FINISTERE VENTURES, LLC

2020 Agrifood Tech Investment Review

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PitchBook

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A special thank you to our portfolio companies who shared images for this report, including Plenty Ag (cover), GoodEggs (inside-cover) and Memphis Meats (page 3).

Introduction

Clearly 2020 was an unprecedented year in the growth of venture investment in agrifood—as COVID-19 reshaped the world, the agrifood investment community reacted quickly to the extreme uncertainty. We saw a sharp spike in Q2 capital deployment, as investors raced to support their portfolios across the "COVID Gap" and in many cases, pulled forward their plans for fundraising given the inherent question about when markets would reopen. In Q2 of 2020, $5.9 billion was invested into agrifood startups, more than double the historical average investment of $2.7 billion for Q2 in 2018–2019, as syndicates stepped up to fund existing deals and companies raising funding pushed to close rounds.

Concern regarding impacts on valuations were high during this period, but as the full year data shows, investor sentiment remained strong, valuations stabilized through Q3–Q4, and investments accelerated to produce the largest year on record in aggregate at $22.3 billion. The resilience of investment syndicates was a key factor in this outcome. The network effect of syndicates continuing to share deal flow and engaging in new deals where trusted relationships existed, enabled strong and sustained deployment of capital despite COVID-19 constraints. The COVID challenge, while having massive societal impact, did not ultimately override the positive trajectory of agrifood tech investment, which continued to grow at a 50% CAGR (2010–2020). In our view, the massive total addressable market (TAM) represented by the agrifood horizontal and high growth opportunities (in food in particular), as well as the groundswell of interest in the impact of environmental, social, and corporate governance (ESG), all fueled a rising tide that shows no sign of slowing in 2021.

Within foodtech, a number of sub-sectors benefited from a year where the freeze in travel, dining out, and enforced consumer saving helped drive a number of trends. Upticks in valuation across foodtech as well as surging investments in delivery, meal kits, and e-commerce retail were notable effects of COVID-19 and the increase in dining at home. In turn, the exposure of supply chain pressures from animal proteins to grocery distribution also raised investor support to tech startups in these segments, while disruptive business models such as "ghost kitchens" and "dark retail" also saw strong breakouts. Alternative protein has also continued a heady rise, with valuations in the stratosphere, even at early stages of company development. The successes of market leaders such as Beyond Meat and Impossible Foods are being followed by the move of cultured meat and precision fermentation technologies that are hunting for a share of the trillion-dollar-plus global protein markets.

On the farm and supply side, interest in indoor ag spiked, driven by both supply chain and sustainability factors, but also by a growing consumer preference for local and fresh produce with superior taste and quality. In early 2021, we saw the first of what will likely be a wave of special purpose acquisition company (SPAC) listings for agrifood companies. The ecosystem has expanded considerably to more than 300 startups participating in the indoor ag "land grab"; this is expected to accelerate considerably in 2021.

A renewed focus on climate change and carbon offsets appears to be gaining momentum as well. The rising ESG interest is in large part also driven by public market trends spilling over into venture-backed companies, and is likely a key focus for investors to consider in their existing portfolios as they contemplate both late-stage growth and exit opportunities. Indeed, with a growing cohort of late-stage companies in the sector, we will also likely see both more exits to private equity as well as traditional IPOs. This is a major departure from historical patterns in agrifood where exits have been driven mainly by corporate buyouts.

The sector has also seen a swelling involvement by new or non-traditional players—family offices, large pension and sovereign wealth groups, late-stage PE, and continued growth in the role of CVCs across the space. In fact, 2020 saw 8,054 unique investors participate across more than 9,000 transactions in the agrifood space. As we unpack the broader investment trends of 2020 in this report, there is strong indication that the race for innovation access is heating up and creating an exciting stage for agrifood investing as we move into the next decade of investment in 2021 and beyond.

Sincerely,

Arama Kukutai
Co-founder & Partner
Finistere Ventures

Taxonomy

Agtech taxonomy

- *Plant science:* The modification of existing plants and organisms to improve plant health and yield, including plant breeding, development of novel traits, genetic modification/editing, and more.
- *Crop protection & input management:* The development of products and technologies that when applied improve plant yield, including the development of synthetic and natural active ingredients, biologicals, formulations, seed treatments, and nutrient technologies to improve plant or soil health and reduce other inputs.
- *Precision agriculture:* The building of software suites, data management and analytics tools for improved farm management, including the measurement of crop inputs, soil, moisture, weather, inventory, etc., typically within the realm of enterprise suites with user-friendly mobile capabilities.
- *Agriculture marketplace & fintech:* Online marketplaces for the trading, buying and selling of agricultural goods, as well as platforms for the management of related financial transactions and administration of business relationships.
- *Indoor agriculture:* The production of turnkey software and hardware systems designed for the cultivation of crops within buildings, often focused on either residential or commercial real estate markets, as well as related services and building of infrastructure.
- *Sensors & smart farm equipment:* Hardware and software systems specifically designed to monitor a range of conditions, most frequently within close proximity, plus equipment for farming, with integrative capabilities for whole platforms.
- *Imagery:* Equipment, software and hardware systems plus actual manufacturing of drones and satellites for aerial monitoring.
- *Animal technologies:* Technologies aimed at improving animal health and productivity including animal genetics, feed, veterinary medicines, hardware and software systems specifically designed to enable management of livestock and other farm animals in general, with use cases ranging from health monitoring to more efficient harvesting of related resources.

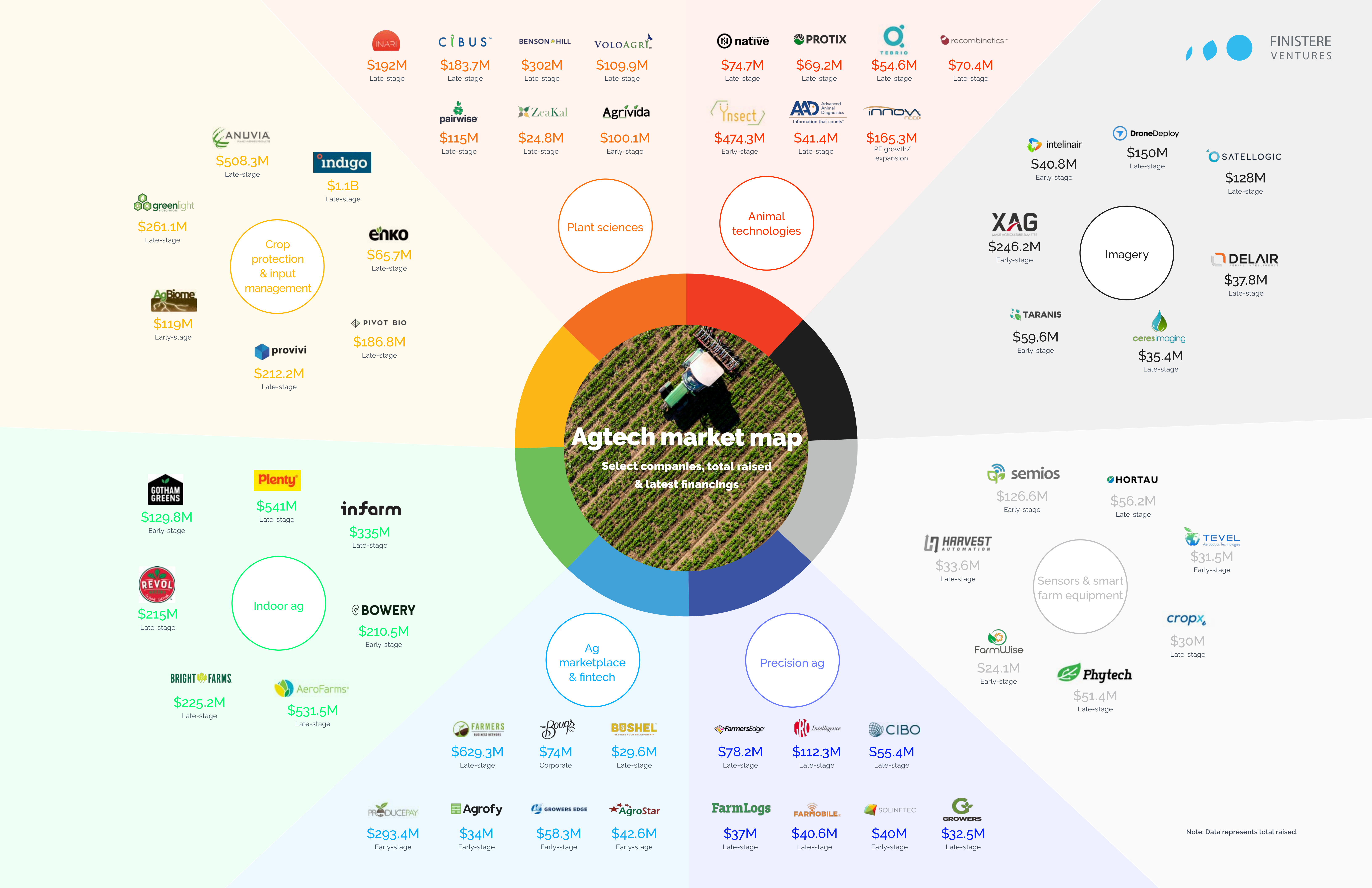
Foodtech taxonomy

- *Meal kits & delivery:* Food logistics systems developed to facilitate grocery ordering and delivery, including subscription-based, ready-to-make meals comprising pre-portioned ingredients.
- *E-commerce:* Marketplace development services and supply-chain facing financial services for growers to facilitate direct-to-end-user distribution.
- *Alt protein & alt dairy:* Plant-based or lab-grown proteins and dairy products marketed directly to the consumers and rooted in original IP.
- *Consumer health:* Novel nutritional products, including nutraceuticals and beverages marketed as consumer-packaged goods.
- *Novel ingredients:* Functional ingredients associated with health or nutritional claims; industrial ingredients targeting improvements in taste, texture, freshness or appearance of food or providing alternatives to traditional ingredients.
- *Processing & packaging:* Discovery or commercialization of novel processing & packaging solutions, including technologies around food safety, cost-effective production or shelf-life extension.
- *Supply chain:* Traceability, food waste, marketplaces & procurement software and other technologies aimed at transforming, automating or improving the food supply chain.
- *Hardware enabled*: Food preparation or distribution via next-gen vending machines, smart ovens or robotics used in the home or commercially for production.

Note: This taxonomy is kept consistent from year to year in our datasets to enable comparison over time.

PitchBook methodology

- PitchBook includes equity investments into startup companies from an outside source. Investment does not necessarily have to be taken from an institutional investor. This can include investment from individual angel investors, angel groups, seed funds, venture capital firms, corporate venture firms and corporate investors. Investments received as part of an accelerator program are not included. However, if the accelerator continues to invest in follow-on rounds, those further financings are included.
- *Angel & seed:* PitchBook defines financings as angel rounds if there are no PE or VC firms involved in the company to date and we cannot determine if any PE or VC firms are participating. In addition, if there is a press release that states the round is an angel round, it is classified as such. Finally, if a news story or press release only mentions individuals making investments in a financing, it is also classified as angel. As for seed, when the investors and/or press release state that a round is a seed financing, or it is for less than $500,000 and is the first round as reported by a government filing, it is classified as such. If angels are the only investors, then a round is only marked as seed if it is explicitly stated. It should be noted that in order to better reflect the agtech seed-stage market, this report increased that round size limit to $2 million or less. However, some seed-stage rounds in agtech may still not have been captured as of yet as a consequence.
- *Early-stage:* Rounds are generally classified as Series A or B (which we typically aggregate together as the early stage) either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors including: the age of the company, prior financing history, company status, participating investors, and more.
- *Late-stage:* Rounds are generally classified as Series C or D or later (which we typically aggregate together as the late stage) either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors including: the age of the company, prior financing history, company status, participating investors, and more.
- *Corporate venture capital:* Financings classified as corporate venture capital include rounds that saw both firms investing via established CVC arms or corporations making equity investments off balance sheets or whatever other non-CVC method actually employed.



