

# Road to Next

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Foodtech had a banner year.

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An increasing base of investors are flooding foodtech with more capital than ever before.

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Sustainability and foodtech gain traction.

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# Foreword & executive summary

Growing consumer demand, digitization, and innovation in food categories have combined to propel foodtech investment activity

## Themes & key findings for this issue:

**Foodtech investment sees a record surge, at well over \$13 billion in deal value.**

**Growing concerns around the environmental impact of food production—in addition to health concerns—are powering a surge of investment in innovation across traditional food categories.**

**Key hurdles remain, including competition from incumbents, as well as establishing a strong brand and sufficient market penetration.**

Deloitte and PitchBook have collaborated to produce a unique methodology for the *Road to Next* series, in order to better analyze a new segment of companies that emerged in the 2010s. Dubbing this segment the expansion stage, the methodology uses investment data restricted to late-stage VC, PE growth, and private corporate financing. In addition, companies must still be privately held by aforementioned investment firms.

As tech continues to transform sectors worldwide, food production, distribution, and consumption are all changing significantly. From platforms tackling delivery and logistics innovation to research & development-intensive (R&D) enterprises looking to more sustainably create brand-



### Heather Gates

Audit & Assurance Private Growth Leader  
Deloitte & Touche LLP

*With more than 30 years of financial services experience, Heather serves as the national Private Growth leader with oversight of the Deloitte Private, Emerging Growth Company, and Private Equity businesses within Audit & Assurance.*

"There is a global undersupply of healthy food produced efficiently and at scale, especially as populations grow worldwide."

### Heather Gates

Audit & Assurance Private Growth Leader  
Deloitte & Touche LLP

new, nutritionally optimized foods, foodtech is experiencing a period of true dynamism. Although still somewhat fledgling, the surge of expansion-stage dealmaking, as well as a handful of signal debuts in public markets over the past few years, signifies the growth rate within the space.



### Adam Parrish

Audit & Assurance Partner  
West Region Marketplace Leader  
Deloitte & Touche LLP

*With more than 25 years of experience, Adam has worked with a wide range of technology, software, consumer and media companies.*

"Key underlying scientific advances have now rendered foodtech companies' products to be complete alternatives to traditional foods, such as meat. As more innovation occurs in these areas, new categories of food will come into being and production costs could come down for lab-created proteins."

### Adam Parrish

Audit & Assurance Partner, Los Angeles Leader  
Deloitte & Touche LLP

# Market trends

## As expansion-stage funding soars past \$300 billion, foodtech sees deal value more than double year over year

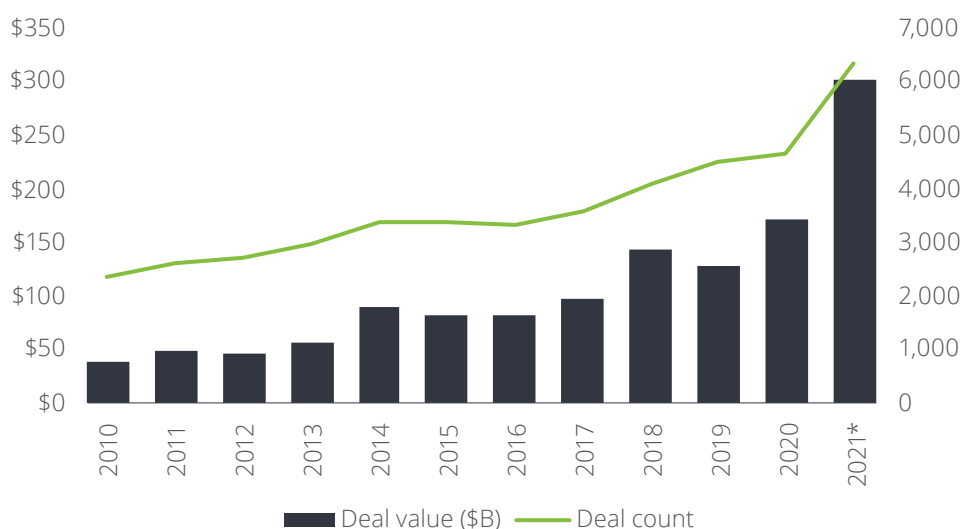
Private markets had a banner year in 2021, particularly the expansion-stage ecosystem. Even after the record \$171.7 billion in deal value in 2020, 2021 saw a staggering \$302.7 billion tally across 6,344 expansion-stage transactions. Q1 2021 alone produced just over 1,700 completed financings, the largest single-quarter tally of volume on record. Many sectors set significant records in terms of financing volume and value, but one of the key segments with the largest year-over-year increase was foodtech. Buoyed by multiple factors, foodtech's deal value more than doubled, from \$6.0 billion in 2020 to \$13.1 billion in 2021, while financing volume also grew at a healthy rate.

"Meat consumption is still up, but plant-based alternatives are growing at a significant rate, which signals consumer appetite for protein alternatives that could be more sustainably produced without any animal involvement."

### Adam Parrish

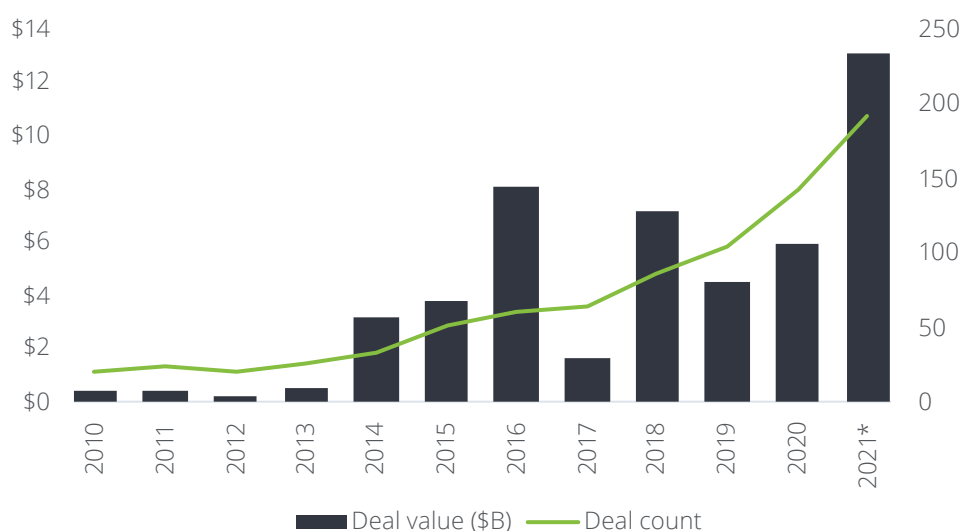
Audit & Assurance Partner  
Los Angeles Leader  
Deloitte & Touche LLP

