

111TH CONGRESS
2^D SESSION

S. 4047

To establish the Federal Acceleration of State Technologies Deployment Program and for related purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 17, 2010

Mr. BENNETT introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To establish the Federal Acceleration of State Technologies Deployment Program and for related 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 “Federal Acceleration
5 of State Technologies Deployment Act of 2009” or the
6 “FAST Deployment Act of 2010”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

9 (1) Individual States are currently investing ap-
10 proximately \$5,000,000,000 annually into new tech-

1 nology development and deployment to support the
2 local economies in the States and to create jobs,
3 with little or no direct high technology deployment
4 assistance from the Federal Government.

5 (2) Based on 2 National Centers of Excellence
6 reports, the level of technology deployment invest-
7 ment by States is now more than 10 times the
8 amount of the investment nationwide just a decade
9 ago and State budgets for technology deployment in-
10 vestment are increasing 8 to 10 times faster than
11 State budgets as a whole.

12 (3) In order to continue the investment by
13 States into the deployment and commercialization of
14 new technologies and innovations under increasingly
15 difficult economic circumstances, it is essential that
16 the Federal Government become a strategic partner
17 in the technology deployment efforts of the States.

18 (4) The Federal Government is investing less
19 than 2 percent (approximately \$2,650,000,000) of
20 the annual Federal budget for research and develop-
21 ment budget of \$150,000,000,000 into industry for
22 the benefit of small business concerns and the Na-
23 tion through the Small Business Innovative Re-
24 search program and the Small Business Technology
25 Transfer program under section 9 of the Small

1 Business Act (15 U.S.C. 638), to help create innova-
2 tive products a Federal agency, not the private sec-
3 tor market, has determined are needed.

4 (5) The Association of University Technology
5 Managers that represents all research universities in
6 the United States recently conducted a survey of
7 157 major research universities and found the total
8 return on investment on funded research in the form
9 of royalties received back by the universities over a
10 10-year period was less than 5 percent, meaning, on
11 average, for every \$100,000,000 invested in research
12 during the past decade, the aggregate return over
13 that 10-year period is less than \$5,000,000.

14 (6) Most university technologies have been li-
15 censed to a limited number of the 3,000 largest
16 manufacturers in the United States representing less
17 than 2 percent of all manufacturers in the United
18 States, while small- and medium-sized manufac-
19 turing entities constitute 98 percent of all manufac-
20 turing in the United States, and have little to no
21 interaction with research universities or national
22 labs, and research institutions do not have the re-
23 sources to promote technologies to each of the
24 300,000 small- and medium-sized manufacturing en-
25 tities in the United States.

1 (7) Only about 10 percent of the new tech-
2 nologies and innovations from research universities
3 and national labs are ever licensed for incorporation
4 into commercial private sector products while the re-
5 maining 90 percent of new technologies and innova-
6 tions resulting from such national research and de-
7 velopment remain in inventory, completely unli-
8 censed and unused.

9 (8) Private industry generates 15 to 20 times
10 more patented innovations and technologies each
11 year than structured research universities and Fed-
12 eral labs combined and private industry consistently
13 commercializes about 35 percent of the patented
14 ideas developed by private industry, compared to less
15 than 10 percent from higher education and Federal
16 labs.

17 (9) The Federal Government should allocate a
18 portion of the total annual Federal research and de-
19 velopment budget each year to match funding that
20 individual States are appropriating from their budg-
21 ets to expand and accelerate the development and
22 deployment of new technologies and innovations
23 through small manufacturing businesses in the
24 United States, which comprise more than 95 percent

1 of all manufacturing companies in the United
2 States.

3 **SEC. 3. PURPOSES.**

4 The purposes of this Act are—

5 (1) to establish within the Economic Develop-
6 ment Administration the Federal Acceleration of
7 State Technologies Deployment Program or FAST
8 Deployment Program to provide matching funds to
9 qualified States for the acceleration of local commer-
10 cialization of newly developed technologies and the
11 promotion of small manufacturing and the innova-
12 tion and deployment of new technologies by small
13 manufacturing enterprises in the United States; and

14 (2) to establish a national manufacturing tech-
15 nology needs database.

16 **SEC. 4. FEDERAL ACCELERATION OF STATE TECH-**
17 **NOLOGIES DEPLOYMENT PROGRAM.**

18 (a) DEFINITIONS.—In this section.

