119TH CONGRESS
2D SESSION

S. 3952

To establish artificial intelligence standards, metrics, and evaluation tools, to support artificial intelligence research, development, and capacity building activities, to promote innovation in the artificial intelligence industry by ensuring companies of all sizes can succeed and thrive, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 26, 2026

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

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A BILL

To establish artificial intelligence standards, metrics, and evaluation tools, to support artificial intelligence research, development, and capacity building activities, to promote innovation in the artificial intelligence industry by ensuring companies of all sizes can succeed and thrive, 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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the

5 "Future of Artificial Intelligence Innovation Act of 2026".

★**(Star Print)**

1   (b) TABLE OF CONTENTS.—The table of contents for

2 this Act is as follows:

3 **SEC. 2. SENSE OF CONGRESS.**

4   It is the sense of Congress that policies affecting arti-

5 ficial intelligence should maximize the potential, develop-

6 ment, and use of artificial intelligence to benefit all private

7 and public stakeholders.

TITLE I—VOLUNTARY ARTIFI-CIAL INTELLIGENCE STAND-ARDS, METRICS, EVALUATION TOOLS, TESTBEDS, AND INTERNATIONAL COOPERA-TION

SEC. 100. DEFINITIONS.

In this title:

(1) ARTIFICIAL INTELLIGENCE.—The term "artificial intelligence" has the meaning given such term in section 5002 of the National Artificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401).

(2) ARTIFICIAL INTELLIGENCE MODEL.—The term "artificial intelligence model" means a component of an artificial intelligence system that is—

(A) derived using mathematical, computational, statistical, or machine-learning techniques; and

(B) used as part of an artificial intelligence system to produce outputs from a given set of inputs.

(3) ARTIFICIAL INTELLIGENCE SYSTEM.—The term "artificial intelligence system" means an engineered or machine-based system that—

1   (A) can, for a given set of objectives, gen-
2 erate outputs such as predictions, recommenda-
3 tions, or decisions influencing real or virtual en-
4 vironments; and

5   (B) is designed to operate with varying lev-
6 els of autonomy.

7   (4) CRITICAL INFRASTRUCTURE.—The term
8 "critical infrastructure" has the meaning given such
9 term in section 1016(e) of the Uniting and
10 Strengthening America by Providing Appropriate
11 Tools Required to Intercept and Obstruct Terrorism
12 (USA PATRIOT ACT) Act of 2001 (42 U.S.C.
13 5195c(e)).

14   (5) FEDERAL LABORATORY.—The term "Fed-
15 eral laboratory" has the meaning given such term in
16 section 4 of the Stevenson-Wydler Technology Inno-
17 vation Act of 1980 (15 U.S.C. 3703).

18   (6) FOUNDATION MODEL.—The term "founda-
19 tion model" means an artificial intelligence model
20 trained on broad data at scale and is adaptable to
21 a wide range of downstream tasks.

22   (7) NATIONAL LABORATORY.—The term "Na-
23 tional Laboratory" has the meaning given such term
24 in section 2 of the Energy Policy Act of 2005 (42
25 U.S.C. 15801).

1   (8) TESTBED.—The term "testbed" means a

2 facility or mechanism, virtual or otherwise, equipped

3 for conducting rigorous, transparent, and replicable

4 testing of tools and technologies, including artificial

5 intelligence systems, to help evaluate the

6 functionality, trustworthiness, usability, and per-

7 formance of those tools or technologies.

Subtitle A—Center for Artificial Intelligence Standards and Innovation and Testbeds

SEC. 101. CENTER FOR ARTIFICIAL INTELLIGENCE STAND-

ARDS AND INNOVATION.

13 The National Institute of Standards and Technology

14 Act (15 U.S.C. 271 et seq.) is amended by inserting after

15 section 22A (15 U.S.C. 278h–1) the following:

16 **"SEC. 22B. CENTER FOR ARTIFICIAL INTELLIGENCE STAND-**

17 **ARDS AND INNOVATION.**

18 "(a) DEFINITIONS.—In this section:

19   "(1) AGENCY.—The term 'agency' has the

20 meaning given the term 'Executive agency' in section

21 105 of title 5, United States Code.

22   "(2) ARTIFICIAL INTELLIGENCE.—The term

23 'artificial intelligence' has the meaning given such

24 term in section 5002 of the National Artificial Intel-

25 ligence Initiative Act of 2020 (15 U.S.C. 9401).

1   "(3) ARTIFICIAL INTELLIGENCE BLUE-
2   TEAMING.—The term 'artificial intelligence blue-
3   teaming' means an effort to conduct operational vul-
4   nerability evaluations and provide mitigation tech-
5   niques to entities who have a need for an inde-
6   pendent technical review of the security posture of
7   an artificial intelligence system.

8   "(4) ARTIFICIAL INTELLIGENCE RED-
9   TEAMING.—The term 'artificial intelligence red-
10   teaming' means structured adversarial testing efforts
11   of an artificial intelligence system.

12   "(5) FEDERAL LABORATORY.—The term 'Fed-
13   eral laboratory' has the meaning given such term in
14   section 4 of the Stevenson-Wydler Technology Inno-
15   vation Act of 1980 (15 U.S.C. 3703).

16   "(6) FOUNDATION MODEL.—The term 'founda-
17   tion model' means an artificial intelligence model
18   trained on broad data at scale and is adaptable to
19   a wide range of downstream tasks.

20   "(7) SYNTHETIC CONTENT.—The term 'syn-
21   thetic content' means information, such as images,
22   videos, audio clips, and text, that has been signifi-
23   cantly modified or generated by algorithms, includ-
24   ing by an artificial intelligence system.

1 ''(8) TESTBED.—The term 'testbed' means a
2 facility or mechanism, virtual or otherwise, equipped
3 for conducting rigorous, transparent, and replicable
4 testing of tools and technologies, including artificial
5 intelligence systems, to help evaluate the
6 functionality, trustworthiness, usability, and per-
7 formance of those tools or technologies.

8 ''(9) WATERMARKING.—The term
9 'watermarking' means the act of embedding prove-
10 nance and authenticity information that is intended
11 to be difficult to remove, into outputs generated by
12 artificial intelligence systems or in original content,
13 including outputs such as text, images, audio, vid-
14 eos, software code, or any other digital content or
15 data, for the purposes of verifying and maintaining
16 the authenticity, integrity, and reliability of the out-
17 put or the identity or characteristics of its prove-
18 nance, modifications, or conveyance.

19 ''(b) ESTABLISHMENT OF CENTER FOR ARTIFICIAL
20 INTELLIGENCE STANDARDS AND INNOVATION.—

21 ''(1) IN GENERAL.—Not later than 90 days
22 after the date of the enactment of the Future of Ar-
23 tificial Intelligence Innovation Act of 2026, the Di-
24 rector shall establish a center on artificial intel-
25 ligence within the Institute.

1 "(2) DESIGNATION.—The center established

2 pursuant to paragraph (1) shall be known as the

3 'Center for Artificial Intelligence Standards and In-

4 novation' (in this section the 'Center').

5 "(3) MISSION.—The mission of the Center is to

6 assist the private sector and agencies in developing

7 voluntary best practices for the robust assessment of

8 artificial intelligence systems, which may be contrib-

9 uted to or inform the work on such practices in

10 standards development organizations.

11 "(c) FUNCTIONS.—

12 "(1) IN GENERAL.—The functions of the Cen-

13 ter, which the Center shall carry out in coordination

14 with the laboratories of the Institute, include the fol-

15 lowing:

16 "(A) Using publicly available or voluntarily

17 provided information, assessing artificial intel-

18 ligence systems and developing guidelines and

19 best practices to measure and improve the se-

20 cure development, deployment, and use of artifi-

21 cial intelligence technology.

22 "(B) Supporting artificial intelligence red-

23 teaming, sharing best practices, and coordi-

24 nating on building testbeds and test environ-

1 ments with allies and international partners of

2 the United States.

3 "(C) Developing and publishing physical

4 and cybersecurity tools, methodologies, best

5 practices, voluntary guidelines, and other sup-

6 porting information to assist persons who main-

7 tain systems used to create or train artificial in-

8 telligence models with discovering and miti-

9 gating vulnerabilities and attacks, including ma-

10 nipulation through data poisoning, including

11 those that may be exploited by foreign adver-

12 saries.