FINISTERE VENTURES
Agtech market map
Select companies, total raised & latest financings
Plant sciences
INARI $192M Late-stage
CIBUS $183.7M Late-stage
BENSON HILL $302M Late-stage
VOLOAGRI $109.9M Late-stage
pairwise $115M Late-stage
ZeaKal $24.8M Late-stage
Agrivida $100.1M Early-stage
Animal technologies
native $74.7M Late-stage
PROTIX $69.2M Late-stage
TEBRIO $54.6M Late-stage
recombinetics $70.4M Late-stage
Ynsect $474.3M Early-stage
AAD Advanced Animal Diagnostics $41.4M Late-stage
innovafeed $165.3M PE growth/ expansion
Imagery
intelinair $40.8M Early-stage
DroneDeploy $150M Late-stage
SATELLOGIC $128M Late-stage
XAG $246.2M Early-stage
DELAIR $37.8M Late-stage
TARANIS $59.6M Early-stage
ceresimaging $35.4M Late-stage
Crop protection & input management
ANUVIA $508.3M Late-stage
indigo $1.1B Late-stage
greenlight $261.1M Late-stage
enko $65.7M Late-stage
AgBiome $119M Early-stage
PIVOT BIO $186.8M Late-stage
provivi $212.2M Late-stage
Indoor ag
GOTHAM GREENS $129.8M Early-stage
Plenty $541M Late-stage
infarm $335M Late-stage
REVOL $215M Late-stage
BOWERY $210.5M Early-stage
BRIGHT FARMS $225.2M Late-stage
AeroFarms $531.5M Late-stage
Sensors & smart farm equipment
semios $126.6M Early-stage
HORTAU $56.2M Late-stage
HARVEST AUTOMATION $33.6M Late-stage
TEVEL $31.5M Early-stage
cropx $30M Late-stage
FarmWise $24.1M Early-stage
Phytech $51.4M Late-stage
Ag marketplace & fintech
FARMERS BUSINESS NETWORK $629.3M Late-stage
The Bouqs Co. $74M Corporate
BUSHEL $29.6M Late-stage
PRODUCEPAY $293.4M Early-stage
Agrofy $34M Early-stage
GROWERS EDGE $58.3M Early-stage
AgroStar $42.6M Early-stage
Precision ag
FarmersEdge $78.2M Late-stage
RC Intelligence $112.3M Late-stage
CIBO $55.4M Late-stage
FarmLogs $37M Late-stage
FARMOBILE $40.6M Late-stage
SOLINFTEC $40M Early-stage
GROWERS $32.5M Late-stage
Note: Data represents total raised.

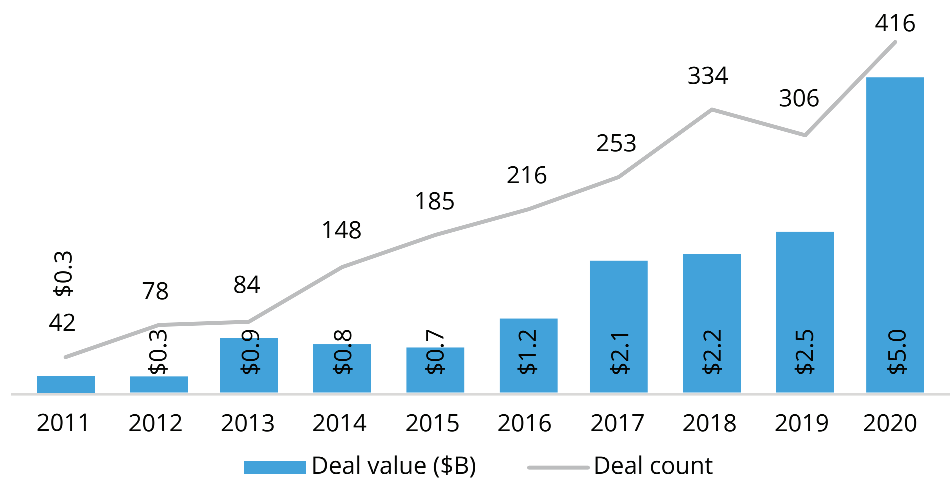
Agtech market update

Agtech investment totaled $5.0 billion in disclosed value in 2020, an extraordinary performance in any context, much less a fundraising environment upended by the COVID-19 pandemic. That figure, generated across 416 completed financing rounds, is double the sum generated in 2019—the previous top year for agtech venture funding. It also comprises almost a third of the $15.9 billion raised in aggregate across subsectors such as indoor agriculture since the start of 2010. Certainly, 2020 was an extraordinary year for the agtech ecosystem, and the investment results speak to the resilience of investor appetite in the face of an unprecedented black swan event that disrupted markets and upended supply chains. Remarkably, though, until Q4, the bulk of capital came at the height of pandemic-induced uncertainty in Q2 as investors and companies rapidly reacted to the radical alterations in workflows and due diligence practices.

As a result of the industry's successful adaptation, investment into agtech continued to expand at a staggering pace through the end of 2020, with aggregate value increasing at a compound annual growth rate (CAGR) of some 50% over the last decade on a 31% CAGR in the number of funding rounds closed. And this momentum has carried into the new year, with an additional $747.9 million committed to agtech across 67 deals as of mid-March—results that will undoubtedly grow as more data is collected deeper into 2021.

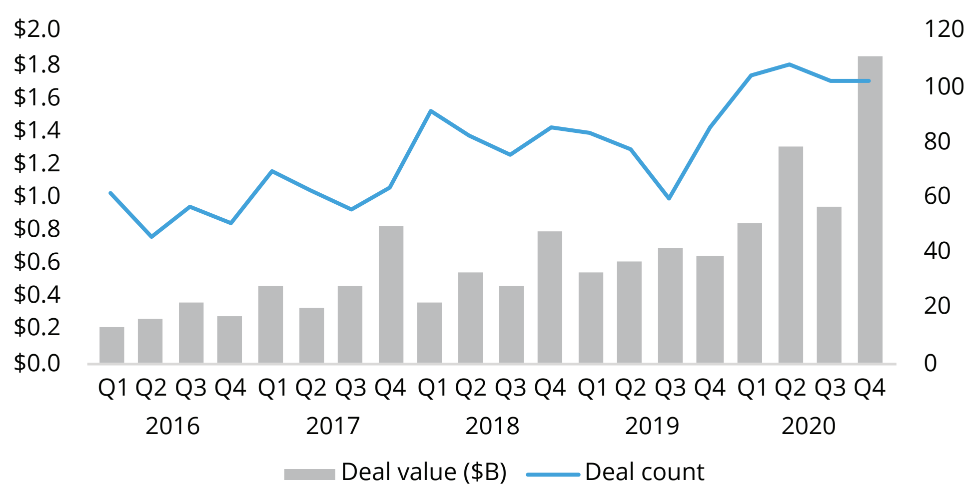
Late-stage deals captured significant capital from both existing follow-on capital from existing investors and investment from generalist funds seeking to participate within agrifood investing at a more derisked stage. The benefits of this dynamic are expected to favor seasoned specialist investors, who have already identified and are likely to own larger porportions of equity within agrifood startups. Likewise, the re-emergence of corporate venture capital (CVC) has been significant of late, with CVCs participating in 107 funding rounds in 2020 representing $3.2 billion in capital committed. By contrast, CVC activity in 2019 represented just $770 million across 66 deals. These dynamics have contributed to the

Global agtech VC deal activity by year



Source: PitchBook | **Geography**: Global

Global agtech VC deal activity by quarter



Source: PitchBook | **Geography**: Global

sustained growth in pre-money valuations, the median of which for late-stage deals reached record heights at $67.6 million, an increase of roughly 61% year-over-year (YoY) in 2020.

The pandemic's impact

At midyear 2020, we reported that our regular meetings with fellow VC firms indicated that syndicates with capital to deploy were moving quickly to extend the runway for their portfolio companies, whether in the form of bridge financings or round extensions intended to push drywell (or cash-positive) dates out to the end of 2021 and beyond. This impetus to support existing investments was borne out in deals that show the majority of transactions last year were led by existing investors.

In addition to helping startups push their funding needs outside the "COVID-19 zone," this funding also enabled companies to amass additional evidence of their scalability, particularly ahead of planned Series B rounds, where growth investors can see greater potential for on-farm adoption. Although deal counts were roughly evenly distributed across stages, $3.8 billion—fully 76.6% of all venture investment—went to late-stage companies, the highest sum on record for the most mature companies and a staggering $2.1 billion increase YoY.

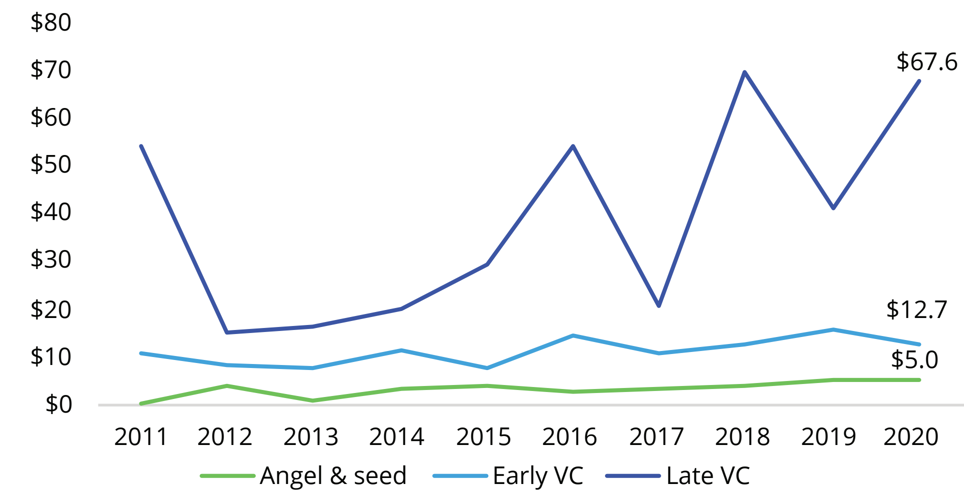
As anticipated, diligence and investments for follow-on rounds accelerated during COVID-19 while companies rushed to secure capital beyond the impact of the pandemic. Consequently, some downward pressure on valuations across stages should be expected going forward, as the impact of earlier, prerevenue startups accepting lower valuations at the onset of the pandemic continues to affect valuations. Because valuations can be "sticky," we believe it may take a year or more for the true impact of COVID-19 to manifest in this metric. We foresee late-stage financings continuing to reach record heights while new capital seeks more derisked opportunities. In contrast, we anticipate that pre-money valuations at the seed and early stages, which showed slight decreases in 2020, will not increase for some time.

Several factors are at play here. Firstly, the public market's correlation to valuations for late-stage VC deals is much stronger than at earlier stages as public equity markets rallied rather quickly after hitting bottom in March. Record levels of dry powder combined with historically low interest rates fueling strong public market appetites for growth, empowered late-stage companies to command higher valuations throughout much of the past year. However, by deal count late-stage companies have comprised around one third of deals within agtech since 2013. 2020 upheld that trend at 29%. Despite relatively steady deals-by-stage ratios, late-stage growth in median pre-money valuations reached $67.6 million. In short, sizeable deals and valuations have not translated into larger equity stakes for investors backing more mature agtech companies.