19 (1) ASSISTANT SECRETARY.—The term “Assist-
20 ant Secretary” means the Assistant Secretary of
21 Commerce for Economic Development.

22 (2) DEPLOYMENT.—The term “deployment”,
23 relating to technology, means—

1 (A) detailed designing of a new or im-
2 proved product resulting from a new innovation
3 or technology;

4 (B) developing production processes, tech-
5 niques, and methods relating specifically to a
6 new or improved product;

7 (C) identifying, securing, or developing fa-
8 cilities, equipment, and related supply chain
9 necessary to produce a new or improved prod-
10 uct;

11 (D) developing expertise and training of
12 the employees or contractors necessary to
13 produce a new or improved product; and

14 (E) developing and implementing mar-
15 keting activities necessary to introduce a new or
16 improved product into the market place.

17 (3) EXTRAMURAL BUDGET AND RESEARCH AND
18 DEVELOPMENT.—The terms “extramural budget”
19 and “research and development” have the meanings
20 given those terms in section 9 of the Small Business
21 Act (15 U.S.C. 638).

22 (4) FAST DEPLOYMENT PROGRAM.—The term
23 “FAST Deployment Program” means the Federal
24 Acceleration of State Technologies Deployment Pro-
25 gram established under subsection (b).

1 (5) FAST DEPLOYMENT PROGRAM FUNDS.—
2 The term “FAST Deployment Program funds”
3 means the amounts appropriated to the Assistant
4 Secretary pursuant to subsection (c)(1).

5 (6) FAST GRANT FUNDS.—The term “FAST
6 grant funds” means 94 percent of the FAST De-
7 ployment Program funds for a fiscal year.

8 (7) QUALIFIED STATE.—The term “qualified
9 State” means a State that meets the criteria estab-
10 lished by the Assistant Secretary under subsection
11 (d).

12 (8) SMALL MANUFACTURING ENTERPRISE.—
13 The term “small manufacturing enterprise” means a
14 business concern with less than 500 employees in an
15 industry assigned a North American Industry Classi-
16 fication System code for manufacturing that is ma-
17 jority-owned by citizens of the United States.

18 (9) STATE.—The term “State” has the mean-
19 ing given the term in section 3 of the Public Works
20 and Economic Development Act of 1965 (42 U.S.C.
21 3122).

22 (b) ESTABLISHMENT.—The Assistant Secretary shall
23 establish a Federal Acceleration of State Technologies De-
24 ployment Program to distribute matching Federal funds
25 to qualifying States in accordance with this section.

1 (c) FAST DEPLOYMENT PROGRAM AUTHORITY.—

2 (1) AUTHORIZATION OF APPROPRIATIONS.—In
3 each fiscal year, there is authorized to be appro-
4 priated to the Assistant Secretary of Commerce for
5 Economic Development to carry out the FAST De-
6 ployment Program an amount equal to 0.05 percent
7 of the aggregate of the amounts appropriated for
8 that fiscal year for the extramural budgets of all
9 other Federal agencies for research and develop-
10 ment.

11 (2) MATCHING GRANTS.—For each fiscal year,
12 the Assistant Secretary shall make grants from
13 FAST Deployment Program funds to qualified
14 States.

15 (3) AVAILABILITY.—FAST Deployment Pro-
16 gram funds shall remain available to the Assistant
17 Secretary until expended.

18 (4) ESTABLISHMENT OF MANUFACTURING
19 TECHNOLOGY DATABASE.—The Assistant Secretary
20 shall, in accordance with subsection (k), establish as
21 part of the FAST Deployment Program a national
22 manufacturing technology database.

23 (d) QUALIFICATION FOR GRANTS.—The Assistant
24 Secretary shall promulgate regulations establishing cri-

1 teria for being designated a qualified State, which shall
2 include that—

3 (1) for the fiscal year before the fiscal year for
4 which a grant under subsection (c)(2) is made (in
5 this paragraph referred to as the “previous fiscal
6 year”), the State funded—

7 (A) the promotion of manufacturing;

8 (B) deployment of new technologies and in-
9 novations;

10 (C) the acceleration of new technology de-
11 ployment; or

12 (D) the promotion of new product develop-
13 ment by small manufacturing enterprises lo-
14 cated in the State; and

15 (2) a State desiring to be designated as a quali-
16 fied State shall certify for each fiscal year that if the
17 State received funds under the FAST Deployment
18 Program during the previous fiscal year, the State
19 complied with subsection (g) during such previous
20 fiscal year.