## Expansion-stage deal activity



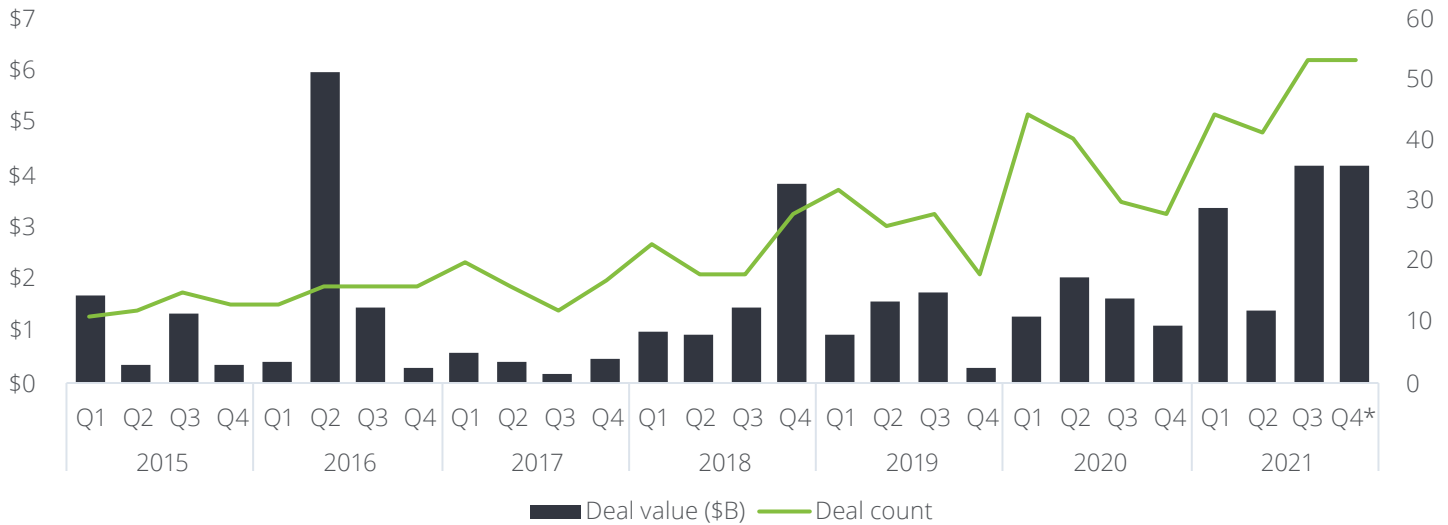
Source: PitchBook | Geography: US | \*As of December 31, 2021

## Foodtech expansion-stage deal activity



Source: PitchBook | Geography: US | \*As of December 31, 2021

## Foodtech expansion-stage deal activity by quarter



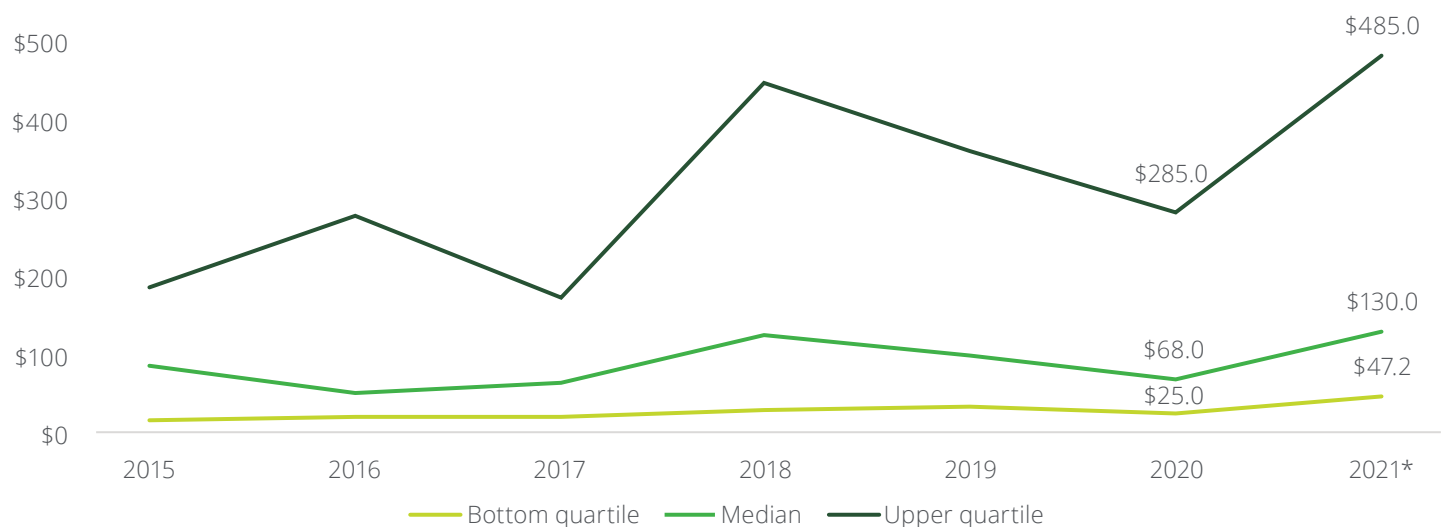
Source: PitchBook | Geography: US | \*As of December 31, 2021

Among the many factors encouraging foodtech dealmaking, the proliferation and demonstrated maturation of key players in multiple foodtech segments are perhaps the most important. Alternative and plant-based proteins continue to see companies debut and establish a market presence—whether with increased market share and geographic penetration or by

expansion of brands and categories beyond meat replacements. In addition, while replacement proteins and vegan/vegetarian options continue to popularize, savvy enterprises have negotiated significant presences in national chains, especially in the realm of alternative milks. However, other foodtech segments have also grown, especially tech-enabling platforms that

