

118TH CONGRESS
2D SESSION

S. 4639

To establish in the National Institute of Standards and Technology the Foundation for Standards and Metrology, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 8, 2024

Mr. COONS (for himself, Mr. YOUNG, Mr. HICKENLOOPER, and Mrs. FISCHER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To establish in the National Institute of Standards and Technology the Foundation for Standards and Metrology, and for other purposes.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Expanding Partner-
5 ships for Innovation and Competitiveness Act”.

6 **SEC. 2. FOUNDATION FOR STANDARDS AND METROLOGY.**

7 (a) IN GENERAL.—Subtitle B of title II of the Re-
8 search and Development, Competition, and Innovation Act
9 (42 U.S.C. 18931 et seq.; relating to measurement re-

1 search of the National Institute of Standards and Tech-
2 nology for the future; enacted as part of division B of Pub-
3 lic Law 117–167) is amended by adding at the end the
4 following new section:

5 **“SEC. 10236. FOUNDATION FOR STANDARDS AND METROL-**
6 **OGY.**

7 “(a) ESTABLISHMENT.—The Secretary, acting
8 through the Director, shall establish a nonprofit corpora-
9 tion to be known as the ‘Foundation for Standards and
10 Metrology’.

11 “(b) MISSION.—The mission of the Foundation shall
12 be to—

13 “(1) support the Institute in carrying out its
14 activities and mission to advance measurement
15 science, technical standards, and technology in ways
16 that enhance the economic security and prosperity of
17 the United States; and

18 “(2) advance collaboration with researchers, in-
19 stitutions of higher education, industry, and non-
20 profit and philanthropic organizations to accelerate
21 the development of technical standards, measure-
22 ment science, and the commercialization of emerging
23 technologies in the United States.

1 “(c) ACTIVITIES.—In carrying out its mission under
2 subsection (b), the Foundation may carry out the fol-
3 lowing:

4 “(1) Support international metrology and tech-
5 nical standards engagement activities.

6 “(2) Support studies, projects, and research on
7 metrology and the development of benchmarks and
8 technical standards infrastructure across the Insti-
9 tute’s mission areas.

10 “(3) Advance collaboration between the Insti-
11 tute and researchers, industry, nonprofit and philan-
12 thropic organizations, institutions of higher edu-
13 cation, federally funded research and development
14 centers, and State, Tribal, and local governments.

15 “(4) Support the expansion and improvement of
16 research facilities and infrastructure at the Institute
17 to advance the development of emerging tech-
18 nologies.

19 “(5) Support the commercialization of federally
20 funded research.

21 “(6) Conduct education and outreach activities.

22 “(7) Offer direct support to NIST associates,
23 including through the provision of fellowships,
24 grants, stipends, travel, health insurance, profes-
25 sional development training, housing, technical and

1 administrative assistance, recognition awards for
2 outstanding performance, and occupational safety
3 and awareness training and support, and other ap-
4 propriate expenditures.

5 “(8) Conduct such other activities as deter-
6 mined necessary by the Foundation to carry out its
7 mission.

8 “(d) AUTHORITY OF THE FOUNDATION.—The Foun-
9 dation shall be the sole entity responsible for carrying out
10 the activities described in subsection (c).

11 “(e) STAKEHOLDER ENGAGEMENT.—The Founda-
12 tion shall convene, and may consult with, representatives
13 from the Institute, institutions of higher education, the
14 private sector, non-profit organizations, and commer-
15 cialization organizations to develop activities for the mis-
16 sion of the Foundation under subsection (b) and to ad-
17 vance the activities of the Foundation under subsection
18 (c).

19 “(f) LIMITATION.—The Foundation shall not be an
20 agency or instrumentality of the Federal Government.

21 “(g) SUPPORT.—The Foundation may receive, ad-
22 minister, solicit, accept, and use funds, gifts, devises, or
23 bequests, either absolutely or in trust of real or personal
24 property or any income therefrom or other interest therein
25 to support activities under subsection (c), except that this

1 subsection shall not apply if any of such is from a foreign
2 country of concern or a foreign entity of concern.

