# Dossier: VARDA SPACE INDUSTRIES, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,365,000.00

**Award Date:** 2024-01-25

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

VARDA SPACE INDUSTRIES, INC. aims to revolutionize pharmaceutical and advanced materials manufacturing by leveraging the unique microgravity environment of space. Their primary business is the design, development, and operation of in-space manufacturing facilities capable of producing products with superior characteristics that are difficult or impossible to create on Earth. They focus on addressing the limitations of terrestrial manufacturing, such as gravity-induced convection and sedimentation, to produce higher quality pharmaceuticals (specifically targeted protein-based therapeutics) and advanced materials with enhanced properties. Their unique value proposition lies in creating a fully integrated space manufacturing platform, encompassing automated manufacturing facilities, autonomous return capsules for sample retrieval, and terrestrial processing infrastructure, enabling a seamless end-to-end production process for their clients.

**Technology Focus:**

* In-space Manufacturing Facility:\*\* A fully automated, robotic platform designed for autonomous operation in Low Earth Orbit (LEO). The platform is engineered to conduct repeatable manufacturing processes involving protein crystallization and other material synthesis techniques in a microgravity environment.
* Autonomous Return Capsule:\*\* A capsule capable of surviving reentry to deliver manufactured materials back to Earth. This capsule is designed for precision landing and rapid retrieval to maintain product integrity and minimize degradation. VARDA's current return capsule (Winnie) is designed for a relatively small payload. Future capsules will be larger.

**Recent Developments & Traction:**

* First In-Space Manufacturing Mission and Return (February 2024):\*\* Varda successfully launched and returned the first commercially manufactured pharmaceutical product from space, proving the feasibility of their platform. The mission involved manufacturing HIV medication crystals in microgravity.
* Series A Funding ($50 million, June 2023):\*\* Varda secured a $50 million Series A funding round led by DCVC Bio and Lux Capital. The funding is intended to scale operations, accelerate the development of their in-space manufacturing platform, and expand their product pipeline.
* FAA Approval for Capsule Re-Entry (2023):\*\* Varda received FAA approval to re-enter their capsules into the atmosphere, marking a critical regulatory milestone and enabling the return of manufactured products.

**Leadership & Team:**

* Will Bruey (CEO):\*\* Previously led multiple successful deep tech startups in the aerospace and robotics fields. Demonstrates expertise in scaling technology ventures and navigating regulatory hurdles.
* Delian Asparouhov (President):\*\* Partner at Founders Fund, significant experience in identifying and investing in disruptive technologies. His involvement provides access to capital and strategic guidance.

**Competitive Landscape:**

* Space Tango:\*\* While not directly competitive in the pharmaceutical manufacturing space, Space Tango is a key player in utilizing the ISS for research and development, including small-scale manufacturing experiments. VARDA differentiates itself by building dedicated autonomous platforms for commercial-scale manufacturing and autonomous return.
* Made In Space:\*\* Previously focused on in-space additive manufacturing, Made In Space was acquired by Redwire Space. Redwire focuses more on services and components for larger projects. VARDA distinguishes itself with a specific focus on automated pharmaceutical and advanced materials production and dedicated return capabilities.

**Sources:**

1. [https://www.varda.com/](https://www.varda.com/)

2. [https://techcrunch.com/2023/06/28/varda-space-industries-raises-50m-to-mass-produce-medicine-in-space/](https://techcrunch.com/2023/06/28/varda-space-industries-raises-50m-to-mass-produce-medicine-in-space/)

3. [https://spacenews.com/varda-space-industries-recovers-first-space-manufactured-pharmaceutical-product/](https://spacenews.com/varda-space-industries-recovers-first-space-manufactured-pharmaceutical-product/)

4. [https://www.cbinsights.com/company/varda-space-industries](https://www.cbinsights.com/company/varda-space-industries)