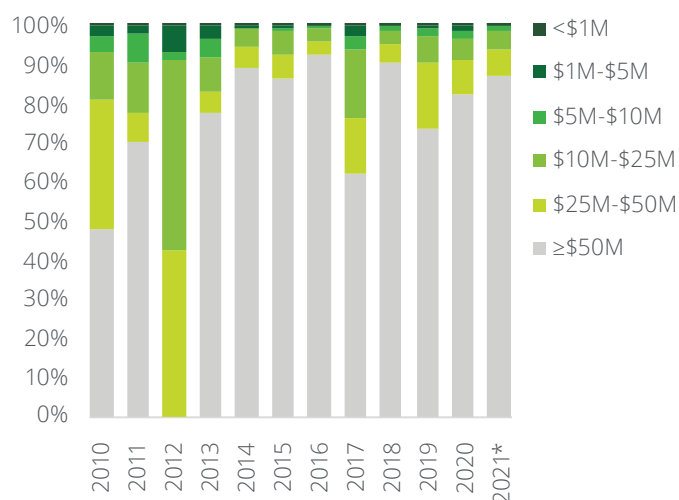
look to improve supply chain logistics and customer experiences. These platforms bring farmers closer to their end consumers by providing holistic sourcing, organization, and distribution solutions, among other things, thereby hopefully aiding in farmers' potential total addressable markets and revenue consistency. Additionally, technological innovation has further advanced

## Range of foodtech expansion-stage pre-money valuations (\$M)



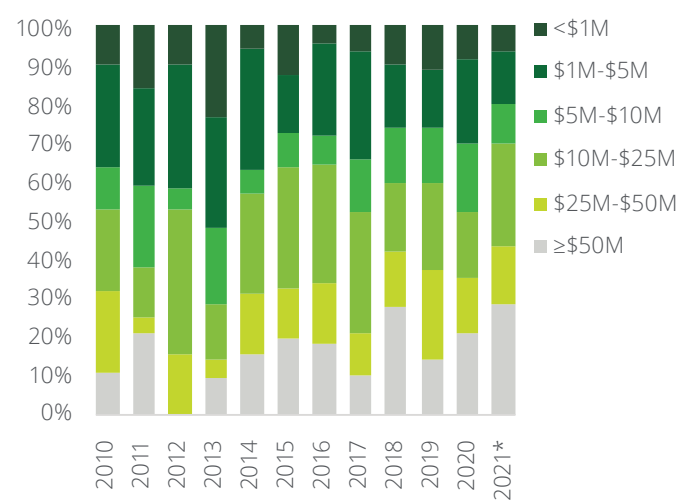
Source: PitchBook | Geography: US | \*As of December 31, 2021

## Share of foodtech expansion-stage deal value by size bucket



Source: PitchBook | Geography: US | \*As of December 31, 2021

## Share of foodtech expansion-stage deal count by size bucket



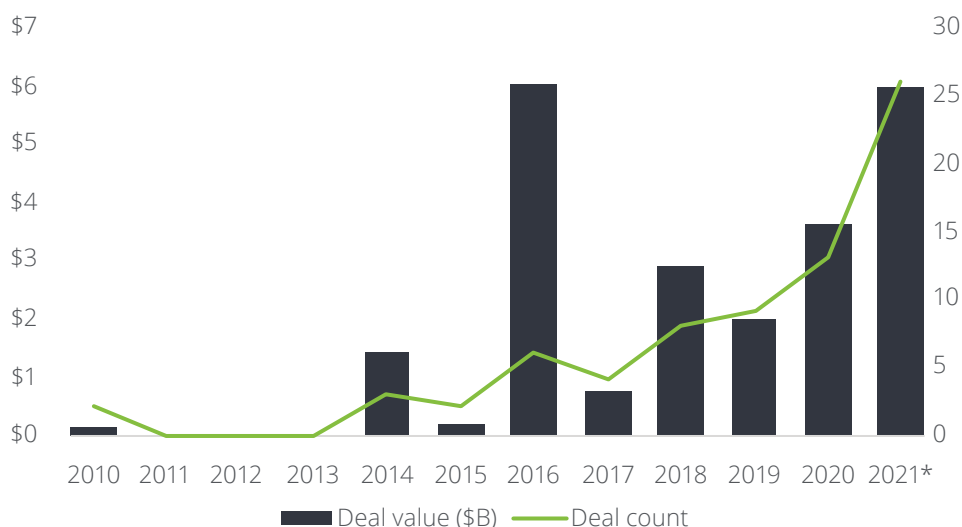
Source: PitchBook | Geography: US | \*As of December 31, 2021

foodtech. For example, creation of complex proteins in many kinds of organisms or animals has enabled the profusion of lab-grown meats and other products—although it remains to be seen if production costs can be scaled down to achieve market-feasible scale and expediency. As complete nutritional replacement is verified, ongoing innovation within this space will likely accelerate foodtech startups for years to come.

## An influx of capital continues to aid in expansion

The influx of capital within foodtech has enabled this proliferation across nascent subsegments. As a result, valuations have risen, with the median expansion-stage figure notching an all-time high of \$130.0 million in 2021. As deal flow grew—with transactions sized \$50 million+ nearing 30% of all volume in 2021—an important new trend is the steady increase in nontraditional investor participation in some of the larger deals. Hedge and sovereign wealth funds partook in \$5.9 billion

## Foodtech expansion-stage deal activity with hedge or sovereign wealth fund participation



Source: PitchBook | Geography: US | \*As of December 31, 2021

worth of foodtech deals in 2021. Although these nontraditional players have ratcheted up their overall venture activity in the past decade, this stark year-over-year increase in volume and aggregate value signals the maturation of multiple foodtech companies, as such investors tend to focus on businesses at the expansion

