



AgFunder AgriFoodTech Investment Report



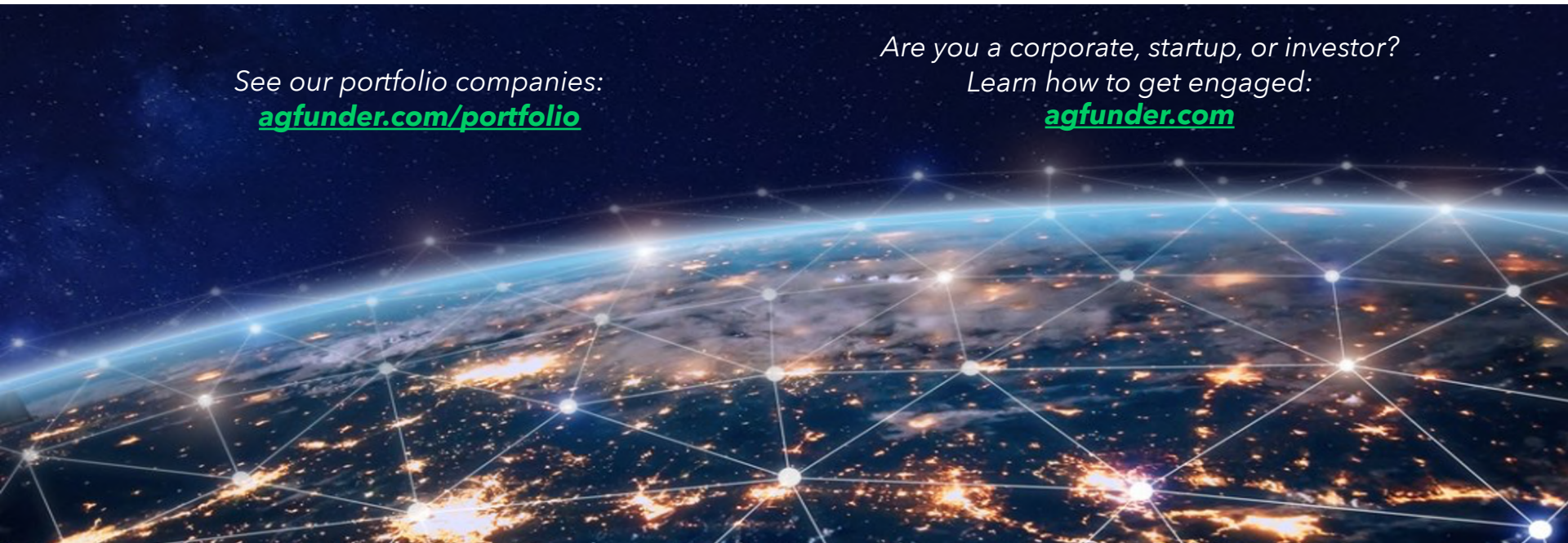
AgFunder is a digitally-native venture capital fund

We invest in bold, transformational
foodtech & agtech founders

AgFunder is one of the world's most active foodtech and agtech VCs. We're rethinking venture capital for the 21st century. We were born online, and with our publication *AFN* we've built a global ecosystem of 85,000+ subscribers. This gives us one of the most powerful networks to help build impactful and important companies. Our research reports are our love letter to the industry. ❤️

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Global AgriFoodTech in 2021

What a year. To say it's been tough is an understatement and for anyone who has been affected by the Covid-19 pandemic, we're thinking of you.

Yet, for agrifoodtech, it's been a blow-out year. Startups raised \$26.1 billion in 2020, a 15.5% year-over-year increase, which we expect to increase to more than \$30 billion as new 2020 deals come to light. This would represent 34.5% growth over 2019.

Much of the increase was down to significant growth in late-stage deals, where we saw investors doubling down on their existing portfolio and the first-wave of agrifoodtech innovations. Impossible Foods' \$500m and \$200m rounds are a case in point. But positively, we also saw early-stage deals get bigger, as the second wave of agrifoodtech innovators enjoy increasing sector recognition by a widening spectrum of venture capital investors.

A brief update on our methodology: we improve our dataset continuously, meaning total figures from previous years' reports will shift as our dataset becomes more accurate. In most charts and commentary, we include our predictions for where totals will land 12 months from now to make our comparisons more accurate. We've based this off of patterns from inbound data across previous years.

