TerraGuard - *Eyes in the Sky, Safety on the Ground*

Overview

TerraGuard is an AI-powered autonomous drone system that secures large land areas from threats like wildfires, poaching, and theft. Our drones patrol on pre-set schedules, providing continuous surveillance and real-time AI detection, integrated seamlessly with existing CCTV systems.

The Problem

In Georgia, wildfires have destroyed over **26,000 hectares of forest**, and illegal logging has claimed **314,000 cubic meters of wood**. Wildfires ravage **12M hectares globally each year**, with US losses up to **$893B.** Elephant poaching **robs Africa of $25M** in tourism. Poor surveillance fuels these crises, delaying wildfire response and enabling illegal acts.

The Solution

TerraGuard's autonomous drone fleet provides continuous surveillance without the need for human pilots. Our drones patrol on pre-set schedules, detecting wildfires, logging, and intrusions in real-time. Integrated with CCTV systems, our solution sends instant alerts via web and mobile apps, complete with GPS, visuals, and event logs for immediate action.

Market Opportunity

TerraGuard addresses over 168 million hectares of under-protected, high-risk land across Georgia, the Caucasus, and the EU. From fragmented farms to vast reserves and critical infrastructure, our AI-powered drone system delivers scalable, autonomous surveillance—filling a massive gap where conventional security systems fail to operate effectively or affordably.

Customers

Our primary customers include: Agribusinesses, Large landowners and infrastructure operators, Government, private conservation agencies, Utility and energy companies.

Competitors and Competitive Advantage

TerraGuard competes with companies like **AeroVironment, Percepto, and DJI**, which offer autonomous drone surveillance for industrial, agricultural, and environmental monitoring, focusing on large-area coverage and real-time threat detection. However, TerraGuard stands out with its AI-powered drones offering real-time multi-threat detection and seamless integration with **existing CCTV systems**. Its easily deployable s**mart charging docks** and autonomous fleet management ensure continuous surveillance. TerraGuard provides scalable, customizable solutions with a robust ecosystem and flexible service plans, enhancing efficiency and reliability across industries.

Our team

TerraGuard team, founded at Kutaisi International University, consists of students and engineers: Otar Khunashvili (CEO), Goga jintcharadze(CTO), Petre Kharazashvili(CPO), Andria Beridze(AI Lead) and Dachi Khelashvili(Web Lead). We've participated in university hackathons and developed an AI-assistant for LMS platforms, combining expertise in UAVs, AI, and software development.