21 (e) DISTRIBUTION OF FUNDS.—

22 (1) IN GENERAL.—The Assistant Secretary
23 shall make grants using the FAST grant funds to
24 qualified States for making competitive grants to

1 small manufacturing enterprises to support specific,
2 detailed technology deployment projects.

3 (2) MINIMUM DISTRIBUTION.—For each fiscal
4 year, the Assistant Secretary shall make available to
5 each qualified State not less than \$10,000,000 in
6 FAST grant funds.

7 (3) REMAINING FUNDS.—Subject to paragraph
8 (4), for each fiscal year, the Assistant Secretary
9 shall distribute the FAST grant funds remaining
10 after the minimum distribution under paragraph (2)
11 to qualified States on a pro rata basis, based on the
12 number of small manufacturing enterprises located
13 in each qualified State.

14 (4) MAXIMUM DISTRIBUTION.—A qualified
15 State may not receive more than 5 percent of the
16 FAST grant funds available for any fiscal year.

17 (5) UNDISTRIBUTED FUNDS.—If all FAST
18 grant funds are not distributed to qualified States
19 under paragraphs (1) through (4), the Assistant
20 Secretary may use the undistributed FAST grant
21 funds—

22 (A) to award grants on a competitive basis
23 to States—

24 (i) to assist a State that is not a
25 qualified State in developing investment

1 programs to promote the rapid deployment
2 of new technologies for manufacturing
3 within the State; and

4 (ii) to accelerate the establishment of
5 the national manufacturing technology
6 database established pursuant to sub-
7 section (c)(4); and

8 (B) for activities of the Economic Develop-
9 ment Administration that promote and provide
10 training on implementing manufacturing best
11 practices and deployment of technology.

12 (f) USE OF FUNDS.—

13 (1) IN GENERAL.—A qualified State shall—

14 (A) use FAST grant funds exclusively to
15 make grants to small manufacturing enterprises
16 on a competitive basis for technology deploy-
17 ment project assistance projects approved by
18 the qualified State;

19 (B) allocate FAST grant funds based on
20 guidelines that the Assistant Secretary shall es-
21 tablish, qualifications established by the quali-
22 fied State, and the technology needs as assessed
23 by the Assistant Secretary and the qualified
24 State;

1 (C) evaluate applications for grants under
2 the FAST Deployment Program and rank the
3 applications in accordance with the qualifica-
4 tions established by the qualified State and the
5 economic needs and interests of the qualified
6 State; and

7 (D) make grants from FAST grant funds
8 to the small manufacturing enterprises with the
9 highest scores, determined in accordance with
10 subparagraph (C), for deployment of a tech-
11 nology that is—

12 (i) a newly patented technology or a
13 technology for which the small manufac-
14 turing enterprise has applied for a patent;

15 (ii) a licensed technology from a pub-
16 lic research and development institution, a
17 Federal laboratory, or the private sector;
18 or

19 (iii) an innovation that, when incor-
20 porated into a product, will provide a dis-
21 tinct difference and a substantial benefit,
22 based on an evaluation using a nationally
23 accepted system of business idea evaluation
24 and assessment.

1 (2) PROHIBITED USES.—FAST grant funds
2 may not be used by a qualified State or a small
3 manufacturing enterprise receiving a grant under
4 the FAST Deployment Program—

5 (A) for start-up capital; or

6 (B) to enhance the availability of venture
7 capital within a State.

8 (3) PERIOD OF AVAILABILITY.—

9 (A) IN GENERAL.—A qualified State shall
10 expend FAST grant funds not later than 2
11 years after the date on which the qualified
12 State receives the FAST grant funds.

13 (B) RESCISSION.—Any FAST grant funds
14 not expended by a qualified State during the
15 period specified in subparagraph (A) shall be
16 rescinded.

17 (g) MATCHING FUND REQUIREMENTS.—For each
18 fiscal year, a qualified State that receives FAST Deploy-
19 ment Program funds shall make available non-Federal
20 funds to carry out the FAST Deployment Program in an
21 amount not less than the total amount of FAST Deploy-
22 ment Program funds received by the qualified State.