The 10 largest deals of 2020 for agtech* also highlight the push to support existing portfolio companies, with all but indoor ag startup Revol Greens' massive Series A representing a fourth funding round or more—indeed, far more in the case of Farmer's Business Network, which notched its tenth round. The biggest deals of 2020 also speak to the underlying trend toward outsized growth in capital for

*See appendix

Global median pre-money valuations ($M) by stage in agtech



Source: PitchBook | **Geography**: Global

the space, even as company development cycles remain lengthy. Another notable trend is the continued incidence of mega-rounds representing financings of $100 million or more in aggregate capital, a figure all top 10 agtech deals exceeded by comfortable margins. These dynamics helped to push the rounds at the Series D stage and beyond to $1.4 billion in aggregate value across just nine financings.

At the same time, the trend of increasing valuation step-ups cooled off in 2020. Across late-stage deals, median step-ups returned to 1.3x for the year in a reversion to 2017 levels while angel & seed step-ups continued their descent from a high of 3x in 2018 to just 1.2x in 2020. This dynamic is likely due to downward pressure on step-ups from COVID-19, which forced startups to seek capital at muted valuations to continue operating. For example, angel & seed median pre-money valuations remained flat YoY at $5.0 million while median early-stage valuations fell from $15.6 million to $12.7 million. All the same, a review of the companies that raised capital in 2020 reveals a growing number of companies coming to market with massive potential to alter existing agricultural systems or introduce entirely novel production methods to their corner of the market.

Sector trends

The impact of COVID-19 has recast near-term outlooks not only for the agrifood tech value chain, but also further afield. The pandemic exposed longstanding vulnerabilities to supply chains essential to operations. Labor shortages both on-farm and at processing facilities diminished seeded acreage or left product unable to reach end markets. Scenes of dairy farmers dumping gallons of excess milk emerged early in the pandemic as consumer demand initially plummeted, prompting some to double-down on predictions that beef and dairy would collapse over the next decade. But outlooks for both the stability of and opportunities for improving the agrifood tech value chain remain structured by the far greater impact of climate change on weather patterns, including the adverse consequences of extreme events on yields going forward. These near- and long-term themes informed the venture investment trends recorded by subverticals in 2020.

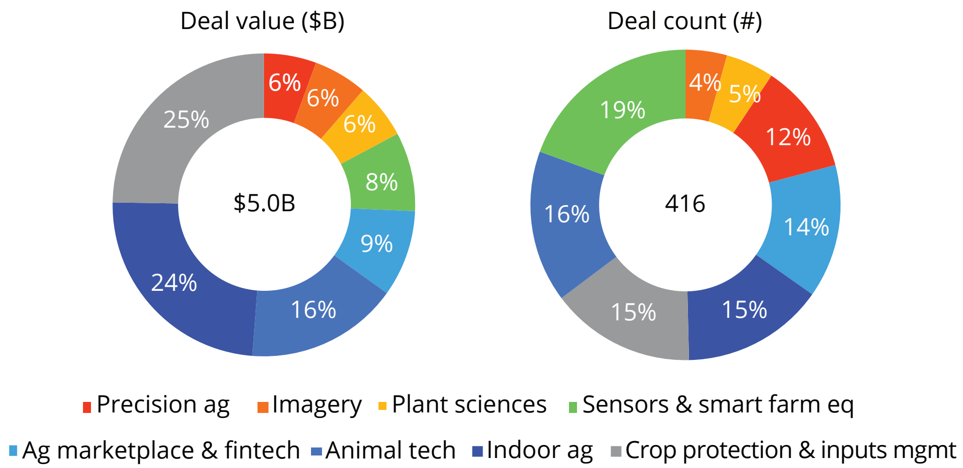
Crop protection & inputs management, boosted by ag biotech investment, remains the leading area of venture investment. The additional $1.3 billion in aggregate value generated in 2020 pushed funding in this corner of the market to some $5.3 billion since the start of 2010. The strength of the segment YoY translated into capturing roughly a quarter of all funding for 2020 on 15.1% of completed deals—and investors have carried this enthusiasm into 2021, with another $268.2 million in deal value already secured. Meanwhile, venture funding has underscored the maturity of the companies in this space, with those at the late stage enjoying a massive median pre-money valuation of $310 million last year. Mega funding rounds for the likes of Indigo Agriculture, which raised $500 million in its eighth round at a pre-money valuation of $2.3 billion, illustrate the mounting importance of generalist funds jockeying for position on the cap tables of mature segment leaders. Their presence helped push aggregate value for rounds of $25 million+ to $3.6 billion last year.

With the recent increased pressure on investors to expand ESG efforts, exits to financial sponsors in the private equity space are expected to rise in coming years following the surge in growth investment activity. Likewise, ag carbon credit programs overseen by the likes of Indigo Ag and Nori, which allow farmers to receive payment for carbon stored in soil via managed marketplaces, should encourage mainstream adoption among growers. Both companies secured their initial corporate clients in 2020, including no less than JPMorgan Chase and IBM. The recent proliferation of such marketplaces on the back of crop protection & input management platforms is nascent but expanding on the promise to help farmers navigate the potential upside to offsetting carbon footprints while addressing tail-risk to operations from disastrous weather events.

Meanwhile, investors continued to place big bets on longstanding consumer trends informing innovation across the agtech space. For instance, organic produce sales in the US reached $8.5 billion in 2020, with the categories representing the largest sales increases comprising packaged salads at 15.4%, berries (strawberries, blueberries, and raspberries) at 12.2%, and apples at 11.1%. The first two categories represent staple indoor ag crops, and developments housed within the indoor ag segment will be essential to increasing organic produce production across an ever-expanding range of product categories.

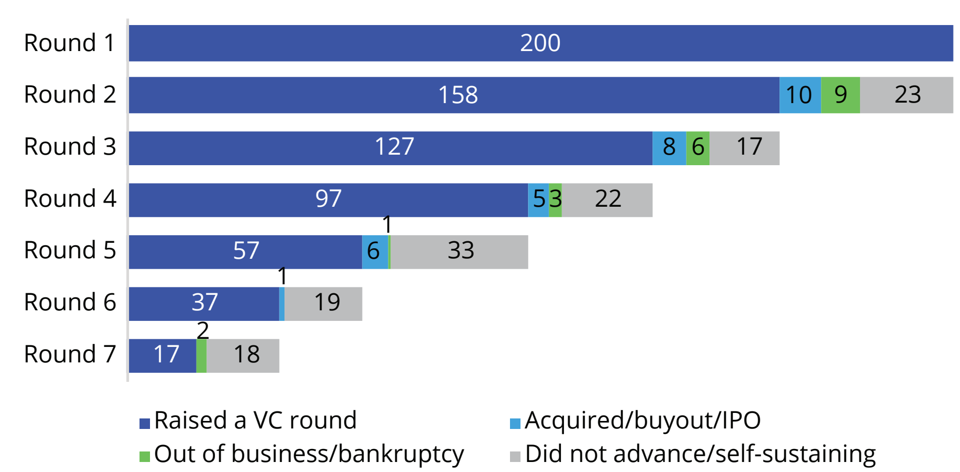
Promising to meet rising demand without recourse to existing farmland systems, indoor ag also approached $1.3 billion in funding for 2020—more than doubling YoY from $601 million raised in 2019. Category leaders such as Plenty, Infarm, and Bowery Farming deploy an integrated mix of often-proprietary technologies representing valuable underlying intellectual property, including advanced sensors, irrigation systems, and data science, to control virtually every factor affecting growth, such as light, temperature, and

Share of global VC deal value (%) in agtech by subsector for 2020



Source: PitchBook | **Geography**: Global

VC funnel



Source: PitchBook | **Geography**: Global

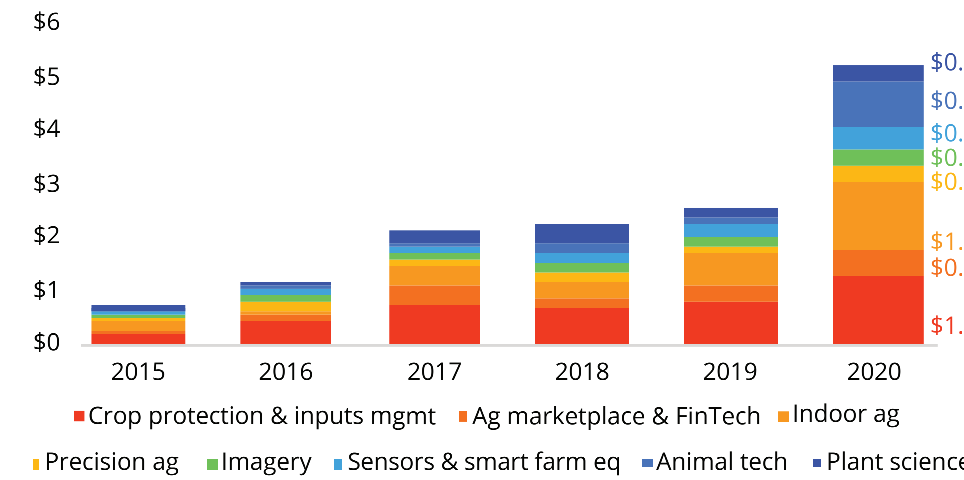
nutrients. Indoor ag also brings supply closer to demand. Proving out the value proposition of indoor ag operations helped yield one of the top exits not only in this category but in all agtech the over past year when AppHarvest raised $475 million listing on the NASDAQ with Novus Capital, a special purpose acquisition company (SPAC), in February. Although the deal opens the door to a novel exit route for others in agtech to explore, the preponderance of companies with active operations that have secured at least one round of funding remain private players.

Finally, the most significant expansion of VC funding overall emerged in 2020 from animal tech, a segment that has registered steady but not significant inflows of capital in recent years. However, the pandemic put raising livestock under pressure and put leaders in the segment at top of mind for investors learning initially alongside the wider public that the outbreak of COVID-19 was of zoonotic origin. Just a month after the World Health Organization declared a global pandemic, findings from a team of industry and academic researchers indicated an estimated loss of $13.6 billion for the US beef cattle industry from COVID-19. With much of the industry's processed output destined

for global markets such as Japan and South Korea, disruptions to global demand caused by the pandemic upended supply chains and impacted herd health directly. Moreover, across protein-producing industries, including pigs and poultry, localized outbreaks sourced to processing facilities highlighted labor issues that exacerbated this disruption. Companies developing automated solutions for use on-farm or down the supply chain stood to benefit as capital committed to animal tech in 2020 exploded following another muted annual performance in 2019.

