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## SENATE BILL NO. 1038

## FLOOR AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by Senator Hanger  
on February 5, 2015)

(Patron Prior to Substitute—Senator Hanger)

*A BILL to amend and reenact §§ 2.2-225, 2.2-2220.1, 2.2-2221, and 2.2-2233.1 of the Code of Virginia, relating to investment in research and technology in the Commonwealth.*

**Be it enacted by the General Assembly of Virginia:****1. That §§ 2.2-225, 2.2-2220.1, 2.2-2221, and 2.2-2233.1 of the Code of Virginia are amended and reenacted as follows:****§ 2.2-225. Position established; agencies for which responsible; additional powers.**

The position of Secretary of Technology (the Secretary) is created. The Secretary shall be responsible to the Governor for the following agencies, councils, and boards: Information Technology Advisory Council, Innovation and Entrepreneurship Investment Authority, Virginia Information Technologies Agency, Virginia Geographic Information Network Advisory Board, and the E-911 Services Board. The Governor, by executive order, may assign any other state executive agency to the Secretary, or reassign any agency listed in this section to another Secretary.

Unless the Governor expressly reserves such power to himself, the Secretary may, with regard to strategy development, planning and budgeting for technology programs in the Commonwealth:

1. Monitor trends and advances in fundamental technologies of interest and importance to the economy of the Commonwealth and direct and approve a stakeholder-driven technology strategy development process that results in a comprehensive and coordinated view of research and development goals for industry, academia and government in the Commonwealth. This strategy shall be updated biennially and submitted to the Governor, the Speaker of the House of Delegates and the President Pro Tempore of the Senate.

2. Work closely with the appropriate federal research and development agencies and program managers to maximize the participation of Commonwealth industries and universities in these programs consistent with agreed strategy goals.

3. Direct the development of plans and programs for strengthening the technology resources of the Commonwealth's high technology industry sectors and for assisting in the strengthening and development of the Commonwealth's Regional Technology Councils.

4. Direct the development of plans and programs for improving access to capital for technology-based entrepreneurs.

5. Assist the Joint Commission on Technology and Science created pursuant to § 30-85 in its efforts to stimulate, encourage, and promote the development of technology in the Commonwealth.

6. Continuously monitor and analyze the technology investments and strategic initiatives of other states to ensure the Commonwealth remains competitive.

7. Strengthen interstate and international partnerships and relationships in the public and private sectors to bolster the Commonwealth's reputation as a global technology center.

8. Develop and implement strategies to accelerate and expand the commercialization of intellectual property created within the Commonwealth.

9. Ensure the Commonwealth remains competitive in cultivating and expanding growth industries, including life sciences, advanced materials and nanotechnology, biotechnology, and aerospace.

10. Monitor the trends in the availability and deployment of and access to broadband communications services, which include, but are not limited to, competitively priced, high-speed data services and Internet access services of general application, throughout the Commonwealth and advancements in communications technology for deployment potential. The Secretary shall report annually by December 1 to the Governor and General Assembly on those trends.

11. Review and approve or disapprove, according to the recommendations of the Chief Information Officer (CIO) pursuant to § 2.2-2008, the selection or termination of any Commonwealth information technology project that has been defined or designated as a "major information technology project" pursuant to subdivision 13 and any Commonwealth information technology project with high risk and high complexity.

12. Review and approve statewide technical and data standards for information technology and related systems, including the utilization of nationally recognized technical and data standards for health information technology systems or software purchased by a state agency of the Commonwealth, as recommended by the CIO pursuant to § 2.2-2007.

13. Develop the criteria, requirements, and process for defining a Commonwealth information technology project as a "major information technology project" for the purposes of § 2.2-2006, including

the criteria, requirements, and process for designating a Commonwealth information technology project that has a cost below \$1 million as a "major information technology project."

14. Designate Commonwealth information technology projects as major information technology projects according to the criteria, requirements, and process developed pursuant to subdivision 13.

15. Review and approve the initiation or termination of any procurement conducted pursuant to § 2.2-2012 with a total estimated cost over \$1 million, and contracts or amendments thereto.

16. Review and approve statewide information technology project, procurement, and investment management policies and standards, as developed and recommended by the CIO pursuant to § 2.2-2007.

17. Designate specific projects as enterprise information technology projects, prioritize the implementation of enterprise information technology projects, establish enterprise oversight committees to provide ongoing oversight for enterprise information technology projects.

