

110TH CONGRESS  
1ST SESSION

# H. R. 1868

To authorize appropriations for the National Institute of Standards and Technology for fiscal years 2008, 2009, and 2010, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 17, 2007

Mr. WU (for himself, Mr. GINGREY, Mr. GORDON of Tennessee, Mr. HALL of Texas, Mr. MITCHELL, and Mr. EHLERS) introduced the following bill; which was referred to the Committee on Science and Technology

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## A BILL

To authorize appropriations for the National Institute of Standards and Technology for fiscal years 2008, 2009, and 2010, 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 “Technology Innovation  
5       and Manufacturing Stimulation Act of 2007”.

1                   **TITLE I—AUTHORIZATION OF**  
2                   **APPROPRIATIONS**

3                   **SEC. 101. SCIENTIFIC AND TECHNICAL RESEARCH AND**  
4                   **SERVICES.**

5                   (a) LABORATORY ACTIVITIES.—There are authorized  
6 to be appropriated to the Secretary of Commerce for the  
7 scientific and technical research and services laboratory  
8 activities of the National Institute of Standards and Tech-  
9 nology—

10                   (1) \$470,879,000 for fiscal year 2008;  
11                   (2) \$497,750,000 for fiscal year 2009; and  
12                   (3) \$537,569,000 for fiscal year 2010.

13                   (b) MALCOLM BALDRIGE NATIONAL QUALITY  
14 AWARD PROGRAM.—There are authorized to be appro-  
15 priated to the Secretary of Commerce for the Malcolm  
16 Baldrige National Quality Award program under section  
17 17 of the Stevenson-Wydler Technology Innovation Act of  
18 1980 (15 U.S.C. 3711a)—

19                   (1) \$7,860,000 for fiscal year 2008;  
20                   (2) \$8,096,000 for fiscal year 2009; and  
21                   (3) \$8,339,000 for fiscal year 2010.

22                   (c) CONSTRUCTION AND MAINTENANCE.—There are  
23 authorized to be appropriated to the Secretary of Com-  
24 merce for construction and maintenance of facilities of the  
25 National Institute of Standards and Technology—

#### 4 SEC. 102. INDUSTRIAL TECHNOLOGY SERVICES.

5 There are authorized to be appropriated to the Sec-  
6 retary of Commerce for Industrial Technology Services ac-  
7 tivities of the National Institute of Standards and Tech-  
8 nology—

16 (B) \$112,968,000 shall be for the Manu-  
17 facturing Extension Partnership program under  
18 sections 25 and 26 of the National Institute of  
19 Standards and Technology Act (15 U.S.C. 278k  
20 and 278l), of which not more than \$1,000,000  
21 shall be for the competitive grant program  
22 under section 25(f) of such Act;

6 (B) \$122,005,000 shall be for the Manu-  
7 facturing Extension Partnership Program  
8 under sections 25 and 26 of the National Insti-  
9 tute of Standards and Technology Act (15  
10 U.S.C. 278k and 278l), of which not more than  
11 \$4,000,000 shall be for the competitive grant  
12 program under section 25(f) of such Act; and  
13 (3) \$282,266,000 for fiscal year 2010, of  
14 which—

15 (A) \$150,500,000 shall be for the Tech-  
16 nology Innovation Program under section 28 of  
17 the National Institute of Standards and Tech-  
18 nology Act (15 U.S.C. 278n), of which at least  
19 \$45,000,000 shall be for new awards; and

20 (B) \$131,766,000 shall be for the Manu-  
21 facturing Extension Partnership Program  
22 under sections 25 and 26 of the National Insti-  
23 tute of Standards and Technology Act (15  
24 U.S.C. 278k and 278l), of which not more than

1           \$4,000,000 shall be for the competitive grant  
2           program under section 25(f) of such Act.

3           **TITLE II—INNOVATION AND**  
4           **TECHNOLOGY POLICY REFORMS**

5           **SEC. 201. INSTITUTE-WIDE PLANNING REPORT.**

6           Section 23 of the National Institute of Standards and  
7           Technology Act (15 U.S.C. 278i) is amended by adding  
8           at the end the following new subsections:

9           “(c) Concurrent with the submission to Congress of  
10           the President’s annual budget request in the first year  
11           after the date of enactment of the Technology Innovation  
12           and Manufacturing Stimulation Act of 2007, the Director  
13           shall transmit to the Congress a 3-year programmatic  
14           planning document for the Institute, including programs  
15           under the Scientific and Technical Research and Services,  
16           Industrial Technology Services, and Construction of Re-  
17           search Facilities functions.

