



CompanyCraft

Competitive Analysis Report

July 29, 2023

Automated Invasive Plant Management

Overview

This report describes the market, sub-category, key competitors, and associated details for the following business:

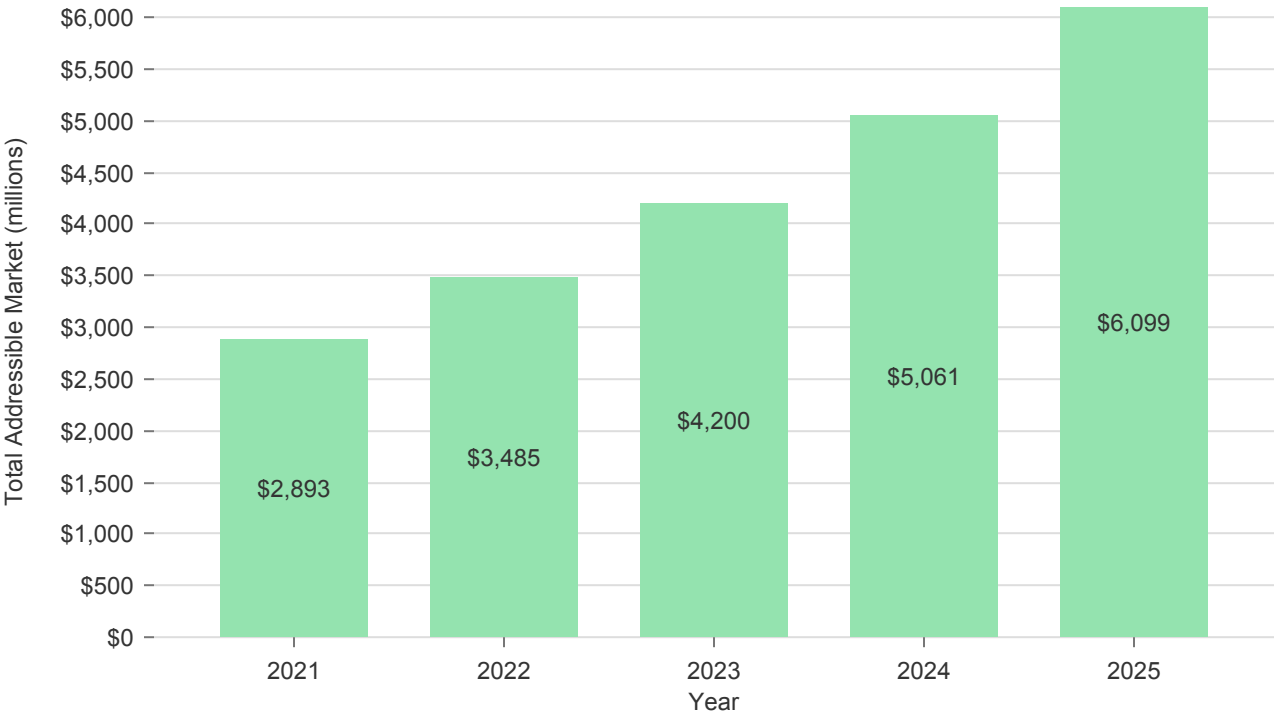
Name: Automated Invasive Plant Management

Summary: A service that uses advanced drones and AI image-recognition, mapping, and other technology, to automatically identify and control invasive plant species on large private rural or government-managed properties

Market

AI in Agriculture

This is a \$4,200MM market growing at CAGR of 20.5%



Sources:

- <https://www.globenewswire.com/en/news-release/2023/02/02/2600582/0/en/Artificial-Intelligence-in-Agriculture-Market-Size-Worth-4-2-Bn-by-2028-AI-in-Agriculture-Industry-Expected-CAGR-25-1-Vantage-Market-Research.html>
- <https://www.marketsandmarkets.com/Market-Reports/ai-in-agriculture-market-159957009.html>

Market Sub-Category and Competitors

Drone-Based Precision Farming

This is an existing sub-category in the market.