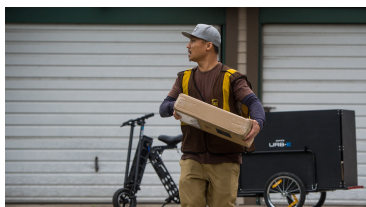
As we observed in our Mid-Year review, now is the time to invest in agrifoodtech. The Covid-19 pandemic has highlighted the importance of efficient supply chains and alternative ways of growing, processing, transporting and selling food to consumers. Innovations in the midstream – between farmer and retailer – got a much-needed investment boost. Food delivery gained new ground for obvious reasons, especially eGrocery, and we saw more investment activity in Cloud Retail technologies supporting at-home dining. Trends towards food alternatives, particularly in the protein space, continued unabated as consumers ask more questions about the origins of their food.

Thank you for reading and, as ever, we're always open to feedback and questions.

Louisa Burwood-Taylor and the AgFunder team

Cover & Section Images

Special thanks to our portfolio companies who contributed images to this year's report



URB-E is building the future of last mile delivery, using electric scooter tech to bring fast, clean, and affordable same-day delivery to every neighborhood in the world.

[Learn more](#)



Lavva is one of the most nutritious plant-based yogurts on grocery shelves today, with more than 50 billion live, vegan probiotics to support gut health.

[Learn more](#)



Tevel is developing flying, autonomous fruit pickers, starting with the apple industry, to solve major labor challenges. Yes, that's flying robots!

[Learn more](#)



Atomo Coffee has molecularly mapped conventional coffee and is rebuilding it from the atom up by upcycling plant waste on its mission to reduce the environmental impact of coffee production.

[Learn more](#)



FYTO is developing novel, nutrient-dense, non-GMO crops with ultra high-yields and exceptional nutrient profiles using automated cultivation and harvesting systems.

[Learn more](#)



Jüsto is a full-stack fresh eGrocery retailer based in Mexico. Its founders came from Cabify (Lyft of LatAm) and Groupon and have built a company that grew 16x in 2020.

[Learn more](#)

2020 Overview



Image courtesy of URB-E

AgriFoodTech Funding Breakdown 2020

\$26.1bn

INVESTMENT

\$30.5bn*

**PREDICTED
TOTAL
INVESTMENT**

2707

DEALS

3093*

**PROJECTED
TOTAL DEALS**

2789

**UNIQUE
INVESTORS**

\$1.6bn

**LARGEST
DEAL**

Upstream

Ag Biotech, Farm Management SW, Farm Robotics & Equipment
Bioenergy & Biomaterials, Novel Farming, Agribusiness Marketplaces
Midstream, Innovative Food

\$15.8bn*

INVESTMENT

1950*

DEALS

\$1.6bn

LARGEST DEAL

Downstream

In-store Restaurant & Retail, Online Restaurants & Mealkits,
eGrocery, Restaurant Marketplaces, Home & Cooking

\$14.3bn*

INVESTMENT

1142*

DEALS

\$800m

LARGEST DEAL

Key Insights*

Investment upstream – in startups closer to the farm and away from the consumer – surpassed downstream investment for the first time in seven years.

While investors continued to support important downstream categories such as eGrocery, they became more comfortable with upstream food production categories, many of which had Covid-19-related appeal.

The \$15.8 billion invested upstream was driven by the Midstream Tech and Innovative Food categories, which raised \$5.3 billion and \$2.3 billion respectively.

While the growth in investment for Midstream Tech startups was enhanced by a whopping \$1.6bn deal for cold chain tech company Lineage Logistics, the category still closed nearly 30% more deals than in 2019.

Meanwhile, investment in Innovative Food startups doubled year-over-year and deal activity grew nearly 60%.

While losing market share to both categories, Ag Biotech still grew significantly in its own right, closing nearly 70% more deals and raising 60% in dollars.

Key category moves:

- Upstream investment increased 68% YoY to \$15.8bn, surpassing downstream investment (\$14.3bn) for the first time on record.
- Investment in Innovative Food startups doubled to \$2.3bn, driven by alt protein startups as consumers increasingly question the provenance of their food.
- Midstream Tech companies raised \$5.3bn and closed 30% more deals YoY – including \$1.6bn for Lineage Logistics – as investors supported an efficient supply chain.
- Ag Biotech lost market share but still raised \$1.6bn, a 60% YoY increase, dominated by gene editing tech.
- eGrocery startups raised \$5.1bn as several companies raised multiple rounds during the year to support the aggressive demand brought on by the pandemic.