3 “(h) TAX EXEMPT STATUS.—The Board shall take
4 all necessary and appropriate steps to ensure the Founda-
5 tion is an organization described in section 501(c) of the
6 Internal Revenue Code of 1986 and exempt from taxation
7 under section 501(a) of such Code.

8 “(i) BOARD OF DIRECTORS.—

9 “(1) ESTABLISHMENT.—The Foundation shall
10 be governed by a Board of Directors.

11 “(2) COMPOSITION.—

12 “(A) IN GENERAL.—The Board shall be
13 composed of the following:

14 “(i) Eleven appointed voting members
15 described in subparagraph (B).

16 “(ii) Ex officio nonvoting members de-
17 scribed in subparagraph (C).

18 “(B) APPOINTED MEMBERS.—

19 “(i) INITIAL MEMBERS.—The Sec-
20 retary, acting through the Director, shall—

21 “(I) seek to enter into an agree-
22 ment with the National Academies of
23 Sciences, Engineering, and Medicine
24 to develop a list of individuals to serve
25 as members of the Board who are well

1 qualified and will meet the require-
2 ments of clauses (ii) and (iii); and

3 “(II) appoint the initial members
4 of the Board from such list, if appli-
5 cable, in consultation with the Na-
6 tional Academies of Sciences, Engi-
7 neering, and Medicine.

8 “(ii) REPRESENTATION.—The ap-
9 pointed members of the Board shall reflect
10 a broad cross-section of stakeholders
11 across diverse sectors, regions and commu-
12 nities, including from academia, private
13 sector entities, technical standards bodies,
14 the investment community, the philan-
15 thropic community, and other nonprofit or-
16 ganizations.

17 “(iii) EXPERIENCE.—The Secretary,
18 acting through the Director, shall ensure
19 the appointed members of the Board have
20 the experience and are qualified to provide
21 advice and information to advance the
22 Foundation’s mission, including in science
23 and technology research and development,
24 technical standards, education, technology

1 transfer, commercialization, or other as-
2 pects of the Foundation's mission.

3 “(C) NONVOTING MEMBERS.—

4 “(i) EX OFFICIO MEMBERS.—The Di-
5 rector (or Director's designee) shall be an
6 ex officio member of the Board.

7 “(ii) NO VOTING POWER.—The ex
8 officio members described in clause (i)
9 shall not have voting power on the Board.

10 “(3) CHAIR AND VICE CHAIR.—

11 “(A) IN GENERAL.—The Board shall des-
12 ignate, from among its members—

13 “(i) an individual to serve as the chair
14 of the Board; and

15 “(ii) an individual to serve as the vice
16 chair of the Board.

17 “(B) TERMS.—The term of service of the
18 Chair and Vice Chair of the Board shall end on
19 the earlier of—

20 “(i) the date that is 3 years after the
21 date on which the Chair or Vice Chair of
22 the Board, as applicable, is designated for
23 the respective position; and

24 “(ii) the last day of the term of serv-
25 ice of the member, as determined under

1 paragraph (4)(A), who is designated to be
2 Chair or Vice Chair of the Board, as appli-
3 cable.

4 “(C) REPRESENTATION.—The Chair and
5 Vice Chair of the Board—

6 “(i) may not be representatives of the
7 same area of subject matter expertise, or
8 entity, as applicable; and

9 “(ii) may not be representatives of
10 any area of subject matter expertise, or en-
11 tity, as applicable, represented by the im-
12 mediately preceding Chair and Vice Chair
13 of the Board.

14 “(4) TERMS AND VACANCIES.—

15 “(A) TERM LIMITS.—Subject to subpara-
16 graph (B), the term of office of each member
17 of the Board shall be not more than five years,
18 except that a member of the Board may con-
19 tinue to serve after the expiration of the term
20 of such member until the expiration of the 180-
21 day period beginning on the date on which the
22 term of such member expires, if no new member
23 is appointed to replace the departing board
24 member.

1 “(B) INITIAL APPOINTED MEMBERS.—Of
2 the initial members of the Board appointed
3 under paragraph (4)(A), half of such members
4 shall serve for four years and half of such mem-
5 bers shall serve for five years, as determined by
6 the Chair of the Board.