18           “(d) Concurrent with the submission to the Congress  
19           of the President’s annual budget request in each year after  
20           the date of enactment of the Technology Innovation and  
21           Manufacturing Stimulation Act of 2007, the Director shall  
22           transmit to the Congress an update to the 3-year pro-  
23           grammatic planning document transmitted under sub-  
24           section (c), revised to cover the first 3 fiscal years after  
25           the date of that update.”.

1 **SEC. 202. REPORT BY VISITING COMMITTEE.**

2       Section 10(h)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278(h)(1)) is amended—

5               (1) by striking “on or before January 31 in each year” and inserting “within 30 days after the submission to Congress of the President’s annual budget request in each year”; and

9               (2) by adding to the end the following: “Such report also shall comment on the programmatic planning document and updates thereto transmitted to the Congress by the Director under section 23(c) and (d).”.

14 **SEC. 203. MANUFACTURING EXTENSION PARTNERSHIP.**

15       (a) **MEP ADVISORY BOARD.**—Section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) is amended by adding at the end the following new subsection:

19               “(e) **MEP ADVISORY BOARD.**—(1) There is established within the Institute a Manufacturing Extension Partnership Advisory Board (in this Act referred to as the ‘MEP Advisory Board’). The MEP Advisory Board shall consist of 10 members broadly representative of stakeholders, to be appointed by the Director. At least 2 members shall be employed by or on an advisory board for the Centers, and at least 5 other members shall be from

1 United States small businesses in the manufacturing sec-  
2 tor. No member shall be an employee of the Federal Gov-  
3 ernment.

4 “(2)(A) Except as provided in subparagraph (B) or  
5 (C), the term of office of each member of the MEP Advi-  
6 sory Board shall be 3 years.

7 “(B) The original members of the MEP Advisory  
8 Board shall be appointed to 3 classes. One class of 3 mem-  
9 bers shall have an initial term of 1 year, one class of 3  
10 members shall have an initial term of 2 years, and one  
11 class of 4 members shall have an initial term of 3 years.

12 “(C) Any member appointed to fill a vacancy occur-  
13 ring prior to the expiration of the term for which his pred-  
14 ecessor was appointed shall be appointed for the remain-  
15 der of such term.

16 “(D) Any person who has completed two consecutive  
17 full terms of service on the MEP Advisory Board shall  
18 thereafter be ineligible for appointment during the one-  
19 year period following the expiration of the second such  
20 term.

21 “(3) The MEP Advisory Board shall meet no less  
22 than 2 times annually, and provide to the Director—

23 “(A) advice on Manufacturing Extension Part-  
24 nership programs, plans, and policies;

1           “(B) assessments of the soundness of Manufacturing Extension Partnership plans and strategies;  
2           and

4           “(C) assessments of current performance  
5           against Manufacturing Extension Partnership program plans.

7           “(4) In discharging its duties under this subsection,  
8           the MEP Advisory Board shall function solely in an advisory capacity, in accordance with the Federal Advisory  
9           Committee Act.

11           “(5) The MEP Advisory Board shall transmit an annual report to the Secretary for transmittal to the Congress within 30 days after the submission to the Congress of the President’s annual budget request in each year.  
12           Such report shall address the status of the Manufacturing  
13           Extension Partnership program and comment on the relevant sections of the programmatic planning document  
14           and updates thereto transmitted to the Congress by the  
15           Director under section 23(c) and (d).”.

20           (b) ACCEPTANCE OF FUNDS.—Section 25(d) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(d)) is amended to read as follows:

23           “(d) ACCEPTANCE OF FUNDS.—In addition to such sums as may be appropriated to the Secretary and Director to operate the Centers program, the Secretary and Di-

1 rector also may accept funds from other Federal depart-  
2 ments and agencies and under section 2(c)(7) from the  
3 private sector for the purpose of strengthening United  
4 States manufacturing. Such funds, if allocated to a Center  
5 or Centers, shall not be considered in the calculation of  
6 the Federal share of capital and annual operating and  
7 maintenance costs under subsection (c).”.

