108TH CONGRESS
2D SESSION

S. 3022

To enhance the Federal investment in research and development and the development of innovative technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 20, 2004

Mr. MCCAIN 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 enhance the Federal investment in research and development and the development of innovative technologies, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Innovation Competitiveness Act of 2004''.

SEC. 2. FINDINGS.

The Congress finds the following:

(1) If the United States is to dominate the next critically decisive stage of industrial progress, it must be the first to create the technologies and

skilled workforce capable of taking advantage of new high technology opportunities.

(2) Research, innovation, and human capital are our principal strengths. By sustaining United States investments in research and finding collaborative arrangements to leverage existing resources and funds in a scarce budget environment, we ensure that America remains at the forefront of scientific and technological capability.

(3) The United States has begun to confront a new level of global competition.

(4) The United States remains a leading attraction for innovating talent and entrepreneurial activity. The United States's research and development system is the best in the world. It comprises the world's largest market and promotes a vibrant entrepreneurial business climate.

(5) For the United States to maintain its high standards of living through continued economic prosperity over the long-term, the basic components of the Nation's innovation ecosystems must remain healthy.

(6) Technology transfer of publicly funded research is a critical mechanism for optimizing the return on taxpayer investment, particularly where

other benefits are not measurable at all or are very long-term.

(7) Active marketing and educational campaigns tailored by individual Federal agencies on their respective research and development activities are important where—

(A) inventions have multiple applications and may need to be matched-up with commercial enterprises representing several industries; and

(B) new invention applications may require rapid development and dissemination by companies not otherwise known by the agency.

(8) Technology transfer has become a very broad activity, with many stakeholders and users. Aggregating available technology transfer resources into a single location, available in an electronic format, would help—

(A) facilitate the access, administration, education, monitoring, and efficiency of technology transfer activities with the government;

(B) stimulate further interaction and responsiveness from the private sector; and

(C) facilitate the formation of much needed technology transfer databases and provide

opportunities to examine and track more refined measurements of technology flows.

(9) A 2003 Department of Commerce survey reported that only 34 percent of the Federal laboratories surveyed formed laboratory industrial advisory committees. These committees can advocate and promote effective communication between Federal laboratories and the user communities to help facilitate mutual understanding and leverage maximum impact of the research conducted.

(10) Because the entire innovation process is continuing to evolve in an arena of increasing global competition, identifying metrics to quantify program effectiveness is of increasing importance. Metrics need to take into account a wide range of steps in a highly complex process, as well as the ultimate product or service, but should not constrain the continued evolution or development of new technology transfer approaches. In addition, these metrics need to accommodate.

(A) characteristics unique to varying industries; and

(B) mission differences between the licensing institutions.

(11) Local and regional impacts from Federal research and development activities have a direct impact on communities in which they are conducted. Such activities attract new businesses to these areas, thereby stimulating local economies and improving local education.

(12) State governments are already active in providing a friendly and complementary research and development environment.

(13) Half of all States each receive half a billion or more Federal research and development dollars yearly.

(14) Given the importance of Federal research and development investments to the Nation, States, and localities, little information is widely available. There is a need for a data system that can provide detailed information on all of the activities and scope of the Federal research and development enterprise so that State and local officials can use the information to identify new opportunities for State-Federal research collaboration.

SEC. 3. OUTREACH ACTIVITIES.

(a) TECHNOLOGY TRANSFER DIRECTOR.—The Secretary of Commerce shall designate a Technology Transfer Director within the Technology Administration to perform

oversight of and policy development for technology transfer activities at the Department of Commerce.

(b) DUTIES.—The Director shall—

(1) coordinate the activities of the Interagency Working Group on Technology Transfer, oversee the expenditure of funds allocated to the Technology Transfer Working Group;

(2) coordinate with each technology partnership ombudsman appointed under section 11 of the Technology Transfer Commercialization Act of 2000 (42 U.S.C. 7261c);

(3) establish and maintain procedures for ensuring the effective coordination of the technology transfer outreach activities of the Department between and among—

(A) the National Technical Information Service;

(B) the Federal Laboratory Consortium for Technology Transfer;

(C) the National Science Foundation;

(D) the National Aeronautics and Space Administration; and

(E) other appropriate Federal agencies.

(b) RESPONSIBILITIES.—The Director's responsibilities shall include—

(1) coordinating technology transfer activities occurring at National Laboratories and single purpose research facilities;

(2) exchanging information about technology transfer practices, including alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters;

(3) developing and disseminating to the public and prospective technology partners information about opportunities and procedures for technology transfer through a one-stop information virtual center; and

(4) providing and disseminating information through prepared material on Federally owned or originated products, processes, and services having potential application to State and local governments and to private industry.

(d) OVERSIGHT.—The Director shall—

(1) periodically review the procedures maintained under subsection (c) for the purpose of ensuring that such procedures meet the requirements of that subsection; and

(2) make such modifications to such procedures as the Director considers appropriate in light of

such review in order to better achieve the purposes of this section.

SEC. 4. RESEARCH ACTIVITIES.

