (9) Section 6(e) of such Act (15 U.S.C. 705(e)) is
23 amended to read as follows:

24 "(e) RESEARCH AND DEVELOPMENT UTILIZATION.—
25 In the promotion of technological innovation and commercial-

ization of research and development efforts by Centers under
 this section, chapter 18 of title 35, United States Code, shall
 apply.".

4 (10) Section 6(f) of such Act (15 U.S.C. 3705(f)) is 5 repealed.

6 (11) The heading of section 8 of such Act is amended by
7 striking "CENTERS FOR INDUSTRIAL TECHNOLOGY"
8 and inserting in lieu thereof "COOPERATIVE RESEARCH
9 CENTERS".

10 (12) Section 8(a) of such Act (15 U.S.C. 3707(a)) is 11 amended by striking "Centers for Industrial Technology" 12 and inserting in lieu thereof "Cooperative Research 13 Centers".

14 (c) Section 4 of such Act (15 U.S.C. 3703), as amended
15 by subsection (b)(2) of this section, is further amended by
16 adding at the end thereof the following:

17 "(8) 'Federal agency' means any executive agency
18 as defined in section 105 of title 5, United States
19 Code, and the military departments, as defined in sec20 tion 102 of such title.

"(9) 'Invention' means any invention or discovery
which is or may be patentable or otherwise protected
under title 35, United States Code, or any novel variety of plant which is or may be protectable under the
Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

"(10) 'Made', when used in conjunction with any
 invention, means the conception or first actual reduc tion to practice of such invention.".

4 (d)(1) Such Act (as amended by this Act) is further
5 amended by redesignating sections 11 through 18 as sections
6 10 through 17, respectively.

7 (2)(A) Section 5(d) of such Act (15 U.S.C. 3704(d)) is
8 amended by inserting "(as then in effect)" after "Act" the
9 second time it appears.

10 (B) Section 8(a) of such Act (15 U.S.C. 3707(a)) is
11 amended by striking the last sentence.

12 (C) Section 9(d) of such Act (15 U.S.C. 3708(d)) is 13 amended by striking "or 13" and inserting in lieu thereof 14 "10, or 14".

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