



 EMERGING TECH RESEARCH

Foodtech Report

VC trends and emerging opportunities

Q3
2022

REPORT PREVIEW

The full report is available through the PitchBook Platform.





Contents

Foodtech VC ecosystem update	3
Vertical overview	7
Q3 2022 timeline	9
Foodtech landscape	10
Foodtech VC ecosystem market map	11
VC activity	13
Emerging opportunities	26
Next-gen dairy	27
Sustainable grocery technology	30
Select company highlights	32
Perfect Day	33
REEF Technology	35

Note: We have excluded multi-vertical super apps from our analysis and all charts. These companies include Gojek, Rappi, Uber, Amazon, and Grab.

Institutional Research Group

Analysis



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

Data

Alyssa Williams, Data Analyst

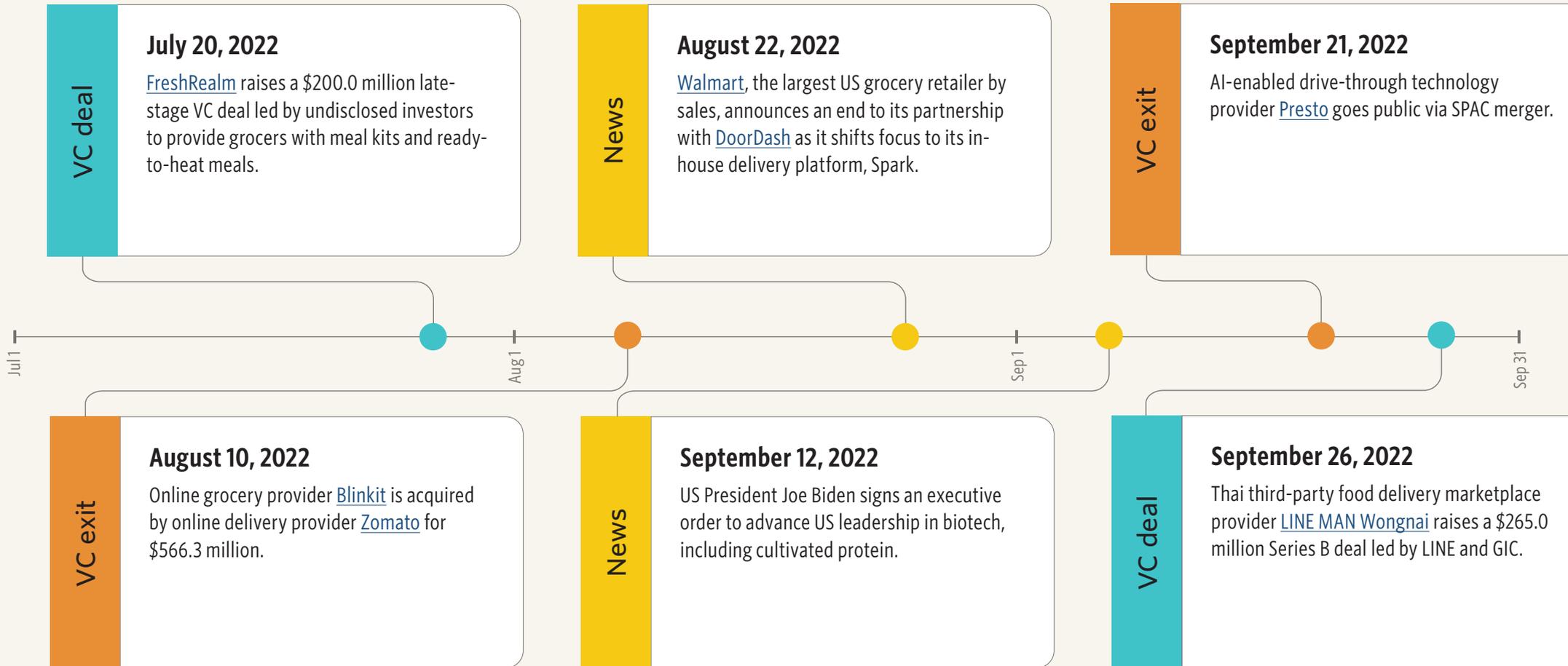
Publishing

Report designed by **Jenna O'Malley**

Published on November 7, 2022