8 (c) MANUFACTURING EXTENSION CENTER COMPETI-  
9 TIVE GRANT PROGRAM.—Section 25 of the National Insti-  
10 tute of Standards and Technology Act (15 U.S.C. 278k),  
11 as amended by subsection (a) of this section, is further  
12 amended by adding at the end the following new sub-  
13 section:

14 “(f) COMPETITIVE GRANT PROGRAM.—

15 “(1) ESTABLISHMENT.—The Director shall es-  
16 tablish, within the Manufacturing Extension Part-  
17 nership program under this section and section 26  
18 of this Act, a program of competitive awards among  
19 participants described in paragraph (2) for the pur-  
20 poses described in paragraph (3).

21 “(2) PARTICIPANTS.—Participants receiving  
22 awards under this subsection shall be the Centers, or  
23 a consortium of such Centers.

24 “(3) PURPOSE.—The purpose of the program  
25 under this subsection is to develop projects to solve

1 new or emerging manufacturing problems as deter-  
2 mined by the Director, in consultation with the Di-  
3 rector of the Manufacturing Extension Partnership  
4 program, the Manufacturing Extension Partnership  
5 Advisory Board, and small and medium-sized manu-  
6 facturers. One or more themes for the competition  
7 may be identified, which may vary from year to year,  
8 depending on the needs of manufacturers and the  
9 success of previous competitions. These themes shall  
10 be related to projects associated with manufacturing  
11 extension activities, including supply chain integra-  
12 tion and quality management, or extend beyond  
13 these traditional areas.

14 “(4) APPLICATIONS.—Applications for awards  
15 under this subsection shall be submitted in such  
16 manner, at such time, and containing such informa-  
17 tion as the Director shall require, in consultation  
18 with the Manufacturing Extension Partnership Advi-  
19 sory Board.

20 “(5) SELECTION.—Awards under this sub-  
21 section shall be peer reviewed and competitively  
22 awarded. The Director shall select proposals to re-  
23 ceive awards—

1                   “(A) that utilize innovative or collaborative  
2                   approaches to solving the problem described in  
3                   the competition;

4                   “(B) that will improve the competitiveness  
5                   of industries in the region in which the Center  
6                   or Centers are located; and

7                   “(C) that will contribute to the long-term  
8                   economic stability of that region.

9                   “(6) PROGRAM CONTRIBUTION.—Recipients of  
10                  awards under this subsection shall not be required  
11                  to provide a matching contribution.”.

12 **SEC. 204. TECHNOLOGY INNOVATION PROGRAM.**

13                  Section 28 of the National Institute of Standards and  
14                  Technology Act (15 U.S.C. 278n) is amended to read as  
15                  follows:

16                  “TECHNOLOGY INNOVATION PROGRAM

17                  “SEC. 28. (a) ESTABLISHMENT.—There is estab-  
18                  lished in the Institute a Technology Innovation Program  
19                  for the purpose of assisting United States businesses and  
20                  institutions of higher education to accelerate the develop-  
21                  ment and application of challenging, high-risk technologies  
22                  that promise widespread economic benefits for the Nation.

23                  “(b) GRANTS.—

24                  “(1) IN GENERAL.—The Director shall make  
25                  grants under this section to eligible companies for  
26                  research and development on high-risk, high-payoff

1       emerging and enabling technologies that offer sig-  
2       nificant potential benefits to the United States econ-  
3       omy and a wide breadth of potential application, and  
4       form an important technical basis for future innova-  
5       tions. Such grants shall be made to eligible compa-  
6       nies that are—

7               “(A) small or medium-sized businesses  
8       that are substantially involved in the research  
9       and development, including having a leadership  
10      role in programmatically steering the project  
11      and defining the research agenda; or  
12               “(B) joint ventures.

