



U.S. Small Business
Administration

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before the
Senate Committee on Small Business and Entrepreneurship
Hearing on Reauthorization of the SBA's Innovation Programs
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Joint statement of Joseph Shepard & John Williams
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Chairman Rubio, Ranking Member Cardin, and members of the committee, thank you for the invitation to discuss the U.S. Small Business Administration (SBA) Innovation Programs, which include SBA's oversight of the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

Joseph Shepard is the SBA Associate Administrator for the Office of Investment and Innovation. Prior to the SBA, his business career included participating as an investor and intermediary in venture capital and early stage financings as well as leadership positions in consulting, investment banking, private equity, and investment fund management for such organizations as KPMG, Texas Pacific Capital, Principal Financial Securities, Banc One Capital Markets, as well as a previous tenure in public service at the SBA.

John Williams is the SBA Director of Innovation and Technology and has focused the last 25 years of public service on the SBIR and STTR programs. John began his career at the Department of Navy, where he started by managing individual SBIR projects and eventually worked his way up to managing the Navy's SBIR/STTR and Technology Transfer program offices. His focus was on helping small firms transition their technology into Navy systems and platforms. Accomplishing this mission required him to develop special programs that provided awardees with business and commercialization assistance. Through these efforts, the Navy obtained the highest SBIR/STTR commercialization rate across all the federal agencies. In 2014, the opportunity arose to join the SBA and impact the policy and serve in a lead role for the SBIR/STTR programs.

As defined in the Small Business Act, SBA assists small businesses in obtaining federal research and development (R&D) awards and to ensure that small businesses are afforded the opportunity to receive the benefits of the work associated with that funding. SBA's responsibilities related to the SBIR/STTR programs include establishing policy through program Policy Directives; conducting outreach to small businesses; collecting, maintaining, and publishing data; monitoring program implementation, and reporting to Congress; and providing suggestions to improve participating agency SBIR/STTR programs. SBA is uniquely positioned to support small businesses and innovation through our services and programs. While participating agencies unilaterally control decisions and issue awards, SBA is actively involved in ensuring companies, service providers, and agencies are aware of the guidance in the Policy Directive.

In 2015, SBA launched the SBIR Road Tour, a national outreach effort to increase program access and awareness. SBA has also focused on strengthening local innovation ecosystems through targeted outreach and training. These efforts engage local SBIR/STTR service providers to increase the number of SBIR/STTR proposals, awards, and commercialization success of companies from their state. These efforts are critical to assisting small businesses and entrepreneurs with access to the information and resources they need to help make their companies successful through the SBIR/STTR program.

The SBIR/STTR program provides approximately \$3.5 billion per year in funding to small businesses, making it the largest single source of non-dilutive, early-stage, high-risk funding. Since 1983, participating agencies have obligated over \$50 billion in total funding across more than 170,000 awards and 26,000 firms. SBIR/STTR awards are not loans and the firms maintain ownership of the intellectual property. The protection period for SBIR/STTR Data was recently increased from a minimum of four years to a minimum of 20 years as part of the SBA's revised SBIR/STTR Policy Directive that was published in the Federal Register on April 2, 2019.

A good way to illustrate how the SBIR/STTR program operates and scales early stage, high risk research into products and services is through examples. Illumina, a 2016 SBIR Hall of Fame inductee, received its first SBIR award 20 years ago. It currently has a market capitalization of approximately \$46.6 billion, annual revenues of \$3.33 billion, 7,300 employees, and is a leader in the global DNA gene sequencing market.

Illumina is also an example of how SBIR can commercialize university-based research. In 1998, Illumina was founded by five individuals based on technology they obtained in an exclusive license from Tufts University, where a federally-funded inventor and co-founder was faculty. From 1999 to 2006, the company received \$9 million through 27 SBIR awards from the National Institutes of Health (NIH). Illumina underwent rapid growth and attracted venture capital funding. The SBIR/STTR program is a valuable tool for demonstrating proof of concept. In this case, Illumina leveraged their SBIR funding to focus on research that was higher risk than their venture capital funding would support.