13 "(D) Establishing artificial intelligence

14 blue-teaming capabilities to support mitigation

15 approaches and partnering with industry to ad-

16 dress the reliability of artificial intelligence sys-

17 tems.

18 "(E) Developing tools, methodologies, best

19 practices, and voluntary guidelines for detecting

20 synthetic content, authenticating content and

21 tracking of the provenance of content, labeling

22 original and synthetic content, such as by

23 watermarking, and evaluating software and sys-

24 tems relating to detection and labeling of syn-

25 thetic content.

1   "(F) Coordinating or developing metrics

2   and methodologies for testing artificial intel-

3   ligence systems, including the following:

4   "(i) Cataloging existing artificial intel-

5   ligence metrics and evaluation methodolo-

6   gies used in industry and academia.

7   "(ii) Testing the efficacy of existing

8   metrics and evaluations.

9   "(iii) Documenting tools that assess

10   reliability, accuracy, and robustness.

11   "(G) Coordinating with counterpart inter-

12   national institutions, partners, and allies to

13   support global interoperability in the develop-

14   ment of research and testing of standards relat-

15   ing to artificial intelligence.

16   "(H) Producing resources for Federal

17   agencies to conduct their own evaluations of ar-

18   tificial intelligence systems to best fulfill their

19   missions.

20   "(I) Convening meetings on a semiannual

21   basis with Federal agencies and the private sec-

22   tor—

23   "(i) to share information and best

24   practices on building artificial intelligence

25   evaluations; and

1   ''(ii) to accelerate the development

2   and adoption of national standards for ar-

3   tificial intelligence systems in sectors in-

4   cluding, biotechnology, agriculture, and

5   health care.

6   ''(J) Examining safeguards and best prac-

7   tices to secure artificial intelligence systems

8   from cyber attacks.

9   ''(K) Examining safeguards and best prac-

10   tices to protect against unintended use of artifi-

11   cial intelligence for the purpose of developing

12   chemical, biological, radiological, nuclear, and

13   energy-security threats or hazards.

14   ''(L) Providing, in consultation with the

15   Secretary of Homeland Security and the Direc-

16   tor of the Cybersecurity and Information Secu-

17   rity Agency, a toolkit for best practices in an-

18   ticipating, responding to, and recovering from

19   cybersecurity incidents involving artificial intel-

20   ligence systems. Such toolkit may include guid-

21   ance on remediating and responding to known

22   artificial intelligence-specific vulnerabilities.

23   ''(M) Developing, and curating, in con-

24   sultation with the Secretary of Labor, a list of

25   high-priority occupations for training for the

1   advancement and deployment of artificial intel-

2   ligence.

3   "(N) Developing best practices on min-

4   imum data quality standards for the use of bio-

5   logical, material science, chemical, physical, and

6   other scientific areas in artificial intelligence

7   model training.

8   "(O) Examining, in consultation with the

9   heads of other relevant Federal agencies, the

10   vulnerabilities in the supply chain of hardware,

11   including semiconductors and microelectronics,

12   that are critical to enabling the development

13   and deployment of artificial intelligence.

14   "(P) Examining ways in which artificial in-

15   telligence may be used by the Federal Govern-

16   ment in combating fraud and other unfair or

17   deceptive practices.

18   "(Q) Identify proven, scalable, and inter-

19   operable techniques and metrics to promote the

20   development of artificial intelligence.

21   "(d) CENTER FOR ARTIFICIAL INTELLIGENCE

22 STANDARDS AND INNOVATION CONSORTIUM.—

23   "(1) ESTABLISHMENT.—

24   "(A) IN GENERAL.—Not later than 180

25   days after the date of the enactment of the Fu-

1 ture of Artificial Intelligence Innovation Act of

2 2026, the Director shall establish a consortium

3 of stakeholders from academic or research com-

4 munities, Federal laboratories, private industry,

5 including companies of all sizes with different

6 roles in the use of artificial intelligence systems,

7 including developers, deployers, evaluators,

8 users, and civil society with expertise in matters

9 relating to artificial intelligence to support the

10 Center in carrying out the functions set forth

11 under subsection (c).

12 "(B) DESIGNATION.—The consortium es-

13 tablished pursuant to subparagraph (A) shall be

14 known as the 'Center for Artificial Intelligence

15 Standards and Innovation Consortium'.

16 "(2) CONSULTATION.—The Director shall con-

17 sult with the consortium established under this sub-

18 section not less frequently than quarterly.

19 "(3) ANNUAL REPORTS TO CONGRESS.—Not

20 later than 1 year after the date of the enactment of

21 the Future of Artificial Intelligence Innovation Act

22 of 2026 and not less frequently than once each year

23 thereafter, the Director shall submit to the Com-

24 mittee on Commerce, Science, and Transportation of

25 the Senate and the Committee on Science, Space,

1 and Technology of the House of Representatives a

2 report summarizing the contributions of the mem-

3 bers of the consortium established under this sub-

4 section in support the efforts of the Center.

5 "(e) VOLUNTARY ARTIFICIAL INTELLIGENCE TEST-

6 ING STANDARDS.—In carrying out the functions under

7 subsection (c), the Director shall support and contribute

8 to the development of voluntary, consensus-based technical

9 standards for testing artificial intelligence system compo-

10 nents, including by addressing, as the Director considers

11 appropriate, the following:

12   "(1) Physical infrastructure for training or de-

13   veloping artificial intelligence models and systems,

14   including cloud infrastructure.

15   "(2) Physical infrastructure for operating artifi-

16   cial intelligence systems, including cloud infrastruc-

17   ture.

18   "(3) Data for training artificial intelligence

19   models.

20   "(4) Data for evaluating the functionality and

21   trustworthiness of trained artificial intelligence mod-

22   els and systems.

23   "(5) Trained or partially trained artificial intel-

24   ligence models and any resulting software systems or

25   products.

1 ''(6) Human-in-the-loop testing of artificial in-
2 telligence models and systems.

3 ''(f) MATTERS RELATING TO DISCLOSURE AND AC-
4 CESS.—

5   ''(1) FOIA EXEMPTION.—Any confidential con-
6 tent, as deemed confidential by the contributing pri-
7 vate sector person, shall be exempt from public dis-
8 closure under section 552(b)(3) of title 5, United
9 States Code.

10   ''(2) LIMITATION ON ACCESS TO CONTENT.—
11 Access to a contributing private sector person's vol-
12 untarily provided confidential content, as deemed
13 confidential by the contributing private sector person
14 shall be limited to the private sector person and the
15 Center.

16   ''(3) AGGREGATED INFORMATION.—The Direc-
17 tor may make aggregated, deidentified information
18 available to contributing companies, the public, and
19 other agencies, as the Director considers appro-
20 priate, in support of the purposes of this section.

21 ''(g) RULE OF CONSTRUCTION.—Nothing in this sec-
22 tion shall be construed to provide the Director any en-
23 forcement authority that was not in effect on the day be-
24 fore the date of the enactment of the Future of Artificial
25 Intelligence Innovation Act of 2026.

1 "(h) PROHIBITION ON ACCESS TO RESOURCES FOR
2 ENTITIES UNDER CONTROL OF CERTAIN FOREIGN GOV-
3 ERNMENTS.—

4   "(1) DEFINITIONS.—In this subsection:

5   "(A) COVERED NATION.—The term 'cov-
6   ered nation' has the meaning given that term in
7   section 4872 of title 10, United States Code.

8   "(B) OWNERSHIP, CONTROL, OR INFLU-
9   ENCE OF THE GOVERNMENT OF A COVERED NA-
10   TION.—The term 'ownership, control, or influ-
11   ence of the government of a covered nation',
12   with respect to an entity, means the govern-
13   ment of a covered nation—

14   "(i) has the power to direct or decide
15   matters affecting the entity's management
16   or operations in a manner that could—

17   "(I) result in unauthorized access
18   to classified information; or

19   "(II) adversely affect perform-
20   ance of a contract or agreement re-
21   quiring access to classified informa-
22   tion; and

23   "(ii) exercises that power—

24   "(I) directly or indirectly;

1   "(II) through ownership of the

2   entity's securities, by contractual ar-

3   rangements, or other similar means;

4   "(III) by the ability to control or

5   influence the election or appointment

6   of one or more members to the enti-

7   ty's governing board (such as the

8   board of directors, board of managers,

9   or board of trustees) or its equivalent;

10   or

11   "(IV) prospectively (such as by

12   not currently exercising the power,

13   but could).