*based on projected totals

Key Insights*

Agrifoodtech is no longer an early-stage industry. The first wave of innovators across categories are maturing and raising larger growth stage rounds.

The median deal size for growth and late-stage rounds increased 29% and 17% respectively year-over-year.

“Agrifoodtech is no longer a niche, experimental and risky sector. Median deal-size growth signals maturity of first wave innovation.”

The increase in median deal sizes was also reflected in the wider global venture capital markets, according to VenturePulse report, though not as acutely.

The fact that Impossible Foods was able to quickly raise \$500m at the very start of the pandemic when uncertainty was high indicates the strength of investor conviction in the category. It also points to how the breadth of capital available to foodtech startups has evolved.

It was exciting to see earlier-stage companies raise larger rounds than the first wave of innovators. With talent moving from first wave companies to second, we expect the sector to accelerate rapidly.

Early-stage activity increases

Early-stage agrifoodtech investing continued its growth trend in 2020 with 10% more dollars invested, 15% more deals closed, and a 10% increase in median deal size at the seed and Series A stages. This bucked a retreat in early-stage investing in the wider VC market.

That positive trend applied only to upstream startups, which closed 30% more deals and nearly 50% more dollars YoY. Downstream activity decreased, driven by a 15% decline in Retail & Restaurant tech deal activity and a nearly 50% drop in dollar funding to Home & Cooking tech.

*based on projected totals

Key Insights*

Investment in US companies regained market share in 2020 to 37% of deal activity and 51% of dollars committed (up from 34% and 44% respectively). This bucked the trend of the last few years where other geographies attracted more substantial investment from domestic and overseas investors as agrifoodtech ecosystems developed.

The return of capital to the US could be a slight flight to safety in the wake of the pandemic, as well as investors doubling down on previous and now more mature bets in their portfolios, with US companies like Lineage Logistics, Impossible Foods, and Nuro raising \$500m+ rounds. Those deals did not skew the analysis as there was also a 30% year-over-year increase in the number of deals in the US.

China lost market share in deal activity terms, with a 21% drop in the number of deals. But some huge deals for downstream services, particularly eGrocery, drove a 58% year-over-year increase in investment totals. China closed mega-deals in several sectors outside of agrifood too, according to VenturePulse.

Deal activity and investment in Europe remained relatively unchanged YoY, with just a slight 5% increase in the number of deals closed.

Investment by Geography

- US startups raised \$15.45bn in 2020, a 56% YoY increase and 30% YoY rise in number of deals, regaining global market share.
- China remained in the number two spot because of large downstream deals. Its projected total is \$5.6bn, though it closed 21% fewer deals YoY.
- The UK continues to lead the European region despite Brexit-related uncertainty.
- Africa closed more deals (+30%) but raised 50% less dollars due to its young and early-stage market.
- Colombia reached the top 15 because Rappi, its unicorn last mile delivery platform, raised \$300m in last stage funding.
- Asia closed 7% more deals YoY.

*based on projected totals

Predictions for 2021 and beyond

While there is a lot of uncertainty and it feels like anything could happen in agrifoodtech, we offer a few predictions for 2021, starting with the trend for early-stage businesses to go public via Special Purpose Acquisition Companies (SPACs)

“SPACs create both a more dynamic exit environment and the possibility of building new high-growth food companies. This will drive early-stage investment, create incentives for innovation and entrepreneurship, and further accelerate the demise of the incumbent food companies.”

eGrocery continues to upend traditional retail, and phones will overtake store shelves as the primary mode for new product discovery by consumers. The power of traditional brands will diminish as consumers discover and favor smaller, startup brands.

