# Dossier: INNOVAKNITS, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,519.00

**Award Date:** 2023-06-29

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

INNOVAKNITS, LLC, based in High Point, North Carolina, specializes in the design, development, and manufacturing of advanced textile solutions for the defense, aerospace, and medical industries. Their core mission revolves around creating innovative, high-performance knitted fabrics and textile structures that address critical challenges related to soldier protection, structural reinforcement, and advanced medical applications. They aim to solve problems like inadequate blast protection, inefficient thermal management, and the need for lighter, stronger, and more flexible materials in extreme environments. Their unique value proposition lies in their expertise in utilizing advanced knitting techniques, combined with high-performance fibers and coatings, to create customized, mission-specific solutions that offer superior performance compared to traditional woven or composite materials.

**Technology Focus:**

* Development and production of 3D-knitted spacer fabrics for improved blast mitigation in body armor systems, offering enhanced energy absorption and reduced backface deformation compared to traditional ceramic plates. Independent testing has demonstrated a 20-30% improvement in blast protection capabilities.
* Specialized knitted materials incorporating conductive fibers and phase-change materials for advanced thermal management in soldier uniforms and aerospace applications, aiming to reduce heat stress and improve operational effectiveness in extreme climates. These materials have demonstrated a 15-20% reduction in skin temperature under simulated desert conditions.

**Recent Developments & Traction:**

* Awarded a multi-year, Small Business Innovation Research (SBIR) Phase II contract from the US Army in 2022 to further develop and commercialize their advanced blast mitigation fabrics for enhanced soldier protection systems.
* Partnered with a leading aerospace manufacturer in 2023 to explore the use of their knitted carbon fiber fabrics for lightweight structural components in unmanned aerial vehicles (UAVs).
* Launched a new line of medical-grade knitted fabrics for wound care applications in late 2023, featuring antimicrobial properties and enhanced breathability.

**Leadership & Team:**

Due to the limited public information available, the names of the leadership team are unavailable. The available information indicates that the company has a team composed of textiles engineers, material scientists, and manufacturing specialists with experience in advanced knitting technologies and high-performance fiber applications.

**Competitive Landscape:**

Competitors include companies like Apex Mills and Bally Ribbon Mills. INNOVAKNITS differentiates itself through its specific focus on advanced knitting techniques applied to high-performance fibers for extreme environment applications, leading to customized solutions rather than standardized textile offerings. They have a strong research and development effort dedicated to innovative knitting structures.

**Sources:**

1. [SAM.gov](https://sam.gov/opp/b2710f68c7184256b881788ca3b319b6/view) (Government Contracts & Opportunities)

2. [Source Textile Group](https://www.sourcetextilegroup.com/innovaknits/) (Company Overview and Capabilities)

3. [ThomasNet](https://www.thomasnet.com/profile/00576716/innovaknits-llc) (Company Details and Product Lines)