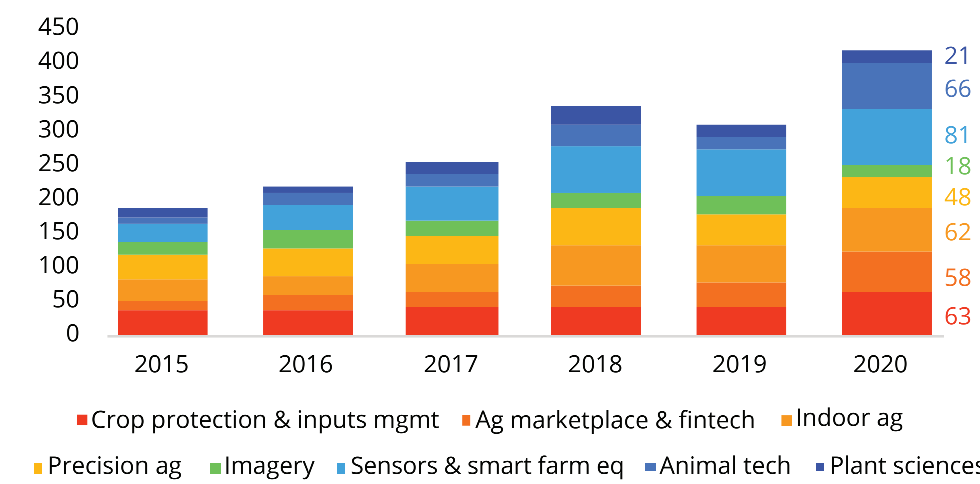
After animal tech VC activity approached a modestly elevated $65 million across 20 financings coming into 2020, overall deal value last year would post an astonishing 12.1x increase YoY to $847.8 million on 67 funding rounds. Ynsect and InnovaFeed generated the preponderance of this record sum, however. Taken together, a pair of funding rounds for these French startups comprised almost two-thirds of the sum raised in the space for all of 2020. For its part, Ynsect raised a $372 million Series C round in October 2020 led by Astanor Ventures to develop the world's largest insect farm, while InnovaFeed secured a $165.2 million early-stage round, led by Creadev and Temasek a month later. These companies, which also plan to deploy this influx of capital to accelerate international expansion, produce insect-based feed for use on farms or in aquaculture. However, most of the companies in this segment have historically focused on technologies to monitor, analyze, and optimize animal health and production, including the development of wearables for herd management and disease prevention. For example, Swinetech, which raised a $7 million round led by Innova Memphis last year, has created an IoT-based animal health monitoring solution that uses AI-driven computer vision technology.

Agtech deals ($B) by subsector



Source: PitchBook | **Geography**: Global

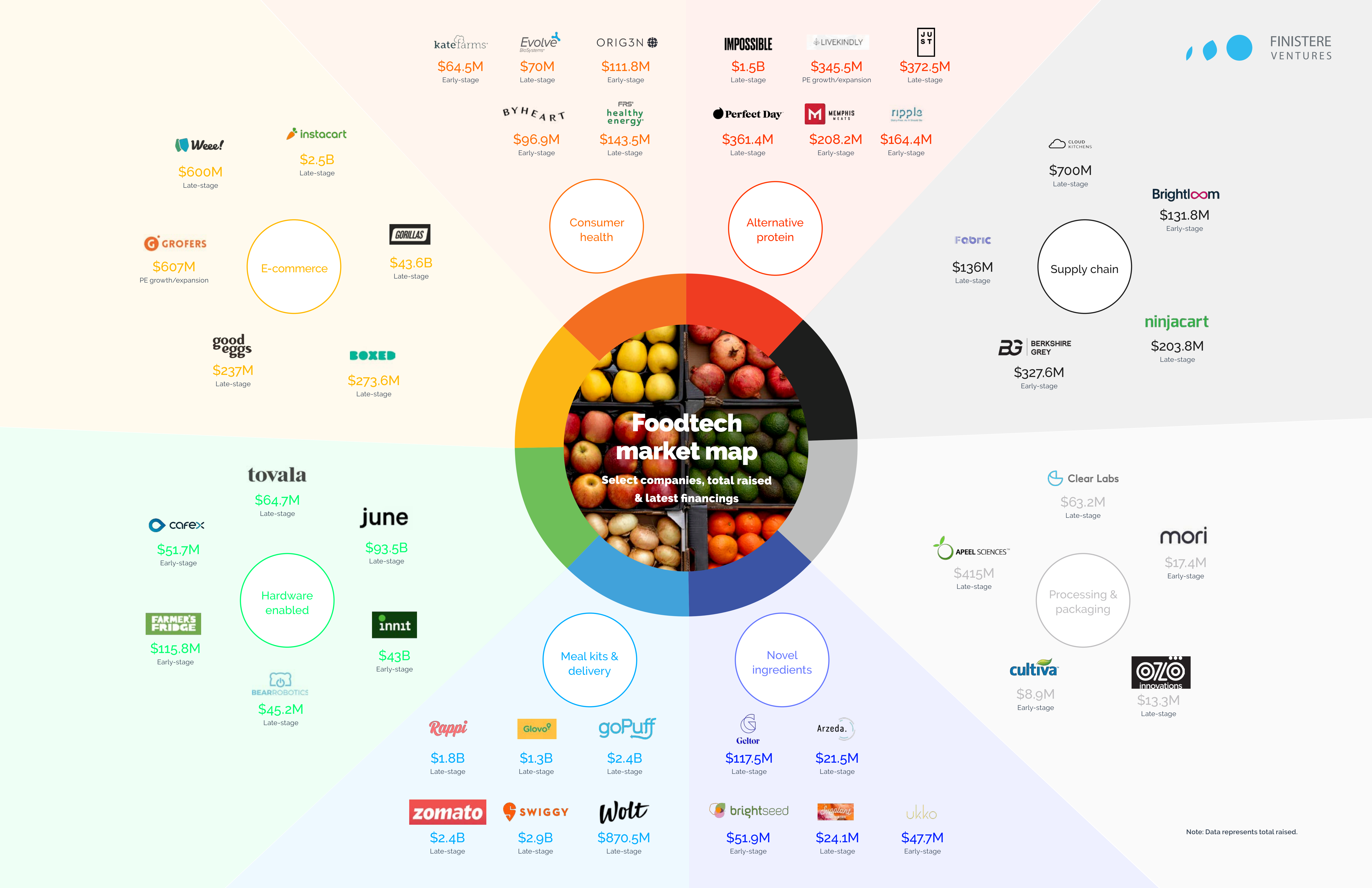
Agtech deals (#) by subsector



Source: PitchBook | **Geography**: Global

Additional sector highlights for 2020 include:

- Digital technologies (imagery, precision agriculture, and sensors & farm equipment) generated more than $1 billion in value in 2020, a fifth of the total capital committed across 147 transactions.
- Invested capital across precision agriculture technologies more than doubled its 2019 performance at $290.7 million on 48 rounds.
- Although longer lifecycle investments continue to characterize plant sciences, commitments to this subvertical jumped by 61.3% YoY to $305.1 million in aggregate value on just six more transactions than were completed in 2019.
- Ag marketplace & fintech, which includes insurance and risk assessment services for agrifinance, turned in its top annual performance in 2020 as deal value approached $480 million—an increase of some $200 million in VC over 2019 results.
- Even as the pandemic drew increased investment YoY into each agtech subvertical, the presiding investment thesis across rounds represented a clear signal from stakeholders to segment leaders that initiatives to help growers manage climate change going forward will command elevated valuations.

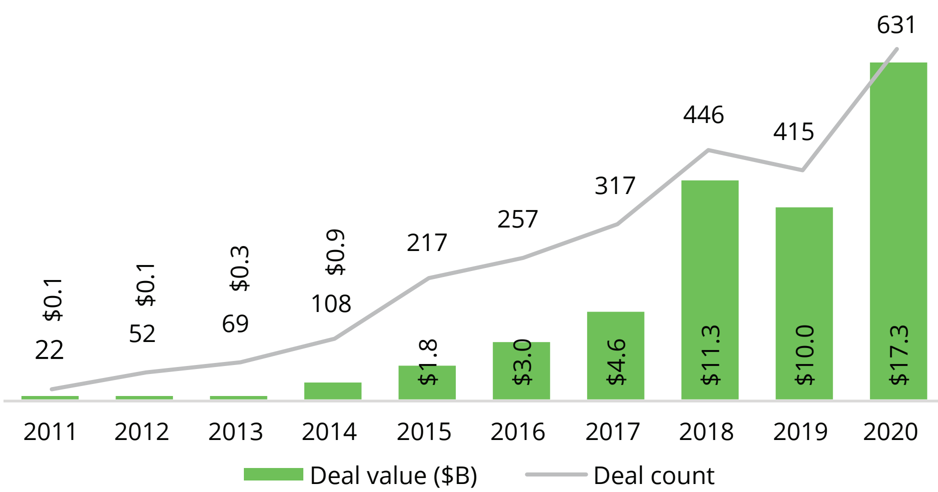

FINISTERE
VENTURES
Foodtech market map
Select companies, total raised
& latest financings
Consumer health
katefarms
$64.5M
Early-stage
Evolve
$70M
Late-stage
ORIG3N
$111.8M
Early-stage
BYHEART
$96.9M
Early-stage
FRS healthy energy
$143.5M
Late-stage
Alternative protein
IMPOSSIBLE
$1.5B
Late-stage
LIVEKINDLY
$345.5M
PE growth/expansion
JUST
$372.5M
Late-stage
Perfect Day
$361.4M
Late-stage
MEMPHIS MEATS
$208.2M
Early-stage
ripple
$164.4M
Early-stage
Supply chain
CLOUD KITCHENS
$700M
Late-stage
Brightloom
$131.8M
Early-stage
Fabric
$136M
Late-stage
BERKSHIRE GREY
$327.6M
Early-stage
ninjacart
$203.8M
Late-stage
E-commerce
Weee!
$600M
Late-stage
instacart
$2.5B
Late-stage
GROFERS
$607M
PE growth/expansion
GORILLAS
$43.6B
Late-stage
good eggs
$237M
Late-stage
BOXED
$273.6M
Late-stage
Hardware enabled
tovala
$64.7M
Late-stage
carex
$51.7M
Early-stage
june
$93.5B
Late-stage
FARMER'S FRIDGE
$115.8M
Early-stage
innit
$43B
Early-stage
BEARROBOTICS
$45.2M
Late-stage
Meal kits & delivery
Rappi
$1.8B
Late-stage
Glovo
$1.3B
Late-stage
goPuff
$2.4B
Late-stage
zomato
$2.4B
Late-stage
SWIGGY
$2.9B
Late-stage
Wolt
$870.5M
Late-stage
Novel ingredients
Geltor
$117.5M
Late-stage
Arzeda.
$21.5M
Late-stage
brightseed
$51.9M
Early-stage
Supplant
$24.1M
Late-stage
ukko
$47.7M
Early-stage
Processing & packaging
Clear Labs
$63.2M
Late-stage
APEEL SCIENCES
$415M
Late-stage
mori
$17.4M
Early-stage
cultiva
$8.9M
Early-stage
OZO innovations
$13.3M
Late-stage
Note: Data represents total raised.

Foodtech market update

Foodtech investment totaled $17.3 billion in disclosed value in 2020 across 631 funding rounds, fueled by investor support for startups transforming food consumption and supply chain, with technology adoption accelerated not only by consumer behavior shifts brought on by the pandemic but also in support of a more sustainable and resilient food system. This remarkable performance represents a 73% gain YoY on the $10 billion in aggregate funding generated in 2019—a figure that itself came close to 2018's record $11.3 billion in foodtech investment. With 2020's marquee year, the category officially has amassed $50 billion of venture funding raised over the past decade. While this report's analysis aims to unpack the nuances in deal flow across the broad variety of subsectors encompassed by the category such as novel ingredients, hardware enabled solutions, food supply chain, and consumer health products, it is really the meal kits & delivery and e-commerce categories that continue to be the capital guzzlers of the space, comprising more than two-thirds of all deals by value since 2010.