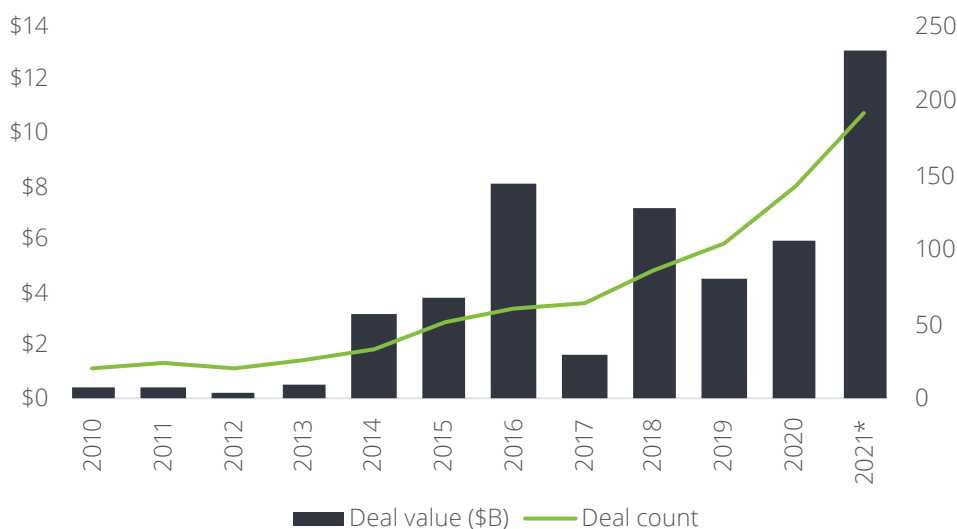
stage as opposed to fledgling startups. Much of this surge is also likely attributable to firms' increasing support of sustainability via their portfolio companies. As many foodtech companies tout their emissions-favorable methods of production and/or waste reduction, those themes align

# Highlights across investment trends

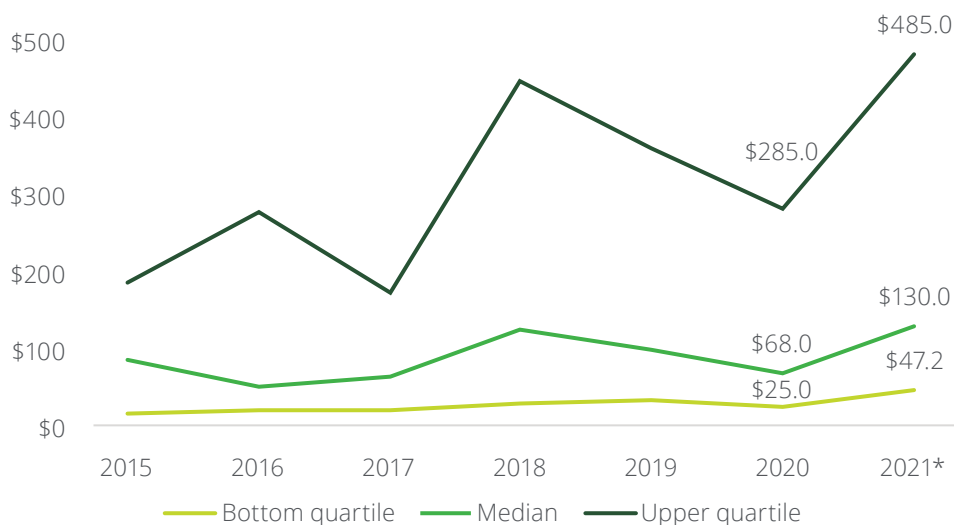
This edition of *Road to Next* explores the wave of investment and innovation in the intersection of food and technology that began in the 2010s and is only further accelerating into the 2020s. At the expansion stage, a cohort of major companies across multiple foodtech segments has emerged, drawing

a record investment tally in 2021. Spanning alternative proteins to local food chain platforms for urban consumers, foodtech continues to benefit from key macro drivers around sustainability and nutrition, which bodes well for even greater investment activity in the future.

## Foodtech expansion-stage deal activity



## Range of foodtech expansion-stage pre-money valuations (\$M)



“What has also encouraged the acceleration in foodtech innovation and viability is concurrent advances in agtech. Hydroponic farming, improved fertilizers and pesticides, and robotics AI are all enabling more sustainable, steady production of produce even in urban centers, which can help augment local distribution opportunities for foodtech platforms.”

### Heather Gates

Audit & Assurance Private Growth Leader  
Deloitte & Touche LLP

# \$13.1B

2021 saw a record tally of expansion-stage dealmaking within foodtech.

# 45%

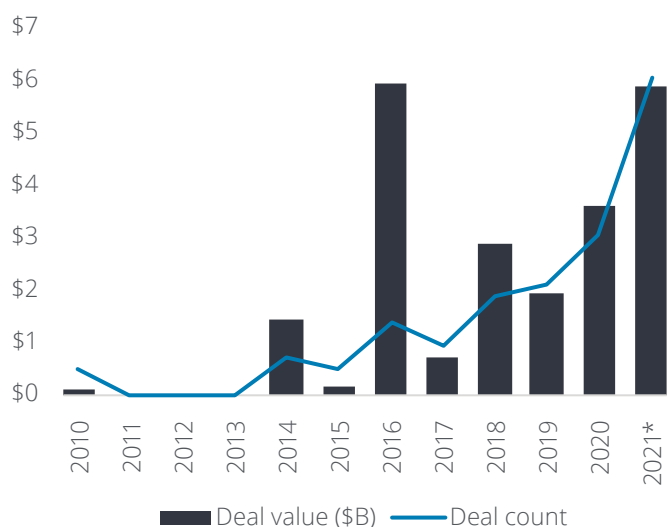
Hedge funds and sovereign wealth funds participated in 45% of all foodtech deal value in 2021.

# \$130M

The median pre-money valuation for an expansion-stage foodtech company hit a record high.

