ALWAYS ACCOUNTABLE

Defense Logistics Agency *Research & Development*

SMALL BUSINESS INNOVATION PROGRAMS (SBIP)
SBIR/STTR/RIF

To support DLA's strategic line of effort to be *Always Accountable*, SBIP maintains the trust of its customers by developing quality solutions to industrial base and supply chain vulnerabilities. Priorities to address include limited sources for weapons system parts, supply chain risk mitigation, foreign dependence on critical materials, and decreased U.S. industrial base manufacturing capabilities. Through competitive awards, SBIP identifies small businesses capable of developing and transitioning reverse and value engineered parts, advanced manufacturing techniques, domestic sources of supply, and supply chain risk reduction technologies that either meet or exceed current military or industry standards. To qualify new sources for weapons systems parts, SBIP, Engineering Support Activities and small businesses work through the Source Approval Request (SAR) – a rigorous qualification process used to approve a business as a source of supply for critical parts. Likewise, small businesses developing domestic sources of supply, advanced manufacturing techniques and supply chain risk reduction technologies partner with industry to define requirements and integrate innovations through DoD programs of record. SBIP's collaborative, high-standard approach to validating small business solutions ensures innovations are relevant to real-world customer requirements, and with transition, integrates industry best practices into the Defense supply chain.

PROMOTING AN ASSURED SUPPLY CHAIN

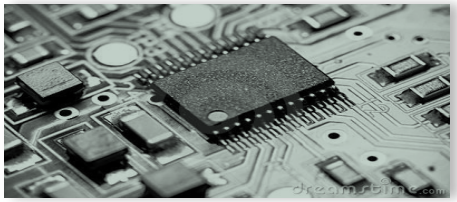
SUPPLY CHAIN INNOVATION

Additive Manufacturing (AM). AM is an efficient supply chain solution to low-demand parts with long lead times and costly production processes; but the rapid advancement and adoption of AM within the Defense supply chain requires a standard to certify AM parts for the same quality and performance as the conventionally manufactured part. To streamline AM build quality and repeatability SBIP is funding a collaborative effort to develop an advanced in-situ monitoring sensor suite and process alongside an OEM and DoD subject matter experts.

DOMESTIC SOURCES

Strategic Materials. Rare Earth Elements (REEs) are a classification of seventeen elements on the periodic table that have unique geochemical properties critical to major weapons systems. Foreign dependence on REE renders DoD vulnerable to politically-driven supply chain disruptions. By developing trusted domestic sources, DLA will reduce dependence on foreign sources, thereby reducing quality concerns and non-competitive costs. SBIP is funding the development of domestic suppliers for critical REEs and derived parts, such as magnets.

SUPPLY CHAIN ASSURANCE



Anti-Counterfeit. Foreign sources of supply within the Defense supply chain exposes DoD to damaging disruptions in supply chain operations that can cost time, money and lives. Without secure authentication and end-to-end traceability technologies, DoD cannot effectively or efficiently identify non-conforming supplies or where a critical breach occurred. SBIP is evaluating industrial base best practices for supply chain security as well as funding a series of anti-counterfeit and track-and-trace solutions based on industry standards.

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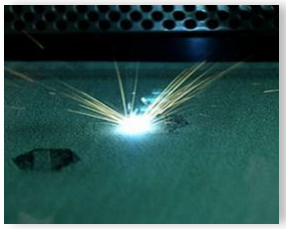
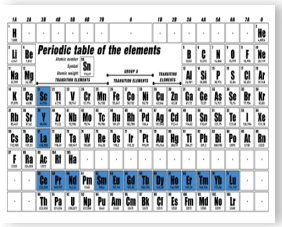
TRANSITIONING INNOVATIONS



University of Dayton Research Institute (Dayton, OH), led a collaborative effort alongside ARCTOS, Honeywell and Macy Consulting, Inc. to enable improved repeatability and build quality for AM metal components. The team transitioned a Laser Powder Bed Fusion (LPBF) in-situ process monitoring sensor suite with open architecture control software to Defense supply chain manufacturers, DoD research facilities, NASA and university research labs. The suite is continuing development to enhance capabilities.



Rare Earth Salts Separations and Refining (Beatrice, NE) is addressing a critical defense need for domestically sourced rare earth elements (REE) – materials used for a variety of defense applications including weapons systems and aircraft. Using their unique process, Rare Earth Salts can separate and refine all seventeen REEs, providing DoD with a viable alternative to foreign sources. Rare Earth Salts was awarded an SBIP project to increase their production capacity and is currently is providing DLA with strategic materials processing services.

HNu Photonics, LLC. (Kahului, HI) is addressing a defense supply chain priority to tag microelectronic circuit boards with a single anti-counterfeit, track-and-track and data storage technology. HNu's innovation, the XTG 3D Holocode is a holographic deep tag utilizing hyper spectral data layers to create an authentication system capable of storing large information independent of an internet connection. XTG Holocodes are being developed to track circuit boards for the Lockheed Martin MK48 Guidance and Control Section from power supply manufacturer, QorTek, through the MK48's multi-site assembly and production test process as an alternate source of supply chain management.

HOW TO SUBMIT A PROPOSAL

More information about the Small Business Innovation Program can be found on the SBIP Website:

http://www.dla.mil/SmallBusiness/SmallBusinessInnovationPrograms/

A schedule of solicitations and topics released by all DoD components (Broad Agency Announcements (BAA)), can be found on the DoD SBIR/STTR website, the Defense Innovation Portal:

https://www.dodsbirsttr.mil/submissions/login

Carefully review the instructions. Evaluate the topic content and reach out to the SBIP program management team within the first 30 days from the announcement date for questions or clarifications.

At minimum, proposals are evaluated on: **1)** The relevance of the innovation to the DLA requirement; **2)** Technical sufficiency, facilities and SOW feasibility; **3)** Qualifications of the PI and supporting staff; **4)** The potential of technology for transition to a program of record; and **5)** Cost.

A small business can distinguish themselves among the competing proposals by including: **6)** A business case analysis; **7)** A strategy and a plan to transition the innovation to a government program of record; and **8)** An industrial partner that will qualify the innovation for the DoD supply chain and connect the innovation with a government program of record. OEM letters of endorsement and/or in-kind support are recommended.

If you have any questions, please contact us at DLASBIR2@dla.mil

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