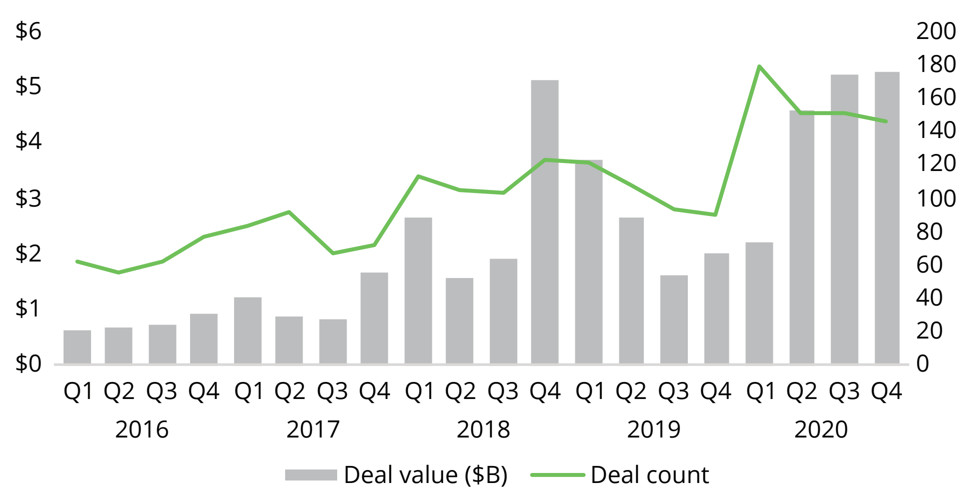
2020 was no different, with meal delivery and e-commerce collectively raising 68% of funding in the space, largely to be able to scale and respond to massive growth in consumer demand. It is Finistere's view that there will be lasting and persistent changes to consumer behavior in at-home consumption, noting that 2020 was the first year since 1994 in which the restaurant share of food consumption dropped versus in-home. Grocery retail experienced its own set of challenges with a surge in demand that could not be met with existing infrastructure as well as the need for new outlets and platforms to meet consumers where and when they wanted to be met. While COVID-19 is certainly a temporary dislocation, it significantly accelerated the digital transition of the grocery retail category and opened opportunities for challengers competing through entirely digitally native models as well as incumbents responding by partnering with startups as a digital backbone. E-commerce, the rise of micro-fulfillment centers (MFCs, or "dark stores") and digital tools to improve customer experience and delivery are a few examples.

Global foodtech VC deal activity by year



Source: PitchBook | **Geography:** Global

Global foodtech VC deal activity by quarter



Source: PitchBook | **Geography:** Global

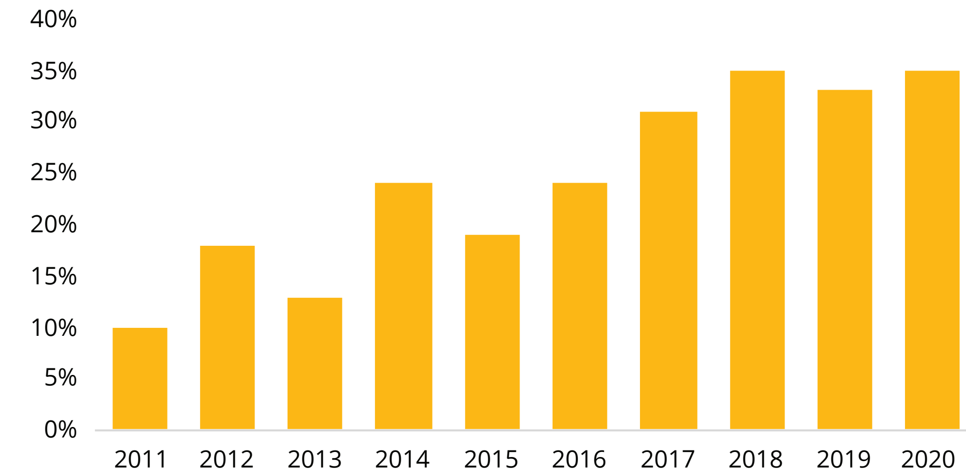
The pandemic resulted in an unprecedented dislocation of food demand and supply, which also sent shockwaves further up the supply chain and exposed some major pain points. Surprisingly, supply chain was the only category across foodtech that saw a contraction in capital invested, with under $1 billion deployed. Companies aiming to reduce food waste, enable B2B marketplaces, and deliver greater efficiency and flexibility across the food system's operating backbone remain underinvested and an area in which Finistere sees great opportunity.

Finally, while COVID revealed vulnerabilities across the entire food supply chain, it certainly added a further degree of scrutiny around meat and dairy production, encouraging greater adoption and investment in protein and dairy alternatives with more sustainable offerings. From a consumer standpoint, the burgeoning trend to eat more conscientiously was met with falling price points for products from category leaders such as Impossible Foods and Beyond Meat that are closer to parity with conventional, animal-sourced protein. Continued signs of accelerating consumer interest and growing penetration into a massive end-market was echoed by positive investor sentiment in both public and private markets, reflected in the fact that alt proteins was the fastest-growing foodtech category in 2020.

While 2020 kicked off with what now seems like a modest $2.2 billion across 180 foodtech investment deals (although in line with 2019 quarterly averages), the segment exploded out of the gates in Q2 with invested capital increasing quarter-over-quarter (QoQ) thereafter. Across both agtech and foodtech, Q2 saw investors and companies react to the uncertainty of a global pandemic. Anecdotally, Finistere witnessed startups moving quickly to extend their runway by raising bridge funding or fresh rounds to help push funding needs well outside the COVID-19 zone. The pandemic introduced complexities, as teams were unable to access lab space to push forward R&D milestones, saw revenue from food-service related businesses practically dry up overnight, or were not able to interact with customers on a face-to-face basis. Despite some of these challenges at the height of pandemic-induced uncertainty in Q2 2020, investors committed $4.6 billion across foodtech, championed by the $2.6 billion injected into the meal kits & delivery segment. In Q2, investment in this category made up 56% of total capital investment—in stark contrast to 7% in Q1.

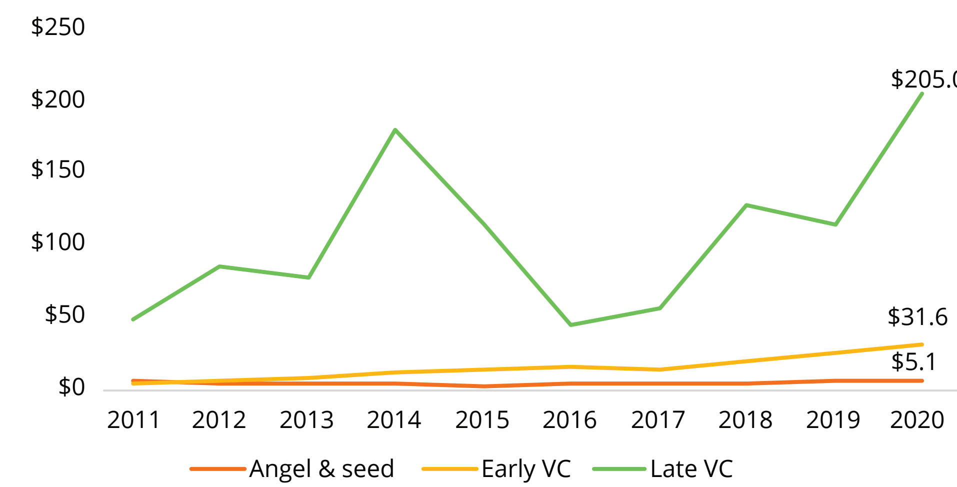
There's no question that 2020 was a breakaway year for foodtech, as public market interest and late-stage companies represented a tipping point for the category. Building on the foundation laid by pioneering investors within the segment, 2020 saw more late-stage companies than ever before, with 83% of capital invested concentrated on the 30% of companies classified as late-stage opportunities (Series C or later). In fact, the top 20 deals in the space (3% by number) made up more than half the capital invested in 2020. As in agtech, late-stage foodtech deals proliferated during the pandemic partly because venture firms returned to support familiar names riding promising tailwinds throughout the year. This dynamic routed no less than $14.5 billion into 190 late-stage deals in 2020 and has already generated an additional $7.3 billion across 50 rounds closed as of mid-March. The outsized proportion of later stage companies also contributed to the expansion of pre-money valuations. For instance, the median pre-money valuation enjoyed by late-stage deals reached a record $205 million in 2020—a considerable increase of 80.5% YoY. Valuation inflation was even more pronounced when considering that these were not accompanied by an uptick in median deal sizes, which fell across all stages. The $16 million median deal size for late-stage in particular reflected a 20% YoY contraction—a reversion to the range that prevailed between 2015 and 2017.

CVC participation in foodtech dealmaking



Source: PitchBook | **Geography:** Global

Global median pre-money valuations ($M) by stage in foodtech



Source: PitchBook | **Geography:** Global

The real inflection for foodtech in 2020 came in the form of public market interest, which validated the category by boosting venture outcomes. Since the start of 2020, Finistere estimates there have been more than $46 billion in public market exits (by announced equity value). Mature companies, particularly those in the e-commerce and delivery spaces, were already in a position for growth and eying an exit to favorable public equity markets as exemplified by DoorDash's $32 billion debut in December followed by Deliveroo's £7.6 billion IPO this last March. The foodtech space has also been the beneficiary of SPAC (special purpose acquisition company) interest, with announcements that both Softbank-backed Berkshire Grey and Grofers had entered into definitive agreements with SPAC vehicles in early 2021. Private company acquisitions also accounted for approximately $13 billion of exit value since 2020. Notably, corporates were active in the space, with Nestle acquiring meal-kit company Freshly and Bayer acquiring supplement company Care/of. Well-capitalized foodtech companies have also acted as consolidators within the space. For example, Delivery Hero has picked up 31 companies, followed by Foodpanda at 26, and Just Eat at 23 while GrubHub trails not far behind at a dozen deals. Other examples are the acquisition of Woowa Brothers and Instashop by Deliveroo ($4.6 billion and $360 million, respectively), the acquisition of Postmates and Cornershop by

Uber ($2.7 billion and $459 million, respectively) and the acquisition of Factor by Hello Fresh ($277 million). As competition heats up alongside the need for differentiation, deals to diversify the scope of operations should also emerge to optimize elements of supply chain distribution. As a result, grouping grocery and restaurant delivery under one roof is a natural avenue for further M&A activity.

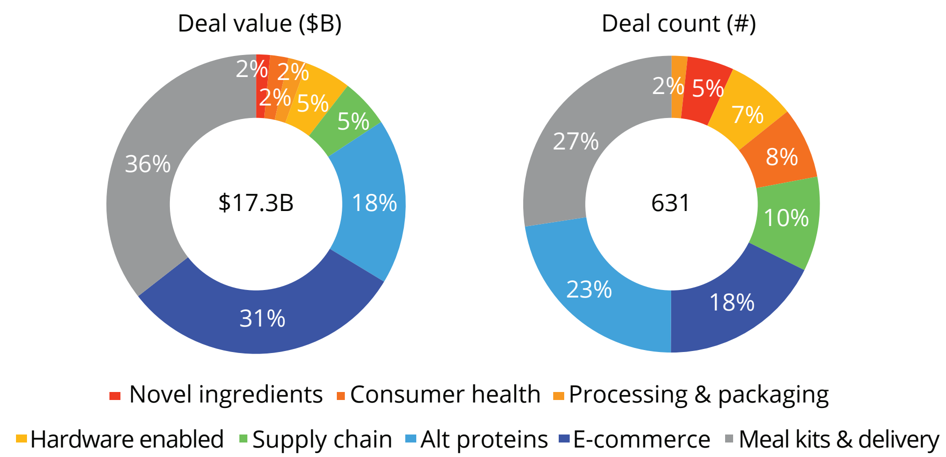
With many consumers still under some form of local lockdown as vaccine programs roll out, investment momentum has carried forward into the new year at a heady clip for the leading foodtech sectors. An additional $12.6 billion across 165 companies has entered the ecosystem as of mid-April—a result that is already close to topping 2020 and has already surpassed 2018 and 2019.