13               “(2) SINGLE COMPANY GRANTS.—No grant  
14      made under paragraph (1)(A) shall exceed  
15      \$3,000,000 over 3 years. The Federal share of a  
16      project funded by such a grant shall not be more  
17      than 50 percent of total project costs. An award  
18      under paragraph (1)(A) may be extended beyond 3  
19      years only if the Director transmits to the Com-  
20      mittee on Science and Technology of the House of  
21      Representatives and the Committee on Commerce,  
22      Science, and Transportation of the Senate a full and  
23      complete explanation of such award, including rea-  
24      sons for exceeding 3 years. Federal funds granted  
25      under paragraph (1)(A) may be used only for direct

1 costs and not for indirect costs, profits, or manage-  
2 ment fees of a contractor.

3       “(3) JOINT VENTURE GRANTS.—No grant made  
4 under paragraph (1)(B) shall exceed \$9,000,000  
5 over 5 years. The Federal share of a project funded  
6 by such a grant shall not be more than 50 percent  
7 of total project costs.

8       “(c) AWARD CRITERIA.—The Director shall award  
9 grants under this section only to an eligible company—

10           “(1) whose proposal has scientific and technolo-  
11 gical merit;

12           “(2) whose application establishes that the pro-  
13 posed technology has strong potential to generate  
14 substantial benefits to the Nation that extend sig-  
15 nificantly beyond the direct return to the applicant;

16           “(3) whose application establishes that the re-  
17 search has strong potential for advancing the state-  
18 of-the-art and contributing significantly to the  
19 United States scientific and technical knowledge  
20 base;

21           “(4) whose application establishes that the re-  
22 search is aimed at overcoming a scientific or technolo-  
23 gical barrier;

24           “(5) who has provided a technical plan that  
25 clearly identifies the core innovation, the technical

1 approach, major technical hurdles, and the attendant  
2 risks, and that clearly establishes the feasibility  
3 of the technology through adequately detailed plans  
4 linked to major technical barriers;

5 “(6) whose application establishes that the  
6 team proposed to carry out the work has a high level  
7 of scientific and technical expertise to conduct re-  
8 search and development, has a high level of commit-  
9 ment to the project, and has access to appropriate  
10 research facilities;

11 “(7) whose proposal explains why Technology  
12 Innovation Program support is necessary;

13 “(8) whose application includes a plan for ad-  
14 vancing the technology into commercial use; and

15 “(9) whose application assesses the project’s or-  
16 ganizational structure and management plan.

17 “(d) EXTERNAL REVIEW OF PROPOSALS.—In order  
18 to analyze the need for or the value of any proposal made  
19 by a joint venture or company requesting the Director’s  
20 assistance under this section, or to monitor the progress  
21 of any project which receives funds under this section, the  
22 Director shall consult with industry or other expert  
23 sources that do not have a proprietary or financial interest  
24 in the proposal or project.

1       “(e) INTELLECTUAL PROPERTY RIGHTS OWNER-  
2 SHIP.—

3           “(1) IN GENERAL.—Title to any intellectual  
4 property developed by a joint venture from assist-  
5 ance provided under this section may vest in any  
6 participant in the joint venture, as agreed by the  
7 members of the joint venture, notwithstanding sec-  
8 tion 202(a) and (b) of title 35, United States Code.  
9 The United States may reserve a nonexclusive, non-  
10 transferable, irrevocable paid-up license, to have  
11 practiced for or on behalf of the United States in  
12 connection with any such intellectual property, but  
13 shall not in the exercise of such license publicly dis-  
14 close proprietary information related to the license.  
15 Title to any such intellectual property shall not be  
16 transferred or passed, except to a participant in the  
17 joint venture, until the expiration of the first patent  
18 obtained in connection with such intellectual prop-  
19 erty.

20           “(2) LICENSING.—Nothing in this subsection  
21 shall be construed to prohibit the licensing to any  
22 company of intellectual property rights arising from  
23 assistance provided under this section.

24           “(3) DEFINITION.—For purposes of this sub-  
25 section, the term ‘intellectual property’ means an in-

1       vention patentable under title 35, United States  
2       Code, or any patent on such an invention.