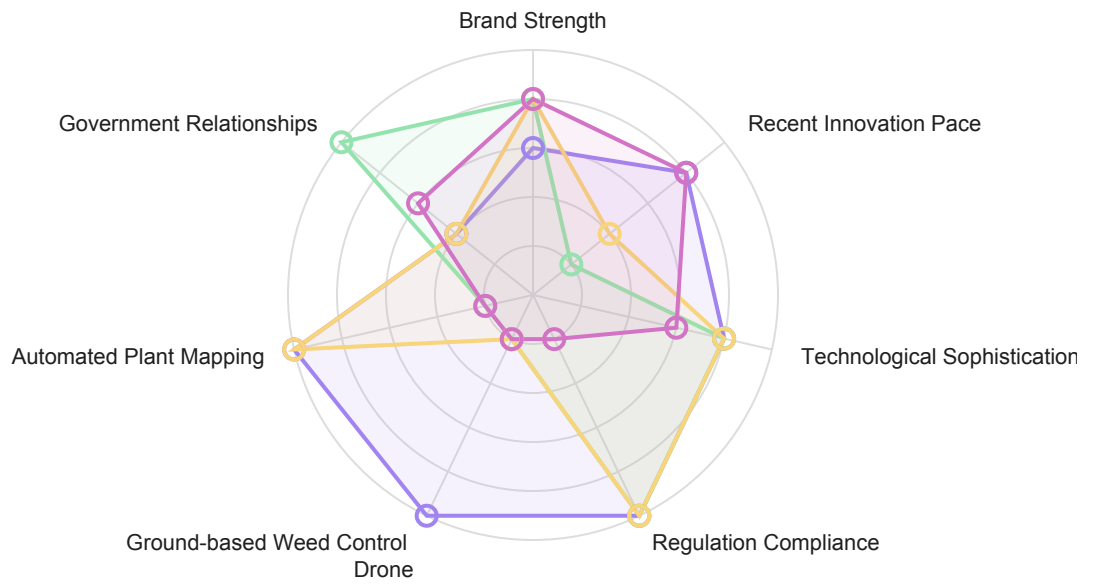
Key challenges identified in this sub-category are:

1. **Hesitance to Buy:** Government agencies are typically risk-averse, meaning they may be hesitant to rely on a technology-heavy service, especially one implemented by a startup, for essential tasks like controlling invasive species.
2. **Niche Market:** The market for AI in agriculture, specifically drone analytics in precision farming, is quite niche. This means there may not be as many potential customers as in broader markets.
3. **Legislative and Regulatory obstacles:** Drone usage, especially in rural or conservation areas, may face restrictions or stringent approval processes, complicating service provision.

Key barriers to entry in this sub-category are:

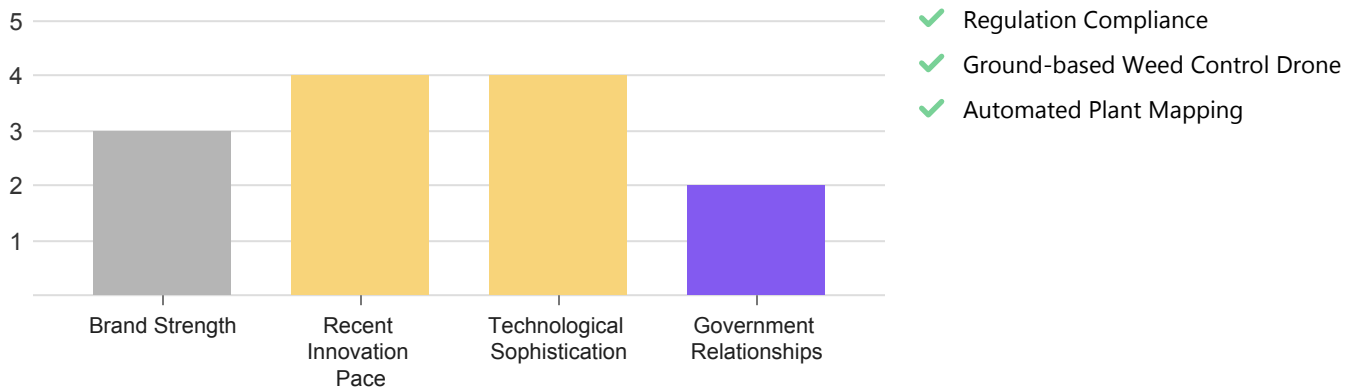
1. **Technological Knowledge and Skills:** High technical expertise is required to develop, maintain and manage the drone and AI technologies.
2. **Capital Investment:** Significant upfront investment required to develop the technology, service and platform.
3. **Regulation Compliance:** Complying with relevant regulations and achieving necessary certifications for drones and software used may be both time-consuming and expensive.
4. **Market Penetration:** Establishing trust, credibility and working relationships with government agencies can be challenging.

