



 EMERGING TECH RESEARCH

Agtech Report

VC trends and emerging opportunities

Q4
2023

REPORT PREVIEW

The full report is available through the PitchBook Platform.





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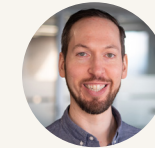
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Send your ideas to alex.frederick@pitchbook.com. We look forward to hearing from you.

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For previous updates as well as our complete agtech research, please see the designated [analyst workspace](#) on the PitchBook Platform.



Agtech landscape

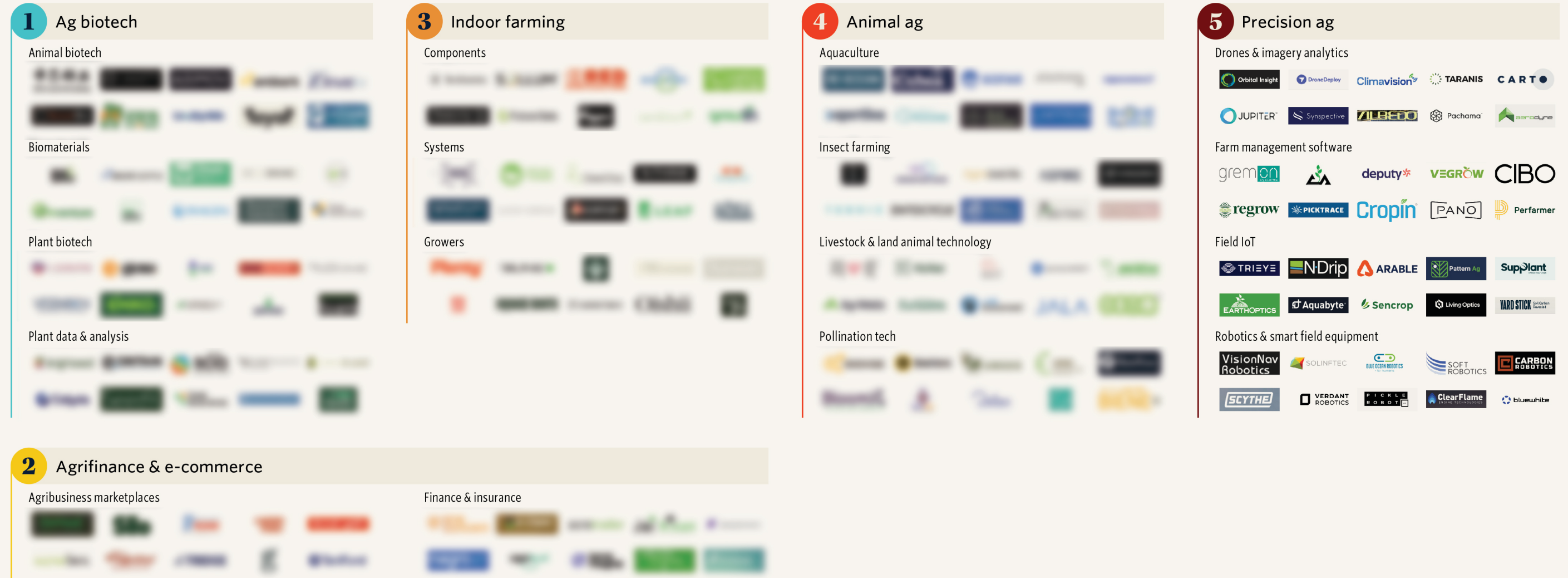
- 1** Ag biotech
- 2** Agrifinance & e-commerce
- 3** Indoor farming
- 4** Animal ag
- 5** Precision ag





Agtech VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments. [Click to view the full map on the Pitchbook Platform.](#)





VC activity

The agtech ecosystem experienced a decline in VC deal value and count in Q4, totaling \$1.4 billion across 181 deals. These declines, -34.7% and -17.4% QoQ, respectively, were a reversion to a trend that was bucked in Q3 when we logged a 24% increase in deal value. In total, the quarterly deal activity declines in 2023 have added up to nearly a 40% reduction in deal values and deal counts YoY. We logged \$7.1 billion invested across 952 deals in 2023, down 39.5% and 39.2% YoY, respectively.