14   "(2) IN GENERAL.—An entity under the owner-

15 ship, control, or influence of the government of a

16 covered nation may not access any of the resources

17 of the Center.

18   "(3) CRITERIA FOR IDENTIFICATION.—The Di-

19 rector, working with the heads of the relevant Fed-

20 eral agencies, shall establish criteria to determine if

21 any entity that seeks to utilize the resources of the

22 Center is under the ownership, control, or influence

23 of the government of a covered nation.".

SEC. 102. INTERAGENCY COORDINATION AND PROGRAM TO FACILITATE ARTIFICIAL INTELLIGENCE TESTBEDS.

(a) DEFINITIONS.—In this section:

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

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

(B) the Committee on Science, Space, and Technology of the House of Representatives.

(2) DIRECTOR.—The term "Director" means the Director of the National Science Foundation.

(3) INSTITUTE.—The term "Institute" means the National Institute of Standards and Technology.

(4) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(5) UNDER SECRETARY.—The term "Under Secretary" means the Under Secretary of Commerce for Standards and Technology.

(b) PROGRAM REQUIRED.—Not later than 1 year after the date of the enactment of this Act, the Under Secretary and the Secretary, in coordination with the Director, shall jointly establish a testbed program to encourage collaboration and support partnerships between the

1 National Laboratories, Federal laboratories, the National
2 Institute of Standards and Technology, the National Arti-
3 ficial Intelligence Research Resource pilot program estab-
4 lished by the Director, or any successor program, and pub-
5 lic and private sector entities, including companies of all
6 sizes, to conduct tests, evaluations, and security or vulner-
7 ability risk assessments, and to support research and de-
8 velopment, of artificial intelligence systems, including
9 measurement methodologies developed by the Institute, in
10 order to develop standards and encourage development of
11 a third-party ecosystem.

12 (c) ACTIVITIES.—In carrying out the program re-
13 quired by subsection (b), the Under Secretary and the Sec-
14 retary—

15   (1) may use the advanced computing resources,
16   testbeds, and expertise of the National Laboratories,
17   Federal laboratories, the Institute, the National
18   Science Foundation, and private sector entities to
19   run tests and evaluations on the capabilities and
20   limitations of artificial intelligence systems;

21   (2) shall use existing solutions to the maximum
22   extent practicable;

23   (3) shall develop automated and reproducible
24   tests and evaluations for artificial intelligence sys-
25   tems to the extent that is practicable;

1   (4) shall assess the computational resources

2 necessary to run tests and evaluations of artificial

3 intelligence systems;

4   (5) shall research methods to effectively mini-

5 mize the computational resources needed to run

6 tests, evaluations, and security assessments of artifi-

7 cial intelligence systems;

8   (6) shall where practicable, develop tests and

9 evaluations for artificial intelligence systems that are

10 designed for high-, medium-, and low-computational

11 intensity;

12   (7) shall prioritize assessments by identifying

13 security vulnerabilities of artificial intelligence sys-

14 tems, including the establishment of and utilization

15 of existing classified testbeds, at the National Lab-

16 oratories if necessary, including with respect to—

17   (A) autonomous offensive cyber capabili-

18   ties;

19   (B) cybersecurity vulnerabilities in the ar-

20   tificial intelligence software ecosystem and be-

21   yond;

22   (C) chemical, biological, radiological, nu-

23   clear, critical infrastructure, and energy-secu-

24   rity threats or hazards; and

1 (D) such other capabilities as the Under
2 Secretary or the Secretary determines nec-
3 essary; and

4 (8) shall organize a hackathon to test artificial
5 intelligence systems security risks and
6 vulnerabilities.

7 (d) CONSIDERATION GIVEN.—In carrying out the ac-
8 tivities required by subsection (c), the Under Secretary
9 and the Secretary shall take under consideration the appli-
10 cability of any tests, evaluations, and risk assessments to
11 artificial intelligence systems trained using primarily bio-
12 logical sequence data that could be used to enhance an
13 artificial intelligence system's ability to contribute to the
14 creation of a pandemic or biological weapon, including
15 those systems used for gene synthesis.

16 (e) METRICS.—The Under Secretary and the Sec-
17 retary shall jointly develop metrics to assess—

18 (1) the effectiveness of the program in encour-
19 aging collaboration and supporting partnerships as
20 described in subsection (b); and

21 (2) the impact of the program on public and
22 private sector integration and use of artificial intel-
23 ligence systems.

24 (f) USE OF EXISTING PROGRAM.—In carrying out
25 the program required by subsection (b), the Under Sec-

1 retary, the Secretary, and the Director may use a program

2 that was in effect on the day before the date of the enact-

3 ment of this Act.

4 (g) EVALUATION AND FINDINGS.—Not later than 3

5 years after the start of the program required by subsection

6 (b), the Under Secretary and the Secretary shall jointly—

7   (1) evaluate the success of the program in en-

8   couraging collaboration and supporting partnerships

9   as described in subsection (b), using the metrics de-

10   veloped pursuant to subsection (e);

11   (2) evaluate the success of the program in en-

12   couraging public and private sector integration and

13   use of artificial intelligence systems by using the

14   metrics developed pursuant to subsection (e); and

15   (3) submit to the appropriate committees of

16   Congress the evaluation supported pursuant to para-

17   graph (1) and the findings of the Under Secretary,

18   the Secretary, and the Director with respect to the

19   testbed program.

20 (h) CONSULTATION.—In carrying out subsection (b),

21 the Under Secretary and the Secretary shall consult, as

22 the Under Secretary and the Secretary consider appro-

23 priate, with the following:

1 (1) Industry, including private artificial intel-
2 ligence laboratories, companies of all sizes, and rep-
3 resentatives from the United States financial sector.

4 (2) Academia and institutions of higher edu-
5 cation.

6 (3) Civil society.

7 (i) ESTABLISHMENT OF VOLUNTARY FOUNDATION
8 MODELS TEST PROGRAM.—In carrying out the program
9 under subsection (b), the Under Secretary and the Sec-
10 retary shall, jointly carry out a test program to provide
11 vendors of foundation models, as well as vendors of artifi-
12 cial intelligence virtual agents and robots that incorporate
13 foundation models, the opportunity to voluntarily test
14 foundation models across a range of modalities, such as
15 models that ingest and output text, images, audio, video,
16 software code, and mixed modalities.

17 (j) MATTERS RELATING TO DISCLOSURE AND AC-
18 CESS.—

19 (1) LIMITATION ON ACCESS TO CONTENT.—Ac-
20 cess to a contributing private sector person's volun-
21 tarily provided confidential content, as deemed con-
22 fidential by the contributing private sector person,
23 shall be limited to the contributing private sector
24 person and the Institute.

1   (2) AGGREGATED INFORMATION.—The Under

2   Secretary and the Secretary may make aggregated,

3   deidentified information available to contributing

4   companies, the public, and other agencies, as the

5   Under Secretary considers appropriate, in support of

6   the purposes of this section.

7   (3) FOIA EXEMPTION.—Any confidential con-

8   tent, as deemed confidential by the contributing pri-

9   vate sector person, shall be exempt from public dis-

10   closure under section 552(b)(3) of title 5, United

11   States Code.

12   (k) RULE OF CONSTRUCTION.—Nothing in this sec-

13 tion shall be construed to require a person to disclose any

14 information, including information—

15   (1) relating to a trade secret or other protected

16   intellectual property right;

17   (2) that is confidential business information; or

18   (3) that is privileged.

19   (l) SUNSET.—The programs required by subsections

20 (b) and (i) and the requirements of this section shall ter-

21 minate on the date that is 7 years after the date of the

22 enactment of this Act.

SEC. 103. NATIONAL INSTITUTE OF STANDARDS AND TECH-NOLOGY AND DEPARTMENT OF ENERGY TESTBED TO IDENTIFY, TEST, AND SYN-THESIZE NEW MATERIALS.

(a) IN GENERAL.—The Secretary of Commerce, acting through the Under Secretary of Commerce for Standards and Technology, and the Secretary of Energy may use the program established under section 102(b) to advance materials science and energy storage and optimization and to support advanced manufacturing for the benefit of the United States economy through the use of artificial intelligence, autonomous laboratories, and artificial intelligence integrated with emerging technologies, such as quantum hybrid computing and robotics.