Q3 2022 timeline



Q3 VC activity

269
total deals

-28.5%
QoQ growth

\$2.7B
total VC raised

-63.0%
QoQ growth

TTM summary

1,581
total VC deals

-9.9%
YoY growth

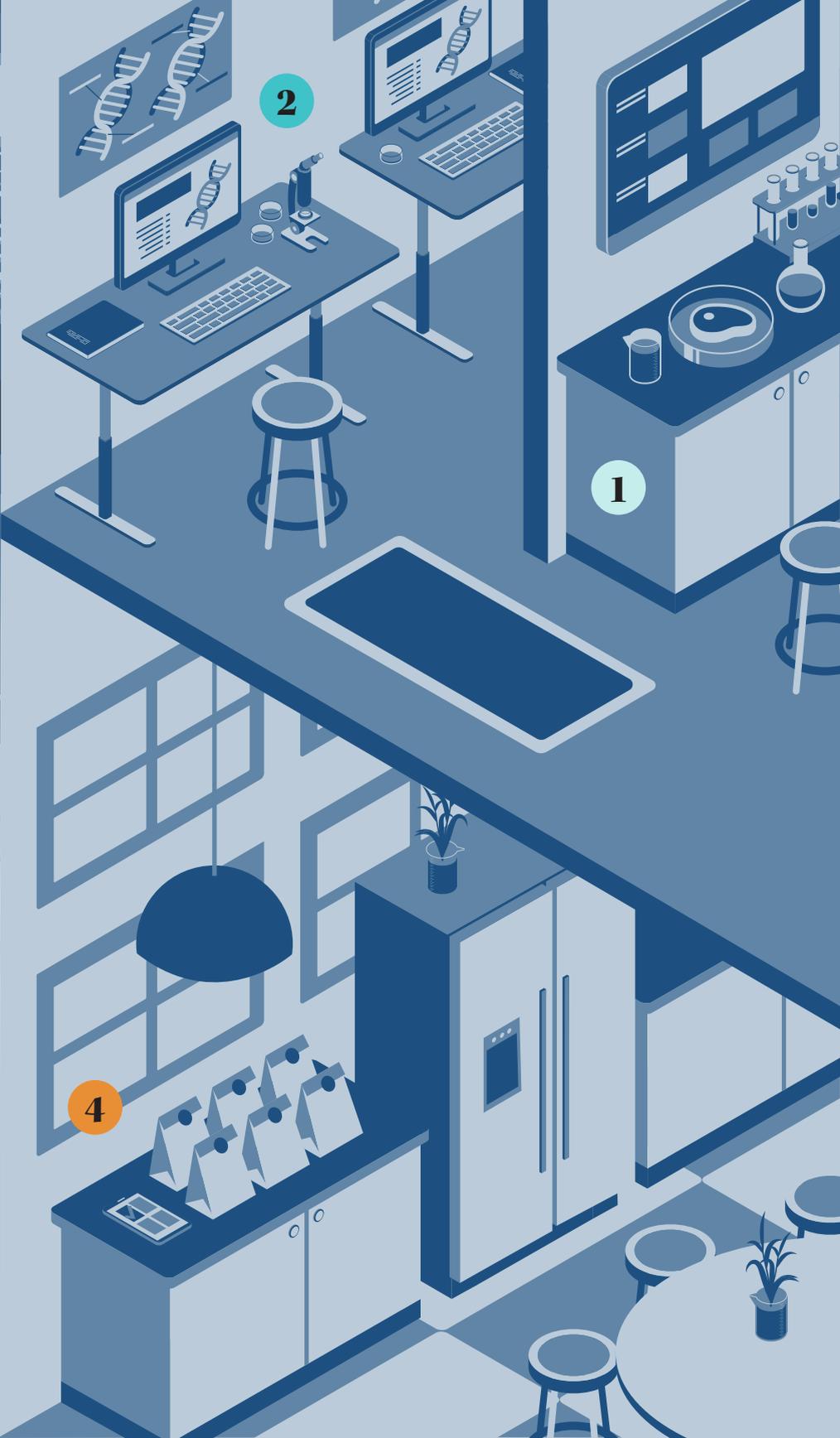
\$27.9B
VC raised

-24.2%
YoY growth



Foodtech landscape

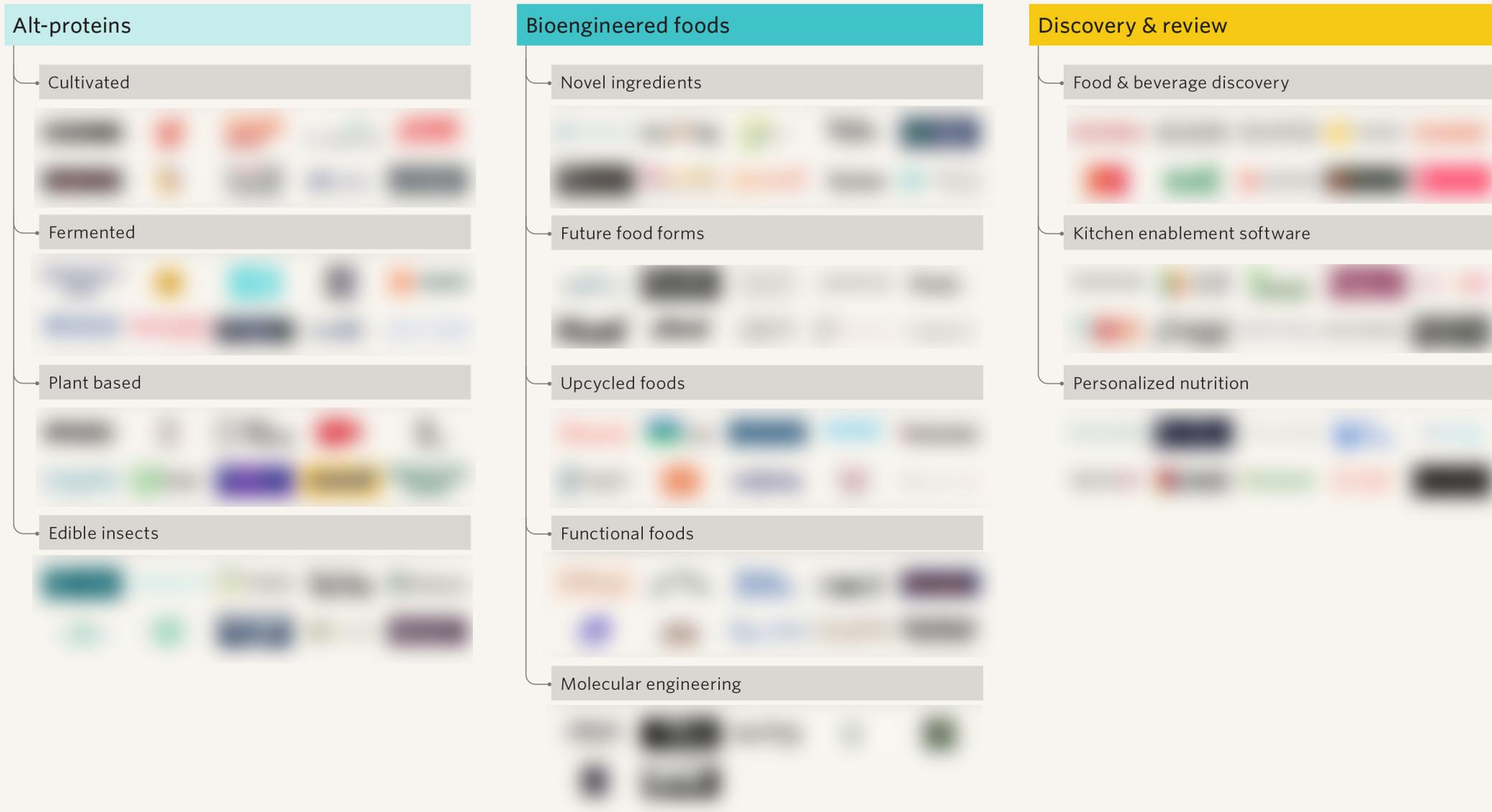
- 1 Alt-proteins
- 2 Bioengineered foods
- 3 Discovery & review
- 4 E-commerce
- 5 Food production
- 6 Restaurant & retail tech





