



 EMERGING TECH RESEARCH

Agtech Report

VC trends and emerging opportunities

Q4
2022

REPORT PREVIEW

The full report is available through the PitchBook Platform.





Contents

Vertical overview	3
Q4 2022 timeline	5
Agtech landscape	6
Agtech VC ecosystem market map	7
VC activity	9
Emerging opportunities	26
Biotech plant breeding	27
Energy-saving CEA components	28
Select company highlights	29
OneSoil	30
Ynsect	32

What else would you like to see in this report?

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

Institutional Research Group

Analysis



Alex Frederick Senior Analyst, Emerging Technology
alex.frederick@pitchbook.com
pbinstitutionalresearch@pitchbook.com

Data

TJ Mei Data Analyst

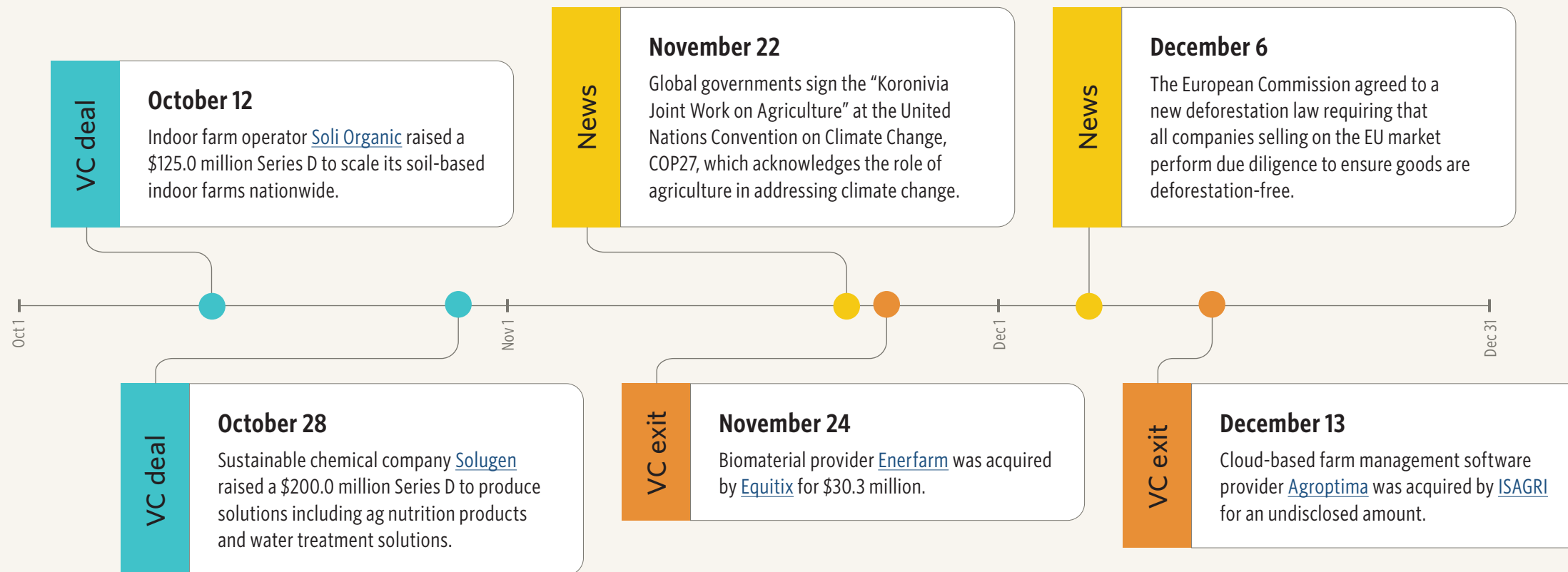
Publishing

Report designed by **Drew Sanders** and **Chloe Ladwig**

Published on February 7, 2023



Q4 2022 timeline



Q4 VC activity

188

total deals

-6.9%

QoQ growth

\$1.8B

total VC raised

-34.1%

QoQ growth

2022 annual summary

988

total deals

-10.2%

YoY growth

\$10.6B

total VC raised

-13.2%

YoY growth



Agtech landscape

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

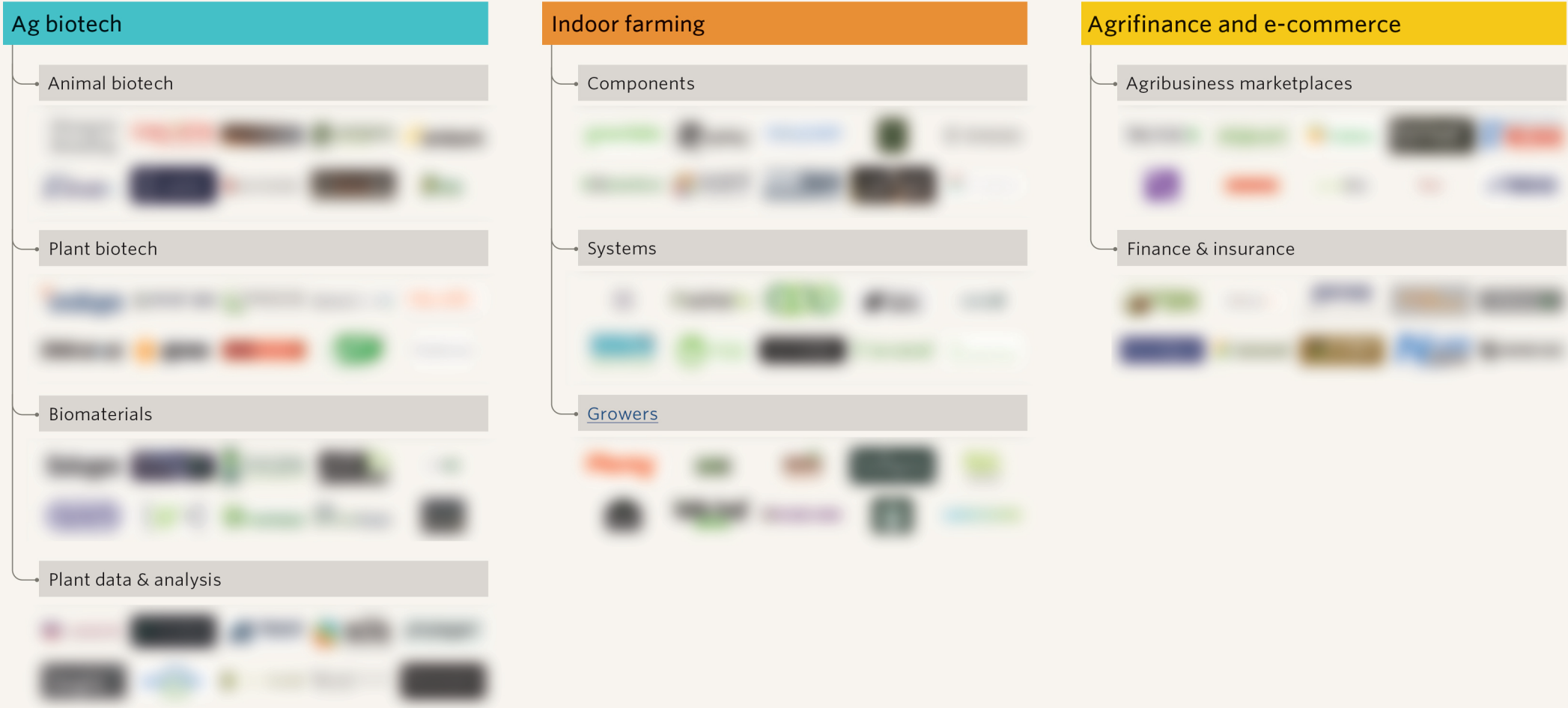




Agtech VC ecosystem market map

Click to view the interactive market map on the PitchBook Platform.