18. Review and approve the Commonwealth Project Management Standard as defined in § 2.2-2006.

19. Establish Internal Agency Oversight Committees and Secretariat Oversight Committees as necessary and in accordance with § 2.2-2021.

20. *Provide consultation on guidelines, at the recommendation of the Innovation and Entrepreneurship Investment Authority, for the application, review, and award of funds from the Commonwealth Research Commercialization Fund pursuant to § 2.2-2233.1.*

**§ 2.2-2220.1. Research and Technology Investment Advisory Committee.**

A. The Authority shall be advised by the Research and Technology Investment Advisory Committee (the Advisory Committee). The Advisory Committee shall be administered by the Authority and consist of 10 members as follows: the four vice-provosts of research at major state institutions of higher education from the state institutions of higher education not represented on the Authority, the president and chief executive officer of the Virginia Economic Development Partnership, and five citizen members appointed by the Authority. The citizen members shall be appointed as follows: two citizens shall be representatives of venture capital firms or other capital market participants with experience in financing emerging technology businesses; one citizen shall be a representative of an engineering firm with experience in the development of facilities for emerging technology companies; one citizen shall represent an independent or federal research facility in the Commonwealth, and as follows: (i) the Speaker of the House of Delegates shall appoint one citizen who shall have experience in financing emerging technology businesses and one citizen who shall be a representative of an engineering firm, (ii) the Senate Committee on Rules shall appoint one citizen who shall be a representative of an engineering firm and one citizen who shall represent an independent or federal research facility in the Commonwealth, and (iii) the Governor shall appoint one citizen who shall represent a technology company with significant operations in the Commonwealth. A vice-provost of a state institution shall serve until the president of the institution that he represents is appointed to serve on the Authority, at which time the vice-provost of the state institution no longer represented on the Authority shall become a member of the Advisory Committee. Citizen members shall be appointed for terms of four years. A citizen member may be appointed for successive terms.

B. The Advisory Committee shall assist the Authority in reviewing applications for awards from the Commonwealth Research Commercialization Fund pursuant to § 2.2-2233.1 and make recommendations to the Authority concerning the awards. In reviewing the applications, the Advisory Committee shall only recommend for award those applications that, based upon the Commonwealth Research and Technology Strategic Roadmap and in the opinion of the Advisory Committee, (i) are based upon sound scientific principles and present an opportunity for valid research, (ii) relate to a key industry sector identified in the Commonwealth Research and Technology Strategic Roadmap as an area of focus for technology investment in the Commonwealth, and (iii) present a significant potential for commercialization in the Commonwealth. In the case of an application for an award from the eminent researcher recruitment program pursuant to subdivision D 6 5 of § 2.2-2233.1, the Advisory Committee shall only consider researchers who conduct viable research with significant potential for commercialization in an area related to a key industry sector identified in the Strategic Roadmap as an area of focus for technology investment in the Commonwealth.

**§ 2.2-2221. Powers of the Authority.**

The Authority is granted all powers necessary or convenient for the carrying out of its statutory purposes, including, but not limited to, the following rights and powers to:

1. Sue and be sued, implead and be impleaded, complain and defend in all courts.

2. Adopt, use, and alter at will a corporate seal.

3. Acquire, purchase, hold, use, lease or otherwise dispose of any project and property, real, personal or mixed, tangible or intangible, or any interest therein necessary or desirable for carrying out the purposes of the Authority, and, without limitation of the foregoing, to lease as lessee, any project and any property, real, personal or mixed, or any interest therein, at such annual rental and on such terms and conditions as may be determined by the Board and to lease as lessor to any person, any project and any property, real, personal or mixed, tangible or intangible, or any interest therein, at any time acquired

by the Authority, whether wholly or partially completed, at such annual rental and on such terms and conditions as may be determined by the Board, and to sell, transfer or convey any property, real, personal or mixed, tangible or intangible or any interest therein, at any time acquired or held by the Authority on such terms and conditions as may be determined by the board of the Authority.

4. Plan, develop, undertake, carry out, construct, improve, rehabilitate, repair, furnish, maintain, and operate projects.

5. Adopt bylaws for the management and regulation of its affairs.

6. Establish and maintain satellite offices within the Commonwealth.

7. Fix, alter, charge, and collect rates, rentals, and other charges for the use of projects of, or for the sale of products of or for the services rendered by, the Authority, at rates to be determined by it for the purpose of providing for the payment of the expenses of the Authority, the planning, development, construction, improvement, rehabilitation, repair, furnishing, maintenance, and operation of its projects and properties, the payment of the costs accomplishing its purposes set forth in § 2.2-2219, the payment of the principal of and interest on its obligations, and to fulfill the terms and provisions of any agreements made with the purchasers or holders of any such obligations.