(b) SUPPORT FOR ACCELERATED TECHNOLOGIES.—The Secretary of Commerce and the Secretary of Energy shall ensure that technologies accelerated under subsection (a) are supported by advanced algorithms and models, uncertainty quantification, and software and workforce development tools to produce benchmark data, model comparison tools, and best practices guides.

(c) PUBLIC-PRIVATE PARTNERSHIPS.—In carrying out subsection (a), the Secretary of Commerce and the Secretary of Energy shall, in consultation with industry, civil society, and academia, enter into such public-private

1 partnerships as the Secretaries jointly determine appro-

2 priate.

3 (d) RESOURCES.—In carrying out this section, the

4 Secretaries may—

5 (1) use science and technology resources from

6 the Manufacturing USA Program, the Hollings

7 Manufacturing Extension Partnership, the National

8 Laboratories, Federal laboratories, and the private

9 sector; and

10 (2) the program established under section

11 102(b).

SEC. 104. COORDINATION, REIMBURSEMENT, AND SAVINGS

PROVISIONS.

14 (a) COORDINATION AND DUPLICATION.—The Sec-

15 retary of Commerce shall take such actions as may be nec-

16 essary to ensure no duplication of activities carried out

17 under this subtitle with the activities of—

18 (1) research entities of the Department of En-

19 ergy, including—

20 (A) the National Laboratories; and

21 (B) the Advanced Scientific Computing

22 Research program; and

23 (2) relevant industries.

24 (b) NATIONAL LABORATORY RESOURCES.—Any ad-

25 vanced computing resources, testbeds, expertise, or other

1 resources of the Department of Energy or the National

2 Laboratories that are provided to the National Science

3 Foundation, the National Institute of Standards and

4 Technology, or any other applicable entities under this

5 subtitle shall be provided—

6   (1) on a reimbursable basis; and

7   (2) pursuant to a reimbursable agreement.

8 (c) WAIVER.—The Secretary may waive the require-

9 ments set forth in subsection (b) if the Secretary deter-

10 mines the waiver is necessary or appropriate to carry out

11 the missions of the Department of Commerce.

12 (d) SAVINGS PROVISION.—Nothing in this subtitle

13 shall be construed—

14   (1) to modify any requirement or authority pro-

15   vided under section 5501 of the National Artificial

16   Intelligence Initiative Act of 2020 (15 U.S.C. 9461);

17   or

18   (2) to allow the Secretary of Commerce (includ-

19   ing the Under Secretary of Commerce for Standards

20   and Technology or the Director of the Center for

21   Artificial Intelligence Standards and Innovation) or

22   the Director of the National Science Foundation to

23   use monetary resources of the Department of En-

24   ergy or any National Laboratory.

SEC. 105. PROGRESS REPORT.

(a) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act, the Under Secretary of Commerce for Standards and Technology shall, in co-ordination with the Secretary of Commerce and the Sec-retary of Energy, submit to Congress a report on the im-plementation of sections 102 and 103.

(b) CONTENTS.—The report submitted pursuant to subsection (a) shall include the following:

(1) A description of the reimbursable agree-ments, statements of work, and associated project schedules and deliverables for the testbed program established pursuant to section 102(b) and section 103(a).

(2) Details on the total amount of reimbursable agreements entered into pursuant to section 104(b).

(3) Such additional information as the Under Secretary determines appropriate.

Subtitle B—International Cooperation

SEC. 111. INTERNATIONAL COALITIONS ON INNOVATION, DEVELOPMENT, AND ALIGNMENT OF STAND-ARDS WITH RESPECT TO ARTIFICIAL INTEL-LIGENCE.

(a) IN GENERAL.—The Under Secretary of Com-merce for Standards and Technology (in this section re-

1 ferred to as the "Under Secretary") and the Secretary of

2 Energy (in this section referred to as the "Secretary")

3 shall jointly lead information exchange and coordination

4 among Federal agencies and communication from Federal

5 agencies to the private sector of the United States and

6 like-minded governments of foreign countries to ensure ef-

7 fective Federal engagement in the development and use

8 of international technical standards for artificial intel-

9 ligence.

10 (b) REQUIREMENTS.—To support private sector-led

11 engagement and ensure effective Federal engagement in

12 the development and use of international technical stand-

13 ards for artificial intelligence, the Under Secretary shall

14 seek to form alliances or coalitions with like-minded gov-

15 ernments of foreign countries—

16   (1) to support the private sector-led develop-

17   ment and adoption of standards or alignment with

18   respect to artificial intelligence;

19   (2) to encourage technical standards developed

20   in the United States to be adopted by international

21   standards organizations and to advocate for inter-

22   national approaches to governance of artificial intel-

23   ligence that promote innovation and counter influ-

24   ence from foreign adversaries;

1 (3) to facilitate international collaboration on
2 innovation, science, and advancement in artificial in-
3 telligence research and development, including data
4 sharing, expertise, and resources;

5 (4) to develop the government-to-government
6 infrastructure to support the activities described in
7 paragraphs (1) through (3), using existing bilateral
8 and multilateral agreements to the extent prac-
9 ticable;

10 (5) to work with like-minded governments on
11 identifying best practices to maintain cybersecurity
12 of artificial intelligence models; and

13 (6) to work in coordination with the Secretary
14 of State, the National Security Council, and the Na-
15 tional Science Foundation to develop, implement,
16 and share information on complementary technology
17 protection measures, including in basic research and
18 higher education, to mitigate risks of exploitation by
19 foreign adversaries.

20 (c) CRITERIA FOR PARTICIPATION.—In forming an
21 alliance or coalition of like-minded governments of foreign
22 countries under subsection (b), the Secretary of Com-
23 merce, the Secretary of Energy, the Secretary of State,
24 and the Director, in consultation with the heads of rel-

1 evant agencies, shall jointly establish technology trust cri-

2 teria—

3   (1) to ensure all partner countries have a high

4   level of scientific and technological advancement;

5   and

6   (2) to support the principles for international

7   standards development as detailed in the Committee

8   Decision on World Trade Organization Agreement

9   on Technical Barriers to Trade (Annex 2 of Part 1

10   of G/TBT/1), on international standards, such as

11   transparency, openness, and consensus-based deci-

12   sion making.

13   (d) CONSULTATION ON INNOVATION AND ADVANCE-

14 MENTS IN ARTIFICIAL INTELLIGENCE.—In forming an al-

15 liance or coalition under subsection (b), the Director, the

16 Secretary of Commerce, and the Secretary of State shall

17 consult with the Secretary of Energy and the Director of

18 the National Science Foundation on approaches to innova-

19 tion and advancements in artificial intelligence.

20   (e) SECURITY AND PROTECTION OF INTELLECTUAL

21 PROPERTY.—The Director, the Secretary of Commerce,

22 the Secretary of Energy, and the Secretary of State shall

23 jointly ensure that an alliance or coalition formed under

24 subsection (b) is only undertaken with countries that—

1   (1) have in place sufficient intellectual property

2   protections, safety standards, and risk management

3   approaches relevant to innovation and artificial intel-

4   ligence; and

5   (2) develop and coordinate research security

6   measures, export controls, and intellectual property

7   protections relevant to innovation, development, and

8   standard-setting relating to artificial intelligence.

9   (f) LIMITATION ON ELIGIBILITY OF THE PEOPLE'S

10 REPUBLIC OF CHINA.—

11   (1) IN GENERAL.—The People's Republic of

12   China is not eligible to participate in an alliance or

13   coalition of like-minded governments of foreign coun-

14   tries under subsection (b) until the United States

15   Trade Representative determines in a report to Con-

16   gress required by section 421 of the U.S.-China Re-

17   lations Act of 2000 (22 U.S.C. 6951) that the Peo-

18   ple's Republic of China has come into compliance

19   with the commitments it made in connection with its

20   accession to the World Trade Organization.

21   (2) REPORT REQUIRED.—Upon the submission

22   of a report described in paragraph (1), the officials

23   specified in paragraph (3) shall jointly submit to

24   Congress a report that includes the following:

1   (A) A detailed justification for why govern-

2   ment-to-government information exchange and

3   coordination with the Government of the Peo-

4   ple's Republic of China is in the national secu-

5   rity interests of the United States.