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

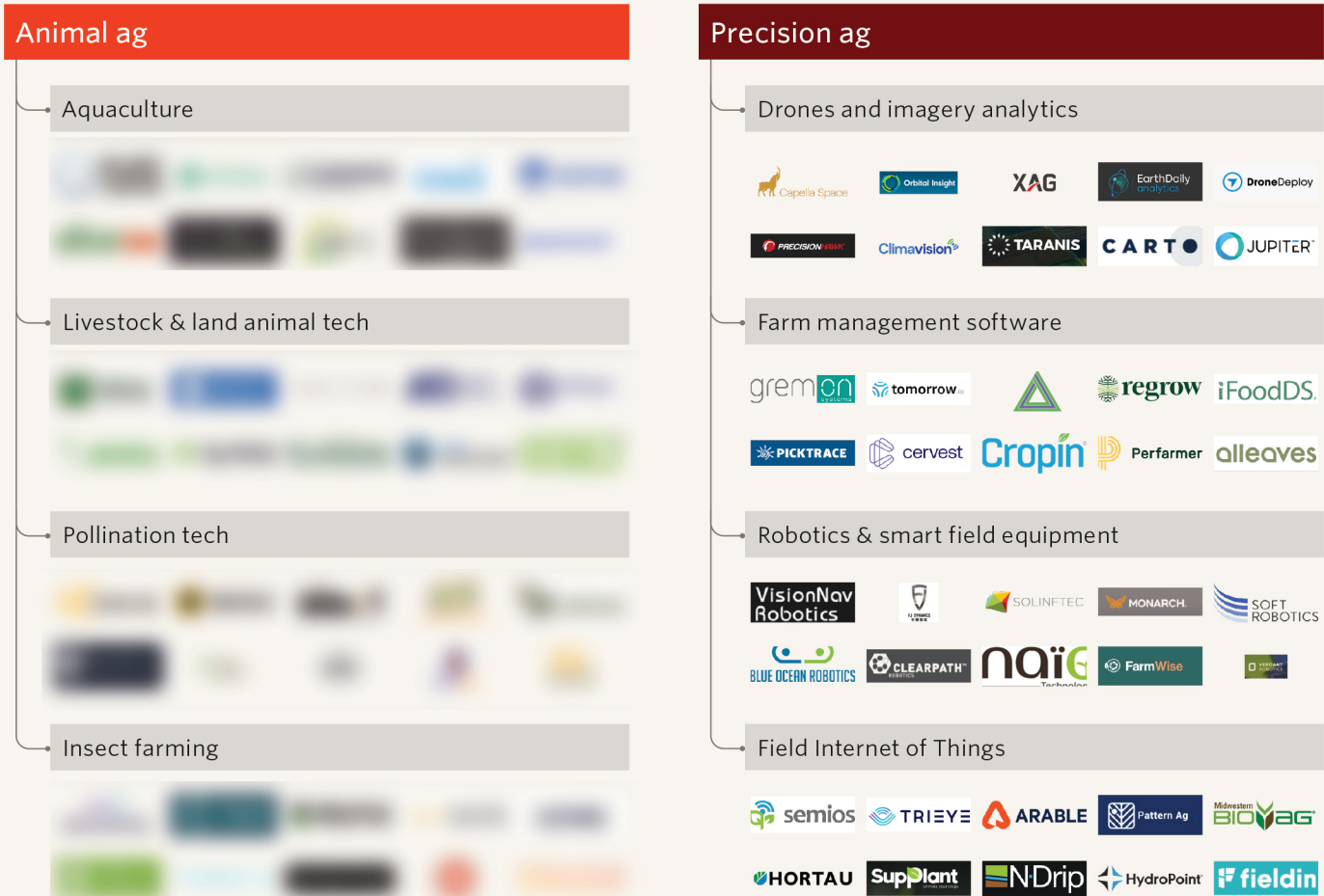




Agtech VC ecosystem market map

Click to view the interactive market map on the PitchBook Platform.

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.





VC activity

The agtech industry ended Q4 on a down note with \$1.8 billion raised across 188 deals, down 34.1% and 6.9% QoQ, respectively. While agtech fared better than most other verticals through the first three quarters of 2022 despite market volatility, the funding environment appears to have shifted in Q4, with quarterly deal values reaching the lowest levels since Q2 2020. Top deals include indoor farm operator [Soli Organic](#)'s \$125.0 million Series D and plant biotech startup [Inari](#)'s \$124.0 million Series E.