(a) IN GENERAL.—The Secretary, through the Technology Transfer Director as established by section 3, shall establish a research program within the Technology Administration that will—

(1) involve consultation, as appropriate, with the various units of the Commerce Department, including the Federal Laboratory Consortium for Technology Transfer, each Federal agency's research and technology applications, and utilization (with the consent of the agency involved) of the expertise and services of the National Science Foundation, the National Aeronautics and Space Administration, and other Federal agencies;

(2) build upon ongoing efforts of the private sector; and

(3) involve consortia that include government and industry.

(b) DEVELOPMENT OF RESEARCH TOOLS AND PRACTICES.—The Director shall work with industry, trade associations, professional societies, and others to conduct experimentation, analysis, testing, verification, and demonstration of improved tools and practices that identify—

(1) best practices for technology transfer, and

(2) metrics to quantify technology transfer practices effectiveness, taking into account wide range of differences in technology, market dynamics, intellectual property in varying industrial sectors, as well as different mission differences between licensing institutions.

(c) STUDY.—The Director shall work with industry, trade associations, professional societies, and others—

(1) to develop reliable data on how to improve workforce education and address critical workforce issues, including the availability of scientists and engineers and a readily available pool of skilled employees;

(2) to process reviews to reduce complexity of, and time required to complete, technology transfer transactions;

(3) to study and assess the implications of technology development and transfer in a global environment, with specific attention to the effects of emerging technology; and

(4) to analyze why the widely recognized ''valley of death'' remains an obstacle to the adaption by the private sector of Federal laboratory technologies for use in commercial markets.

(d) DISSEMINATION AND TECHNICAL ASSISTANCE PROGRAM.—The Director shall oversee a dissemination and technical assistance program to assist with the immediate dissemination and implementation of the practices, standards, and codes developed by the Technology Administration.

(e) REPORTS.—

(1) INITIAL REPORT.—Not later than 120 days after the date of enactment of this Act, the Director shall submit a report detailing the proposed schedule of studies and other activities to be undertaken under this Act to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science.

(2) ANNUAL PROGRESS REPORTS.—Not later than 12 months after the date of enactment of this Act, and annually thereafter, the Director shall submit a progress report to the committees described under paragraph (1), which summarizes the Technology Administration's activities under this Act.

SEC. 5. SMALL BUSINESS ADVOCACY AND ASSISTANCE.

The Secretary shall designate a small business advocate within the Department—

(1) to increase the participation of small business concerns, including socially and economically

disadvantaged small business concerns, in procurement, collaborative research, technology licensing, and technology transfer activities conducted by the National Laboratories or single-purpose research facilities;

(2) to report to the National Laboratory Consortium on the actual participation of small business concerns in procurement and collaborative research along with recommendations, if appropriate, on how to improve participation;

(3) to make available to small business concerns training, mentoring, and clear, up-to-date information on how to participate in procurement and collaborative research, including how to submit effective proposals, and information related to alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters;

(4) to increase awareness inside the National Laboratories and single-purpose research facilities of the capabilities and opportunities presented by small business concerns; and

(5) to establish guidelines for a small business program under this Act and report on the effectiveness of such program to the Secretary.

SEC. 6. COORDINATE RESEARCH AND DEVELOPMENT EFFORTS WITH STATES.

(a) ESTABLISHMENT.—The Secretary shall establish a State and Industry Task Force for the purpose of highlighting areas—

(1) where the Federal government can help in State efforts to provide a complementary research and development environment; and

(2) that exist where the Federal government could assist in efforts to help match Federal programs, to the extent possible, with State economic development efforts.

(b) MEMBERSHIP.—The Task Force shall be comprised of not fewer than 9 nor more than 15 members appointed by the Secretary, and shall include such representatives from State and local governments, industry, universities, professional societies, Government laboratories, and other organizations as the Secretary considers appropriate based on the Secretary's assessment of the technical and other qualifications of such representatives.

(c) TERMS.—

(1) IN GENERAL.—The term of a member of the Task Force shall be 3 years.

(2) STAGGERED TERMS.—The Secretary may appoint members of the Task Force in a manner that allows the terms of the members serving at any

time to expire at spaced intervals so as to ensure continuity in the functioning of the Task Force.

(3) REAPPOINTMENT.—A member of the Task Force whose term expires may be reappointed.

(d) CHAIRPERSON.—The Task Force shall have a chairperson, who shall be elected by the members.

(e) COOPERATION.—The heads of Federal agencies shall cooperate with the Task Force in carrying out the requirements of this section and shall furnish to the Task Force such information as the committee considers necessary to enable it to carry out its functions.

SEC. 7. DEFINITIONS.

In this Act:

(1) DIRECTOR.—The term ''Director'' means the Technology Transfer Director appointed under section 3.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of Commerce.

(3) SMALL BUSINESS CONCERN.—The term ''small business concern'' has the meaning given that term in section 3 of the Small Business Act (15 U.S.C. 632).

(4) SOCIALLY AND ECONOMICALLY DISADVANTAGED SMALL BUSINESS CONCERNS.—The term ''socially and economically disadvantaged small business

concerns'' has the meaning given that term in section 8(a)(4) of the Small Business Act (15 U.S.C. 637(a)(4)).

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