



Testimony of

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UNITED STATES HOUSE OF REPRESENTATIVES**

Innovation Ecosystems & Small Business

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ETC provides engineering and data analytics services, policy development, and technology development to the government, academia, and private industry. ETC is a 501 (c)(3) non-profit organization incorporated in Maryland in 2006.



Chairman Cardin, Ranking Member Paul, and Members of the Small Business Committee my name is Bob Kavetsky and I am the CEO of the Energetics Technology Center (ETC). ETC is a 501(c)(3) that is headquartered in Maryland. It has been my great pleasure to head ETC for the past 15 years. I am an engineer by training, and prior to joining ETC, I served 32 years at the Department of Defense working on hypersonics and undersea warfare programs. I greatly appreciate you giving me the opportunity to share my thoughts on the role of small business in general, and the role of the Small Business Innovative Research Program (SBIR) specifically with you today and look forward after my testimony to answering your questions.

You are all acutely aware of the important role small businesses play in our economy. My fellow panelist has addressed the critical role the SBIR program plays in not only getting new technologies into the hands of warfighters but also serving as an economic catalyst in many parts of the country. I would like to direct my comments today to the role small businesses play in what I like to call “technology-based innovation ecosystems” and the importance of these ecosystems to our national defense.

MIT economists Gruber and Johnson, in their seminal work “Jumpstarting America”¹, do an excellent job of documenting the benefits realized from government investments in creating science-based innovations that came out of World War II. More importantly, they recommend that the federal government make additional investments to position the U.S. to continue its leadership role as a major economic and military power. Specifically, they identified 100 regions of the country that were ripe for the creation of technology-based innovation ecosystems. They suggest, and I agree, that such an investment will result not only in distributing our economic prosperity across the country more evenly but also contribute to a strong national defense.

Innovation ecosystems bring together industry, academia, and government to provide technology solutions to the government and private sector markets. Two prime examples of this are Silicon Valley for the semiconductor and computer industries and Boston in life sciences. There is an opportunity now to create a whole nation of ecosystems using programs such as SBIR as a primary engine for this development. This is a critically important issue not only for our national defense, but in addressing what I see as a developing economic inequality between regions of the country that have these ecosystems and those that do not.

My organization recently completed a study of energetics for the Department of Defense. Energetics are explosives and propellants that are used in our weapons systems. We brought together experts from industry, academia and government, led by Dr. Theresa Mayer, Vice President of Research at Purdue University to examine what has led to now well-documented shortfalls in U.S. military capabilities when compared to China and Russia.

¹ Jumpstarting America, Gruber & Johnson.



These shortcomings can be traced in part to two major issues:

1. our inability to develop and then transition these developments of advanced energetic materials into our weapons systems.
2. the fragile condition of the existing supply chain of specialty chemicals needed to produce energetic materials.

Small businesses can play a role in addressing both of these challenges. For example, the SBIR program has a strong record of creating solutions to defense requirements in critical sectors. We envision such an investment in energetics would bring new and innovative companies into the energetics research arena.

Second, we need to develop a network of specialty chemicals manufacturing and production facilities to ensure a robust supply chain for energetics. Currently we need approximately 350 specialty chemicals to produce the energetic materials the Department of Defense needs. There is absolutely no reason these chemicals cannot be produced by small and medium sized businesses. This production does not need to be from industry giants. Most critically, we cannot continue to buy these chemicals from our adversaries such as China.

The second example I would like to highlight is the work the Navy's SBIR program currently has us conducting to reach out and involve underrepresented communities and companies in the program. The catalyst behind this effort is to ensure that the Navy is tapping into the full potential of all of America – not just a handful of communities. We have created a process called "City TechFire" which we are starting to pilot in Houston, San Diego, Phoenix, Detroit, San Antonio, El Paso, Jacksonville, Cleveland, Greensboro, and Harrisburg. It is already abundantly clear to me that there is a massive untapped potential in these communities.

In closing, I would like to make a few recommendations for the Committee to consider:

1. Make the SBIR/STTR programs permanent
2. Increase SBIR allocation increase to 7 percent
3. Increase STTR allocation to 1 percent
4. Expedite Security Clearances for SBIR/STTR firms
5. Require all agencies to set goals of at least 15% of all R&D goes to small business