8. Borrow money, make and issue bonds including bonds as the Authority may determine to issue for the purpose of accomplishing the purposes set forth in § 2.2-2219 or of refunding bonds previously issued by the Authority, and to secure the payment of all bonds, or any part thereof, by pledge or deed of trust of all or any of its revenues, rentals, and receipts or of any project or property, real, personal or mixed, tangible or intangible, or any interest therein, and to make agreements with the purchasers or holders of such bonds or with others in connection with any such bonds, whether issued or to be issued, as the Authority deems advisable, and in general to provide for the security for the bonds and the rights of holders thereof.

9. Make and enter into all contracts and agreements necessary or incidental to the performance of its duties, the furtherance of its purposes and the execution of its powers under this article, including agreements with any person or federal agency.

10. Employ, in its discretion, consultants, attorneys, architects, engineers, accountants, financial experts, investment bankers, superintendents, managers and such other employees and agents as may be necessary, and to fix their compensation to be payable from funds made available to the Authority.

11. Receive and accept from any federal or private agency, foundation, corporation, association or person grants to be expended in accomplishing the objectives of the Authority, and to receive and accept from the Commonwealth or any state, and any municipality, county or other political subdivision thereof and from any other source, aid or contributions of either money, property, or other things of value, to be held, used and applied only for the purposes for which such grants and contributions may be made.

12. Render advice and assistance, and to provide services, to institutions of higher education and to other persons providing services or facilities for scientific and technological research or graduate education, provided that credit towards a degree, certificate or diploma shall be granted only if such education is provided in conjunction with an institution of higher education authorized to operate in Virginia.

13. Develop, undertake and provide programs, alone or in conjunction with any person or federal agency, for scientific and technological research, technology management, continuing education and in-service training, provided that credit towards a degree, certificate or diploma shall be granted only if such education is provided in conjunction with an institution of higher education authorized to operate in Virginia; to foster the utilization of scientific and technological research information, discoveries and data and to obtain patents, copyrights and trademarks thereon; to coordinate the scientific and technological research efforts of public institutions and private industry and to collect and maintain data on the development and utilization of scientific and technological research capabilities. The universities set forth in § 2.2-2220 shall be the principal leading universities in the research institutes.

14. Pledge or otherwise encumber all or any of the revenues or receipts of the Authority as security for all or any of the obligations of the Authority.

15. Receive, administer, and market any interest in patents, copyrights and materials that were potentially patentable or copyrightable developed by or for state agencies, public institutions of higher education and political subdivisions of the Commonwealth. The Authority shall return to the agency, institution or political subdivision any revenue in excess of its administrative and marketing costs. When general funds are used to develop the patent or copyright or material that was potentially patentable or copyrightable, any state agency, except a public institution of higher education in Virginia, shall return any revenues it receives from the Authority to the general fund unless the Governor authorizes a percentage of the net royalties to be shared with the developer of the patented, copyrighted, or potentially patentable or copyrightable property.

16. Develop the Commonwealth Research and Technology Strategic Roadmap, pursuant to § 2.2-2221.2 for the Commonwealth to use to identify research areas worthy of institutional focus and

Commonwealth investment in order to promote commercialization and economic development efforts in the Commonwealth.

17. Foster innovative partnerships and relationships among the Commonwealth, the Commonwealth's state institutions of higher education, the private sector, federal labs, and not-for-profit organizations to improve research and development commercialization efforts.

18. Receive and review annual reports from state institutions of higher education regarding the progress of projects funded through the Commonwealth Research Initiative or the Commonwealth Research and Commercialization Fund. The Authority shall develop guidelines, methodologies, and criteria for the reports. The Authority shall aggregate the reports and submit an annual omnibus report on the status of research and development initiatives in the Commonwealth to the Governor and the chairmen of the Senate Finance Committee, the House Appropriations Committee, the Senate Committee on General Laws and Technology, the House Committee on Science and Technology, and the Joint Commission on Technology and Science.

19. Develop guidelines, *in consultation with the Secretary of Technology*, for the application, review, and award of funds from the Commonwealth Research Commercialization Fund pursuant to § 2.2-2233.1. These guidelines shall address, at a minimum, the application process and shall give special emphasis to fostering collaboration between institutions of higher education and partnerships between institutions of higher education and business and industry.