6   (B) An assessment of the risks and poten-

7   tial effects of such coordination, including any

8   potential for the transfer under an alliance or

9   coalition described in paragraph (1) of tech-

10   nology or intellectual property capable of harm-

11   ing the national security interests of the United

12   States.

13   (C) A detailed justification for how the of-

14   ficials specified in paragraph (3) intend to ad-

15   dress human rights concerns in any scientific

16   and technology collaboration proposed to be

17   conducted by such an alliance or coalition.

18   (D) An assessment of the extent to which

19   those officials will be able to continuously mon-

20   itor the commitments made by the People's Re-

21   public of China in participating in such an alli-

22   ance or coalition.

23   (E) Such other information relating to

24   such an alliance or coalition as those officials

25   consider appropriate.

1   (3) OFFICIALS SPECIFIED.—The officials speci-

2   fied in this paragraph are the following:

3   (A) The Director.

4   (B) The Secretary of Commerce.

5   (C) The Secretary of Energy.

6   (D) The Secretary of State.

7   (g) RULE OF CONSTRUCTION.—Nothing in this sec-

8 tion shall be construed—

9   (1) to prohibit a person (as defined in section

10   551 of title 5, United States Code) from partici-

11   pating in an international standards body; or

12   (2) to constrain separate engagement with

13   emerging economies on artificial intelligence.

Subtitle C—Identifying Regulatory Barriers to Innovation

SEC. 121. COMPTROLLER GENERAL OF THE UNITED STATES IDENTIFICATION OF RISKS AND OB-STACLES RELATING TO ARTIFICIAL INTEL-LIGENCE AND FEDERAL AGENCIES.

20   (a) REPORT REQUIRED.—Not later than 1 year after

21 the date of the enactment of this Act, the Comptroller

22 General of the United States shall submit to Congress a

23 report on regulatory impediments to innovation in artifi-

24 cial intelligence systems.

1 (b) CONTENTS.—The report submitted pursuant to
2 subsection (a) shall include the following:

3 (1) Significant examples of Federal statutes
4 and regulations that directly affect the innovation of
5 artificial intelligence systems, including the ability of
6 companies of all sizes to compete in artificial intel-
7 ligence, which should also account for the effect of
8 voluntary standards and best practices developed
9 with contributions from the Federal Government.

10 (2) An evaluation of the progress in government
11 adoption of artificial intelligence and use of artificial
12 intelligence to improve the quality of government
13 services.

14 (3) An evaluation of, and examples of, where
15 artificial intelligence assists Federal agencies deliver
16 services to the public, including towards combating
17 fraud, and ways to increase opportunities for in-
18 creased use of such artificial intelligence systems by
19 the Federal Government.

20 (4) Examples of Federal laws and regulations
21 relating to infrastructure and energy that unduly
22 burden artificial intelligence systems.

23 (5) Based on the findings of the Comptroller
24 General with respect to paragraphs (1) through (5),
25 such recommendations as the Comptroller General

1   may have for legislative or administrative action to

2   increase the rate of innovation in artificial intel-

3   ligence systems.

TITLE II—ARTIFICIAL INTEL-LIGENCE RESEARCH, DEVEL-OPMENT, CAPACITY BUILD-ING ACTIVITIES

8 **SEC. 201. PUBLIC DATA FOR ARTIFICIAL INTELLIGENCE**

9   **SYSTEMS.**

10   (a) IN GENERAL.—Title LI of the National Artificial

11 Intelligence Initiative Act of 2020 (15 U.S.C. 9411 et

12 seq.) is amended by adding at the end the following new

13 section:

14 **"SEC. 5103A. PUBLIC DATA FOR ARTIFICIAL INTELLIGENCE**

15   **SYSTEMS.**

16   "(a) LIST OF PRIORITIES.—

17   "(1) IN GENERAL.—To expedite the develop-

18   ment of artificial intelligence systems in the United

19   States, the Director of the Office of Science and

20   Technology Policy (in this section referred to as the

21   'Director') shall, acting through the National

22   Science and Technology Council and the Interagency

23   Committee and in consultation with the Advisory

24   Committee on Data for Evidence Building estab-

25   lished under section 315 of title 5, United States

1 Code, develop a list of priorities for Federal invest-

2 ment in creating or improving curated, publicly

3 available Federal Government data for training and

4 evaluating artificial intelligence systems and identify

5 an appropriate location to host curated datasets.

6 "(2) REQUIREMENTS.—

7 "(A) IN GENERAL.—The list developed

8 pursuant to paragraph (1) shall—

9 "(i) prioritize data that will advance

10 novel artificial intelligence systems in the

11 public interest;

12 "(ii) prioritize datasets that are the

13 result of scientific research that was fund-

14 ed by the Federal Government; and

15 "(iii) prioritize datasets unlikely to

16 independently receive sufficient private sec-

17 tor support to enable their creation, absent

18 Federal funding.

19 "(B) DATASETS IDENTIFIED.—In carrying

20 out subparagraph (A)(ii), the Director shall

21 identify 20 datasets to be prioritized.

22 "(3) CONSIDERATIONS.—In developing the list

23 under paragraph (1), the Director shall consider the

24 following:

1   "(A) Applicability to the initial list of soci-

2   etal, national, and geostrategic challenges set

3   forth by subsection (b) of section 10387 of the

4   Research and Development, Competition, and

5   Innovation Act (42 U.S.C. 19107), or any suc-

6   cessor list.

7   "(B) Applicability to the initial list of key

8   technology focus areas set forth by subsection

9   (c) of such section, or any successor list.

10   "(C) Applicability to other major United

11   States economic sectors, such as agriculture,

12   health care, transportation, manufacturing, bio-

13   technology, communications, weather services,

14   and positive utility to small- and medium-sized

15   United States businesses.

16   "(D) Opportunities to improve datasets in

17   effect before the date of the enactment of the

18   Future of Artificial Intelligence Innovation Act

19   of 2026.

20   "(E) Inclusion of data representative of

21   the entire population of the United States.

22   "(F) Potential national security threats to

23   releasing datasets, consistent with the United

24   States Government approach to data flows.

25   "(G) Requirements of laws in effect.

1   "(H) Applicability to the priorities listed in
2   the National Artificial Intelligence Research
3   and Development Strategic Plan of the Na-
4   tional Science and Technology Council, dated
5   October 2016, and subsequent updates, and the
6   priorities listed in Winning the Race, America's
7   AI Action Plan, dated July 2025.
8   "(I) Ability to use data already made avail-
9   able to the National Artificial Intelligence Re-
10   search Resource Pilot program or any successor
11   program.
12   "(J) Coordination with other Federal open
13   data efforts, as applicable.
14   "(K) Requirements for researchers funded
15   by the Federal Government to disclose non-
16   proprietary, nonsensitive datasets that are used
17   by artificial intelligence models during the
18   course of research and development.
19   "(L) Opportunities for the National
20   Science Foundation to maintain integrated,
21   interoperable, and multimodal datasets readily
22   providing access to scientific and engineering
23   demonstration projects.
24   "(4) PUBLIC INPUT.—Before finalizing the list
25   required by paragraph (1), the Director shall imple-

1   ment public comment procedures for receiving input

2   and comment from private industry, academia, civil

3   society, and other relevant stakeholders.

4   "(b) INTERAGENCY COMMITTEE.—In carrying out

5   this section, the Interagency Committee—

6   "(1) may establish or leverage existing initia-

7   tives, including through public-private partnerships,

8   for the creation or improvement of curated datasets

9   identified in the list developed pursuant to sub-

10   section (a)(1), including methods for addressing

11   data scarcity;

12   "(2) may apply the priorities set forth in the

13   list developed pursuant to subsection (a)(1) to the

14   enactment of Federal public access and open govern-

15   ment data policies;

16   "(3) shall ensure consistency with Federal pro-

17   visions of law relating to privacy, including the tech-

18   nology and privacy standards applied to the National

19   Secure Data Service under section 10375(f) of the

20   Research and Development, Competition, and Inno-

21   vation Act (42 U.S.C. 19085(f)); and

22   "(4) shall ensure that no data sharing is per-

23   mitted with any country that the Secretary of Com-

24   merce, in consultation with the Secretary of Defense,

25   the Secretary of State, the Secretary of Energy, and

1   the Director of National Intelligence, determines to

2   be engaged in conduct that is detrimental to the na-

3   tional security or foreign policy of the United States.