Sector highlights

- Meal kits & delivery jumped from $4.6 billion in disclosed value in 2019 to a record of $6.2 billion in 2020.
- The e-commerce segment, a historic leader in foodtech, commanded a record $5.3 billion across 112 rounds.
- Alt protein made a break for the mainstream to secure 2.6x more capital YoY at $3.1 billion over the $858.7 million raised in 2019.

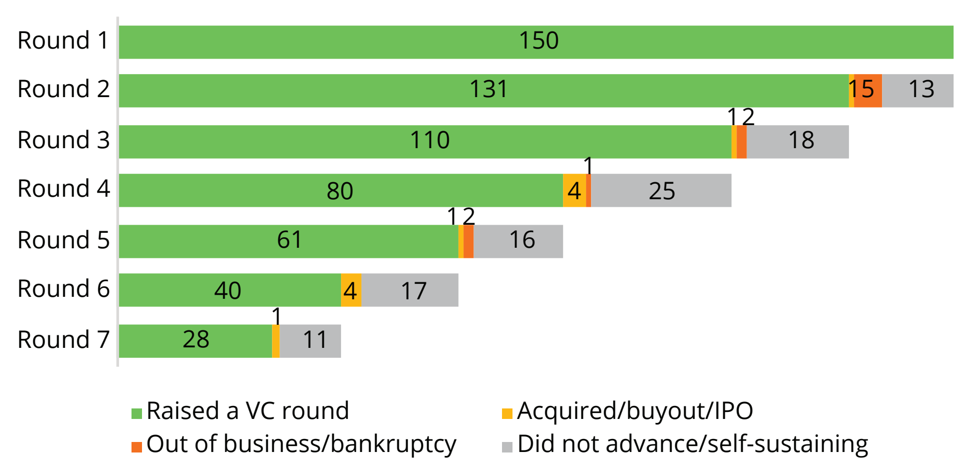
The meal kit and delivery category reached new peaks in 2020, following a year of slight contraction in 2019. As restaurants shuttered in many cities worldwide—some for good—food delivery became fundamental to sustain both consumers and restaurants globally. It is estimated that more than 110,000 eateries in the US alone have gone out of business since restrictions on indoor dining took effect. Delivery services not only focused on meals but also expanded to household daily essentials and convenience/snacking items. GoPuff, an instant delivery platform for convenience-store offerings such as household products—a service that rival and recent IPO darling DoorDash has also added—illustrates just how potent the confluence of innovation and investment trends accelerated by the pandemic have become across foodtech. GoPuff raised $1.2 billion in late-stage financing led by existing backers D1 Capital Partners and Softbank at a hefty $7.8 billion pre-money valuation in March, a deal that followed only months behind its

Share of global VC deal value (%) in agtech by subsector for 2020



Source: PitchBook | **Geography**: Global

VC Funnel



Source: PitchBook | **Geography**: Global

raising $380 million through the combination of debt and Series F venture funding.

In addition to an army of delivery drivers on hand at all hours, goPuff operates a growing network of MFCs in urban areas, with footprints ranging between 8,000 and 12,000 square feet. Emerging companies in the supply chain & logistics subvertical such as Fabric combine AI-based software and robotics in MFC build outs. Historically, centralized fulfillment centers—averaging some 600,000 square feet—have been mostly located outside of urban areas, creating last-mile challenges to delivering goods to customers in a cost-effective manner. The smaller MFCs represent a fraction of the real estate cost to operators while locating closer to customers represents a reduction in last-mile delivery costs and, potentially, in carbon footprint for suppliers as well.

The likes of Instacart, for example , already enjoyed sizable market share before shelter-in-place orders created a surge in grocery ordering, while Miss Fresh raised a ninth round in July on a $3 billion pre-money valuation. Likewise, increased dining-in rates represented a net benefit for established category leaders such as Just Eat Takeaway and Uber Eats to boost their already considerable presence in the crowded food delivery market. As a result, new entrants to the food space have started to focus on startups along points further up the value chain from distribution. As we reported at mid-year, the foodtech sector benefited from the rapid mass migration to dining-in by providing meal kit, restaurant delivery, and e-commerce grocery solutions that have increased revenue growth for segment leaders. This dynamic in 2020 also provided these subverticals with some of their best funding performances on record. Taking

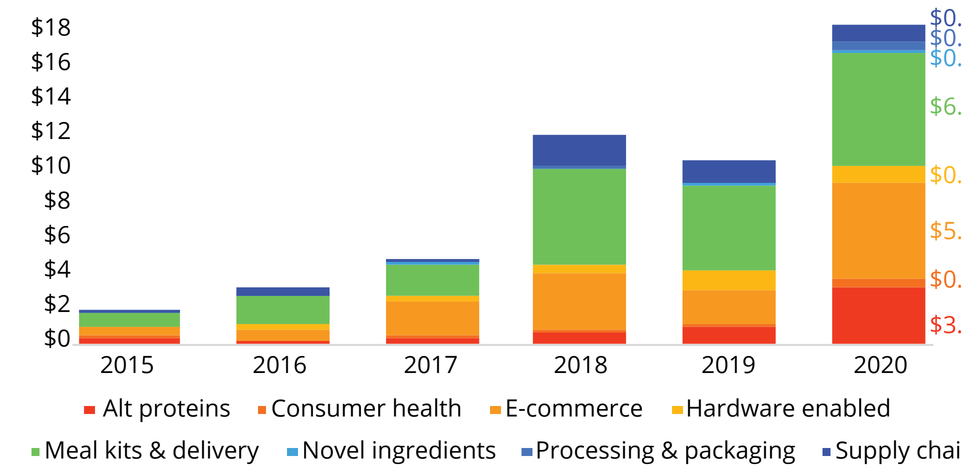
alternative proteins, e-commerce, and meal kits & delivery together, these leading foodtech segments generated a combined $14.6 billion, or 84.4%, of funding value in 2020.

The boom in alt protein financing over the last three years has revolutionized product offerings and helped to bring plant-based proteins into the mainstream, enabling emerging companies to secure mega-rounds, as Memphis Meats and Perfect Day have done of late. A growing set of investors has demonstrated an appetite for cellular ag opportunities, which bypass some of the challenges to developing plant-based proteins while presenting a different value proposition to the market. As we remarked at mid-year, though, given the deep technical challenges underpinning these platforms and the capital intensity required to build operating facilities as well as marketing and channel investment to bring products to market, this segment of alt protein will likely need deep-pocketed support and patient sources of capital to succeed—especially as margin pressures mount from leading plant-based protein providers such as Impossible Foods, which cut its prices twice in 2020 to near parity with conventional, animal-sourced protein. Last year, deals of $25 million or more in alt protein represented a median deal size of $75 million even as median Series D+ rounds fell by $100 million YoY to $200 million.

Tangentially, the novel ingredient category has benefited from the rise in plant-based eating and consumer demand for less fat, salt, and sugar in end-products. The approach has been bifurcated, with companies such as Geltor leveraging fermentation to scale the production of animal free biomimetic ingredients and discovery platforms such as Brightseed or Shiru using computational approaches to identify ingredients with nutraceutical or functional benefits to enhance existing food products. The model is not dissimilar to pharmaceutical corporates looking to partner with startups to drive innovation through outsourced R&D. Although this category only attracted a modest $261 million in VC funding in 2020, we anticipate it will continue to scale.

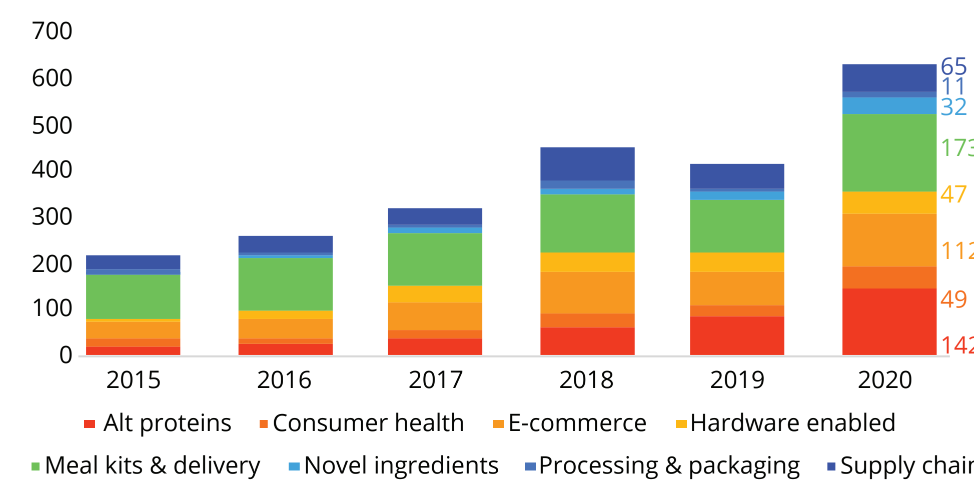
The best-in-class companies from Finistere's foodtech portfolio such as Good Eggs, Farmer's Fridge, and recent addition Tovala are seeing strong metrics in revenue while improving customer acquisition. In the hardware-enabled segment within which both Farmer's Fridge and Tovala operate, aggregate deal value remained

Foodtech deals ($B) by subsector



Source: PitchBook | **Geography**: Global

Foodtech deals (#) by subsector



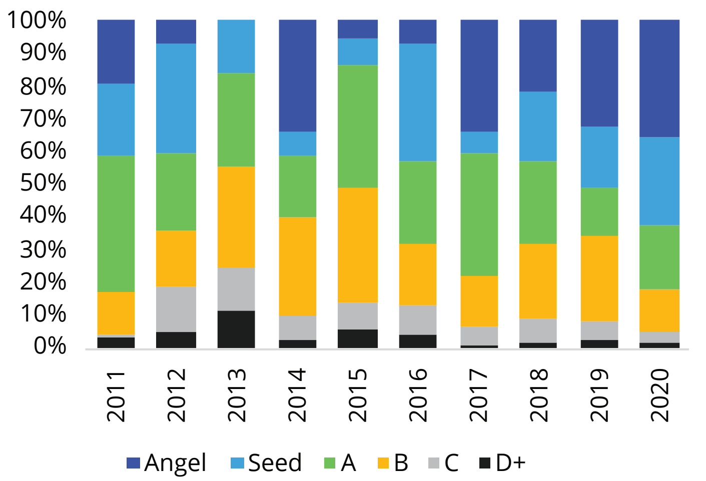
Source: PitchBook | **Geography**: Global

elevated in 2020 at $863.9 million—a result roughly in line with the funding generated for this category in 2016 and 2017 combined. Although often maligned by investors for its potential capital intensity, hardware within the context of foodtech acts as a beachhead to access better real-time data and a transparent assessment of customer use and preferences. As many meal companies within the foodtech space have struggled with customer retention, incremental customer insights can deliver a better customer experience with retention more akin to hardware darlings such as Peloton.

The pandemic additionally highlighted the importance of food security at a global level, emphasizing the need for technology across the supply chain that can reduce food waste and make operations more efficient. Growing quickly and impacting every segment of the agrifood tech sector is the recognition of agriculture and food as sectors that greatly impact climate change. Investors and consumers alike are increasingly demanding that operators across the value chain improve sustainability—and do so visibly regardless of niche. This dynamic lifted the processing & packaging subvertical from just $9.4 million raised in 2019 to $351.5 million—a 37.6x increase YoY. But this rising tide affects the entire agrifood tech value chain, and it will have knock-on effects for technology adoption and investment that could realign and unify several agtech and foodtech sectors, hitherto evaluated in isolation, over the coming decade—in some cases considerably.