Despite dismal venture activity, there were notable deals to be had. [FBN](#) closed a \$154.9 million late-stage VC round in the form of a convertible note. [FBN](#) has evolved significantly from its founding as a farmer-to-farmer sharing network to a comprehensive platform offering an input marketplace, marketing support, insurance programs, and credit to farmers. It was an early adopter of GenAI tools and recently partnered with [ADM](#) to enroll farmers in its regenerative ag program. Indoor farm operator [Bowery](#) raised the second largest deal of the quarter with a \$93.8 million Series D. The deal valued the company at \$941.8 million post-money, a considerable down round from its Series C1 in 2021 that valued the company at \$2.3 billion. Indoor ag companies have faced significant headwinds over the past two years, including high startup costs, rising energy costs, and dwindling investor support. Although struggles are likely to continue in the near term, in the long term we expect business models and technology to continue to evolve and investors to become increasingly savvy to the complexities, challenges, and opportunities of the indoor farming industry.

Agtech VC deal activity by quarter



Source: PitchBook • Geography: Global • *As of December 31, 2023



VC ACTIVITY

Key agtech pre-seed/seed VC deals in Q4 2023*

Company	Close date	Subsegment	Stage	Deal value (\$M)	Post-money valuation (\$M)	Lead investor(s)
Bonsai	October 2	Robotics & smart field equipment	Seed	\$13.5	N/A	Acre Venture Partners
Bloomix	October 30	Plant biotech	Early-stage VC	\$7.1	N/A	West Hill Capital
InPlanet	October 1	Plant biotech	Seed	\$5.0	N/A	Foodlabs, Salvia
Croptide	December 15	Field IoT	Seed	\$4.3	N/A	N/A
VVF AgTech	December 21	Agribusiness marketplaces	Seed	\$4.2	\$9.2	N/A
Traction	December 13	Farm management software	Seed	\$3.5	N/A	N/A
Soiltech Wireless	November 1	Field IoT	Seed	\$3.0	\$17.1	N/A
PES Technologies	October 30	Field IoT	Seed	\$2.9	N/A	TSP Ventures
Osiris Agriculture	October 18	Robotics & smart field equipment	Seed	\$2.3	N/A	N/A
Inalve	December 14	Animal biotech	Seed	\$2.2	\$4.2	N/A

Source: PitchBook • Geography: Global • *As of December 31, 2023



VC ACTIVITY

Key agtech VC exits in Q4 2023*

Company	Close date	Subsegment	Exit value (\$M)	Exit type	Acquirer(s)/index
Shiyue Daotian	October 10	Plant biotech	\$2,048.2	Public listing	Hong Kong Stock Exchange
Clearpath Robotics	October 2	Robotics & smart field equipment	\$454.5	Acquisition	Rockwell Automation
ITK	October 31	Farm management software	\$47.5	Acquisition	Innoval
Clinical Microbiomics	October 11	Animal biotech	N/A	Acquisition	CosmosID
QualySense	December 1	Robotics & smart field equipment	N/A	Acquisition	Ferrum
Peptide Bio	December 4	Plant biotech	N/A	Acquisition	Invaio
Barrix	December 16	Plant biotech	N/A	Acquisition	Sumitomo Chemical India
Orion Space Solutions	November 29	Drones & imagery analytics	N/A	Buyout	Arcfield, Veritas Capital
Merci Raymond	October 18	Indoor farming systems	N/A	Buyout	Groupe Chevrillon, Myrium
Dekon Farming	December 6	Livestock & land animal technology	N/A	Public listing	Guiyang Agricultural Investment Group, Xiushan Huayu Logistics Investment
Ame Kaze Taiyo	December 18	Agribusiness marketplaces	N/A	Public listing	Tokyo Stock Exchange

Source: PitchBook • Geography: Global • *As of December 31, 2023



SELECT COMPANY HIGHLIGHTS: HALTER



Overview

[Halter](#) is focused on precision livestock farming to improve efficiency, sustainability, and animal welfare. The company was founded with a vision to revolutionize the way beef and dairy farming is conducted, leveraging cutting-edge technologies to transform traditional practices.