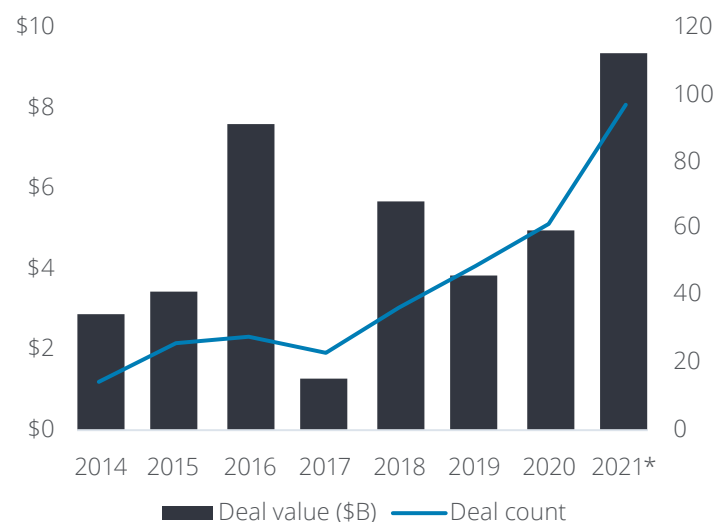
All callouts | Source: PitchBook | Geography: US

## Foodtech expansion-stage deal activity with hedge or sovereign wealth fund participation



Source: PitchBook | Geography: US | \*As of December 31, 2021

## Cross-border foodtech expansion-stage deal activity



Source: PitchBook | Geography: US | \*As of December 31, 2021

“What’s interesting about alternative proteins or even substitutes for other foods is that we now finally have the technological innovation to create credible replacements for even the most complex compounds found within food. The remaining challenge is doing so at scale and consistent quality to the point that these products can begin to at least approach credible competition in terms of pricing and availability with cheaper, traditional products, moving beyond a base of affluent consumers. Some early leaders are already approaching that point, but we are seeing a proliferation into other, novel food segments.”

### Adam Parrish

Audit & Assurance Partner, Los Angeles Leader  
Deloitte & Touche LLP

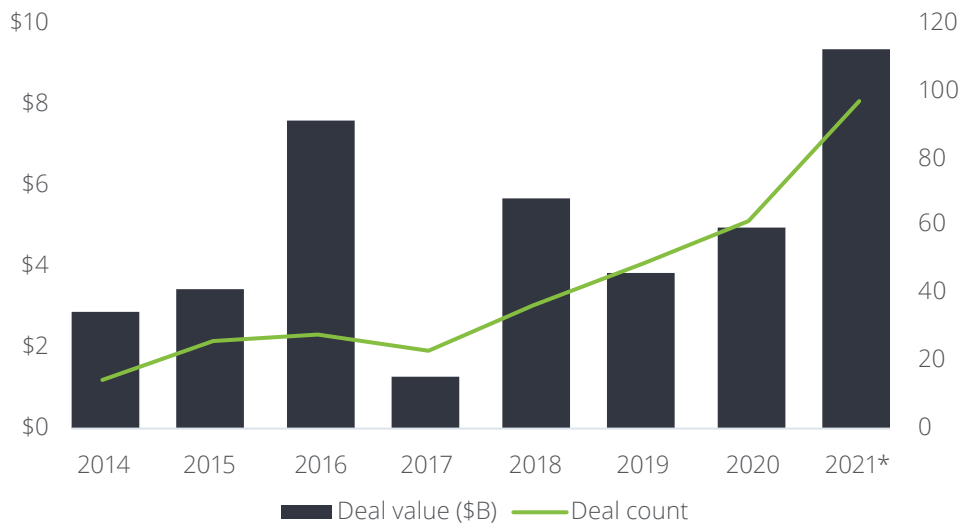
## Foodtech draws growing interest from investors abroad

An increasing number of global investment firms are pursuing foodtech, which is revolutionizing the ways people living in the US consume. Investors abroad joined in 96 cross-border deals in 2021, a significant jump from 61 in 2020. Moreover, those deals were worth \$9.3 billion in aggregate, which is to be expected, as cross-border firms tend to join in larger rounds of more mature foodtech companies. Still, beyond illustrating the rise of a larger cohort of mature, highly valued foodtech businesses, such cross-border interest also points to an expanding pool of available, potential capital for future foodtech companies to tap for funding.

## Given foodtech's nascency, significantly sustained liquidity remains in the future

Several alt-protein companies have gone public in the past few years, notching significant valuations that have considerably boosted foodtech exit values. However, as can be seen in overall exit volume for expansion-stage companies, substantial liquidity remains to be achieved for a sustained

## Cross-border foodtech expansion-stage deal activity



Source: PitchBook | Geography: US | \*As of December 31, 2021

period. 2021 had a promising uptick in completed exit volume, while total exit value from 2019 through 2021 reached an impressive \$130.9 billion—especially relative to the few if any exits in the mid-2010s. Given foodtech's nascency and the recent surge in funding, it seems likely that exits will rise in the future. For now, the maturing cohort of foodtech expansion-stage companies have opted to remain private and continue on their growth trajectories by tapping the ample private capital sources.

The ways in which market volatility may affect public listing volume in 2022 remain unclear. If foodtech valuations dip due to jitters in public markets affecting private market comparables, strategic acquirers may be willing to become more active in the space. Thus far, many incumbent conglomerates have completed only a handful of acquisitions, opting instead to spend in-house on R&D. However, a record 12 exits via M&A occurred in 2021, so an uptick may be coming.

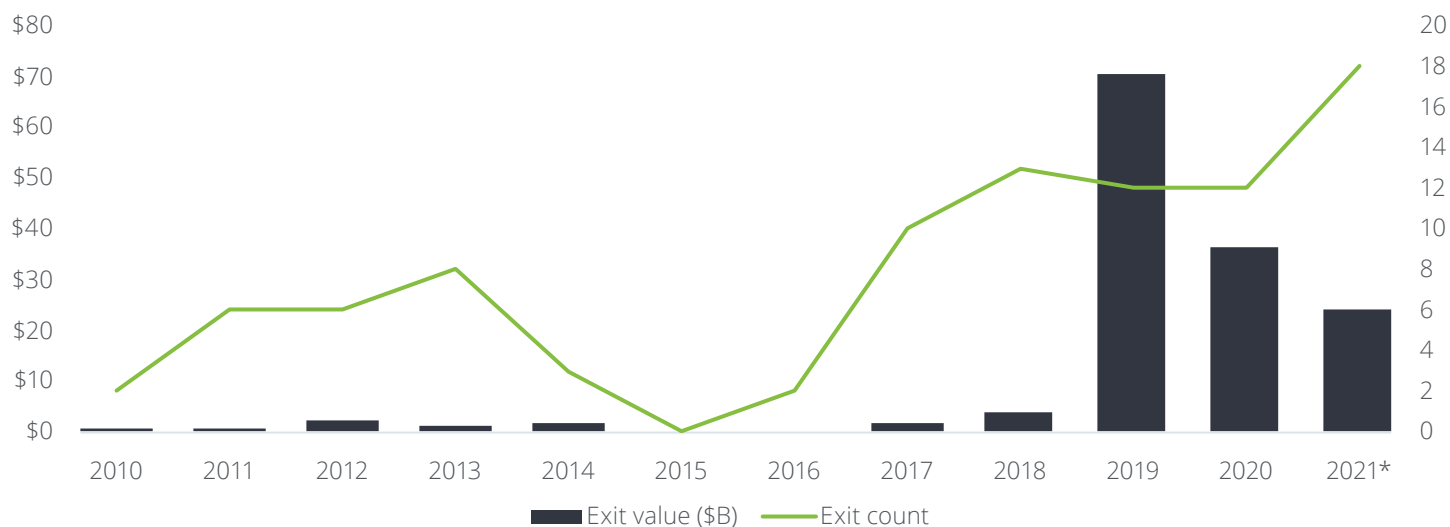
"It's still too early to tell, but within the space, there could be additional consolidation especially if extant conglomerates are willing to get more active as acquirers. That said, some of these individual newer brands have enjoyed considerable success and thus are pretty highly valued, so that could be dampening acquisitive enthusiasm for now."