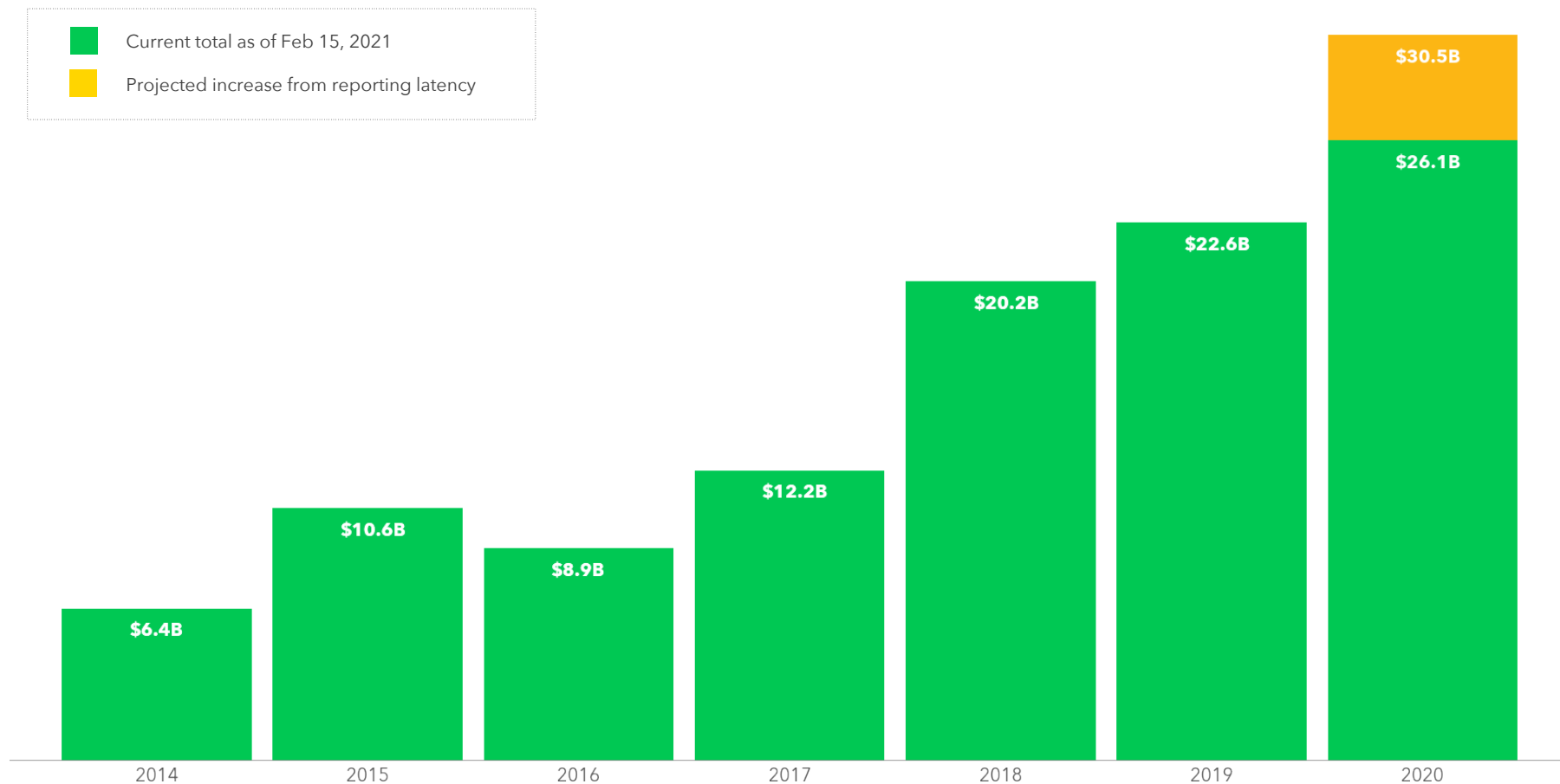
The future of animal agriculture

Animal Agriculture will increasingly shift towards regenerative practices, carbon neutrality and premium offerings, as plant-based products become more price-competitive and mainstream.

