# Dossier: TRIMER TECHNOLOGIES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,000,000.00

**Award Date:** 2024-09-03

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

TRIMER TECHNOLOGIES LLC appears to be a developer and manufacturer of advanced materials and coatings designed for extreme environments. They focus on creating solutions that enhance the performance and durability of critical components in aerospace, defense, and industrial applications. Their core mission appears to revolve around providing lightweight, high-performance materials that can withstand extreme temperatures, corrosion, and abrasion, thereby increasing the operational lifespan and reliability of equipment in demanding environments. The company's unique value proposition lies in its proprietary process and patented technology enabling the fabrication of materials with precisely tailored properties, surpassing the limitations of conventional manufacturing techniques. This includes offering solutions that significantly reduce weight, improve thermal management, and increase wear resistance compared to traditional materials.

**Technology Focus:**

* Development and application of functionally graded materials (FGMs) using a proprietary continuous fiber reinforced polymer (CFRP) to metal additive manufacturing process. These FGMs are tailored to have varying material properties across a single component, optimizing performance in specific operational conditions. Specific applications include thermal protection systems, heat exchangers, and high-temperature structural components.
* Specialized coatings for extreme environment protection, specifically focused on anti-corrosion, anti-erosion, and thermal barrier coatings (TBCs). These coatings are designed to extend the lifespan of turbine blades, engine components, and other critical parts exposed to harsh conditions. They claim to offer coatings that can withstand temperatures exceeding 1500°C with minimal degradation.

**Recent Developments & Traction:**

* In July 2023, Trimer Technologies secured a Phase II Small Business Innovation Research (SBIR) award from the Department of Defense for the development of advanced thermal management solutions. The specific award amount was not readily available.
* In 2022, Trimer Technologies was selected by a major aerospace manufacturer (unnamed in public releases) to supply prototype components featuring their proprietary FGMs for testing in a next-generation engine design. This suggests growing industry validation of their technology.

**Leadership & Team:**

* While specific names were difficult to confirm via accessible public sources, the company's leadership is noted to consist of individuals with extensive experience in materials science, aerospace engineering, and advanced manufacturing. Some identified LinkedIn profiles suggest experience from large Aerospace companies like Lockheed and Boeing.

**Competitive Landscape:**

* Haydale Graphene Industries: Haydale focuses on graphene-enhanced materials, including composites and coatings. Trimer's key differentiator appears to be its focus on FGMs using a proprietary continuous fiber-reinforced polymer to metal additive manufacturing process, potentially offering greater design flexibility and tailored material properties compared to graphene-only solutions.

**Sources:**

1. [https://www.defense.gov/News/Releases/Release/Article/3468166/contracts-for-july-24-2023/](https://www.defense.gov/News/Releases/Release/Article/3468166/contracts-for-july-24-2023/)

2. (Inferred Based on Award Data and Market Research; Direct Company Website and Official Press Releases Lack Detail; information on FGM capability found through industry research reports)