### Adam Parrish

Audit & Assurance Partner, Los Angeles Leader  
Deloitte & Touche LLP



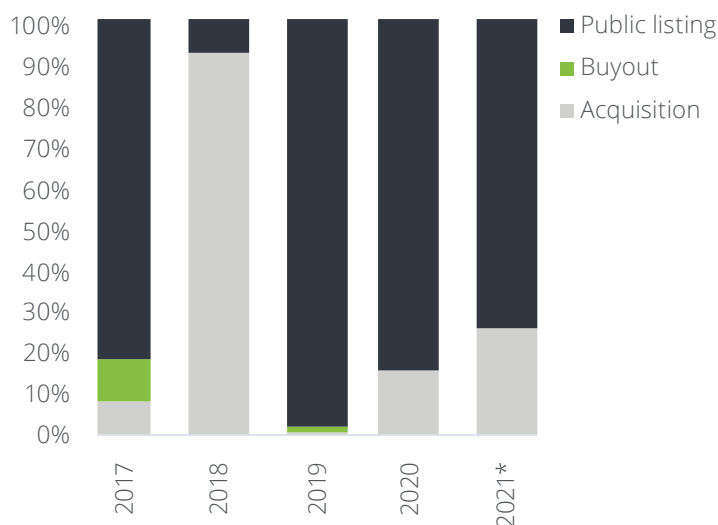
## Foodtech expansion-stage exit activity



Source: PitchBook | Geography: US | \*As of December 31, 2021

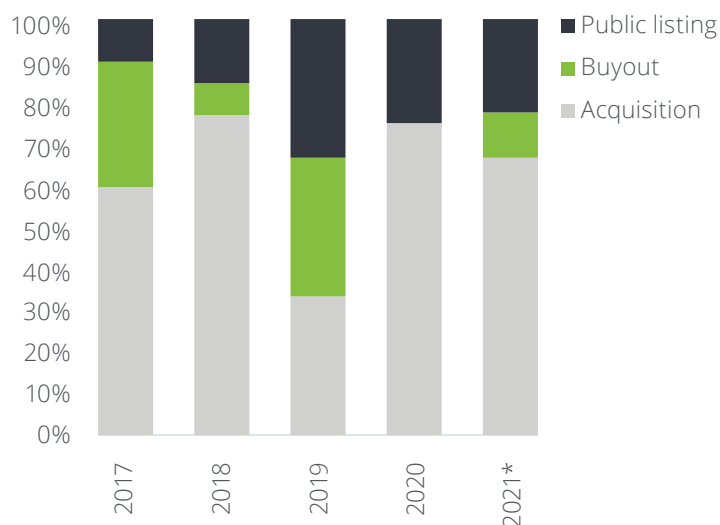
Although only four public listings occurred in 2021, their median size was \$3.1 billion.

## Share of foodtech expansion-stage exit value by type



Source: PitchBook | Geography: US | \*As of December 31, 2021

## Share of foodtech expansion-stage exit count by type



Source: PitchBook | Geography: US | \*As of December 31, 2021

# Regional trends

Even though other metros have grown their market share, California still predominates

Many foodtech segments, particularly those focused on tech-enabling platforms for traditional food production and distribution, are likely to be based in major urban centers, given the necessity for consumer concentration and proximity to industry partners such as restaurants. Through analyzing the top five metropolitan areas in the US by foodtech financing volume, despite growth in market share on the East Coast, California still attracted a plurality of foodtech funding value. However, some mega-deals skewed figures for other eastern hubs, and New York experienced the largest year-over-year increase in foodtech funding volume, from 14 completed transactions in 2020 to 25 in 2021. As the nation's leading producer in many key categories and large markets, California will likely remain home to many launching foodtech startups. But given existing domestic markets and growing urban concentration in the eastern corridor, it's reasonable to also expect foodtech funding to proceed at a steady clip on the East Coast going forward.

**From a regulatory perspective, adapting to regional variances will be key for foodtech companies, from last-mile transportation being affected by minimum wage measures to transparency initiatives.**



**Anthony Pedrotti**  
Market Development Leader  
Emerging Growth Company Practice  
Deloitte Services, LP

"Currently, the landscape in California lends itself to being very farm friendly. With tax credits to businesses, sales tax exemptions for using farm equipment, and a strong food production program, there is no better time for these companies to receive investment from the VC and PE community."