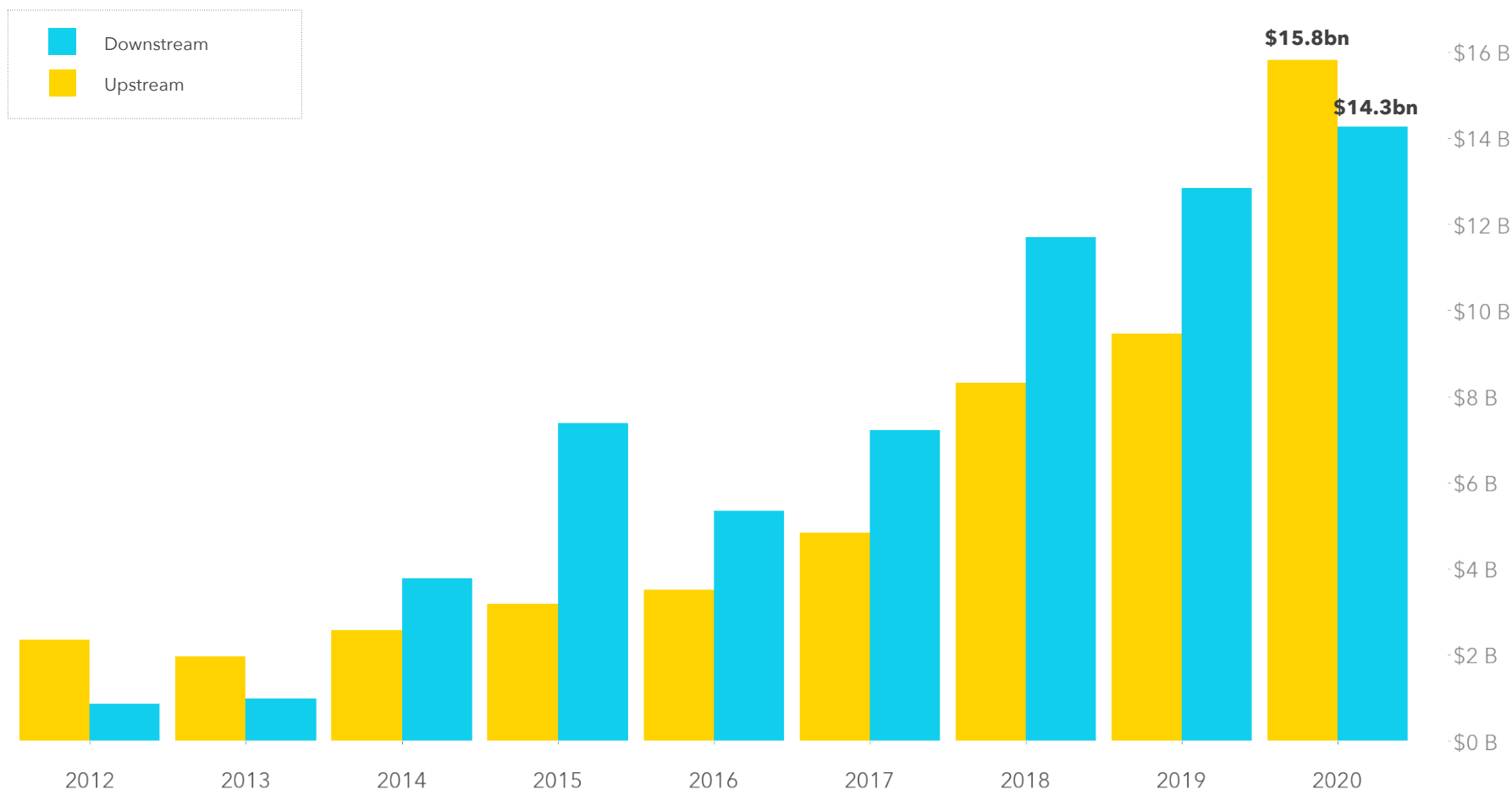
Dairy will retain a strong footing as farms work towards carbon neutrality.

In emerging markets, animal proteins will remain dominant (though consumed in significantly smaller quantities than developed markets), owing to price and traditional farming practices.