3       “(f) PROGRAM OPERATION.—Not later than 9  
4       months after the date of enactment of the Technology In-  
5       novation and Manufacturing Stimulation Act of 2007, the  
6       Director shall issue regulations—

7               “(1) establishing criteria for the selection of re-  
8       cipients of assistance under this section;

9               “(2) establishing procedures regarding financial  
10      reporting and auditing to ensure that contracts and  
11      awards are used for the purposes specified in this  
12      section, are in accordance with sound accounting  
13      practices, and are not funding existing or planned  
14      research programs that would be conducted in the  
15      same time period in the absence of financial assist-  
16      ance under this section; and

17               “(3) providing for appropriate dissemination of  
18      Technology Innovation Program research results.

19       “(g) CONTINUATION OF ATP GRANTS.—The Direc-  
20      tor shall, through the Technology Innovation Program,  
21      continue to provide support originally awarded under the  
22      Advanced Technology Program, in accordance with the  
23      terms of the original award.

24       “(h) COORDINATION WITH OTHER FEDERAL TECH-  
25      NOLOGY PROGRAMS.—In carrying out this section, the Di-

1 rector shall, as appropriate, coordinate with other senior  
2 Federal officials to ensure cooperation and coordination  
3 in Federal technology programs and to avoid unnecessary  
4 duplication of efforts.

5       “(i) ACCEPTANCE OF FUNDS FROM OTHER FED-  
6 ERAL AGENCIES.—In addition to amounts appropriated to  
7 carry out this section, the Secretary and the Director may  
8 accept funds from other Federal agencies to support  
9 awards under the Technology Innovation Program. Any  
10 award under this section which is supported with funds  
11 from other Federal agencies shall be selected and carried  
12 out according to the provisions of this section.

13       “(j) TIP ADVISORY BOARD.—

14           “(1) ESTABLISHMENT.—There is established  
15 within the Institute a Technology Innovation Pro-  
16 gram Advisory Board. The TIP Advisory Board  
17 shall consist of 10 members appointed by the Direc-  
18 tor, at least 7 of which shall be from United States  
19 industry, chosen to reflect the wide diversity of tech-  
20 nical disciplines and industrial sectors represented in  
21 Technology Innovation Program projects. No mem-  
22 ber shall be an employee of the Federal Government.

23           “(2) TERMS OF OFFICE.—(A) Except as pro-  
24 vided in subparagraph (B) or (C), the term of office

1 of each member of the TIP Advisory Board shall be  
2 3 years.

3       “(B) The original members of the TIP Advisory  
4 Board shall be appointed to 3 classes. One class of  
5 3 members shall have an initial term of 1 year, one  
6 class of 3 members shall have an initial term of 2  
7 years, and one class of 4 members shall have an ini-  
8 tial term of 3 years.

9       “(C) Any member appointed to fill a vacancy  
10 occurring prior to the expiration of the term for  
11 which his predecessor was appointed shall be ap-  
12 pointed for the remainder of such term.

13       “(D) Any person who has completed two con-  
14 secutive full terms of service on the TIP Advisory  
15 Board shall thereafter be ineligible for appointment  
16 during the one-year period following the expiration  
17 of the second such term.

18       “(3) PURPOSE.—The TIP Advisory Board shall  
19 meet no less than 2 times annually, and provide to  
20 the Director—

21           “(A) advice on programs, plans, and poli-  
22 cies of the Technology Innovation Program;

23           “(B) reviews of the Technology Innovation  
24 Program’s efforts to assess its economic impact;

1                   “(C) reports on the general health of the  
2                   program and its effectiveness in achieving its  
3                   legislatively mandated mission;

4                   “(D) guidance on areas of technology that  
5                   are appropriate for Technology Innovation Pro-  
6                   gram funding; and

7                   “(E) recommendations as to whether, in  
8                   order to better assess whether specific innova-  
9                   tions to be pursued are being adequately sup-  
10                  ported by the private sector, the Director could  
11                  benefit from advice and information from addi-  
12                  tional industry and other expert sources without  
13                  a proprietary or financial interest in proposals  
14                  being evaluated.

15                  “(4) ADVISORY CAPACITY.—In discharging its  
16                  duties under this subsection, the TIP Advisory  
17                  Board shall function solely in an advisory capacity,  
18                  in accordance with the Federal Advisory Committee  
19                  Act.