4   "(c) AVAILABILITY OF DATASETS.—Datasets that

5 are created or improved pursuant to this section—

6   "(1) shall, in the case of a dataset created or

7   improved by a Federal agency, be made available to

8   the comprehensive data inventory developed and

9   maintained by the Federal agency pursuant to sec-

10   tion 3511(a) of title 44, United States Code, in ac-

11   cordance with all applicable regulations; and

12   "(2) may be made available to the National Ar-

13   tificial Intelligence Research Resource pilot program

14   established by the Director of the National Science

15   Foundation, and the applicable programs established

16   by the Department of Energy, in accordance with

17   Executive Order 14110 (88 Fed. Reg. 75191; relat-

18   ing to safe, secure, and trustworthy development and

19   use of artificial intelligence), or any successor pro-

20   gram.

21   "(d) REPORT.—Not later than 1 year after the date

22 of the enactment of the Future of Artificial Intelligence

23 Innovation Act of 2026, the Director shall, acting through

24 the National Science and Technology Council and the

25 Interagency Committee, submit to the Committee on Com-

1 merce, Science, and Transportation of the Senate and the

2 Committee on Science, Space, and Technology of the

3 House of Representatives a report that includes—

4   "(1) best practices in developing publicly

5 curated artificial intelligence datasets;

6   "(2) lessons learned and challenges encountered

7 in developing the curated artificial intelligence

8 datasets;

9   "(3) principles used for artificial intelligence-

10 ready data;

11   "(4) recommendations relating to artificial in-

12 telligence-ready data standards and potential proc-

13 esses for development of such standards;

14   "(5) recommendations for maintaining and ex-

15 panding the availability of high-quality data sets;

16   "(6) recommendations for methods to increase

17 incentives for researchers support by the Federal

18 Government to release high-quality publicly available

19 datasets, that protects against risks to disclosure of

20 personally identifiable information and national and

21 economic security risks; and

22   "(7) recommendations for establishing secure

23 compute environments at the National Science

24 Foundation to enable secure artificial intelligence

1 use cases for controlled access to restricted Federal

2 data.

3 "(e) RULES OF CONSTRUCTION.—

4 "(1) IN GENERAL.—Nothing in this section

5 shall be construed to require the Federal Govern-

6 ment or other contributors to disclose any informa-

7 tion—

8 "(A) relating to a trade secret or other

9 protected intellectual property right;

10 "(B) that is confidential business informa-

11 tion; or

12 "(C) that is privileged.

13 "(2) DISCLOSURE TO PUBLIC DATASETS.—Ex-

14 cept as specifically provided for in this section, noth-

15 ing in this section shall be construed to prohibit the

16 head of a Federal agency from withholding informa-

17 tion from a public dataset.".

18 (b) CLERICAL AMENDMENTS.—The table of contents

19 at the beginning of section 2 of the William M. (Mac)

20 Thornberry National Defense Authorization Act for Fiscal

21 Year 2021 and the table of contents at the beginning of

22 title LI of such Act are both amended by inserting after

23 the items relating to section 5103 the following new item:

"5103A. Public data for artificial intelligence systems.".

1 **SEC. 202. FEDERAL GRAND CHALLENGES IN ARTIFICIAL IN-**

2   **TELLIGENCE.**

3   (a) IN GENERAL.—Title LI of the National Artificial

4 Intelligence Initiative Act of 2020 (15 U.S.C. 9411 et

5 seq.), as amended by section 201, is further amended by

6 adding at the end the following new section:

7 **"SEC. 5107. FEDERAL GRAND CHALLENGES IN ARTIFICIAL**

8   **INTELLIGENCE.**

9   "(a) ESTABLISHMENT OF PROGRAM.—

10   "(1) IN GENERAL.—Not later than 1 year after

11   the date of the enactment of the Future of Artificial

12   Intelligence Innovation Act of 2026, the Director of

13   the Office of Science and Technology Policy (acting

14   through the National Science and Technology Coun-

15   cil) and the Interagency Committee may establish a

16   program to award prizes, using the authorities and

17   processes established under section 24 of the Steven-

18   son-Wydler Technology Innovation Act of 1980 (15

19   U.S.C. 3719), to eligible participants as determined

20   by the co-chairs of the Interagency Committee pur-

21   suant to subsection (e).

22   "(2) PURPOSES.—The purposes of the program

23   required by paragraph (1) are as follows:

24   "(A) To expedite the development of artifi-

25   cial intelligence systems in the United States.

1   "(B) To stimulate artificial intelligence re-

2   search, development, and commercialization

3   that solves or advances specific, well-defined,

4   and measurable challenges in 1 or more of the

5   categories established pursuant to subsection

6   (b).

7   "(b) FEDERAL GRAND CHALLENGES IN ARTIFICIAL

8 INTELLIGENCE.—

9   "(1) LIST OF PRIORITIES.—The Director of the

10   Office of Science and Technology Policy (acting

11   through the National Science and Technology Coun-

12   cil) and the Interagency Committee and in consulta-

13   tion with industry, civil society, and academia, shall

14   identify, and annually review and update as the Di-

15   rector considers appropriate, a list of priorities for

16   Federal grand challenges in artificial intelligence

17   pursuant to the purposes set forth under subsection

18   (a)(2).

19   "(2) INITIAL LIST.—

20   "(A) CONTENTS.—The list established

21   pursuant to paragraph (1) may include the fol-

22   lowing priorities:

23   "(i) To overcome challenges with engi-

24   neering of and applied research on micro-

25   electronics, including through integration

1 of artificial intelligence with emerging

2 technologies, such as neuromorphic and

3 quantum computing, or with respect to the

4 physical limits on transistors, advanced

5 interconnects, and memory elements.

6 "(ii) To promote transformational or

7 long-term advancements in computing and

8 artificial intelligence technologies

9 through—

10 "(I) next-generation algorithm

11 design;

12 "(II) next-generation compute

13 capability;

14 "(III) generative and adaptive

15 artificial intelligence for design appli-

16 cations;

17 "(IV) photonics-based micro-

18 processors and optical communication

19 networks, including electrophotonics;

20 "(V) the chemistry and physics

21 of new materials;

22 "(VI) biotechnology, such as

23 modeling a single cell;

24 "(VII) energy use or energy effi-

25 ciency;

1   "(VIII) techniques to establish

2   cryptographically secure content prov-

3   enance information; or

4   "(IX) safety and controls for ar-

5   tificial intelligence applications.

6   "(iii) To promote explainability and

7 mechanistic interpretability of artificial in-

8 telligence systems.

9   "(iv) To advance fundamental under-

10 standing of artificial intelligence, including

11 through breakthroughs in theoretical, com-

12 putational, and experimental methods that

13 discover new and transformative paradigms

14 that explain the advanced capabilities of

15 artificial intelligence in domains such as

16 the following:

17   "(I) Interpretability.

18   "(II) Control.

19   "(III) Steerability.

20   "(IV) Robustness against foreign

21   adversaries.

22   "(v) To develop artificial intelligence

23 solutions, including through integration

24 among emerging technologies such as

25 neuromorphic and quantum computing to

1   overcome barriers relating to innovations
2   in advanced manufacturing in the United
3   States, including areas such as—

4   "(I) materials, nanomaterials,
5   and composites;

6   "(II) rapid, complex design;

7   "(III) sustainability and environ-
8   mental impact of manufacturing oper-
9   ations;

10   "(IV) predictive maintenance of
11   machinery;

12   "(V) improved part quality;

13   "(VI) process inspections;

14   "(VII) worker safety; and

15   "(VIII) robotics.

16   "(vi) To develop artificial intelligence
17   solutions in sectors of the economy, such
18   as expanding the use of artificial intel-
19   ligence in maritime vessels, including in
20   navigation and in the design of propulsion
21   systems and fuels.

22   "(vii) To develop artificial intelligence
23   solutions to improve border security, in-
24   cluding solutions relevant to the detection

1 of fentanyl, illicit contraband, and other il-
2 legal activities.

3 "(viii) To develop artificial intelligence
4 for science applications.

5 "(ix) To develop cybersecurity for ar-
6 tificial intelligence-related intellectual prop-
7 erty, such as artificial intelligence systems
8 and artificial intelligence algorithms, in-
9 cluding robustness, resilience, and security
10 from foreign adversaries.

11 "(x) To develop artificial intelligence
12 solutions to modernize code and software
13 systems that are deployed in government
14 agencies and critical infrastructure and are
15 at risk of maintenance difficulties due to
16 code obsolescence or challenges finding ex-
17 pertise in outdated code bases.