Despite funding deceleration, 2022 proved to be the second-strongest year on record. We logged \$10.6 billion across 988 deals, down 13.2% and 10.2% YoY, respectively. Climate change, extreme weather, labor shortages, and geopolitical conflict have become familiar themes constraining global yields. Agtech offers solutions and attractive investment opportunities to address or adapt to these challenges.

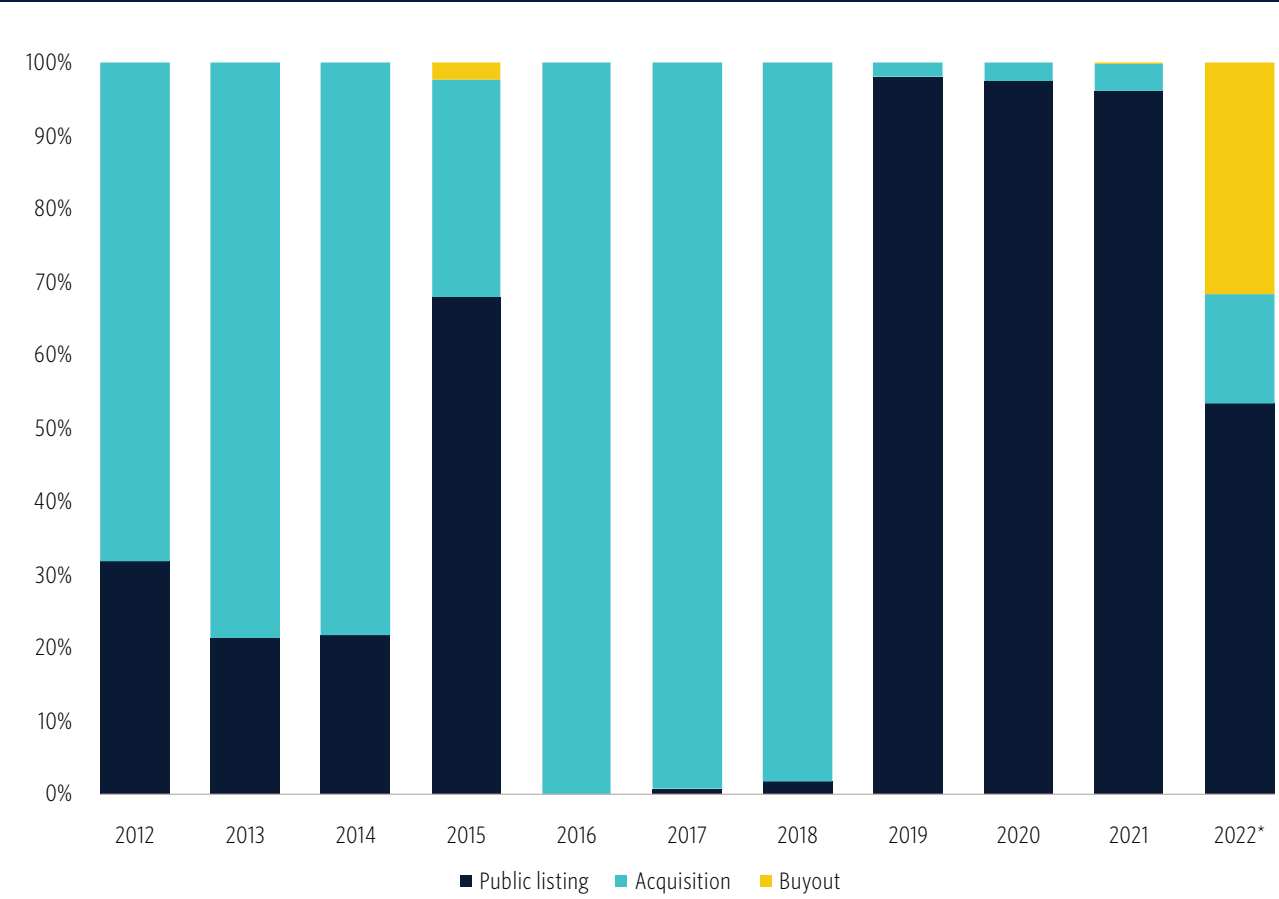
The 2022 median pre-money valuation was \$15.3 million, an increase of 7.8% YoY. However, median pre-money valuations declined at every VC stage except for the angel and seed stages, where valuations rose 24.8% YoY. Volatile public markets and the closed IPO window impacted valuations. Due to the distance from the public markets, angel- and seed-stage companies may have been insulated from these ripple effects. The story was largely the same for median deal sizes. The 2022 median deal size was \$3.3 million, up 19.3% YoY. Median deal sizes were up 28.2% at the late stage and up 49.8% at the angel and seed stages. These increases may be attributed to investors shifting to a strategy of concentrating investment activity in fewer, yet larger deals deemed lower-risk.

