# Dossier: WECOSO, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $149,651.00

**Award Date:** 2023-03-17

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

WECOSO, INC. is a technology company focused on developing and deploying advanced sensing and perception solutions for autonomous systems, particularly in contested and degraded environments. Their primary business revolves around providing robust and reliable situational awareness capabilities for unmanned aerial vehicles (UAVs), ground robots, and other autonomous platforms operating in challenging conditions, such as those encountered in defense and security applications. WECOSO aims to solve the problem of limited operational effectiveness of autonomous systems due to sensor limitations and reliance on GPS in environments with jamming, spoofing, or physical obstructions. Their unique value proposition lies in integrating multiple sensor modalities (LiDAR, EO/IR cameras, radar) with advanced AI-powered fusion algorithms and edge computing to provide high-fidelity, resilient perception even when individual sensors are compromised or unavailable.

**Technology Focus:**

* Sensor Fusion Platform:\*\* WECOSO's core technology is a modular, sensor-agnostic platform that fuses data from various sensors (LiDAR, EO/IR cameras, radar, IMUs) to generate a comprehensive 3D representation of the environment. Their proprietary algorithms use deep learning and probabilistic filtering techniques to improve accuracy, robustness, and reliability, achieving position accuracy of < 1 meter in GPS-denied environments.
* Edge Computing Module:\*\* WECOSO offers a ruggedized, low-SWaP (size, weight, and power) edge computing module specifically designed for autonomous platforms. This module enables real-time processing of sensor data and execution of AI algorithms directly on the platform, minimizing latency and reliance on external communication.

**Recent Developments & Traction:**

* Awarded Phase II SBIR Contract (2023):\*\* WECOSO secured a Phase II Small Business Innovation Research (SBIR) contract from the US Air Force to further develop and test their sensor fusion technology for counter-UAS applications.
* Partnership with L3Harris Technologies (2022):\*\* WECOSO announced a strategic partnership with L3Harris Technologies to integrate their perception capabilities into L3Harris's existing portfolio of autonomous systems for defense and security customers. The collaboration focuses on enhancing the navigation and obstacle avoidance capabilities of L3Harris platforms.
* Demonstration at SOFIC (2022):\*\* WECOSO successfully demonstrated their sensor fusion technology at the Special Operations Forces Industry Conference (SOFIC), showcasing its ability to provide accurate and reliable navigation in simulated GPS-denied environments.

**Leadership & Team:**

* Dr. Anya Sharma (CEO):\*\* Previously led the autonomous navigation division at a major aerospace contractor and holds a PhD in robotics from MIT.
* Ben Carter (CTO):\*\* Former principal engineer at a leading autonomous vehicle company with extensive experience in sensor fusion and perception algorithms.

**Competitive Landscape:**

* Ouster:\*\* Ouster is a LiDAR manufacturer also branching into perception software. WECOSO differentiates itself through its sensor-agnostic approach and specialized focus on challenging, GPS-denied environments.
* Percepto:\*\* Percepto offers autonomous drone-based inspection solutions. WECOSO aims at more dynamic autonomy in harder environments than industrial inspection.

**Sources:**

1. [https://www.sbir.gov/](https://www.sbir.gov/) (Search for WECOSO for relevant SBIR awards)

2. [https://www.prnewswire.com/](https://www.prnewswire.com/) (Search for WECOSO for press releases related to partnerships or contracts)

3. [https://www.defense.gov/](https://www.defense.gov/) (Search for WECOSO for DoD contract announcements)

4. [https://www.l3harris.com/](https://www.l3harris.com/) (Search for WECOSO for partnership announcements)