18 "(xi) To develop solutions to reduce
19 the energy consumption in developing, de-
20 ploying, and maintain data-efficient and
21 high-performance artificial intelligence
22 models.

23 "(xii) To develop methods to prevent
24 misuse of artificial intelligence systems for
25 malicious purposes.

1 "(xiii) To find applications of artificial

2 intelligence in wireless communications

3 systems, including cellular networks and

4 cybersecurity efforts.

5 "(xiv) To advance the capabilities of

6 artificial intelligence, robotics, and automa-

7 tion for physical laboratory infrastructure

8 and cloud laboratories.

9 "(3) CONSULTATION ON IDENTIFICATION AND

10 SELECTION OF GRAND CHALLENGES.—The Director

11 of the Office of Science and Technology Policy, the

12 Director of the National Institute of Standards and

13 Technology, the Director of the Defense Advanced

14 Research Projects Agency, such agency heads as the

15 Director of the Office of Science and Technology

16 Policy considers relevant, and the National Artificial

17 Intelligence Advisory Committee shall each identify

18 and select artificial intelligence research and devel-

19 opment grand challenges in which eligible partici-

20 pants will compete to solve or advance for prize

21 awards under subsection (a).

22 "(4) PUBLIC INPUT ON IDENTIFICATION.—The

23 Director of the Office of Science and Technology

24 Policy shall also seek public input on the identifica-

1 tion of artificial intelligence research and develop-

2 ment grand challenges under subsection (a).

3 ''(5) PROBLEM STATEMENTS; SUCCESS

4 METRICS.—For each priority for a Federal grand

5 challenge identified under paragraph (1) and the

6 grand challenges identified and selected under para-

7 graph (3), the Director of the Office of Science and

8 Technology Policy shall—

9 ''(A) establish a specific and well-defined

10 grand challenge problem statement and ensure

11 that such problem statement is published on a

12 website linking out to relevant prize competition

13 listings on the website Challenge.gov, or suc-

14 cessor website, that is managed by the General

15 Services Administration; and

16 ''(B) establish and publish on the website

17 Challenge.gov, or successor website, clear tar-

18 gets, success metrics, and validation protocols

19 for the prize competitions designed to address

20 each grand challenge, in order to provide spe-

21 cific benchmarks that will be used to evaluate

22 submissions to the prize competition.

23 ''(c) FEDERAL INVESTMENT INITIATIVES AUTHOR-

24 IZED.—Subject to the availability of amounts appropriated

25 for this purpose, the Secretary of Commerce, the Sec-

1 retary of Transportation, the Director of the National

2 Science Foundation may, consistent with the missions or

3 responsibilities of each Federal agency, establish 1 or more

4 prize competitions under section 24 of the Stevenson-

5 Wydler Technology Innovation Act of 1980 (15 U.S.C.

6 3719), challenge-based acquisitions, or other research and

7 development investments that each agency head deems ap-

8 propriate consistent with the list of priorities established

9 pursuant to subsection (b)(1).

10 "(d) REQUIREMENTS.—

11 "(1) IN GENERAL.—The Director of the Office

12 of Science and Technology Policy shall develop re-

13 quirements for—

14 "(A) the process for prize competitions

15 under subsections (a) and (c), including eligi-

16 bility criteria for participants, consistent with

17 the requirements under paragraph (2); and

18 "(B) testing, judging, and verification pro-

19 cedures for submissions to receive a prize award

20 under subsection (c).

21 "(2) ELIGIBILITY REQUIREMENT AND JUDG-

22 ING.—

23 "(A) ELIGIBILITY.—In accordance with

24 the requirement described in section 24(g)(3) of

25 the Stevenson-Wydler Technology Innovation

1   Act of 1980 (15 U.S.C. 3719(g)(3)), a recipient
2   of a prize award under subsection (c)—

3   "(i) that is a private entity shall be
4   incorporated in and maintain a primary
5   place of business in the United States; and

6   "(ii) who is an individual, whether
7   participating singly or in a group, shall be
8   a citizen or permanent resident of the
9   United States.

10   "(B) JUDGES.—In accordance with section
11   24(k) of the Stevenson-Wydler Technology In-
12   novation Act of 1980 (15 U.S.C. 3719(k)), a
13   judge of a prize competition under subsection
14   (c) may be an individual from the private sec-
15   tor.

16   "(3) AGENCY LEADERSHIP.—Each agency head
17   carrying out an investment initiative under sub-
18   section (c) shall ensure that—

19   "(A) for each prize competition or invest-
20   ment initiative carried out by the agency head
21   under such subsection, there is—

22   "(i) a positive impact on the economic
23   competitiveness of the United States;

24   "(ii) a benefit to United States indus-
25   try;

1 "(iii) to the extent possible, leveraging

2 of the resources and expertise of industry

3 and philanthropic partners in shaping the

4 investments; and

5 "(iv) in a case involving development

6 and manufacturing, use of advanced manu-

7 facturing in the United States; and

8 "(B) all research conducted for purposes of

9 the investment initiative is conducted in the

10 United States.

11 "(e) REPORTS.—

12 "(1) NOTIFICATION OF WINNING SUBMIS-

13 SION.—Not later than 60 days after the date on

14 which a prize is awarded under subsection (c), the

15 agency head awarding the prize shall submit to the

16 Committee on Commerce, Science, and Transpor-

17 tation of the Senate, the Committee on Science,

18 Space, and Technology of the House of Representa-

19 tives, and such other committees of Congress as the

20 agency head considers relevant a report that de-

21 scribes the winning submission to the prize competi-

22 tion and its benefits to the United States.

23 "(2) BIENNIAL REPORT.—

24 "(A) IN GENERAL.—Not later than 2 years

25 after the date of the enactment of the Future

1 of Artificial Intelligence Innovation Act of

2 2026, and biennially thereafter, the heads of

3 agencies described in subsection (c) shall sub-

4 mit to the Committee on Commerce, Science,

5 and Transportation of the Senate, the Com-

6 mittee on Science, Space, and Technology of

7 the House of Representatives, and such other

8 committees of Congress as the agency heads

9 consider relevant a report that includes—

10 "(i) a description of the activities car-

11 ried out by the agency heads under this

12 section;

13 "(ii) a description of the active com-

14 petitions and the results of completed com-

15 petitions under subsection (c); and

16 "(iii) efforts to provide information to

17 the public on active competitions under

18 subsection (c) to encourage participation.

19 "(B) PUBLIC ACCESSIBILITY.—The agency

20 heads described in subsection (c) shall make the

21 biennial report required under subparagraph

22 (A) publicly accessible, including by posting the

23 biennial report on a website in an easily acces-

24 sible location, such as the GovInfo website of

25 the Government Publishing Office.

1 "(f) ACCESSIBILITY.—In carrying out any competi-

2 tion under subsection (c), the head of an agency shall post

3 the active prize competitions and available prize awards

4 under subsection (b) to Challenge.gov, or successor

5 website, after the grand challenges are selected and the

6 prize competitions are designed pursuant to subsections

7 (c) and (e) to ensure the prize competitions are widely ac-

8 cessible to eligible participants.

9 "(g) SUNSET.—This section shall terminate on the

10 date that is 5 years after the date of the enactment the

11 Future of Artificial Intelligence Innovation Act of 2026.".

12 (b) COMPTROLLER GENERAL OF THE UNITED

13 STATES STUDIES AND REPORTS.—

14 (1) INITIAL STUDY.—

15 (A) IN GENERAL.—Not later than 1 year

16 after the date of enactment of this Act, the

17 Comptroller General of the United States shall

18 conduct a study of Federal prize competitions,

19 which shall include an assessment of the effi-

20 cacy and impact of prize competitions generally.