7 “(C) VACANCIES.—Any vacancy in the
8 membership of the appointed members of the
9 Board—

10 “(i) shall be filled in accordance with
11 the bylaws of the Foundation by an indi-
12 vidual capable of representing the same
13 area or entity, as applicable, as rep-
14 resented by the vacating board member
15 under paragraph (2)(B)(ii);

16 “(ii) shall not affect the power of the
17 remaining appointed members to carry out
18 the duties of the Board; and

19 “(iii) shall be filled by an individual
20 selected by the Board.

21 “(5) QUORUM.—A majority of the members of
22 the Board shall constitute a quorum for the pur-
23 poses of conducting the business of the Board.

24 “(6) DUTIES.—The Board shall carry out the
25 following:

1 “(A) Establish bylaws for the Foundation
2 in accordance with paragraph (7).

3 “(B) Provide overall direction for the ac-
4 tivities of the Foundation and establish priority
5 activities.

6 “(C) Coordinate with the Institute the ac-
7 tivities of the Foundation to ensure consistency
8 with the programs and policies of the Institute.

9 “(D) Evaluate the performance of the Ex-
10 ecutive Director of the Foundation.

11 “(E) Actively solicit and accept funds,
12 gifts, grants, devises, or bequests of real or per-
13 sonal property to the Foundation, including
14 from private entities.

15 “(F) Carry out any other necessary activi-
16 ties of the Foundation.

17 “(7) BYLAWS.—The Board shall establish by-
18 laws for the Foundation. In establishing such by-
19 laws, the Board shall ensure the following:

20 “(A) The bylaws of the Foundation include
21 the following:

22 “(i) Policies for the selection of the
23 Board members, officers, employees,
24 agents, and contractors of the Foundation.

1 “(ii) Policies, including ethical and
2 disclosure standards, for the following:

3 “(I) The acceptance, solicitation,
4 and disposition of donations and
5 grants to the Foundation, including
6 appropriate limits on the ability of do-
7 nors to designate, by stipulation or re-
8 striction, the use or recipient of do-
9 nated funds.

10 “(II) The disposition of assets of
11 the Foundation.

12 “(iii) Policies that subject all employ-
13 ees, fellows, trainees, and other agents of
14 the Foundation (including appointed voting
15 members and ex officio members of the
16 Board) to conflict of interest standards.

17 “(iv) The specific duties of the Execu-
18 tive Director of the Foundation.

19 “(B) The bylaws of the Foundation and
20 activities carried out under such bylaws do
21 not—

22 “(i) reflect unfavorably upon the abil-
23 ity of the Foundation to carry out its re-
24 sponsibilities or official duties in a fair and
25 objective manner; or

1 “(ii) compromise, or appear to com-
2 promise, the integrity of any governmental
3 agency or program, or any officer or em-
4 ployee employed by, or involved in a gov-
5 ernmental agency or program.

6 “(8) RESTRICTIONS ON MEMBERSHIP.—

7 “(A) EMPLOYEES.—No employee of the
8 Department of Commerce may be appointed as
9 a voting member of the Board.

10 “(B) STATUS.—Each voting member of
11 the Board shall be—

12 “(i) a citizen of the United States;

13 “(ii) a national of the United States
14 (as such term is defined in section 101(a)
15 of the Immigration and Nationality Act (8
16 U.S.C. 1101(a));

17 “(iii) an alien admitted as a refugee
18 under section 207 of such Act (8 U.S.C.
19 1157); or

20 “(iv) an alien lawfully admitted to the
21 United States for permanent residence.

22 “(9) COMPENSATION.—

23 “(A) IN GENERAL.—Members of the Board
24 may not receive compensation for serving on
25 the Board.

1 “(B) CERTAIN EXPENSES.—In accordance
2 with the bylaws of the Foundation, members of
3 the Board may be reimbursed for travel ex-
4 penses, including per diem in lieu of subsist-
5 ence, and other necessary expenses incurred in
6 carrying out the duties of the Board.