There are thousands of SBIR/STTR success stories throughout the country and life of the program. Some of those companies became industry leaders, but all of them turned an idea into a solution for a need advancing the missions of the federal government. SBA collects and analyzes program data provided by the eleven participating agencies to evaluate performance by individual agencies and across the SBIR/STTR program. In addition, SBA works with the agencies to review and improve the data fields captured in the SBIR and STTR Annual Report. However, capturing the entire picture of commercialization data remains a challenge. SBIR.gov contains award data for more than 170,000 awards and 26,000 companies. Furthermore, companies are not required to update their company commercialization report information unless they are applying for another award in the program.

In Chairman Rubio's "Made in China 2025 and the Future of American Industry" report, one of the key highlights is *"Creating new ecosystems of innovators and promoting the dynamism of new businesses entails one of rejuvenation. Uniquely positioned among government agencies in this regard is the U.S. Small Business Administration, which operates a number of programs to service new and small businesses."* The SBIR/STTR program is a fantastic resource to help companies and communities leverage their expertise and capabilities to create game changing innovation. This includes leveraging existing networks and infrastructure (such as universities, incubators, accelerators), and encouraging public-private partnerships. These types of collaborative programs can be catalysts for innovation. This is particularly important in rural states, many of which have components needed for a successful innovation ecosystem and are building their capacity to support innovators. SBA is encouraged by the advancements in this area and looks forward to discussing this further with the committee.

Lastly, let us share some of the SBA's accomplishments during the past year involving SBA's Innovation Programs. They include:

- Publishing a revised SBIR/STTR Policy Directive.
- Publishing the fiscal year (FY)15 and FY16 SBIR/STTR Annual Reports, which greatly expanded detail into the statutorily required measurements and agency compliance. (SBA plans to submit the FY17 Annual Report to Congress this summer.)
- Increased collaboration with the other federal agencies, including direct participation in the President's Lab to Market cross agency priority goal working group, to improve technology transfer from labs to small businesses.
- SBA has focused extensively on data quality. This includes improvements in automating the data upload process, increasing the accuracy of the data submission, adding new data quality checks, and working with the agencies on data definitions.
- Expanded our leadership role with the innovation ecosystems across the country. SBA currently leads a monthly call with 400 ecosystem partners throughout the country, provides online and in-person training, and participates in outreach events at the local, regional, and national level.
- SBA led 18 Road Tours in 2018, with another 16 planned for 2019. By the end of this year, SBA will have held a Road Tour or Conference in all 50 states and Puerto Rico. This included additional collaboration with the Federal Laboratory Consortium, U.S. Patent and Trademark Office, and the Minority Business Development Agency.

As the coordinating agency for the SBIR/STTR programs, there are several areas of focus and discussion that we will continue to review, among them:

- Helping underrepresented states, as well as woman- and minority-owned firms, submit more competitive proposals and win more awards.
- Building public-private partnerships focused on supporting R&D focused startups.
- Reducing the time from proposal submission to award, especially the time between Phase I and Phase II.
- Reducing the level of effort placed on small businesses to submit proposals.
- Working with the participating agencies to simplify the contracting process.
- Allowing more of the SBIR/STTR funding that firms receive to be used for activities associated with the commercialization process.
- Improving and streamlining data collection from the agencies and firms, while improving the ability to review the data and trends through enhanced Business Intelligence tools. This is a continuous effort of SBA and the eleven participating agencies.
- Encouraging agencies to look for ways to improve its programs and adapt the way they execute. SBA will continue to offer opportunities for the agencies to discuss ideas and share best practices.
- Improving SBA's understanding of the economic impact of the SBIR/STTR program and how it feeds into addressing many of the concerns raised in the "Made in China 2025 and the Future of the American Industry" report.

In conclusion, thank you for your support of the SBA. SBA looks forward to continuing our work to better assist America's small businesses.