20                  “(5) ANNUAL REPORT.—The TIP Advisory  
21                  Board shall transmit an annual report to the Sec-  
22                  retary for transmittal to the Congress within 30  
23                  days after the submission to Congress of the Presi-  
24                  dent’s annual budget request in each year. Such re-  
25                  port shall address the status of the Technology In-

1 novation Program and comment on the relevant sec-  
2 tions of the programmatic planning document and  
3 updates thereto transmitted to the Congress by the  
4 Director under section 23(c) and (d).

5 “(k) DEFINITIONS.—For purposes of this section—

6 “(1) the term ‘eligible company’ means a com-  
7 pany that is incorporated in the United States and  
8 does a majority of its business in the United States,  
9 and that either—

10 “(A) is majority owned by citizens of the  
11 United States; or

12 “(B) is owned by a parent company incor-  
13 porated in another country and the Director  
14 finds that—

15 “(i) the company’s participation in the  
16 Technology Innovation Program would be  
17 in the economic interest of the United  
18 States, as evidenced by—

19 “(I) investments in the United  
20 States in research and manufacturing  
21 (including the manufacture of major  
22 components or subassemblies in the  
23 United States);

24 “(II) significant contributions to  
25 employment in the United States; and

1                             “(III) agreement with respect to  
2                             any technology arising from assistance  
3                             provided under this section to promote  
4                             the manufacture within the United  
5                             States of products resulting from that  
6                             technology (taking into account the  
7                             goals of promoting the competitive-  
8                             ness of United States industry); and

9                             “(ii) the company is incorporated in a  
10                             country which—

11                             “(I) affords to United States-  
12                             owned companies opportunities, com-  
13                             parable to those afforded to any other  
14                             company, to participate in any joint  
15                             venture similar to those receiving  
16                             funding under this section;

17                             “(II) affords to United States-  
18                             owned companies local investment op-  
19                             portunities comparable to those af-  
20                             forded any other company; and

21                             “(III) affords adequate and effec-  
22                             tive protection for the intellectual  
23                             property rights of United States-  
24                             owned companies;

1           “(2) the term ‘institution of higher education’  
2        has the meaning given that term in section 101 of  
3        the Higher Education Act of 1965 (20 U.S.C.  
4        1001);

5           “(3) the term ‘joint venture’ means a joint ven-  
6        ture that—

7           “(A) includes either—

8               “(i) at least 2 separately owned for-  
9        profit companies that are both substan-  
10       tially involved in the project and both of  
11       which are contributing to the cost-sharing  
12       required under this section, with the lead  
13       entity of the joint venture being one of  
14       those companies that is a small or me-  
15       dium-sized business; or

16               “(ii) at least one small or medium-  
17       sized business and one institution of higher  
18       education that are both substantially in-  
19       volved in the project and both of which are  
20       contributing to the cost-sharing required  
21       under this section, with the lead entity of  
22       the joint venture being either that small or  
23       medium-sized business or that institution  
24       of higher education; and

1                   “(B) may include additional for-profit com-  
2                   panies, institutions of higher education, and  
3                   other organizations that may or may not con-  
4                   tribute non-Federal funds to the project; and  
5                   “(4) the term ‘TIP Advisory Board’ means the  
6                   advisory board established under subsection (j).”.

7                   **SEC. 205. RESEARCH FELLOWSHIPS.**

8                   Section 18 of the National Institute of Standards and  
9                   Technology Act (15 U.S.C. 278g–l) is amended by striking  
10                  “up to 1 per centum of the” and inserting “up to 1.5 per-  
11                  cent of the”.

12                   **SEC. 206. COLLABORATIVE MANUFACTURING RESEARCH  
13                   PILOT GRANTS.**

14                   The National Institute of Standards and Technology  
15                  Act is amended—

16                  (1) by redesignating the first section 32 (15  
17                  U.S.C. 271 note) as section 34 and moving it to the  
18                  end of the Act; and

19                  (2) by inserting before the section moved by  
20                  paragraph (1) the following new section:

21                   **SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH  
22                   PILOT GRANTS.**

23                  “(a) AUTHORITY.—

24                  “(1) ESTABLISHMENT.—The Director shall es-  
25                  tablish a pilot program of awards to partnerships

1 among participants described in paragraph (2) for  
2 the purposes described in paragraph (3). Awards  
3 shall be made on a peer-reviewed, competitive basis.