[Halter's](#) flagship offering is a unique collar system equipped with advanced technologies designed to provide farmers with unprecedented control and insights into their livestock. The collar, worn by each animal, is equipped with GPS, motion sensors, and audio cues, allowing for virtual fencing and the remote and automated management of cattle.

Leadership

[Halter's](#) leadership team is strategically composed of young professionals with diverse expertise, driving the company's success in livestock management technology. It is led by CEO Craig Piggott, who founded the company after spending nine months getting a taste for startup life at [Rocket Lab](#)—his first role upon graduation from university. Working alongside Piggott, Chief Operating Officer Mark MacLeod-Smith leverages his experience in leadership roles at startup accelerators including [The IceHouse](#), [Lightning Labs](#), and [Flux Accelerator](#).

Key company information

Founded
2016

Total raised
\$103.4M over four deals

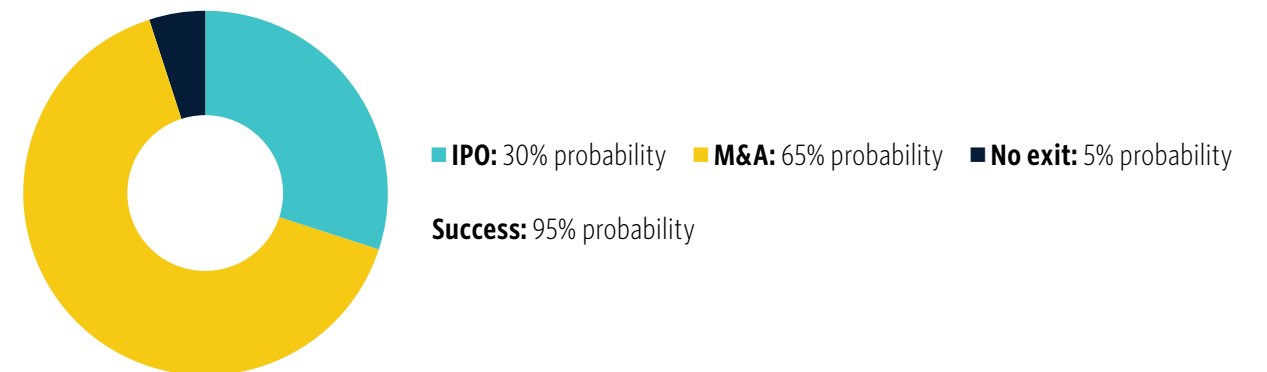
Last financing
Raised \$50.0M in Series C funding at a \$235.0M pre-money valuation (March 2023)

Employees
160+

First institutional round
Raised \$5.4M of Series A funding at a \$21.0M pre-money valuation (July 2018)

Lead investor(s)
Battery Ventures and Bessemer Venture Partners

Exit Predictor



Note: Probability data based on [PitchBook VC Exit Predictor methodology](#).



SELECT COMPANY HIGHLIGHTS: HALTER

Competitors

[Halter](#) operates in a small but competitive landscape, contending with other virtual fencing and livestock collar companies that employ advanced technologies to monitor and manage cattle. One of the largest competitors [Vence](#) uses a solar-powered base station and smart collars to monitor herd location. The company became an operating subsidiary of [Merck Animal Health](#) after being acquired in September 2022. Rival [Nofence](#) also employs a smart collar. It uses audio cues to keep herds within virtual paddocks. A mobile app allows ranchers to monitor herds and create, edit, and remove pastures. Other key providers include [Ixorigue](#) and [Cowlar](#).

Financing history

Series A	Series B	Series B	Series C
July 2, 2018	April 23, 2021	December 3, 2021	March 29, 2023
Total raised \$5.4M	Total raised \$23.0M	Total raised \$25.0M	Total raised \$50.0M
Pre-money valuation \$21.0M	Pre-money valuation \$60.0M	Pre-money valuation \$144.0M	Pre-money valuation \$235.0M
Investor(s) Promus Ventures	Investor(s) Blackbird Ventures	Investor(s) N/A	Investor(s) Battery Ventures and Bessemer Venture Partners

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As the private markets continue to grow in complexity and competition, it's essential for investors to understand the industries, sectors and companies driving the asset class.

Our Industry and Technology Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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