7 “(10) LIAISON REPRESENTATIVES.—The Sec-
8 retary, acting through the Director, shall designate
9 representatives from across the Institute to serve as
10 the liaisons to the Board and the Foundation.

11 “(11) PERSONAL LIABILITY OF BOARD MEM-
12 BERS.—The members of the Board shall not be per-
13 sonally liable, except for malfeasance.

14 “(j) ADMINISTRATION.—

15 “(1) EXECUTIVE DIRECTOR.—

16 “(A) IN GENERAL.—The Foundation shall
17 have an Executive Director who shall be ap-
18 pointed by the Board, and who shall serve at
19 the pleasure of the Board, and for whom the
20 Board shall establish the rate of compensation.
21 Subject to the bylaws established under sub-
22 section (i)(7), the Executive Director shall be
23 responsible for the daily operations of the
24 Foundation in carrying out the activities of the
25 Foundation under subsection (c).

1 “(B) RESPONSIBILITIES.—In carrying out
2 the daily operations of the Foundation, the Ex-
3 ecutive Director of the Foundation shall carry
4 out the following:

5 “(i) Hire, promote, compensate, and
6 discharge officers and employees of the
7 Foundation, and define the duties of such
8 officers and employees.

9 “(ii) Accept and administer donations
10 to the Foundation, and administer the as-
11 sets of the Foundation.

12 “(iii) Enter into such contracts and
13 execute legal instruments as are appro-
14 priate in carrying out the activities of the
15 Foundation.

16 “(iv) Perform such other functions as
17 necessary to operate the Foundation.

18 “(C) RESTRICTIONS.—

19 “(i) EXECUTIVE DIRECTOR.—The Ex-
20 ecutive Director shall be—

21 “(I) a citizen of the United
22 States;

23 “(II) a national of the United
24 States (as such term is defined in sec-

1 tion 101(a) of the Immigration and
2 Nationality Act (8 U.S.C. 1101(a));

3 “(III) an alien admitted as a ref-
4 ugee under section 207 of such Act (8
5 U.S.C. 1157); or

6 “(IV) an alien lawfully admitted
7 to the United States for permanent
8 residence.

9 “(ii) OFFICERS AND EMPLOYEES.—
10 Each officer or employee of the Founda-
11 tion shall be—

12 “(I) a citizen of the United
13 States;

14 “(II) a national of the United
15 States (as such term is defined in sec-
16 tion 101(a) of the Immigration and
17 Nationality Act (8 U.S.C. 1101(a));

18 “(III) an alien admitted as a ref-
19 ugee under section 207 of such Act (8
20 U.S.C. 1157); or

21 “(IV) an alien lawfully admitted
22 to the United States for permanent
23 residence.

24 “(2) ADMINISTRATIVE CONTROL.—No member
25 of the Board, officer or employee of the Foundation

1 or of any program established by the Foundation, or
2 participant in a program established by the Founda-
3 tion, may exercise administrative control over any
4 Federal employee.

5 “(3) TRANSFER OF FUNDS TO INSTITUTE.—

6 The Foundation may transfer funds and property to
7 the Institute, which the Institute may accept and
8 use and which shall be subject to all applicable Fed-
9 eral limitations relating to federally funded research.

10 “(4) STRATEGIC PLAN.—Not later than one

11 year after the establishment of the Foundation, the
12 Foundation shall submit to the Committee on
13 Science, Space, and Technology of the House of
14 Representatives and the Committee on Commerce,
15 Science, and Transportation of the Senate a stra-
16 tegic plan that contains the following:

17 “(A) A plan for the Foundation to become
18 financially self-sustaining in the next five years.

19 “(B) Short- and long-term objectives of the
20 Foundation, as identified by the Board.

21 “(C) A description of the efforts the Foun-
22 dation will take to be transparent in the proc-
23 esses of the Foundation, including processes re-
24 lating to the following:

1 “(i) Grant awards, including selection,
2 review, and notification.

3 “(ii) Communication of past, current,
4 and future research priorities.

5 “(iii) Solicitation of and response to
6 public input on the priorities identified by
7 the Foundation.