Foodtech VC ecosystem market map

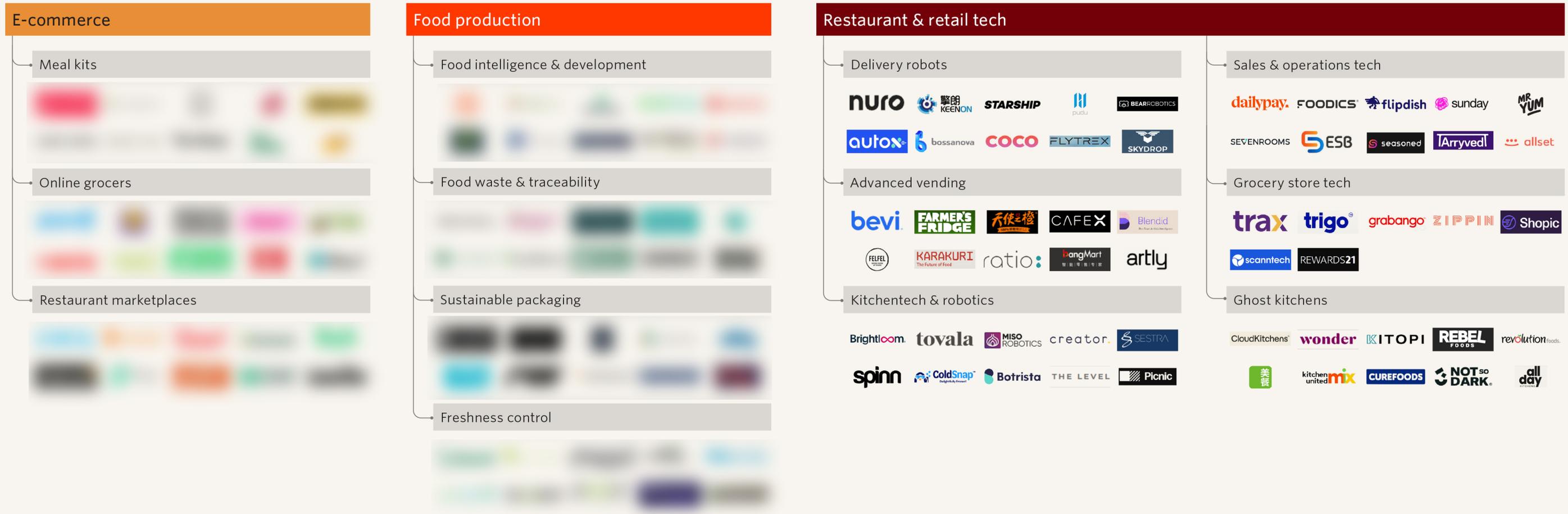
Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.





Foodtech VC ecosystem market map

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 volatility that rattled markets in the first half of 2022 has firmly devolved into a global economic downturn, the effects of which have been made clear in Q3 foodtech VC deal activity. We logged \$2.7 billion invested across 269 deals in Q3 2022, with values and count down 63.0% and 28.5% quarter-over-quarter (QoQ), respectively. Deal values declined for the fourth straight quarter, falling to a ten-quarter low, and to levels not seen since Q1 2020.

The venture market is relatively insulated from public markets, especially at the early stage, with average holding times ranging from five to 10 years, and yet Q3 deal activity dropped most sharply at the early, angel, and seed stages. Deal values saw the greatest decline at the early stage, dropping 73.5% QoQ. Deal counts declined by more than double at the early, angel, and seed stages from Q2 to Q3.

Corrections can happen quickly in the public markets but trickle down slowly to the private markets based on the proximity to IPO, with the greatest lag at the early stage. Median pre-money valuations at the late stage totaled \$78.0 million across the first three quarters of 2022, down just 2.5% from \$80.0 million in 2021. Late-stage deal values remain historically high but stand in contrast to the 60.0% annual growth experienced between 2020 and 2021. Early-stage valuations continue to climb at a decelerated rate, reaching \$16.9 million, an annual gain of 5.7% YoY. Valuations at the angel and seed stage appear to have accelerated, reaching \$9.7 million and up 68.0% YoY. The growth at the angel and seed stage may reflect investors concentrating capital in the most attractive companies and eschewing lower value companies.

Median deal sizes by stage maintained a similar pattern as median valuations. The median deal size at the angel and seed stage reached \$2.0 million in 2022, up 76.2% YoY. Likewise, the median early-stage deal size reached \$4.5 million, up 28.4% YoY. At the late stage, we logged a 26.3%

Foodtech deal values and quarterly growth

Deal values (\$M)

	Q1 2022	Q2 2022	Q3 2022*
Angel and seed	\$0.4	\$0.4	\$0.2
Early-stage VC	\$1.9	\$1.8	\$0.5
Late-stage VC	\$5.2	\$5.2	\$2.0

Source: PitchBook | Geography: Global | *As of September 30, 2022

Growth versus prior quarter

	Q1 2022	Q2 2022	Q3 2022*
Angel and seed	19.6%	-14.1%	-32.4%
Early-stage VC	-35.2%	-6.6%	-73.5%
Late-stage VC	-25.1%	0.8%	-61.6%

Source: PitchBook | Geography: Global | *As of September 30, 2022



VC ACTIVITY

decline, with the median deal size falling to \$8.8 million. The drop can largely be attributed to the stage's proximity to public markets and the shut IPO window that is limiting exit options and suppressing investor enthusiasm.