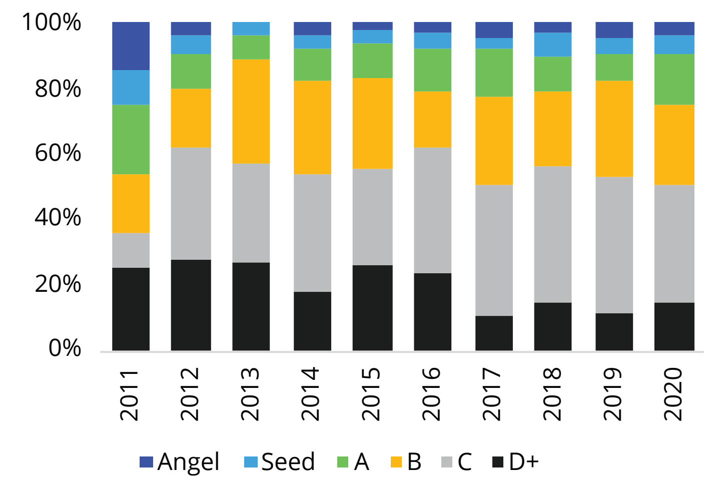
Agrifood tech global snapshot

VC deals ($B) by series in agtech



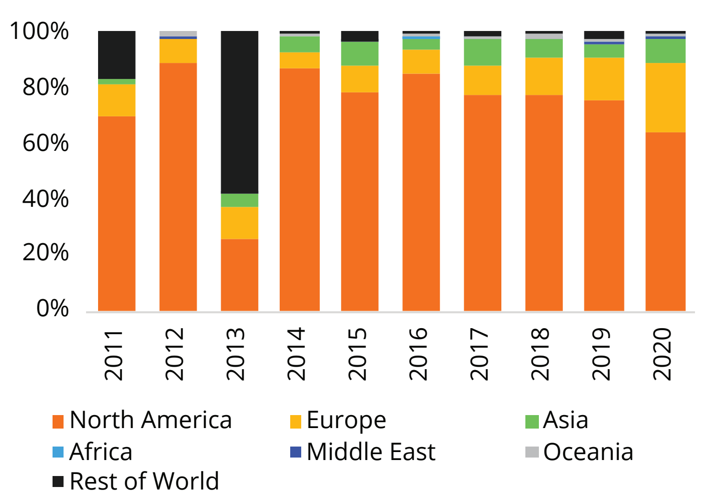
Source: PitchBook | **Geography:** Global

VC deals (#) by series in agtech



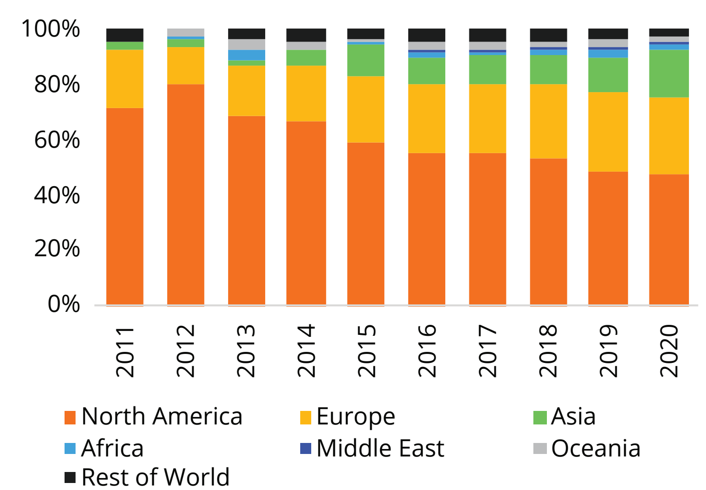
Source: PitchBook | **Geography:** Global

VC deals ($B) by region in agtech



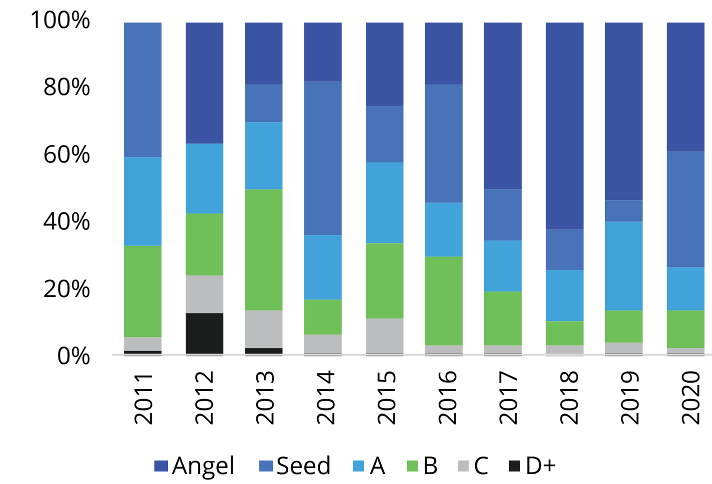
Source: PitchBook | **Geography:** Global

VC deals (#) by region in agtech



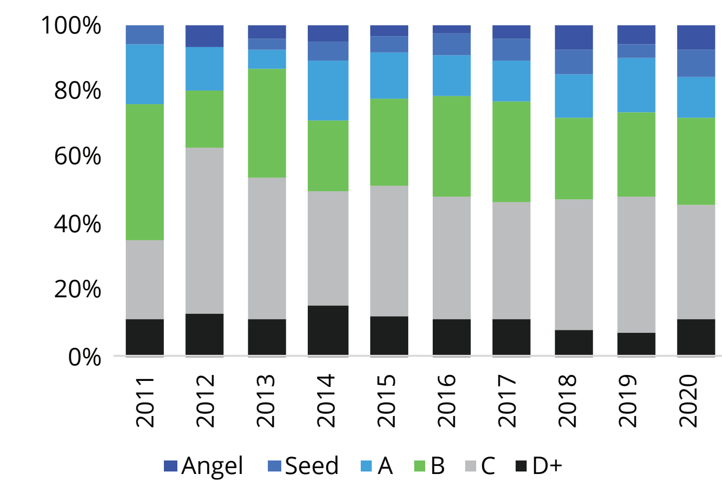
Source: PitchBook | **Geography:** Global

VC deals ($B) by series in foodtech



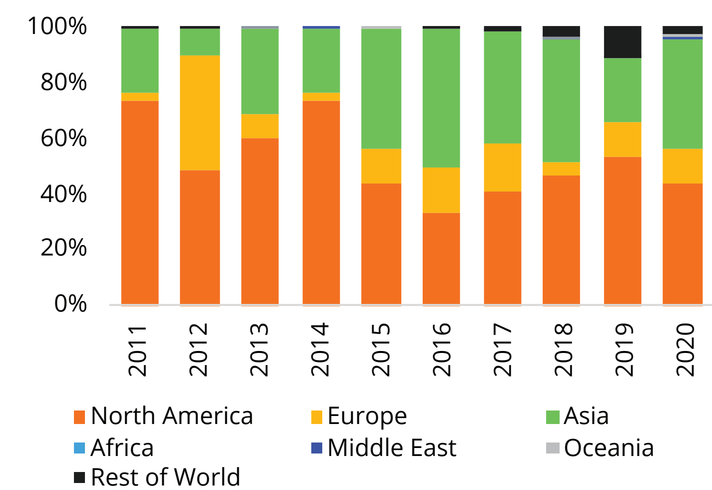
Source: PitchBook | **Geography:** Global

VC deals (#) by series in foodtech



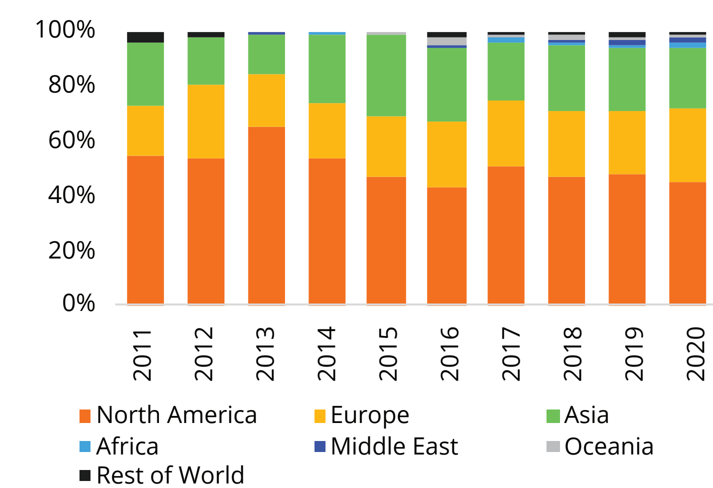
Source: PitchBook | **Geography:** Global

VC deals ($B) by region in foodtech



Source: PitchBook | **Geography:** Global

VC deals (#) by region in foodtech



Source: PitchBook | **Geography:** Global

FINISTERE VENTURES, LLC

Agrifood tech at a glance

$65.4B

Aggregate value of global agrifood tech VC raised since the start of 2010, representing $15.9 billion in combined venture investment in agtech while foodtech generated $49.5 billion

4,643

Sum of combined funding VC rounds raised across the global agrifood tech space since the start of 2010, with foodtech companies securing 2,552 investments while agtech companies completed 2,091 transactions

77%

Compound annual rate at which deal value in foodtech has expanded over the past decade, with funding levels jumping 9.6x since 2015 as data on shifting consumer habits drive dramatic changes across the agrifood tech value chain

$205M

Global foodtech VC median pre-money valuation at the late stage in 2020, while the median early-stage valuation was $31.6 million and the angel & seed median valuation was $5.1 million

$67.6M

Global agtech VC median deal size at the late stage in 2020, while the median early-stage valuation was $12.7 million and the angel & seed median valuation was $5.0 million

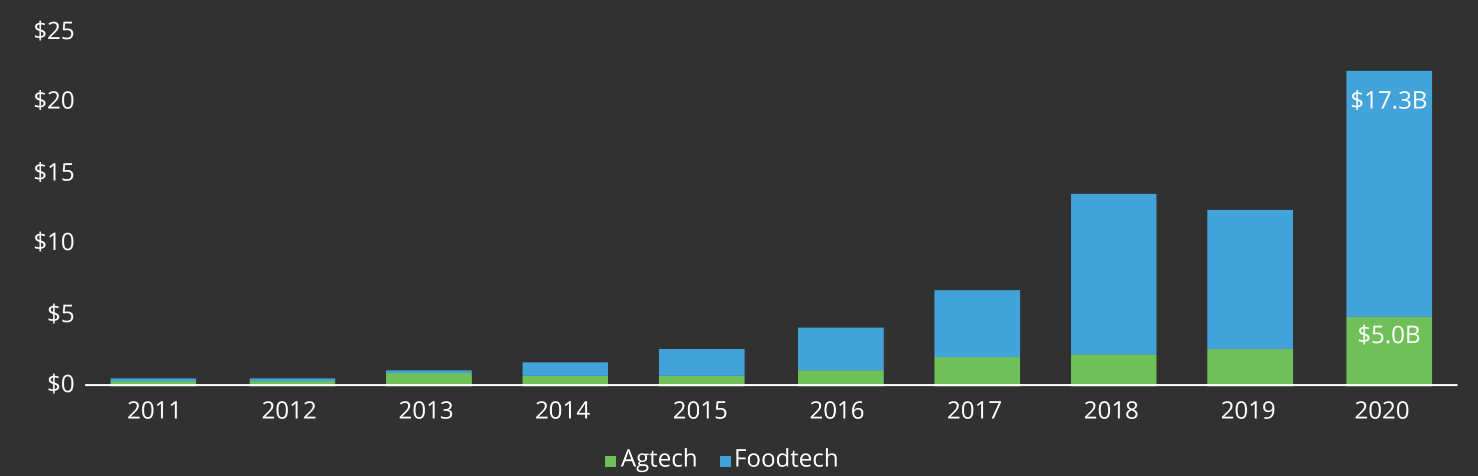
152%

Compund annual growth rate at which CVC participation in foodtech funding rounds has expanded since 2010, representing $10.2 billion in capital committed to the space in 2020 alone

"ESG efforts—from sustainability to carbon—have dominated the agrifood investment dialogue in 2020. Agriculture, food, and climate concerns/social factors continue to shape this investment segment, so we expect more exits and private equity activity as agrifood tech becomes a critical component to meet ESG mandates. As the agrifood tech ecosystem matures, we'll also see more (and bigger) late-stage financing as the focus changes from acquisition-centric growth to total market disruption."