**Anthony Pedrotti**  
Market Development Leader  
Emerging Growth Company Practice  
Deloitte Services LP

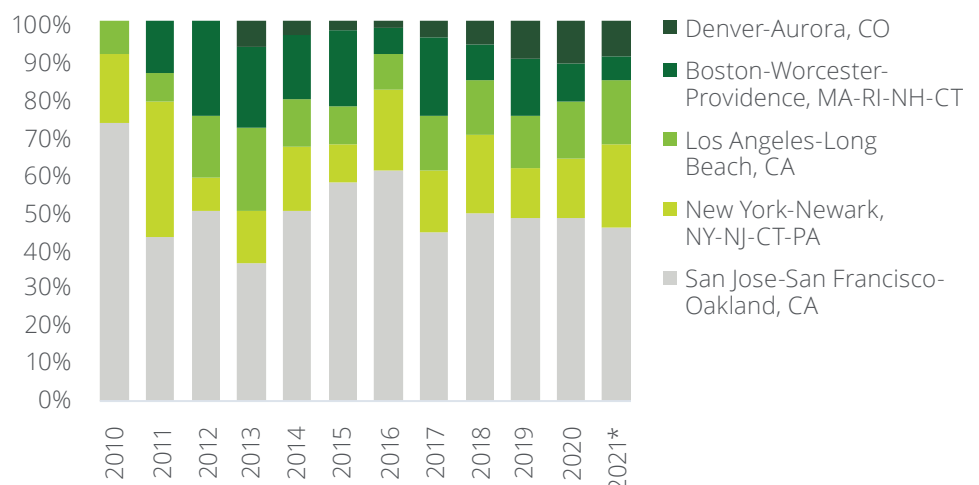


**Adam Siegel**  
Audit & Assurance Partner  
Bay Area Consumer Technology Audit Leader  
Deloitte & Touche LLP

"2022 will be a pivotal year, as there is a great push for regulatory approvals both domestically and internationally, alongside investments by industry forerunners in infrastructure, which will allow for scaled offerings to come to market. These actions should create greater awareness and demand, while lowering the barriers for the next generations of foodtech companies."

**Adam Siegel**  
Audit & Assurance Partner  
Bay Area Consumer Technology Audit Leader  
Deloitte & Touche LLP

## Share of foodtech expansion-stage deal count by metropolitan area



Source: PitchBook | Geography: US | \*As of December 31, 2021

# Spotlight: Funding farm-to-table in the search for sustainability

Sustainability and health concerns lead to surge in tech enablement for local farming and production

The monolith of US agriculture has long seemed impervious to much change, even as environmental concerns around soil reduction due to monocultural crops' dominance and runoff from fertilizers and industrial feedlots have grown in urgency. While much change is still needed at the federal level around incentives and programs for farmers, at the local level in many urban areas, foodtech companies are looking to support sustainability initiatives via market mechanisms and better business models. Platforms that serve as an interface between consumers and farmers have proliferated, offering holistic solutions for urbanites to get fresh goods delivered on recurring bases. In addition, better automated ordering and logistics tools for restaurants to source high-quality local ingredients have also cropped up. Beyond the appeal of reinvestment in local economies, growing concerns around the nutritional content and environmental impact of industrially grown produce and meats are prompting consumers to allocate more



of their budgets to food. While nowhere near pre-industrial-agroeconomy levels, organic produce and humanely raised meat are more in line with real market prices when considering the

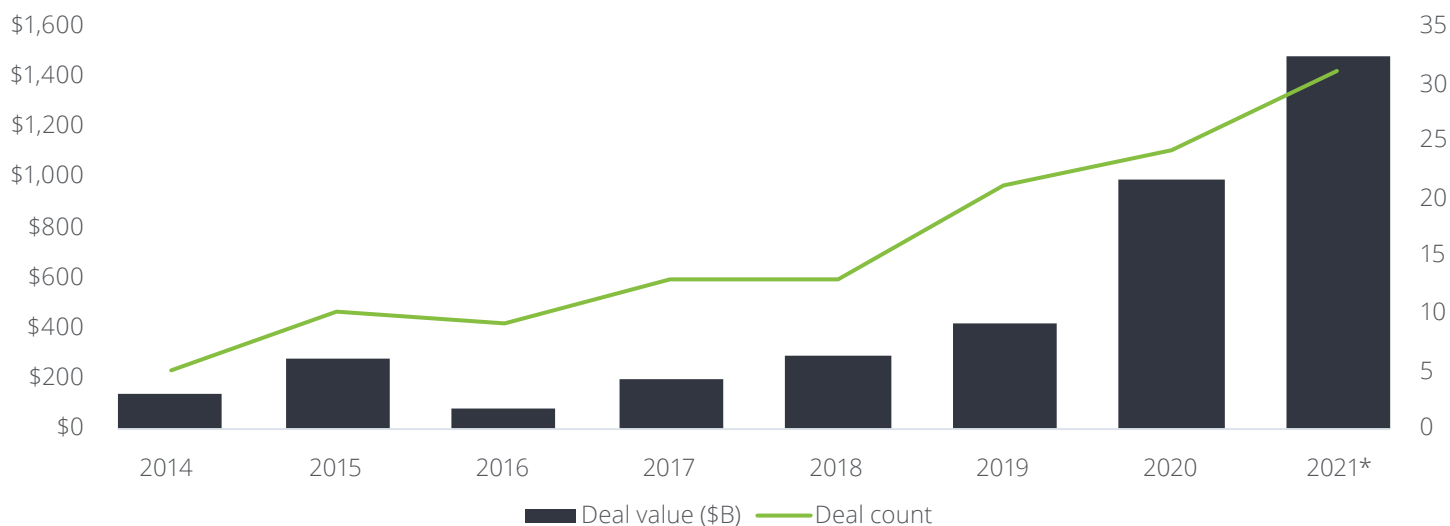
impact of subsidies and emissions. Moreover, health concerns will continue to rise, and physicians are increasingly emphasizing nutrition as the backbone of a healthy lifestyle.

“The increasing proliferation of multiple tech solutions in foodtech are definitely enabling an increase in localized, farm-to-table offerings across a greater number of metros in the US, simply because by streamlining distribution and delivery, plus improving customer outreach, such organic efforts are relatively more financially feasible.”

