SBIR/STTR SUCCESS

SYSTIMA TECHNOLOGIES, INC.

For Systima Technologies, the company is successful because of the individual talents and efforts of its team members. A combination of good luck and hard work have helped the company to cultivate the strong, multifaceted team that has enabled the company to grow and expand into new arenas while refining and pushing the limits of its core technical focus areas of energetic systems, weapon deployment, flight experiments, hypersonics, test and manufacturing for aerospace, defense, and commercial markets.

PHASE III SUCCESS
The company's sales have grown from $1.6M in 2004 to a total revenue of over $10M in 2014. SBIRs have accounted for 30% of sales over the last 10 years and have produced over $5M in Phase III funds.

AGENCIES
DoD (MDA), NASA

SNAPSHOT
With 40 employees Systima Technologies has become an established industry supplier for next-generation energetic ordnance based products and services.

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The company was founded in 2002 with ten employees and received its first SBIR Phase I award 8 months later. Today, the company has 40 full time employees with SBIR continuing to play a crucial role by providing funding and inspiration for cutting edge research and development of advanced technologies for the next generation missile and space launch systems. Through its work with the SBIR program, Systima's product line and credibility has increased, making the company an established industry supplier for technologies including: Stage Separation Systems, Shroud/Fairing deployment systems, Space Payload / KV deployment, Cryogenic Pyro-valves, Insensitive Munitions technologies, and Ionic Salt Based "Green" Monopropellant Fuel Feed and Ignition technologies. The company's technologies provide the U.S. military with enhanced munitions and aircraft capabilities, which make the warfighter safer and more effective and the U.S. space industry more competitive. The company's sales have grown from $1.6M in 2004 to a total revenue of over $10M in 2014. SBIRs have accounted for 30% of sales over the last 10 years and have produced over $5M in Phase III funds. In 2015, Systima received the Tibbets award for recognition of outstanding contributions to the SBIR program and the U.S. Small Business Administration award for 2015 Prime Contractor of the Year.

Hunter Golden of Systima Technologies describes the process of developing its talent pool, "Some of it was luck, but it's about getting the right type of people. We try to identify certain traits in new hires – we want people who will go out and make it happen." Ideally, team members are self-starters who will take the initiative to solve problems on their own, but who will also enlist help from others. The collaborative style of work extends to all areas of the company, rather than having the company growth strategy be a directive from the top, team members work as a group to discuss areas for potential growth. As an employee-owned ESPP company this is vital to Systima's success. Stephanie Sawhill of Systima explains, "We are internally driven, we look for folks with a passion for their career path and

that have talents related to our interest areas." While hiring for technical talent is important, the company is careful not to pigeonhole team members – individuals are encouraged to pursue efforts in their technical area of expertise, but are also encouraged to work with others outside of their comfort zone.

In addition to developing a strong team through internal efforts, SBIR awards have allowed Systima to confidently maintain a highly skilled engineering staff by indirectly bridging direct contracts in flux during the economic downturn. SBIR funding has enabled Systima to increase the TRL of innovative technologies allowing the company to market these technologies and give its customers the confidence to transition Systima's innovative technologies into high performance missile and space launch systems. Furthermore, the company has forged the expertise to understand and apply requirements for critical infrastructure and capability improvements to better serve its customers. A key element when establishing credibility is the ability to provide customers with a fast response from concept development to flight qualified products including end-to-end system testing. SBIR funding is a critical resource that enables Systima to continually develop new products and transition them from concept to production in support of Systima's wide and growing customer base.

The company recently received AS9100 re-certification and has passed numerous audits from government and industry certifying its ability to carry out various levels of production and development in addition to maintaining best business practices. The certifications provide further credibility to the company and its ability to be extremely agile and responsive. Systima's customers include the US military (USAF, Army, Navy), Boeing Defense Systems, Lockheed Martin, Raytheon Missile Systems, Northrop Grumman, Boeing, Orbital/ATK, and United Launch Alliance. Systima encourages STEM, women, and minority participation in R&D through participation in STEM workshops for the local high schools that encourage and support female interest in science, technology, engineering, and math career fields. The company also creates connections with local universities by teaming on research activities including STTR programs, providing valuable internships and supporting the JCATI (Joint Center for Aerospace Technology Innovation) program promoting aerospace industry growth in Washington State. These relationships fortify Systima's ability to deliver – rather than over-promising the company will enlist the help of partners to deliver superior products on time. Furthermore, Systima makes an effort to work with a local supply chain including local machine shops and component suppliers.

Through its work with the SBIR program and leveraging its specific strategy and approach Systima believes that the SBIR program enables the company to take greater technical risk and try new, cutting edge approaches to problems. Systima plans to continue to grow within its core technical areas of expertise, Energetic Systems, Weapon Deployment, Flight Experiments, Hypersonics, Test and Manufacturing and hopes to increase its role in New Space. Within the new space sector Systima aims to become a component systems supplier and see its products become truly, out of this world.

LEFT Systima Gas Generators and Space Flight Qualified Parachute Mortars.
RIGHT NASA Orion Forward Bay Cover Deployment Thruster.