- FarmWise
- Insitu
- Iris Automation
- ModalAI



Competitor Strengths and Weaknesses

FarmWise



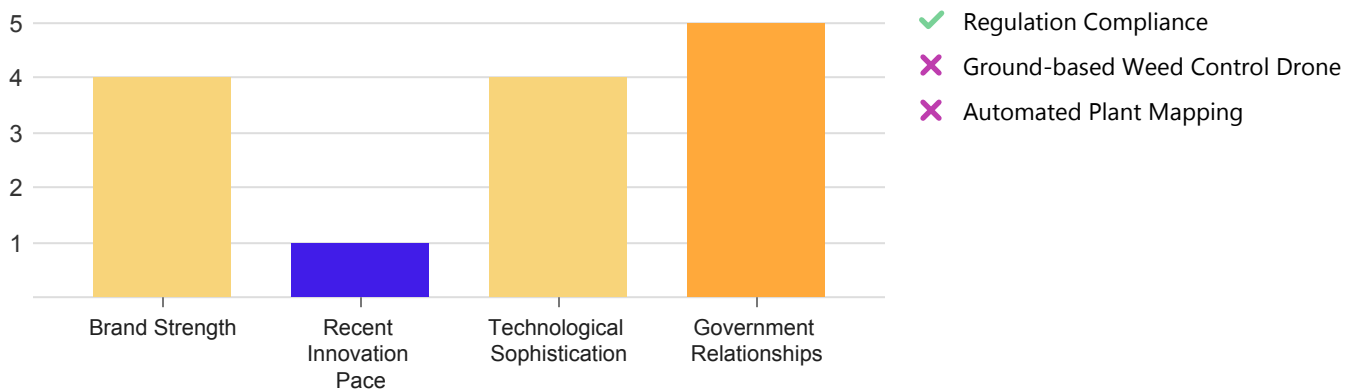
FarmWise provides a precision weeding implement named Vulcan, equipped with advanced computer vision systems and machine learning software. Their solution offers high accuracy, ease of use, compatibility with industry-standard tractors and can handle diverse crop lines. They also offer continuous software updates and on/off-field support for users.

Business Model: FarmWise's business model appears to be product sale focussed, offering their Vulcan system for pre-order, along with continuous software updates and support services.

Ideal Customer Profile: FarmWise targets farmers and agriculture operations seeking efficient, precise, and automated weeding solutions.

Unique Selling Proposition: FarmWise offers a high-precision, machine learning-based weeding solution that reduces the need for manual labor and enhances operational efficiency.

Insitu



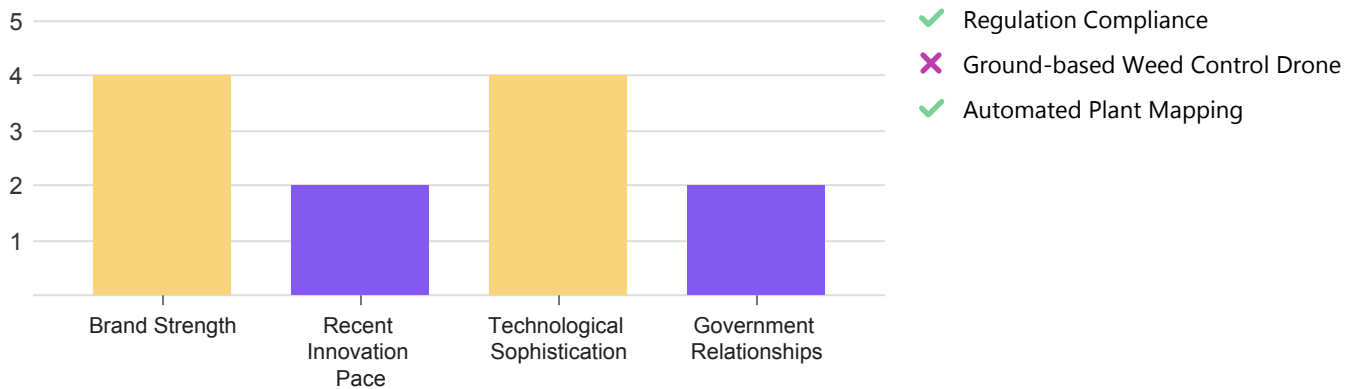
Insitu is an established entity producing unmanned systems with a range of features, which could compete with the AI and drone system being proposed. Their systems are backed by 1.3 million hours of real-world operational experience in harsh environments. While the primary focus seems to be defense and government, the technology behind their product may be utilized in identifying and managing invasive plant species.