8 “(D) A description of the financial goals
9 and benchmarks of the Foundation for the fol-
10 lowing ten years.

11 “(E) A description of the efforts under-
12 taken by the Foundation to ensure maximum
13 complementarity and minimum redundancy
14 with investments made by the Institute.

15 “(5) REPORT.—

16 “(A) IN GENERAL.—Not later than 18
17 months after the establishment of the Founda-
18 tion and not later than February 1 of each year
19 thereafter, the Foundation shall publish a re-
20 port describing the activities of the Foundation
21 during the immediately preceding fiscal year.
22 Each such report shall include with respect to
23 such fiscal year a comprehensive statement of
24 the operations, activities, financial condition,

1 progress, and accomplishments of the Founda-
2 tion.

3 “(B) FINANCIAL CONDITION.—With re-
4 spect to the financial condition of the Founda-
5 tion, each report under subparagraph (A) shall
6 include the source, and a description of, all sup-
7 port under subsection (g) provided to the Foun-
8 dation. Each such report shall identify the per-
9 sons or entities from which such support is re-
10 ceived, and include a specification of any re-
11 strictions on the purposes for which such sup-
12 port may be used.

13 “(C) PUBLICATION.—The Foundation
14 shall make copies of each report submitted
15 under subparagraph (A) available—

16 “(i) for public inspection, and shall
17 upon request provide a copy of the report
18 to any individual for a charge not to ex-
19 ceed the cost of providing such copy; and

20 “(ii) to the Committee on Science,
21 Space, and Technology of the House of
22 Representatives and the Committee on
23 Commerce, Science, and Transportation of
24 the Senate.

1 “(6) AUDITS AND DISCLOSURE.—The Founda-
2 tion shall—

3 “(A) provide for annual audits of the fi-
4 nancial condition of the Foundation, including a
5 full list of the Foundation’s donors and any re-
6 strictions on the purposes for which gifts to the
7 Foundation may be used; and

8 “(B) make such audits, and all other
9 records, documents, and other papers of the
10 Foundation, available to the Secretary and the
11 Comptroller General of the United States for
12 examination or audit.

13 “(7) EVALUATION BY COMPTROLLER GEN-
14 ERAL.—Not later than five years after the date on
15 which the Foundation is established, the Comptroller
16 General of the United States shall submit to the
17 Committee on Science, Space, and Technology of the
18 House of Representatives and the Committee on
19 Commerce, Science, and Transportation of the Sen-
20 ate the following:

21 “(A) An evaluation of the following:

22 “(i) The extent to which the Founda-
23 tion is achieving the mission of the Foun-
24 dation.

25 “(ii) The operation of the Foundation.

1 “(B) Any recommendations on how the
2 Foundation may be improved.

3 “(k) INTEGRITY.—

4 “(1) IN GENERAL.—To ensure integrity in the
5 operations of the Foundation, the Board shall de-
6 velop and enforce procedures relating to standards
7 of conduct, financial disclosure statements, conflicts
8 of interest (including recusal and waiver rules), au-
9 dits, and any other matters determined appropriate
10 by the Board.

11 “(2) FINANCIAL CONFLICTS OF INTEREST.—To
12 mitigate conflicts of interest and risks from malign
13 foreign influence, any individual who is an officer,
14 employee, or member of the Board is prohibited
15 from any participation in deliberations by the Foun-
16 dation of a matter that would directly or predictably
17 affect any financial interest of any of the following:

18 “(A) Such individual.

19 “(B) A relative of such individual.

20 “(C) A business organization or other enti-
21 ty in which such individual or relative of such
22 individual has an interest, including an organi-
23 zation or other entity with which such indi-
24 vidual is negotiating employment.

1 “(3) SECURITY.—This section shall be carried
2 out in accordance with the provision of subtitle D of
3 title VI of the Research and Development, Competi-
4 tion, and Innovation Act (42 U.S.C. 19231 et seq.;
5 enacted as part of division B of Public Law 117–
6 167) and section 223 of the William M. (Mac)
7 Thornberry National Defense Authorization Act for
8 Fiscal Year 2021 (42 U.S.C. 6605).