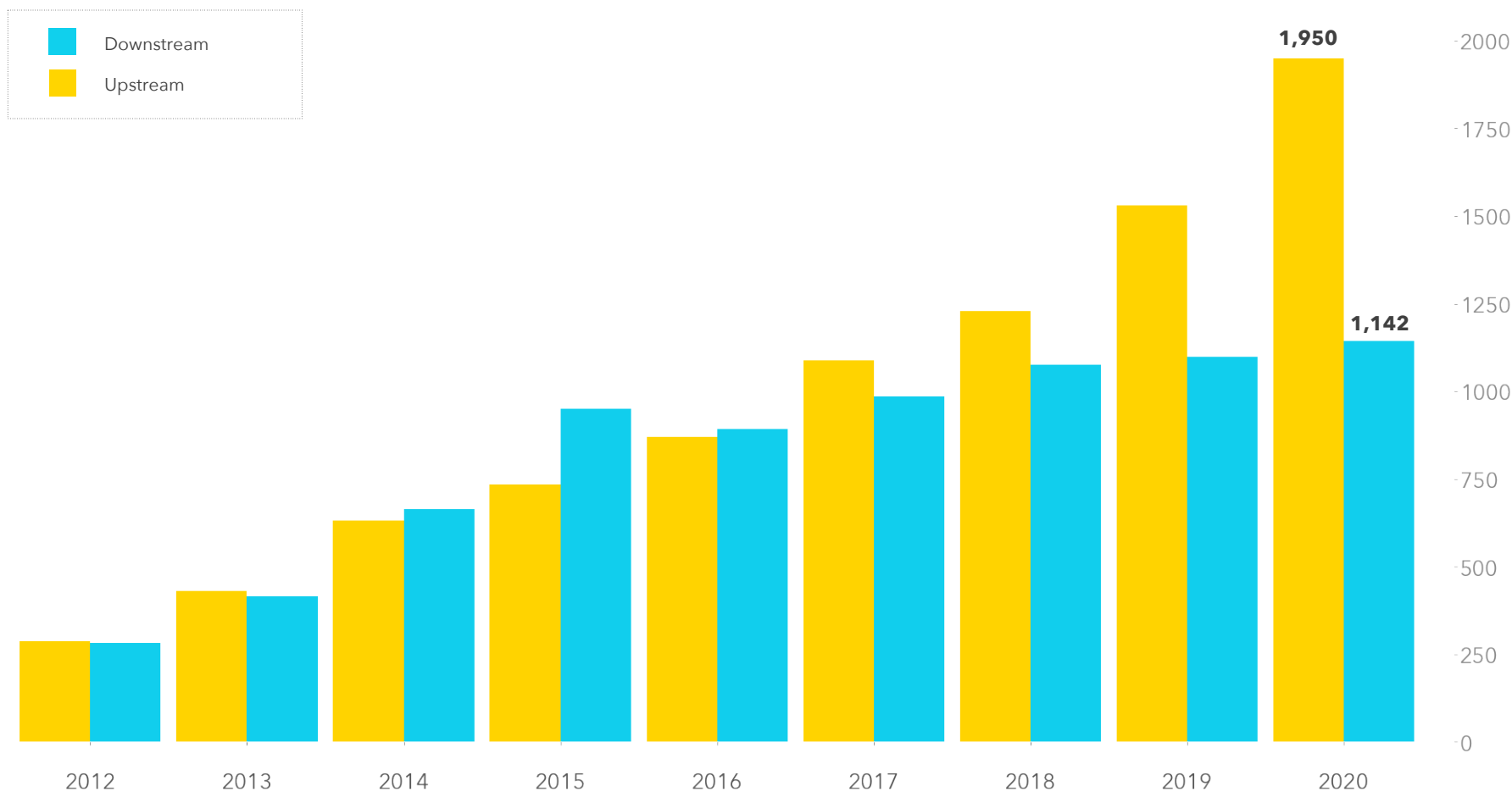
Annual Financings | 2012-2020



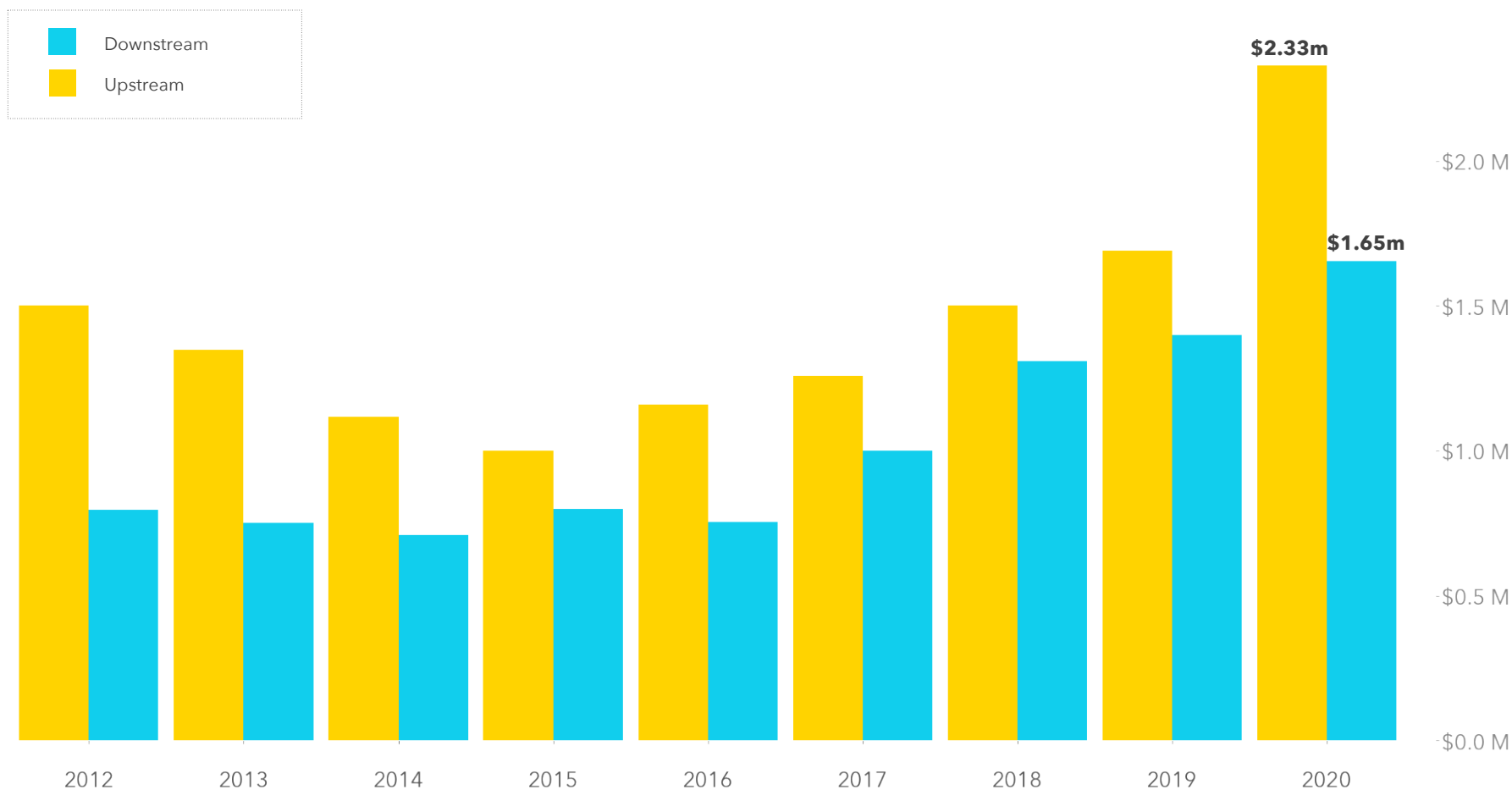
Projected Annual Financings | 2012-2020



Projected Deal Count | 2012-2020



Median Deal Size | 2012-2020





Deals by Category

AgriFoodTech Category Definitions



Ag Biotechnology

On-farm inputs for crop & animal ag including genetics, microbiome, breeding, animal health.



Agribusiness Marketplaces

Commodities trading platforms, online input procurement, equipment leasing.



Bioenergy & Biomaterials

Non-food extraction & processing, feedstock technology, cannabis pharmaceuticals.



Farm Management Software, Sensing & IoT

Ag data capturing devices, decision support software, big data analytics.



Farm Robotics, Mechanization & Equipment

On-farm machinery, automation, drone manufacturers, grow equipment.



Midstream Technologies

Food safety & traceability tech, logistics & transport, processing tech.



Novel Farming Systems

Indoor farms, aquaculture, insect & algae production.



Miscellaneous eg, fintech for farmers



Innovative Food

Cultured meat, novel ingredients, plant-based proteins.



In-Store Retail & Restaurant Tech

Shelf-stacking robots, 3D food printers, POS systems, food waste monitoring IoT.



Restaurant Marketplaces

Online tech platforms-delivering food from a wide range of vendors.



eGrocery

Online stores and marketplaces for sale & delivery of processed & unprocessed ag products to consumer.