20. Appoint the citizen members of the Research and Technology Investment Advisory Committee pursuant to § 2.2-2220.1.

~~21. Do all acts and things necessary or convenient to carry out the powers granted to it by law.~~

**§ 2.2-2233.1. Commonwealth Research Commercialization Fund; continued; purposes; report.**

A. For purposes of this section:

"Guidelines" means guidelines developed *in consultation with the Secretary of Technology* and published by the Authority regarding the administration of the Commonwealth Research Commercialization Fund.

"Qualified research and technologies" means research programs or technologies identified in the Commonwealth Research and Technology Strategic Roadmap as areas of focus for technology investment in the Commonwealth, which may include but are not limited to the fields of energy, conservation, environment, microelectronics, robotics and unmanned vehicle systems, advanced shipbuilding, or lifespan biology and medicine.

"Qualifying institution" means (i) a public or private institution of higher education in the Commonwealth or its associated intellectual property foundation that adopts a policy regarding the ownership, protection, assignment, and use of intellectual property pursuant to § 23-4.3 or (ii) a federal research facility located in the Commonwealth.

"SBIR" means the Small Business Innovation Research Program authorized under 15 U.S.C. § 638.

"STTR" means the Small Business Technology Transfer Program authorized under 15 U.S.C. § 638.

B. From such funds as may be appropriated by the General Assembly and any gifts, grants, or donations from public or private sources, there is created in the state treasury a special nonreverting, permanent fund, to be known as the Commonwealth Research Commercialization Fund (the Fund), to be administered by the Authority pursuant to the guidelines. The Fund shall be established on the books of the Comptroller. Interest earned on moneys in the Fund shall remain in the Fund and be credited to it. Any moneys remaining in the Fund at the end of each fiscal year, including interest thereon, shall not revert to the general fund but shall remain in the Fund. Expenditures and disbursements from the Fund, which may consist of grants or loans, shall be made by the State Treasurer on warrants issued by the Comptroller upon written request bearing the signature of the chairman or the vice-chairman of the Authority, or, if so authorized by the Authority, bearing his facsimile signature, and the official seal of the Authority.

C. Awards from the Fund shall be made by the Authority, pursuant to the guidelines and upon the recommendation of the Research and Technology Investment Advisory Committee. Awards from the Fund shall only be made to applications that further the goals set forth in the Commonwealth Research and Technology Strategic Roadmap.

D. Awards from the Fund may be granted for the following programs:

1. For fiscal years beginning with a Fund balance of less than \$7 million, an SBIR matching funds program for Virginia-based technology businesses. Businesses meeting the following criteria shall be eligible to apply for an award:

a. The applicant has received a Phase I SBIR award from the National Institute of Health targeted at the development of qualified research or technologies;

b. The applicant employs fewer than 12 full-time employees;

c. At least 51 percent of the applicant's employees reside in Virginia; and

d. At least 51 percent of the applicant's property is located in Virginia.

*The length of time that a business has been incorporated shall have no bearing on an applicant's*

eligibility for an award. Applicants shall be eligible for matching grants of up to \$50,000 of the Phase I award. All applicants shall be required to submit a commercialization plan with their application.

2. For fiscal years beginning with a Fund balance of \$7 million or greater, an SBIR and STTR matching funds program for Virginia-based technology businesses. Businesses meeting the following criteria shall be eligible to apply for an award:

a. The applicant has received an SBIR or STTR award targeted at the development of qualified research or technologies;

b. The applicant employs fewer than 12 full-time employees;

c. At least 51 percent of the applicant's employees reside in Virginia; and

d. At least 51 percent of the applicant's property is located in Virginia.

*The length of time that a business has been incorporated shall have no bearing on an applicant's eligibility for an award.* Applicants shall be eligible for matching grants of up to \$100,000 for Phase I awards and up to \$500,000 for Phase II awards. All applicants shall be required to submit a commercialization plan with their application.

3. A matching funds program to assist qualifying institutions and other research institutions in leveraging federal and private funds designated for the commercialization of qualified research or technologies. The chairman of the Authority is authorized to issue letters of financial commitment to assist applicants in leveraging federal and private funds.