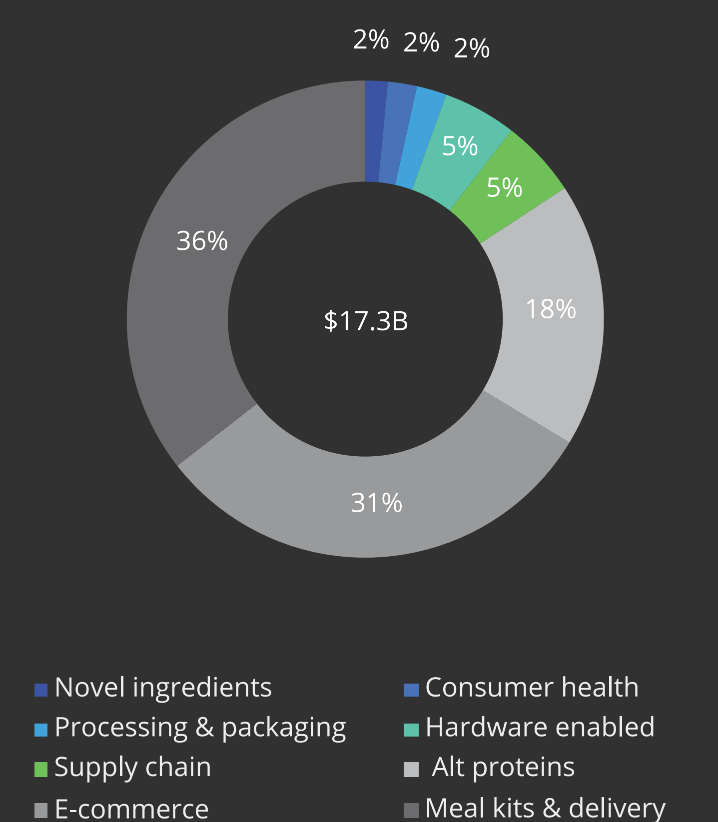
Arama Kukutai
Co-founder & Partner, Finistere Ventures

Agrifood tech VC deal activity



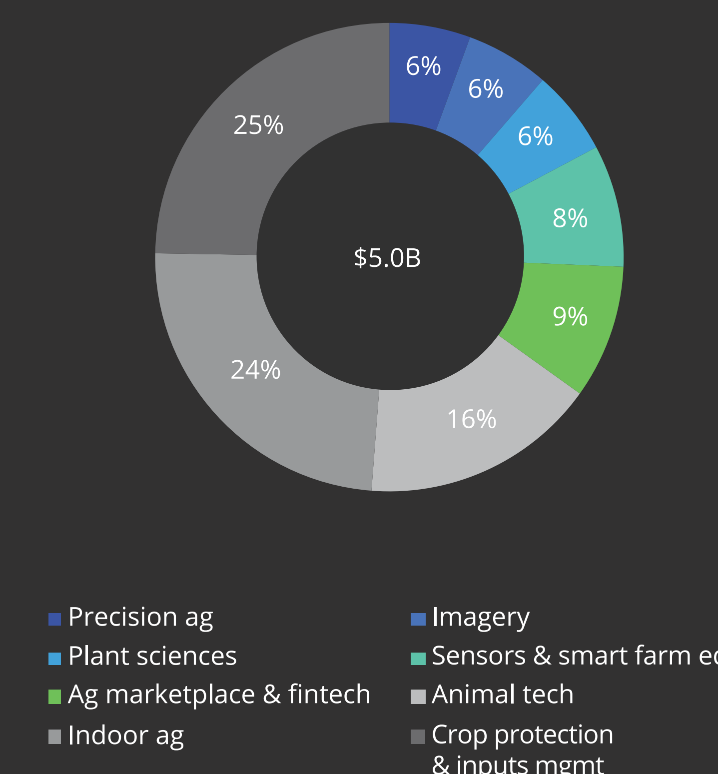
Source: PitchBook | **Geography:** Global

Share of 2020 foodtech VC deal value by subvertical (%)



Source: PitchBook | **Geography:** Global

Share of 2020 agtech VC deal value by subvertical (%)



Source: PitchBook | **Geography:** Global

Afterword

The year in review has presented some interesting and at times surprising outcomes for the agrifood sector, which saw fear of decline turn into fear of missing out, with startups—particularly those in later stage situations with meaningful revenue and strong growth stories—showing favorable results. Low interest rates and a soaring equity market have provided a backdrop unseen in the relatively short history of the sector. The attraction for investors of disrupting massive TAMs fueled increases in investment across all stages and segments.

The state of consolidation among agritech, supply chain, and food corporates is driving appetite for access/insource innovation through CVC investments and collaborations (such as joint development agreements)—although to date, few of these have resulted in outright acquisitions. However, as we noted in last year's report and in our opening comments, there is a broader level of interest developing in agrifood tech both from technology and financial investors, which means traditional corporates cannot sit on their hands given they will face increasing competition for the best companies, and these will also have the option of public listing.

While not without its skeptics and critics, the rising number of SPACs looking for targets will likely give access to greater levels of capital and liquidity to the maturing cohort of startups in agrifood suited to this investment model. At time of writing, more than 350 active SPACs are in-market with greater than $50 billion in committed capital. Anecdotally, the feedback Finistere has received from other institutional investors in our sector is that there is strong engagement by both management and investors on this strategy, across consumer packaged goods (CPG), agrifood tech, and pure technology verticals. A key component of this building trend is the appetite for public investment into ESG and a lack of portfolio companies that can provide exposure—something that benefited the first alternative protein companies to IPO (such as Beyond Meat). The indoor ag space has already seen Aerofarms and AppHarvest go out via the SPAC model; no doubt more will follow in 2021.

The economic buoyancy of public markets is inherently volatile, but with an estimated $3 trillion of pent-up consumer demand, low interest rates for the foreseeable future, and a massive public capital injection pending from the Biden administration (although at the risk of tax regime changes), this appears to be a great time to be investors in agrifood technology disruptors with large market opportunities. We head into 2021 with the strong prospect of another record year for agrifood tech investing.

Additionally, the rise of ESG principles within the investment industry has further accelerated the growth of agrifood tech investing. With more than 1,400 companies within the agrifood sector having significant implications and impact on ESG metrics, we anticipate that this trend will only intensify in the years to come.

ESG: Driving Investment in agrifood

The COVID-19 pandemic not only disrupted nearly every aspect of daily living, but also sent financial markets into disarray in early 2020. While many segments of the public markets suffered during this period, according to Morningstar, stocks in companies that pursue sustainable goals for ESG were surprisingly resilient in performance. The ESG investment theme isn't new, but in recent years, as millennials have reached their prime spending years and have surpassed baby boomers and GenX in workforce participation, sustainable investing has become an increasingly hot topic with investors due to changing consumer demands from their investment products.

Agrifood tech has attracted rising attention in recent years as a potential proxy for sustainable investing—especially around reducing the impact of climate change. According to the FAO, food systems are responsible for more than one-third of global greenhouse gas emissions. Additionally, the pandemic has highlighted the essential nature of labor and supply chain management within the agrifood production system. Taken together, investors with newly developed or refreshed ESG mandates have become increasingly attracted to the potential of agrifood tech investing as a means of fulfilling these goals while driving meaningful returns.

Themes that have attracted significant attention from sustainability focused investors within the agrifood sector include green chemistries, supply chain optimization, clean energy, and labor reduction (automation). Within foodtech investment, interest in technologies that drive positive impacts on health while reducing environmental impact has resulted in increased capital deployment across the novel ingredients and alternative proteins segments. Across agrifood as a whole, significant focus has been placed on measurement and pricing of carbon sequestered within agricultural systems.

As financial investment and regulatory changes continue to take hold across key markets in the US and EU, we predict that agrifood tech investing will become an increasingly important cornerstone of ESG investment mandates, particularly by investors with longer investment horizons and larger capital exposure such as pension, sovereign wealth, and private equity groups. We believe as this class of investors becomes increasingly involved in late-stage agrifood investment, access to growth capital to build companies that will dominate and truly disrupt incumbents will be central to the development of the agrifood sector, in many ways mirroring what occurred in life sciences when biotech companies disrupted existing oligopolies. In this vein, we anticipate significant disruption and value creation within the agrifood sector to take place over the next decade as the 2020–21 investment years look likely to be historic ones for a tipping point in this journey.

Appendix

Top VC deals in agtech in 2020

Company name	Close date	Deal size ($M)	Company vertical	Investment round	Pre-money valuation ($M)
Indigo Agriculture	June 22, 2020	$500.0	Crop protection & inputs management	Series F	$2,250.0
Ynsect	October 6, 2020	$371.5	Animal tech	Series C	N/A
Farmer's Business Network	August 3, 2020	$250.0	Ag marketplace & fintech	Series F	$1,600.0
Revol Greens	September 25, 2020	$203.7	Indoor ag	Series A	N/A
Infarm	September 17, 2020	$201.3	Indoor ag	Series C	$407.9
Xaircraft	November 16, 2020	$179.9	Imagery	Series C1	N/A
Plenty	January 1, 2020	$175.0	Indoor ag	Series C	$875.0
InnovaFeed	November 19, 2020	$165.2	Animal tech	Early-stage	N/A
Benson Hill	December 18, 2020	$159.1	Plant sciences	Series D	$350.0
Plenty	October 14, 2020	$140.0	Indoor ag	Series D	N/A

Source: PitchBook | **Geography:** Global

Top VC deals in foodtech in 2020

Company name	Close date	Deal size ($M)	Company vertical	Investment round	Pre-money valuation ($M)
Xingsheng Selected	July 31, 2020	$800.0	E-commerce	Series C1	$3,200.0
Xingsheng Selected	December 13, 2020	$700.0	E-commerce	Late-stage	N/A
REEF Technology	May 6, 2020	$700.0	Meal kits & delivery	PE growth/ expansion	N/A
Zomato	December 21, 2020	$660.0	Meal kits & delivery	Late-stage	$3,240.0
Deliveroo	April 17, 2020	$569.6	Meal kits & delivery	Series G	$1,963.4
Dmall	October 30, 2020	$500.0	Meal kits & delivery	Series C	$15,400.0
Nuro	November 9, 2020	$500.0	Hardware enabled	Series C	$4,500.0
Impossible Foods	March 13, 2020	$500.0	Alt proteins	Series F	$3,500.0
Miss Fresh	July 23, 2020	$495.0	E-commerce	Late-stage	$3,000.0
Zomato	September 10, 2020	$415.0	Meal kits & delivery	Late-stage	$3,000.0

Source: PitchBook | **Geography:** Global

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