23 (h) REPORTING.—

24 (1) ANNUAL REPORTS BY QUALIFIED STATES
25 TO ASSISTANT SECRETARY.—Each fiscal year, each

1 qualified State that receives FAST Deployment Pro-
2 gram funds for a fiscal year shall submit to the As-
3 sistant Secretary a report describing—

4 (A) the use of the FAST Deployment Pro-
5 gram funds by the qualified State during the
6 fiscal year; and

7 (B) the benefits to manufacturing within
8 the qualified State, including the new tech-
9 nologies and innovations deployed and the jobs
10 created or retained.

11 (2) SEMIANNUAL REPORTS BY ASSISTANT SEC-
12 RETARY TO FEDERAL AGENCIES.—In order to assist
13 the heads of Federal agencies in carrying out the re-
14 sponsibilities of such Federal agencies relating to re-
15 search and development budgeted for under the ex-
16 tramural budgets of such agencies, the Assistant
17 Secretary shall, not less frequently than twice each
18 year, submit to such heads a report on the FAST
19 Deployment Program.

20 (i) ADMINISTRATIVE FUNDING.—

21 (1) IN GENERAL.—The Assistant Secretary
22 may use not more than 6 percent of the FAST De-
23 ployment Program funds for a fiscal year for admin-
24 istrative and project support purposes, in accordance
25 with this subsection.

1 (2) PROGRAM SUPPORT AND OPERATIONS.—

2 The Assistant Secretary may use not more than 3
3 percent of the FAST Deployment Program funds for
4 a fiscal year for administration and management of
5 the FAST Deployment Program and other programs
6 of the Economic Development Administration relat-
7 ing to technology innovation and deployment, includ-
8 ing—

9 (A) training of officials of qualified States
10 regarding the operation and management of the
11 FAST Deployment Program, and other pro-
12 grams of the Administration relating to tech-
13 nology innovation and deployment determined
14 appropriate by the Assistant Secretary;

15 (B) to assist small manufacturing enter-
16 prises to secure low interest funding for new or
17 modified facilities and equipment in order to
18 manufacture the products resulting from tech-
19 nology deployment;

20 (C) providing small manufacturing enter-
21 prises receiving a grant under the FAST De-
22 ployment Program with uniform guidance relat-
23 ing to strategic and business planning, in ac-
24 cordance with the metrics established under
25 paragraph (3); and

1 (D) facilitating access for small manufac-
2 turing enterprises receiving a grant under the
3 FAST Deployment Program to the metrics es-
4 tablished under paragraph (3) to conduct de-
5 tailed enterprise, product, and staffing assess-
6 ments.

7 (3) METRICS.—The Assistant Secretary shall
8 establish a system of metrics to evaluate the per-
9 formance of the FAST Deployment Program and
10 the participants in such program.

11 (4) STATES PROGRAM SUPPORT AND OPER-
12 ATIONS.—

13 (A) IN GENERAL.—The Assistant Sec-
14 retary shall make available to qualified States
15 that receive FAST grant funds for a fiscal year
16 0.9 percent of the FAST Deployment Program
17 funds for the fiscal year for program implemen-
18 tation and management, in accordance with this
19 paragraph.

20 (B) MINIMUM DISTRIBUTION.—

21 (i) IN GENERAL.—Except as provided
22 in clause (ii), for each fiscal year, the As-
23 sistant Secretary shall make available to
24 each qualified State receiving FAST grant

1 funds for the fiscal year \$300,000 for pro-
2 gram support and operations.

3 (ii) MODIFICATION.—The Assistant
4 Secretary may modify the minimum dis-
5 tribution under clause (i) for a fiscal year
6 based on the total amount of FAST De-
7 ployment Program funds available for the
8 fiscal year.

9 (C) REMAINING FUNDS.—Subject to sub-
10 paragraph (D), for each fiscal year, the Assist-
11 ant Secretary shall distribute the amounts de-
12 scribed in subparagraph (A) remaining after
13 the minimum distribution under subparagraph
14 (B) on a prorated basis, based on the number
15 of small manufacturing enterprises located in
16 each qualified State receiving FAST grant
17 funds for the fiscal year.

18 (D) MAXIMUM AMOUNT.—A qualified
19 State may not receive more than 5 percent of
20 the total amount made available under subpara-
21 graph (A) for a fiscal year.

22 (E) USE OF FUNDS.—Amounts made
23 available to a qualified State under this para-
24 graph shall be used for—

1 (i) soliciting, evaluating, and
2 prioritizing proposals for technology de-
3 ployment funding from small manufac-
4 turing enterprises, consistent with the eco-
5 nomic development objectives of the quali-
6 fied State;

7 (ii) supporting projects to implement
8 technology deployment; and

9 (iii) administering the solicitation and
10 evaluation activities of the FAST Deploy-
11 ment Program.