Exits fell significantly from 2021 levels. We logged \$2.2 billion exited across 38 deals, down 93.0% and 37.7% YoY, respectively. The decline can be directly attributed to a closed IPO window and rising interest rates, which limited M&A opportunities. Notable Q4 exits include [Equitix](#)'s acquisition of biomaterial provider [Enerfarm](#) for \$30.3 million and [ISAGRI](#)'s acquisition of cloud-based farm management software provider [Agroptima](#) for an undisclosed amount. Exits will likely remain muted in the medium term until interest rates decline and the IPO window reopens.



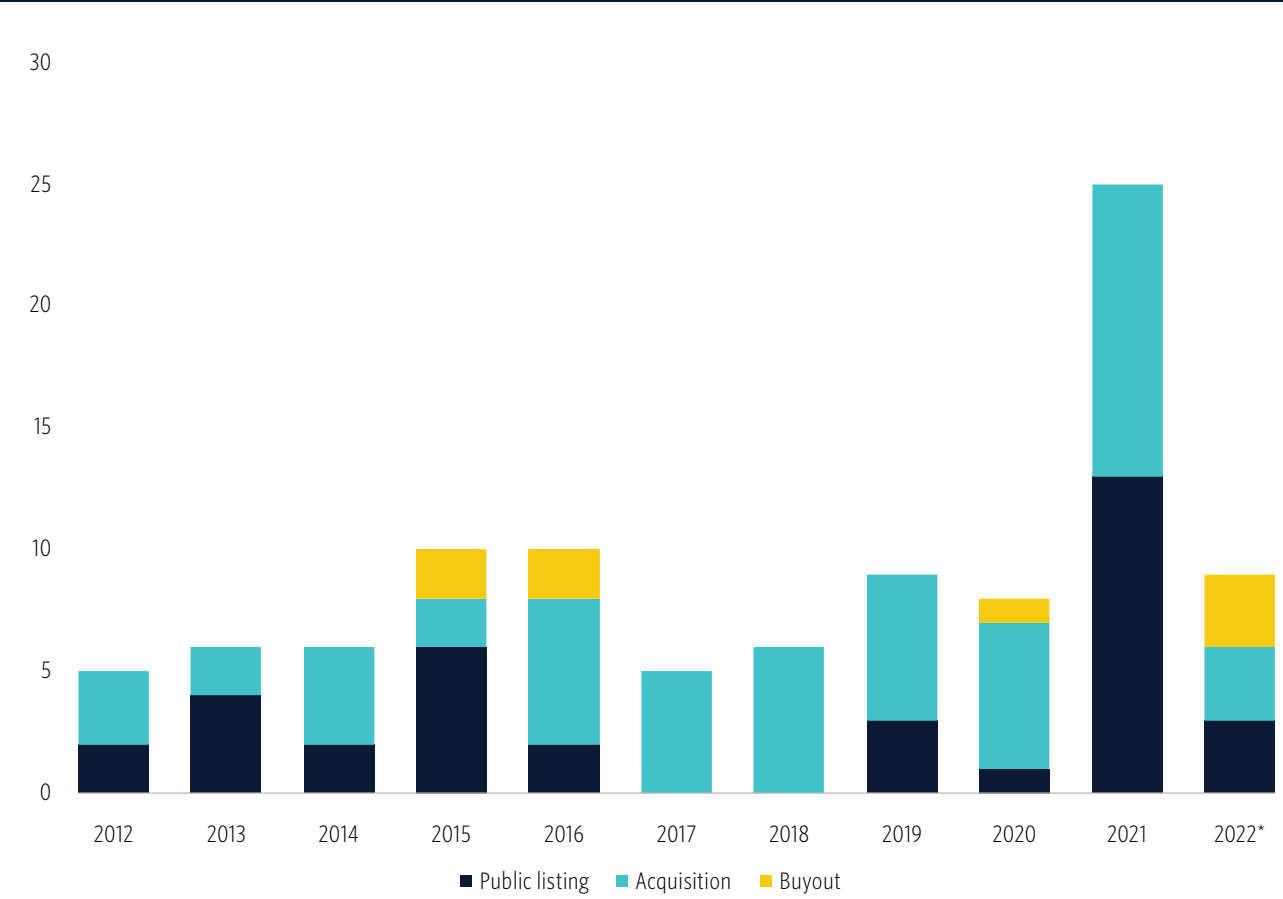
VC ACTIVITY

Share of agtech VC exit value by type



Source: PitchBook | Geography: Global | *As of December 31, 2022

Agtech VC exit count by type

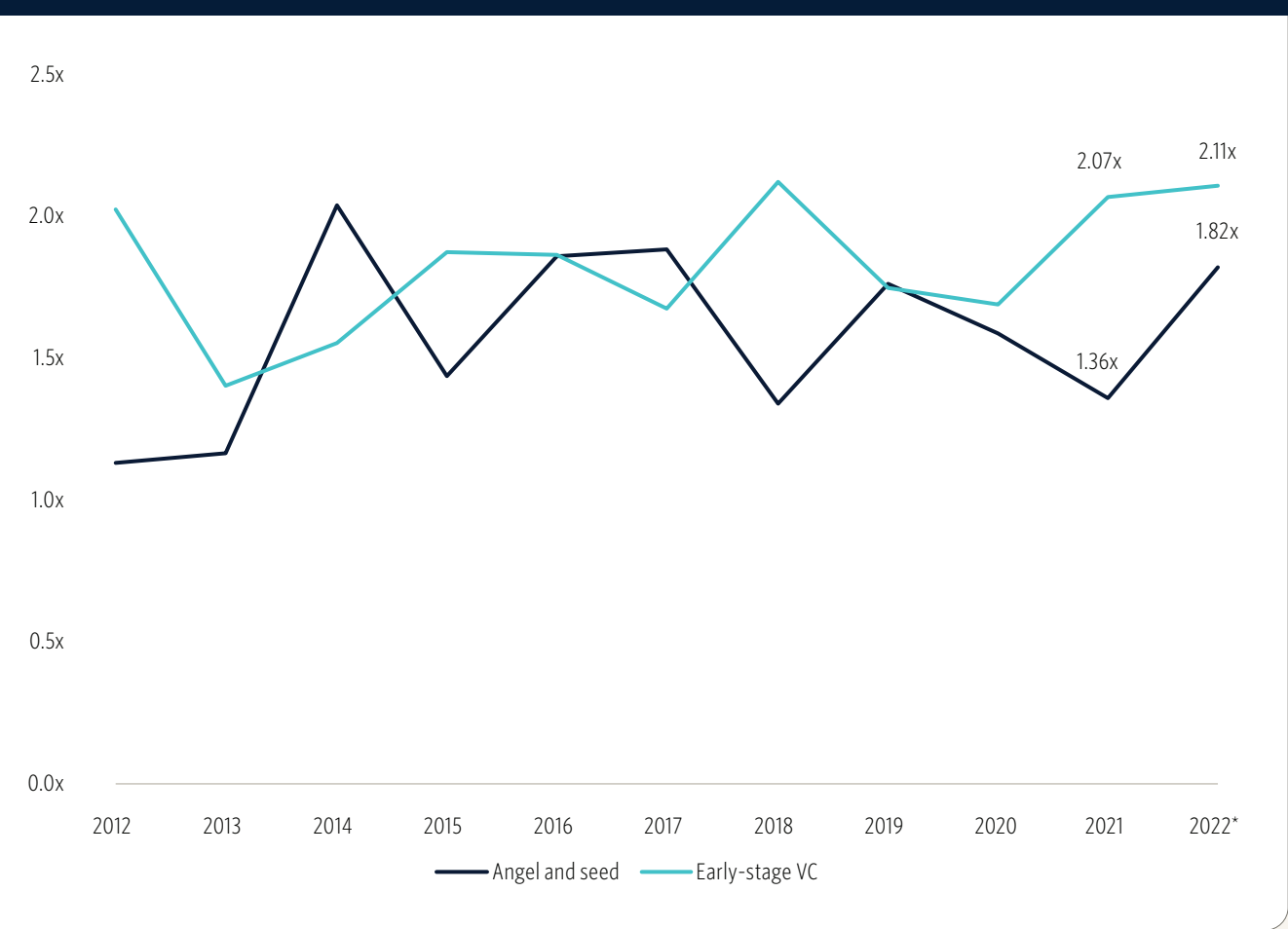


Source: PitchBook | Geography: Global | *As of December 31, 2022



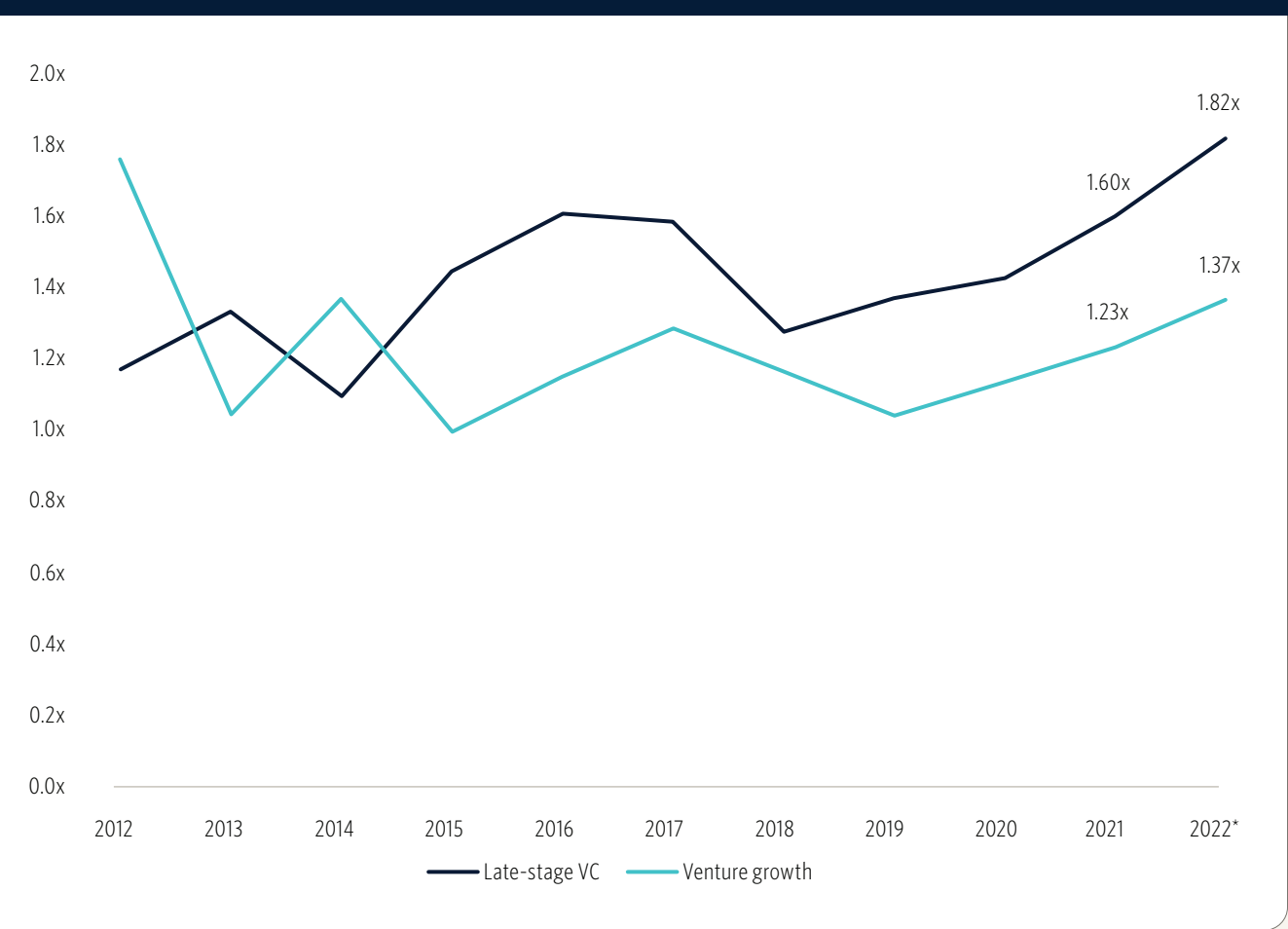
VC ACTIVITY

Median agtech angel and seed and early-stage VC pre-money valuation step-up



Source: PitchBook | Geography: Global | *As of December 31, 2022

Median agtech late-stage and venture-growth VC pre-money valuation step-up