4       “(2) PARTICIPANTS.—Such partnerships shall  
5 include at least—

6               “(A) 1 manufacturing industry partner;

7               and

8               “(B) 1 nonindustry partner.

9       “(3) PURPOSE.—The purpose of the program  
10 under this section is to foster cost-shared collabora-  
11 tions among firms, educational institutions, research  
12 institutions, State agencies, and nonprofit organiza-  
13 tions to encourage the development of innovative,  
14 multidisciplinary manufacturing technologies. Part-  
15 nerships receiving awards under this section shall  
16 conduct applied research to develop new manufac-  
17 turing processes, techniques, or materials that would  
18 contribute to improved performance, productivity,  
19 and competitiveness of United States manufacturing,  
20 and build lasting alliances among collaborators.

21       “(b) PROGRAM CONTRIBUTION.—Awards under this  
22 section shall provide for not more than one-third of the  
23 costs of a partnership. Not more than an additional one-  
24 third of such costs may be obtained directly or indirectly  
25 from other Federal sources.

1       “(c) APPLICATIONS.—Applications for awards under  
2 this section shall be submitted in such manner, at such  
3 time, and containing such information as the Director  
4 shall require. Such applications shall describe at a min-  
5 imum—

6           “(1) how each partner will participate in devel-  
7 oping and carrying out the research agenda of the  
8 partnership;

9           “(2) the research that the grant would fund;  
10 and

11           “(3) how the research to be funded with the  
12 award would contribute to improved performance,  
13 productivity, and competitiveness of the United  
14 States manufacturing industry.

15       “(d) SELECTION CRITERIA.—In selecting applica-  
16 tions for awards under this section, the Director shall con-  
17 sider at a minimum—

18           “(1) the degree to which projects will have a  
19 broad impact on manufacturing;

20           “(2) the novelty and scientific and technical  
21 merit of the proposed projects; and

22           “(3) the demonstrated capabilities of the appli-  
23 cants to successfully carry out the proposed re-  
24 search.

1       “(e) DISTRIBUTION.—In selecting applications under  
2 this section the Director shall ensure, to the extent prac-  
3 ticable, a distribution of overall awards among a variety  
4 of manufacturing industry sectors and a range of firm  
5 sizes.

6       “(f) DURATION.—In carrying out this section, the Di-  
7 rector shall run a single pilot competition to solicit and  
8 make awards. Each award shall be for a 3-year period.”.

9 **SEC. 207. MANUFACTURING FELLOWSHIP PROGRAM.**

10       Section 18 of the National Institute of Standards and  
11 Technology Act (15 U.S.C. 278g–1) is amended—

12           (1) by inserting “(a) IN GENERAL.—” before  
13 “The Director is authorized”; and

14           (2) by adding at the end the following new sub-  
15 section:

16       “(b) MANUFACTURING FELLOWSHIP PROGRAM.—

17           “(1) ESTABLISHMENT.—To promote the devel-  
18 opment of a robust research community working at  
19 the leading edge of manufacturing sciences, the Di-  
20 rector shall establish a program to award—

21               “(A) postdoctoral research fellowships at  
22 the Institute for research activities related to  
23 manufacturing sciences; and

24               “(B) senior research fellowships to estab-  
25 lished researchers in industry or at institutions

1 of higher education who wish to pursue studies  
2 related to the manufacturing sciences at the In-  
3 stitute.

4                   “(2) APPLICATIONS.—To be eligible for an  
5 award under this subsection, an individual shall sub-  
6 mit an application to the Director at such time, in  
7 such manner, and containing such information as  
8 the Director may require.

9                 “(3) STIPEND LEVELS.—Under this subsection,  
10                 the Director shall provide stipends for postdoctoral  
11                 research fellowships at a level consistent with the  
12                 National Institute of Standards and Technology  
13                 Postdoctoral Research Fellowship Program, and sen-  
14                 ior research fellowships at levels consistent with sup-  
15                 port for a faculty member in a sabbatical position.”.

16 SEC. 208. MEETINGS OF VISITING COMMITTEE ON AD-  
17 VANCED TECHNOLOGY.

18       Section 10(d) of the National Institute of Standards  
19 and Technology Act (15 U.S.C. 278(d)) is amended by  
20 striking “quarterly” and inserting “twice each year”.