Exit values in Q3 fell to \$0.5 billion across 16 exits, with exit count down 30.4% QoQ. The most notable exits this quarter included [Presto](#) and [Blinkit](#). [Presto](#), a company that uses AI to enhance drive-through and dine-in technologies, went public via SPAC merger. [Blinkit](#), an ultra-fast delivery provider, was acquired by restaurant marketplace platform [Zomato](#), reflective of the headwinds faced by ultra-fast companies in 2022. After a period of mounting exit activity, we expect to see exits muted until market conditions improve. However, challenging conditions and depressed valuations could create attractive acquisition opportunities for intrepid strategics.

Foodtech deal counts and quarterly growth

Deal counts

	Q1 2022	Q2 2022	Q3 2022*
Angel and seed	160	142	89
Early-stage VC	155	128	87
Late-stage VC	140	106	93

Source: PitchBook | Geography: Global | *As of September 30, 2022

Growth versus prior quarter

	Q1 2022	Q2 2022	Q3 2022*
Angel and seed	-11.6%	-11.3%	-37.3%
Early-stage VC	-9.9%	-17.4%	-32.0%
Late-stage VC	9.4%	-24.3%	-12.3%

Source: PitchBook | Geography: Global | *As of September 30, 2022



VC ACTIVITY

Key foodtech angel and seed deals*

Company	Close date (2022)	Segment	Deal size (\$M)	Lead investor(s)	Valuation step-up (post to pre)	Post-money valuation (\$M)
Hoxton Farms	August 9	Alt-proteins	\$24.3	N/A	1.6x	\$45.9
MUSH	September 9	Bioengineered foods	\$23.0	N/A	1.6x	\$93.0
Eat The Change	August 10	Alt-proteins	\$14.5	N/A	N/A	\$64.5
Blackbird Labs	August 1	Restaurant & retail tech	\$11.0	Multicoin Capital, Shine Capital, Union Square Ventures	N/A	N/A
Table22	July 19	Restaurant & retail tech	\$10.4	N/A	1.6x	\$38.4
Laxmi Therapeutic Devices	July 26	Discovery & review	\$9.0	N/A	1.0x	\$60.2
Hors Normes	July 7	E-commerce	\$7.4	N/A	2.6x	\$32.7
one.five	July 31	Food production	\$7.3	Green Generation Fund, Planet A	1.2x	\$25.7
DELLI	September 5	E-commerce	\$7.2	Balderton Capital, HV Capital	N/A	N/A
Flavrs	September 13	Discovery & review	\$7.0	Andreessen Horowitz	N/A	N/A

Source: PitchBook | Geography: Global | *As of September 30, 2022



VC ACTIVITY

Key foodtech VC-backed companies*

Company	Segment	VC raised to date (\$M)	Most recent VC deal type	Post-money valuation (\$M)
Ele.me	Restaurant marketplaces	\$7,335.5	Late-stage VC	\$30,000.0
Xingsheng Selected	Online grocers	\$5,440.0	Late-stage VC	\$12,000.0
Gopuff	Online grocers	\$4,934.7	Late-stage VC	\$15,000.0
Swiggy	Restaurant marketplaces	\$3,564.5	Series K	\$10,700.0
Nuro	Delivery robots	\$2,757.0	Series D	\$8,825.0
Instacart	Online grocers, restaurant marketplaces	\$2,734.8	Series I	\$45,000.0
CloudKitchens	Ghost kitchens	\$1,950.0	Late-stage VC	\$15,000.0
Impossible Foods	Plant-based protein	\$1,862.5	Late-stage VC	\$7,000.0
Getir	Online grocers	\$1,794.0	Series E	\$11,800.0
Bolt	Restaurant marketplaces	\$1,727.3	Series F	\$8,371.8