9 “(l) INTELLECTUAL PROPERTY.—The Board shall
10 adopt written standards to govern the ownership and li-
11 censing of any intellectual property rights developed by the
12 Foundation or derived from the collaborative efforts of the
13 Foundation.

14 “(m) FULL FAITH AND CREDIT.—The United States
15 shall not be liable for any debts, defaults, acts, or omis-
16 sions of the Foundation. The full faith and credit of the
17 United States shall not extend to any obligations of the
18 Foundation.

19 “(n) SUPPORT SERVICES.—The Secretary, acting
20 through the Director, may provide facilities, utilities, and
21 support services to the Foundation if it is determined by
22 the Director to be advantageous to the research programs
23 of the Institute.

24 “(o) NONAPPLICABILITY.—Chapter 10 of title 5,
25 United States Code, shall not apply to the Foundation.

1 “(p) SEPARATE FUND ACCOUNTS.—The Board shall
2 ensure that amounts received pursuant to the authoriza-
3 tion of appropriations under subsection (q) are held in a
4 separate account from any other funds received by the
5 Foundation.

6 “(q) FUNDING; AUTHORIZATION OF APPROPRIA-
7 TIONS.—Notwithstanding any other provision of law, from
8 amounts authorized to be appropriated for a fiscal year
9 beginning with fiscal year 2025 to the Secretary of Com-
10 merce pursuant to section 10211, the Director may trans-
11 fer not less than \$500,000 and not more than \$1,250,000
12 to the Foundation each such fiscal year.

13 “(r) DEFINITIONS.—In this section:

14 “(1) BOARD.—The term ‘Board’ means the
15 Board of Directors of the Foundation, established
16 pursuant to subsection (i).

17 “(2) DIRECTOR.—The term ‘Director’ means
18 the Director of the National Institute of Standards
19 and Technology.

20 “(3) FOREIGN COUNTRY OF CONCERN.—The
21 term ‘foreign country of concern’ has the meaning
22 given such term in section 10638 of the Research
23 and Development, Competition, and Innovation Act
24 (42 U.S.C. 19237; enacted as part of division B of
25 Public Law 117–167).

1 “(4) FOREIGN ENTITY OF CONCERN.—The
2 term ‘foreign entity of concern’ has the meaning
3 given such term in section 10638 of the Research
4 and Development, Competition, and Innovation Act
5 (42 U.S.C. 19237; enacted as part of division B of
6 Public Law 117–167).

7 “(5) FOUNDATION.—The term ‘Foundation’
8 means the Foundation for Standards and Metrology
9 established pursuant to subsection (a).

10 “(6) INSTITUTE.—The term ‘Institute’ means
11 the National Institute of Standards and Technology.

12 “(7) INSTITUTION OF HIGHER EDUCATION.—
13 The term ‘institution of higher education’ has the
14 meaning given such term in section 101 of the High-
15 er Education Act of 1965 (20 U.S.C. 1001).

16 “(8) NIST ASSOCIATE.—The term ‘NIST asso-
17 ciate’ means any guest researcher, facility user, vol-
18 unteer, or other nonemployee of the National Insti-
19 tute of Standards and Technology who conducts re-
20 search or otherwise engages in an authorized activity
21 with National Institute of Standards and Technology
22 personnel or at a National Institute of Standards
23 and Technology facility.

1 “(9) RELATIVE.—The term ‘relative’ has the
2 meaning given such term in section 13101 of title 5,
3 United States Code.

4 “(10) SECRETARY.—The term ‘Secretary’
5 means the Secretary of Commerce.

6 “(11) TECHNICAL STANDARD.—The term ‘tech-
7 nical standard’ has the meaning given such term in
8 section 12(d)(5) of the National Technology Trans-
9 fer and Advancement Act of 1995 (15 U.S.C. 272
10 note).”.

11 (b) CLERICAL AMENDMENT.—The table of contents
12 in section 1 of Public Law 117–167 is amended by insert-
13 ing after the item relating to section 10235 the following
14 new item:

“Sec. 10236. Foundation for Standards and Metrology.”.

○