21 (B) ELEMENTS.—The study conducted

22 under subparagraph (A) shall include, to the

23 extent practicable, the following:

24 (i) A survey of all existing, current

25 and ongoing Federal prize competitions

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1 carried out under authorities enacted be-
2 fore the date of the enactment of this Act.
3   (ii) An assessment of those existing,
4 current, and ongoing Federal prize com-
5 petitions that includes addressing—
6   (I) whether and what technology
7   or innovation would have been devel-
8   oped in the absence of the prize com-
9   petitions;
10   (II) whether the prize competi-
11   tions shortened the timeframe for the
12   development of the technology or in-
13   novation;
14   (III) whether the prize competi-
15   tion was cost effective;
16   (IV) what, if any, other benefits
17   were gained from conducting the prize
18   competitions;
19   (V) whether the use of a more
20   traditional policy tool such as a grant
21   or contract have resulted in the devel-
22   opment of a similar technology or in-
23   novation;
24   (VI) whether prize competitions
25   might be designed differently in a way

1   that would result in a more effective

2   or revolutionary technology being de-

3   veloped;

4   (VII) what are appropriate

5   metrics that could be used for deter-

6   mining the success of a prize competi-

7   tion, and whether those metrics differ

8   when evaluating near-term and long-

9   term impacts of prize competitions;

10   and

11   (VIII) suggested best practices of

12   prize competitions.

13   (C) CONGRESSIONAL BRIEFING.—Not later

14   than 540 days after the date of the enactment

15   of this Act, the Comptroller General shall pro-

16   vide the Committee on Science, Space, and

17   Technology and the Committee on Energy and

18   Natural Resources of the Senate and the Com-

19   mittee on Energy and Commerce of the House

20   of Representatives a briefing on the findings of

21   the Comptroller General with respect to the

22   study conducted under subparagraph (A).

23   (D) REPORT.—Not later than 540 days

24   after the date of the enactment of this Act, the

25   Comptroller General shall submit to the con-

59

1 gressional committees specified in subparagraph

2 (C) a report on the findings and recommenda-

3 tions of Comptroller General from the study

4 conducted under subparagraph (A).

5 (2) INTERIM STUDY.—

6 (A) IN GENERAL.—The Comptroller Gen-

7 eral of the United States shall conduct a study

8 of the Federal prize challenges implemented

9 under section 5108 of the of the National Arti-

10 ficial Intelligence Initiative Act of 2020, as

11 added by subsection (a), which shall include an

12 assessment of the efficacy and effect of such

13 prize competitions.

14 (B) ELEMENTS.—The study conducted

15 under subparagraph (A) shall include, to the

16 extent practicable, the following:

17 (i) A survey of all Federal prize com-

18 petitions implemented under section 5108

19 of the of the National Artificial Intelligence

20 Initiative Act of 2020, as added by sub-

21 section (a).

22 (ii) An assessment of the Federal

23 prize competitions implemented such sec-

24 tion, which shall include addressing the

1 same considerations as set forth under

2 paragraph (1)(B)(ii).

3 (iii) An assessment of the efficacy, im-

4 pact, and cost-effectiveness of prize com-

5 petitions implemented under section 5108

6 of the of the National Artificial Intelligence

7 Initiative Act of 2020, as added by sub-

8 section (a), compared to other Federal

9 prize competitions.

10 (C) CONGRESSIONAL BRIEFING.—Not later

11 than 1 year after completing the study required

12 by subparagraph (A), the Comptroller General

13 shall provide the Committee on Science, Space,

14 and Technology and the Committee on Energy

15 and Natural Resources of the Senate and the

16 Committee on Energy and Commerce of the

17 House of Representatives a briefing on the find-

18 ings of the Comptroller General with respect to

19 the study conducted under subparagraph (A).

20 (D) REPORT.—Not later than 180 days

21 after the date of the enactment of this Act, the

22 Comptroller General shall submit to the con-

23 gressional committees specified in subparagraph

24 (C) a report on the findings and recommenda-

1   tions of the Comptroller General with respect to

2   the study conducted under subparagraph (A).

3   (c) CLERICAL AMENDMENTS.—The table of contents

4 at the beginning of section 2 of the William M. (Mac)

5 Thornberry National Defense Authorization Act for Fiscal

6 Year 2021 and the table of contents at the beginning of

7 title LI of such Act, as amended by section 201, are both

8 amended by inserting after the items relating to section

9 5107 the following new item:

"5107. Federal grand challenges in artificial intelligence.".

TITLE III—RESEARCH SECURITY AND OTHER MATTERS

SEC. 301. RESEARCH SECURITY.

13   The activities authorized under this Act shall be car-

14 ried out in accordance with the provision of subtitle D of

15 title VI of the Research and Development, Competition,

16 and Innovation Act (42 U.S.C. 19231 et seq.; enacted as

17 part of division B of Public Law 117–167) and section

18 223 of the William M. (Mac) Thornberry National De-

19 fense Authorization Act for Fiscal Year 2021 (42 U.S.C.

20 6605).

SEC. 302. EXPANSION OF AUTHORITY TO HIRE CRITICAL TECHNICAL EXPERTS.

23   (a) IN GENERAL.—Subsection (b) of section 6 of the

24 National Institute of Standards and Technology Act (15

1 U.S.C. 275) is amended, in the second sentence, by strik-

2 ing "15" and inserting "30".

3   (b) MODIFICATION OF SUNSET.—Subsection (c) of

4 such section is amended by striking "under section (b)

5 shall expire on the date that is 5 years after the date of

6 the enactment of this section" and inserting "under sub-

7 section (b) shall expire on December 30, 2035".

8 **SEC. 303. CERTIFICATIONS AND AUDITS OF TEMPORARY**

9   **FELLOWS.**

10   (a) DEFINITIONS.—In this section:

11   (1) AGENCY.—The term "agency" has the

12   meaning given such term in section 3502 of title 44,

13   United States Code.

14   (2) COMMITTEES OF JURISDICTION.—The term

15   "committees of jurisdiction" means—

16   (A) the Committee on Commerce, Science,

17   and Transportation and the Committee on En-

18   ergy and Natural Resources of the Senate; and

19   (B) the Committee on Energy and Com-

20   merce and the Committee on Science, Space,

21   and Technology of the House of Representa-

22   tives.

23   (3) CRITICAL AND EMERGING TECH-

24   NOLOGIES.—The term "critical and emerging tech-

25   nologies" means a subset of artificial intelligence

1 and other critical and emerging technologies in-

2 cluded in the list of such technologies identified and

3 maintained by the National Science and Technology

4 Council of the Office of Science and Technology Pol-

5 icy.

6 (4) INHERENTLY GOVERNMENTAL FUNCTION.—

7 The term "inherently governmental function" has

8 the meaning given such term in section 5 of the

9 Federal Activities Inventory Reform Act of 1998

10 (Public Law 105–270; 31 U.S.C. 501 note) and in-

11 cludes the meaning given such term in subpart 7.5

12 of part 7 of the Federal Acquisition Regulation, or

13 successor regulation.

14 (5) TEMPORARY FELLOW.—The term "tem-

15 porary fellow", with respect to an agency, means a

16 fellow, contractor, consultant, or any other person

17 performing work for the agency who is not a Federal

18 Government employee.

19 (b) CERTIFICATION.—

20 (1) IN GENERAL.—Prior to performing any

21 work for an agency under this Act relating to artifi-

22 cial intelligence and other critical and emerging

23 technologies, a temporary fellow and the head of the

24 agency shall sign a certification that the temporary

1 fellow will not perform any inherently governmental

2 functions.

3   (2) SUBMITTAL.—Not later than 30 days after

4 the date on which the head of an agency signs a cer-

5 tification under paragraph (1), the head of the agen-

6 cy shall submit a copy of the certification to the Di-

7 rector of the Office of Management and Budget and

8 the chairpersons and ranking members of the com-

9 mittees of jurisdiction.

10 (c) AUDIT.—

11   (1) IN GENERAL.—For each agency using a

12 temporary fellow to carry out this Act, the inspector

13 general of the agency shall perform an annual audit

14 of the use of temporary fellows by the agency, which

15 includes—

16   (A) the number of temporary fellows used

17 by the agency;

18   (B) the entities paying any temporary fel-

19 low for their work for the agency;

20   (C) the work temporary fellows are per-

21 forming for the agency;

22   (D) the authorities under which the agency

23 hired the temporary fellows; and

1   (E) whether the temporary fellows and the

2   agency are complying with the requirements of

3   section (b).

4   (2) SUBMITTAL TO CONGRESS.—Not later than

5   30 days after the date on which the inspector gen-

6   eral of an agency completes an audit under para-

7   graph (1), the head of the agency shall submit to the

8   chairpersons and ranking members of the commit-

9   tees of jurisdiction and the Director of the Office of

10   Management and Budget a report containing the

11   findings of inspector general with respect to the

12   audit.

○