Source: PitchBook | Geography: Global | *As of September 30, 2022



SELECT COMPANY HIGHLIGHTS

PERFECT DAY®

Founded
2014

244+ employees
based in Berkeley, CA

Total raised:
\$711.5M

Last financing valuation:
\$1.6B post-money

Last financing:
Raised \$350.0M in
a Series D1

Lead investors:
Temasek Holdings, and
Canada Pension Plan
Investment Board

Overview

[Perfect Day](#) is an alt-proteins company that uses precision fermentation technology and yeast microbes to produce the dairy protein whey. In May of 2020, the company demonstrated the viability of its fermented protein by launching animal-free ice cream under the brand Brave Robot. Within two months, [Perfect Day](#) spun out Brave Robot into a new consumer brand called [The Urgent Company](#). Since then it has expanded focus on ingredient innovation, supplying whey proteins to food companies including [N!ck's Swedish Ice Cream](#), [Natreve](#), [Betterland Foods](#), [Mars](#), and other CPG food companies producing consumer products such as protein powder, ice cream, milk, and protein bars.

Leadership

[Perfect Day](#) was co-founded by Ryan Pandya and Perumal Gandhi. Pandya holds the title of CEO and has a bachelor of science in biological engineering. He spent 11 months as a process development associate working on cell line development and bioreactor optimization before founding [Perfect Day](#). Cofounder Gandhi has a masters in bioengineering and founded [Perfect Day](#) while pursuing his masters at Stony Brook University. The cofounders are complemented by a team of executives experienced in leading technology companies.

Competitors

[Perfect Day](#) competes against alternative dairy companies developing consumer products and animal-free dairy inputs. [Nature's FYND](#) also uses precision fermentation to develop animal-free cream cheese and other alt-meat and dairy products. [Motif FoodWorks](#) works with clients to develop protein solutions using precision fermentation. The company develops single ingredients as well as whole formulations.



SELECT COMPANY HIGHLIGHTS: PERFECT DAY

Financing history

Accelerator/Incubator	Seed	Series A1	Series A2
<p>April 19, 2014</p> <p>Total raised: \$0.03M</p> <p>Pre-money valuation: N/A</p> <p>Lead investor(s): RebelBio</p>	<p>September 30, 2014</p> <p>Total raised: \$2.0M</p> <p>Pre-money valuation: \$3.0M</p> <p>Lead investor(s): Horizons Ventures (Ka-Shing Li)</p>	<p>February 15, 2016</p> <p>Total raised: \$4.2M</p> <p>Pre-money valuation: \$15.0M</p> <p>Lead investor(s): Horizons Ventures (Ka-Shing Li)</p>	<p>February 27, 2018</p> <p>Total raised: \$20.5M</p> <p>Pre-money valuation: \$45.0M</p> <p>Lead investor(s): Temasek Holdings</p>
Late-stage VC	Series C	Series D1	
<p>February 4, 2019</p> <p>Total raised: \$34.8M</p> <p>Pre-money valuation: \$100.0M</p> <p>Lead investor(s): N/A</p>	<p>July 8, 2020</p> <p>Total raised: \$300.0M</p> <p>Pre-money valuation: \$500.0M</p> <p>Lead investor(s): Temasek Holdings, and Canada Pension Plan Investment Board</p>	<p>September 29, 2021</p> <p>Total raised: \$350.0M</p> <p>Pre-money valuation: \$1,235.3M</p> <p>Lead investor(s): Temasek Holdings, and Canada Pension Plan Investment Board</p>	

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.

©2022 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 Senior Director, Institutional Research & Editorial

Paul Condra Head of Emerging Technology Research

Additional research

Agtech

Alex Frederick
alex.frederick@pitchbook.com

Artificial Intelligence & Machine Learning

Brendan Burke
brendan.burke@pitchbook.com

Clean Energy Tech and Climate Tech

John MacDonagh
john.macdonagh@pitchbook.com

E-commerce & Gaming

Eric Bellomo
eric.bellomo@pitchbook.com

Fintech

Robert Le
robert.le@pitchbook.com

James Ulan

james.ulan@pitchbook.com

Rudy Yang

rudy.yang@pitchbook.com

Foodtech

Alex Frederick
alex.frederick@pitchbook.com

Healthtech

Rebecca Springer
rebecca.springer@pitchbook.com

Information Security

Brendan Burke
brendan.burke@pitchbook.com

Insurtech

Robert Le
robert.le@pitchbook.com

Internet of Things (IoT)

Brendan Burke
brendan.burke@pitchbook.com

Mobility Tech

Jonathan Geurkink
jonathan.geurkink@pitchbook.com

Supply Chain

Jonathan Geurkink
jonathan.geurkink@pitchbook.com