12 (5) OPERATIONAL SUPPORT.—

13 (A) IN GENERAL.—For each fiscal year,
14 the Assistant Secretary shall use 1 percent of
15 the FAST Deployment Program funds—

16 (i) to assess the technology needs of
17 small manufacturing enterprises;

18 (ii) to maintain a database of all
19 projects receiving funds under the FAST
20 Deployment Program; and

21 (iii) to develop best practices to refine
22 and to improve the efficiency and effective-
23 ness of the FAST Deployment Program.

24 (B) GRANTS.—The Assistant Secretary
25 may carry out the requirements of subpara-

1 graph (A) through the awarding of grants to
2 non-Federal experts.

3 (j) COORDINATION WITH FEDERAL AGENCIES.—In
4 carrying out the FAST Deployment Program, the Assist-
5 ant Secretary shall coordinate with the heads of other
6 Federal agencies to ensure the grants made under the
7 FAST Deployment Program are a complement to and en-
8 hance the efforts and programs of other Federal agencies
9 to promote and support small manufacturing enterprises
10 in the United States.

11 (k) ESTABLISHMENT OF MANUFACTURING TECH-
12 NOLOGY DATABASE.—

13 (1) ESTABLISHMENT OF NATIONAL MANUFAC-
14 TURING TECHNOLOGY NEEDS DATABASE.—The As-
15 sistant Secretary shall establish a national manufac-
16 turing technology database for the purposes of as-
17 sembling information relating to new manufacturing
18 technologies created throughout the United States to
19 efficiently disseminate the information to manufac-
20 turing enterprises within the United States. Such
21 database shall include comprehensive information
22 about patents held by United States persons that
23 are available for licensing and the technology needs
24 of United States manufacturers.

1 (2) COORDINATION WITH EXISTING DATA-
2 BASE.—The Assistant Secretary shall ensure that
3 the database established under paragraph (1) is co-
4 ordinated with the national manufacturing tech-
5 nology needs database established by the Garn Ad-
6 vanced Manufacturing Business Innovation and
7 Technologies Center to ensure the ongoing mainte-
8 nance of a national repository for new manufac-
9 turing technologies.

10 (3) PROTECTION OF INTELLECTUAL PROP-
11 ERTY.—The Assistant Secretary shall take appro-
12 priate measures to protect the intellectual property
13 of participants in the database established under
14 paragraph (1).

15 (4) AVAILABILITY.—The Assistant Secretary
16 shall make the database established under para-
17 graph (1) available to—

18 (A) manufacturers located in the United
19 States that seek new technologies or innova-
20 tions to improve manufacturing or to promote
21 new manufacturing for the primary purpose of
22 deploying new technologies and innovations de-
23 veloped within the United States to small man-
24 ufacturing enterprises located in the United
25 States;

1 (B) National Laboratories, research uni-
2 versities in the United States, and other patent
3 holders in the United States for—

4 (i) determining if any technologies al-
5 ready developed or under development have
6 potential for filling the technology needs
7 defined in the database;

8 (ii) identifying technology needs to
9 improve manufacturing in the United
10 States or to introduce new products to
11 small manufacturing enterprises;

12 (iii) identifying the technology needs
13 of small manufacturing enterprises which
14 might be addressed by technologies or in-
15 novations developed or used by other small
16 manufacturing enterprises and that could
17 be licensed or otherwise accessed; and

18 (iv) promoting the use of patents of
19 such laboratories, research universities,
20 and other patent holders.

21 (5) ASSESSMENT.—The Assistant Secretary
22 shall—

23 (A) annually survey not less than 10 per-
24 cent of small manufacturing enterprises in the

1 United States to assess the technology needs of
2 small manufacturing enterprises; and

3 (B) incorporate information from each an-
4 nual survey under subparagraph (A) into the
5 database established under this subsection, in a
6 manner that appropriately protects confiden-
7 tiality and intellectual property rights.

8 (I) REGULATIONS.—The Assistant Secretary shall, in
9 consultation with the States, promulgate regulations for
10 the distribution of FAST Deployment Program funds to
11 all qualified States and the use of FAST Deployment Pro-
12 gram funds in accordance with this section.

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