Source: PitchBook | Geography: Global | *As of December 31, 2022



SELECT COMPANY HIGHLIGHTS



Founded
2011

360+ employees
Based in
Evry, France

Total raised:
\$420.8M over six deals

First institutional round:
\$2.5M in a Series A round
(March 2014)

Last financing:
Raised \$12.0M in a Late-
stage VC round

Overview

[Ynsect](#) is an insect farming company producing protein and fertilizer products from mealworms. Protein products have both agricultural and human use cases including aquaculture fish feed, pet nutrition, and pig and poultry feed. On the human side, [Ynsect](#) protein is used as a textured protein for “alt-protein” products, a sports nutrition powder, and a food additive. The company operates three sites across France, the Netherlands, and the US, and is in the process of building a fourth facility in France. It recently announced the construction of two additional facilities in the US and Mexico. The company partnered with [Ardent Mills](#), a top wheat producer in the US. The partnership could entail building the US facility adjacent to an [Ardent Mills](#) plant to easily access and capitalize on a key benefit of insect farming—the ability to upcycle food waste for insect feed.

Leadership

[Ynsect](#) was cofounded by CEO and Charmain Antoine Hubert, Chief Impact and HSEQ Officer Jean-Gabriel Levon, Director of Data Fabrice Berro, and Alexis Angot. Hubert brings a background in agronomy engineering and has worked in environmental risk assessment, biomass, and plastics recycling. Levon has a background in industrial project consulting, and Berro brings experience in informatics and applied mathematics.



About PitchBook Emerging Tech Research

Independent, objective and timely market intel

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 Emerging Tech 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.

©2023 by PitchBook Data, Inc. All rights reserved. No part of this publication may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, and information storage and retrieval systems—without the express written permission of PitchBook Data, Inc. Contents are based on information from sources believed to be reliable, but accuracy and completeness cannot be guaranteed. Nothing herein should be construed as any past, current or future recommendation to buy or sell any security or an offer to sell, or a solicitation of an offer to buy any security. This material does