Business Model: Insitu sells a suite of unmanned systems to government clients in need of surveillance and intelligence data, selling both the hardware and software necessary for operation.

Ideal Customer Profile: Insitu targets defense and government clients with a need for intelligence gathering and surveillance.

Unique Selling Proposition: Insitu Unmanned Systems provide valuable intelligence and surveillance data in real-time, backed by extensive operational experience.

Iris Automation



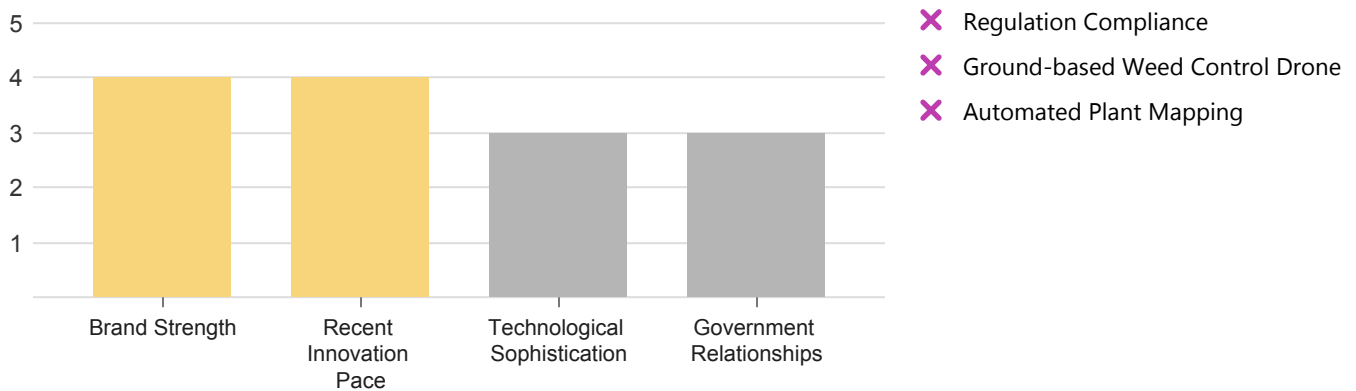
Iris Automation provides forestry management solutions via drone & AI technology, similar to Automated Invasive Plant Management. They are focused on forest surveillance, identifying changes over time due to various factors, including invasive species. Iris Automation offers advanced drone capabilities, such as Beyond Visual Line of Sight (BVLOS) that provides significant strategic advantage in dense forest surveillance. This technology might potentially compete with and challenge the business idea.

Business Model: Iris Automation mainly operates by selling drone-based forest management solutions to forestry organizations with a particular focus on surveillance.

Ideal Customer Profile: Forestry organizations and providers struggling with forest management and surveillance, particularly those dealing with large land area and resource constraints.

Unique Selling Proposition: A leading provider of drone technology enabling forest topography tracking and surveillance, including BVLOS capabilities for efficient forest management.

ModalAI



ModalAI operates in the drone field focusing on AI-driven solutions. They offer advanced technology products including autonomous flight controllers and autopilot systems. Key to their offer is a light-weight powerful companion computer which enables smaller, smarter, and safer drones and robots to operate on 4G and 5G cellular networks. Although not directly in competition with the invasive plant management concept, the autonomous flight and spotting application potential of their technology ensures they remain competitive.

Business Model: ModalAI's business model appears to revolve around the sale of their drone technology, including autopilots, flight controllers, and development kits.

Ideal Customer Profile: Their ideal customer profile seems to be developers, manufacturers and businesses seeking advanced drone technology for a range of applications.

Unique Selling Proposition: Their unique selling proposition is their sophisticated AI-powered drone technology, enabling autonomous operation and communications across 4G and 5G networks.