## Heather Gates

Audit & Assurance, Private Growth Leader  
Deloitte & Touche LLP

## Sustainable foodtech expansion-stage deal activity



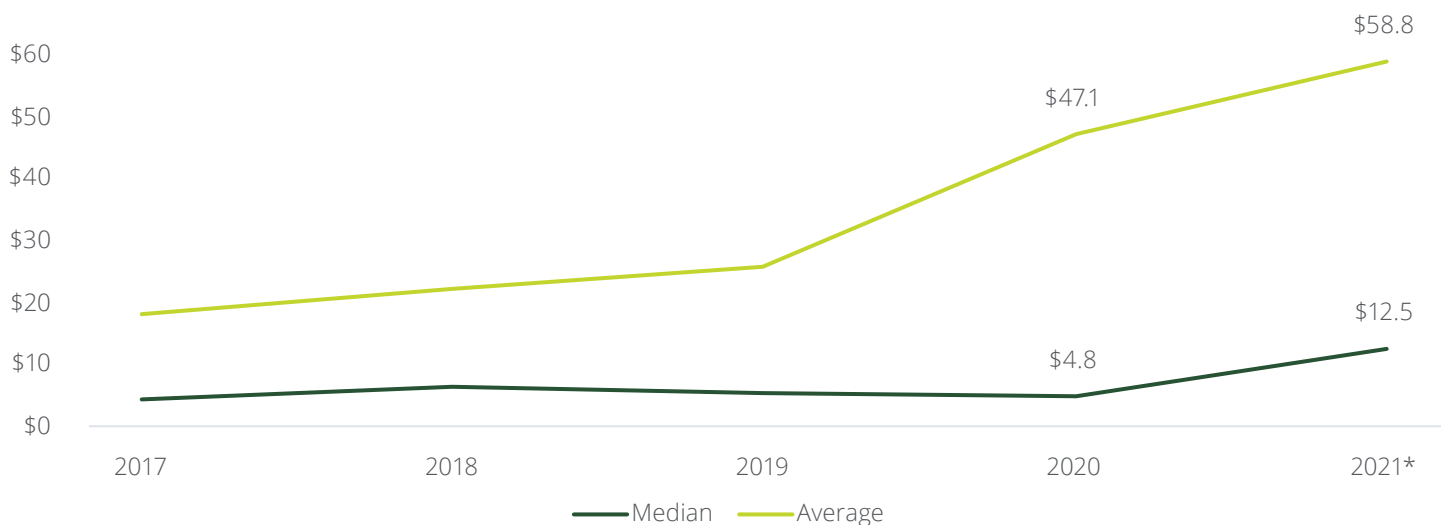
Source: PitchBook | Geography: US | \*As of December 31, 2021

As a result, although still fledgling, funding flows have risen resoundingly in the past few years in this subsegment of foodtech. 31 completed transactions in 2021 tallied nearly \$1.5 billion in value.

Given the focus on local ecosystems and markets, it remains to be seen how much further dealmaking may accelerate in this segment. Thus, while yielding a large total addressable market, recreation of sustainable

foodtech models across multiple metropolitan areas could differ based on their agricultural profiles. In sum, platform opportunities could prove to be quite large.

## Median and average sustainable foodtech expansion-stage deal size (\$M)



Source: PitchBook | Geography: US | \*As of December 31, 2021

Note: All the data points in this chart are based on non-normative sample sizes of  $n < 30$ .

# Looking forward

Powerful macro trends are likely to encourage further investment in foodtech

The tailwinds of multiple powerful macro trends are likely to drive foodtech innovation and consequently dealmaking even further. Despite the increasing popularity of hybrid work models, both urban and suburban centers around the US are densifying, leading to greater reliance on delivery services of food. Aging demographics will prompt increasing emphasis on personal health, especially with the trend toward empowering the individual consumer as to their healthcare choices and management via tech. As a result, nutrition overall is going to become even more of a keystone in healthcare diagnostics. Concerns around declining crop yields and pollution from overuse of fertilizers, plus the impact of climate change on current agricultural production areas, all will combine to encourage substantive policy changes as to local and regional food production subsidies. In the US, it is possible that future versions of the long-renewed Farm Bill, for example, will be expanded to include additional support for domestic agricultural producers at smaller scale, especially as climate change increasingly threatens

“Concerns around sustainability as well as personal health, given current findings that overconsumption of red meat is ill-advised, for example, are continuing to encourage consumers to reallocate dollars to healthier and sometimes pricier food.”

**Adam Parrish**

Audit & Assurance Partner, Los Angeles Leader  
Deloitte & Touche LLP

food security. Beyond governmental support, as more asset managers mandate sustainability reports from their portfolio companies—which require significant investment in implementation and monitoring efforts from food-related producers—even more money will be spent on their tech implementations to curb emissions and prevent waste. In turn, that will further prompt investment into innovative crop-growing systems, such as hydroponic greenhouses on the outskirts of cities, that can mitigate the need for fresh comestibles. More in-lab

tinkering to create drought-resistant, resilient variants of staple crops is anticipated to also occur, alongside the invention of alternative proteins that can substitute for conventional meats. In all, these macro trends could combine to encourage significant investment in maturing foodtech enterprises in the coming years, thus leading to even more expansion-stage dealmaking. It remains to be seen how liquidity trends will be affected by an uptick in market volatility this year, but at least on the investment side, healthy levels are to be expected.

# Methodology

## Geographical region: United States

**Sector:** For defining foodtech, PitchBook's dedicated vertical of foodtech was used. For the spotlight, companies tagged to foodtech that also had keywords pertaining to organic, farm-to-table, and associated terms were selected.

**Active investors:** The number of active investors is calculated by including either investors that have raised a venture or growth fund in the trailing five years or those that have made four or more VC or PE growth investments in the past three years. There is no exclusion on investor type, apart from angel investors. All investment data is restricted to late-stage VC, PE growth, or corporate financing types as defined by PitchBook.

**Nontraditional investors** are defined as hedge, mutual, or sovereign wealth funds.

**All exits are defined by PitchBook's primary exit types:** buyouts, acquisitions, or IPOs. The underlying companies are those that have, at minimum, achieved any of the investment data under restrictions.

**Company inventory** is calculated by tallying the number of companies that achieve either late-stage VC, PE growth, or corporate financing by year and have not recorded an exit event as of the year in question.

All exits unless otherwise noted were made by companies that fall under the aforementioned criteria for expansion-stage companies. The number of sellers was based on the count of investors classified as PE by PitchBook within the IPO event. This report was written in mid-January 2022. All data is as of December 31, 2021.

All exits unless otherwise noted were made by companies that fall under the aforementioned criteria for expansion-stage companies. The number of sellers was based on the count of investors classified as PE by PitchBook within the IPO event. This report was written in the middle of October 2021. All data is as of September 30, 2021.

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