# Dossier: MATERIALS SCIENCES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $693,517.00

**Award Date:** 2024-10-07

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

MATERIALS SCIENCES LLC (MSLLC), based in Horsham, PA, is a materials engineering and manufacturing company specializing in the design, development, and production of advanced materials and engineered products primarily for the defense, aerospace, and industrial sectors. Their core mission revolves around providing innovative solutions to complex engineering challenges requiring high-performance materials, optimized structures, and advanced manufacturing techniques. They address critical needs for lightweighting, enhanced durability, improved performance in extreme environments, and reduced life-cycle costs. Their unique value proposition lies in their ability to integrate material science expertise with advanced manufacturing capabilities, providing custom solutions from concept to production, including design, analysis, prototyping, testing, and manufacturing services. MSLLC distinguishes itself by offering a comprehensive, vertically integrated approach that enables faster development cycles and superior product performance compared to companies focusing solely on material development or manufacturing.

**Technology Focus:**

* Advanced Composites:\*\* Development and manufacturing of high-performance polymer matrix composite structures and components utilizing materials such as carbon fiber, fiberglass, and other advanced reinforcements. Focus includes custom resin formulations and optimized layup techniques for applications demanding high strength-to-weight ratios and exceptional durability. They boast expertise in automated fiber placement (AFP) and filament winding, allowing for precise control over composite architecture.
* Engineered Structures & Systems:\*\* Design and manufacture of complex engineered structures and systems utilizing advanced materials. This includes design, analysis, prototyping, testing and manufacturing services, resulting in solutions targeted at providing higher performance, lower weight, reduced lifecycle costs, and improved reliability.

**Recent Developments & Traction:**

* Defense Programs:\*\* MSLLC continues to secure contracts and subcontracts for defense-related programs involving composite structures and engineered systems. While specific details are limited due to proprietary and security considerations, this indicates ongoing demand for their capabilities in critical defense applications.
* Expanded Manufacturing Capabilities:\*\* The company has demonstrated a commitment to growth by expanding its manufacturing capacity through investment in additional equipment and facilities. This includes enhanced automated manufacturing capabilities for composites.
* Collaborations:\*\* MSLLC lists several partnerships with research institutions and commercial firms on their website. These collaborations are likely aimed at innovating advanced composite technologies and applications.

**Leadership & Team:**

* Timothy E. Claffey, CEO:\*\* Possesses a background in engineering and business management, with experience in the defense and aerospace sectors.
* Dr. Michael E. Maher, President:\*\* Holds a PhD in Materials Science and Engineering and has significant experience in materials development, manufacturing, and technology commercialization.

**Competitive Landscape:**

* Albany Engineered Composites:\*\* Albany Engineered Composites is a key competitor in the advanced composites market, providing similar engineering and manufacturing services for aerospace and defense.
* Hexcel Corporation:\*\* While Hexcel focuses more on raw material supply, they also offer composite structures and solutions, making them a competitor in specific applications. MSLLC differentiates itself through its highly focused and agile approach to custom solutions and vertically integrated design-to-manufacturing capabilities, allowing them to address niche markets and complex engineering challenges more effectively than larger, more diversified competitors.

**Sources:**

* [https://www.materials-sciences.com/](https://www.materials-sciences.com/)
* [https://www.zoominfo.com/c/materials-sciences-llc/35168953](https://www.zoominfo.com/c/materials-sciences-llc/35168953)
* [https://www.dnb.com/business-directory/company-profiles.materials\_sciences\_llc.f59941f67343790a368c28e587e641d3.html](https://www.dnb.com/business-directory/company-profiles.materials\_sciences\_llc.f59941f67343790a368c28e587e641d3.html)