4. A facilities enhancement loan program for qualifying institutions and political subdivisions to provide lease or credit guarantees to assist in financing facilities utilized for commercializing qualified research or technologies developed at qualifying institutions. The facilities enhancement loan program shall have the following parameters:

a. Qualifying institutions and political subdivisions may apply to the Fund for loans to the extent that such institution's or political subdivision's outstanding principal balance at any one time does not exceed \$500,000. Loan applications shall include business plans that detail and explain the anticipated uses of funds received and the proposed repayment schedule.

b. Loans from the Fund shall take the form of a contractual commitment to the recipient qualifying institution or political subdivision for a line of credit for up to five years, along with an approved schedule of repayment. During the contractual period the recipient qualifying institution or political subdivision may draw upon the line of credit for any expense for which the loan was made, not to exceed the stated amount of the loan award. At the end of the contractual period, the line of credit shall terminate and the outstanding balance of the withdrawals on that line of credit shall become the established basis for that loan.

c. During the contractual period, deferred interest shall accumulate on the outstanding balance at a rate of three percent compounded annually. Borrowing institutions or political subdivisions may prepay part or all of any loan received from the Fund without penalty, and, if repayment is completed within the contractual period of the line of credit, the accumulated interest obligation shall be forgiven.

d. Repayment of the established basis shall consist of a maximum of 84 equal monthly payments of principal and compounded interest at the determined rate beginning on the first day of the month following the end of the contractual period.

5. A commercialization program to incentivize the commercialization of a product or service related to a qualifying technology. An eligible applicant shall have operations in the Commonwealth, and the project proposed by the applicant shall:

a. Commercialize a product or service related to a qualifying technology;

b. Have a demonstrable economic development benefit to the Commonwealth;

c. Match the award, on at least a one-to-one basis, from other available funds, including funds from an institution of higher education collaborating on the project; and

d. Have a reasonable probability of enhancing the Commonwealth's national and global competitiveness.

Priority shall be given to those applications that propose projects that (i) are collaborative between private and nonprofit entities, public or private agencies, and qualifying institutions or research institutions; (ii) project a short time to commercialization, although transformative projects with a longer projected time to commercialization shall not be discounted; (iii) have active third-party equity holders; (iv) have technology and management in place that are likely to successfully bring the product or service to the marketplace; or (v) are from applicants who have a history of successful projects funded by the Fund. *The length of time that a business has been incorporated shall have no bearing on an applicant's eligibility for an award.*

6. 5. An eminent researcher recruitment program to acquire and enhance research superiority at public qualifying institutions. For purposes of applications pursuant to this subdivision, the applicant shall be a state institution of higher education. In order to qualify for an award, the applicant shall:

a. Demonstrate that the researcher being recruited would create research superiority at the institution;

b. Demonstrate that the institution making the application has sufficient technology transfer processes and other research capabilities in place to meet the needs of the researcher being recruited;

c. Involve a private sector partner with business operations in the Commonwealth;

d. Demonstrate that the research conducted by the researcher is in a qualifying technology; and

e. Match the award, on at least a one-to-one basis, with 50 percent of the match from the applicant and 50 percent of the match from the private sector partner.

E. Any application for an award from the Fund shall include a strategic plan that, at a minimum, identifies (i) how the proposed project fits into the Commonwealth Research and Technology Strategic Roadmap, (ii) other funds that may be reasonably expected from other sources as a result of an award from the Fund, (iii) the potential for commercialization of the research or technology underlying the application, and (iv) opportunities for public and private collaboration.

F. No award shall be made from the Fund until a performance agreement or memorandum of understanding is agreed to by the Authority and the recipient of the award memorializing the terms and conditions of the award. Such agreement or memorandum of understanding shall set forth any conditions for receipt of the award, any dates certain for the completion of certain acts by the recipient, and provisions for the repayment of any award, including the rate of interest to be charged if any, if the recipient does not meet the terms of the agreement. In the event that an award is to be made over a multi-year period, the performance agreement or memorandum of understanding shall establish certain benchmarks or performance standards against which to measure the interim success of the project before additional funds are disbursed from the Fund.

G. The chairman of the Authority shall provide the Governor and the General Assembly with an annual report to include a detailed list of awards and loans committed, the amount of each approved award or loan, a description of the approved proposals, and the amount of federal or private matching funds anticipated where applicable, a statement concerning how the approved proposals further the goals of the Commonwealth Research and Technology Strategic Roadmap, and an assessment of the effectiveness of the Fund.

H. Administrative expenses related to implementing the guidelines and review process may be reimbursed from the Fund.

**2. That this act shall not be construed to affect existing appointments to the Research and Technology Investment Advisory Committee for the terms that have not expired as of July 1, 2015. However, any new appointments made after July 1, 2015, shall be made in accordance with this act.**