not purport to contain all of the information that a prospective investor may wish to consider and is not to be relied upon as such or used in substitution for the exercise of independent judgment.

PitchBook Data, Inc.

John Gabbert Founder, CEO

Nizar Tarhuni Vice President, Editorial and Institutional Research

Paul Condra Head of Emerging Technology Research

Additional research

Eric Bellomo
eric.bellomo@pitchbook.com

Gaming
E-Commerce

Brendan Burke
brendan.burke@pitchbook.com
Internet of Things
Information Security
Artificial Intelligence & Machine Learning

Aaron DeGagne
aaron.degagne@pitchbook.com
Medtech
Digital Health

Alex Frederick
alex.frederick@pitchbook.com
Agtech
Foodtech

Jonathan Geurkink
jonathan.geurkink@pitchbook.com
Supply Chain Tech
Mobility Tech

Derek Hernandez
derek.hernandez@pitchbook.com
SaaS

Ali Javaheri
ali.javaheri@pitchbook.com
Emerging Spaces

Robert Le
robert.le@pitchbook.com
Web3/DeFi
Insurtech
Crypto

John MacDonagh
john.macdonagh@pitchbook.com
Carbon & Emissions Tech
Clean Energy Tech

Rebecca Springer
rebecca.springer@pitchbook.com
Healthcare Services
Healthcare IT

Rudy Yang
rudy.yang@pitchbook.com
Fintech

Coming soon
Biotech
Pharma Services