Home & Cooking Tech

Smart kitchen appliances, nutrition technologies, food testing devices.



Online Restaurants & Mealkits

Startups offering culinary meals and sending pre-portioned ingredients to cook at home.

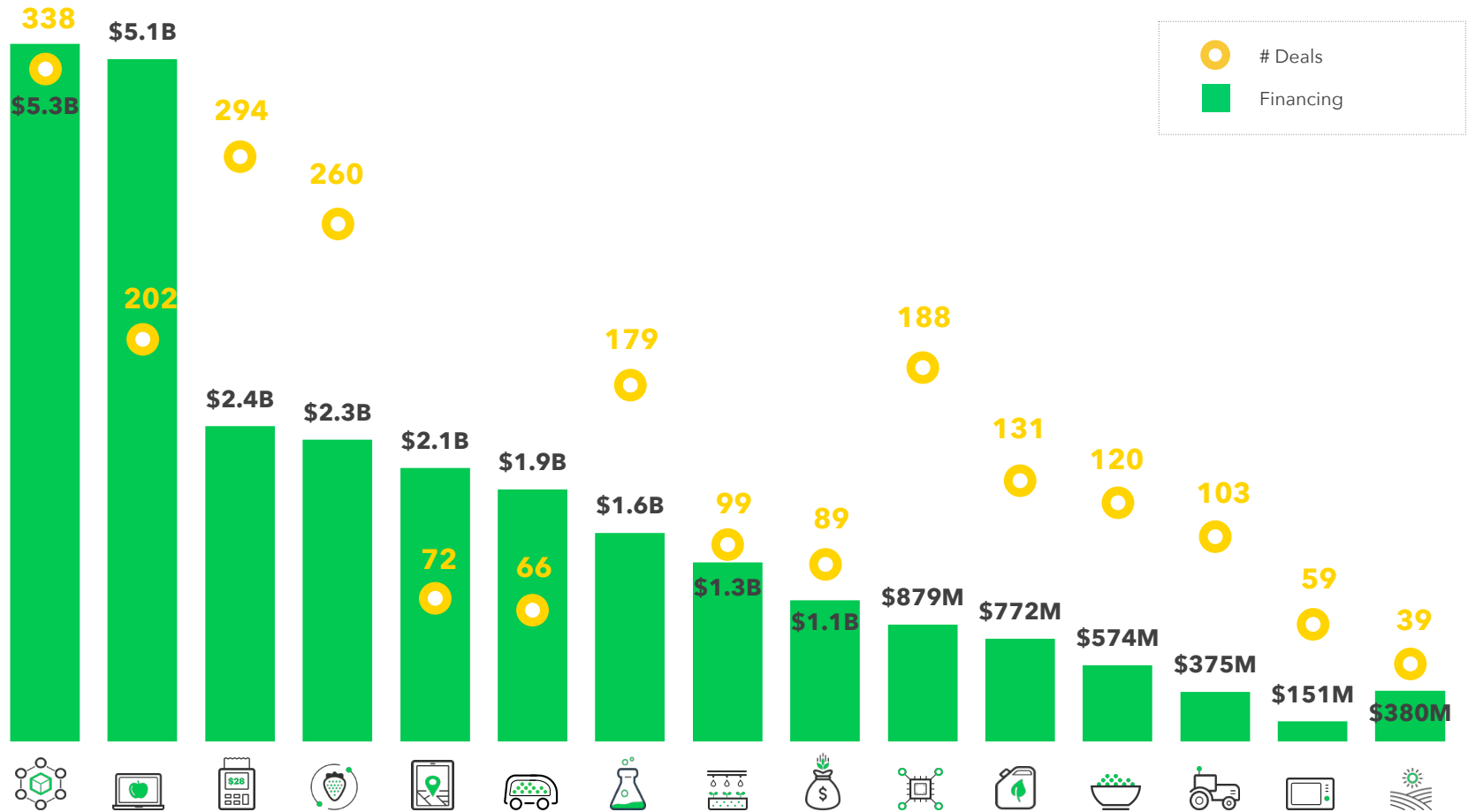


Cloud Retail Infrastructure

On-demand enabling tech, ghost kitchens, last-mile delivery robots & services

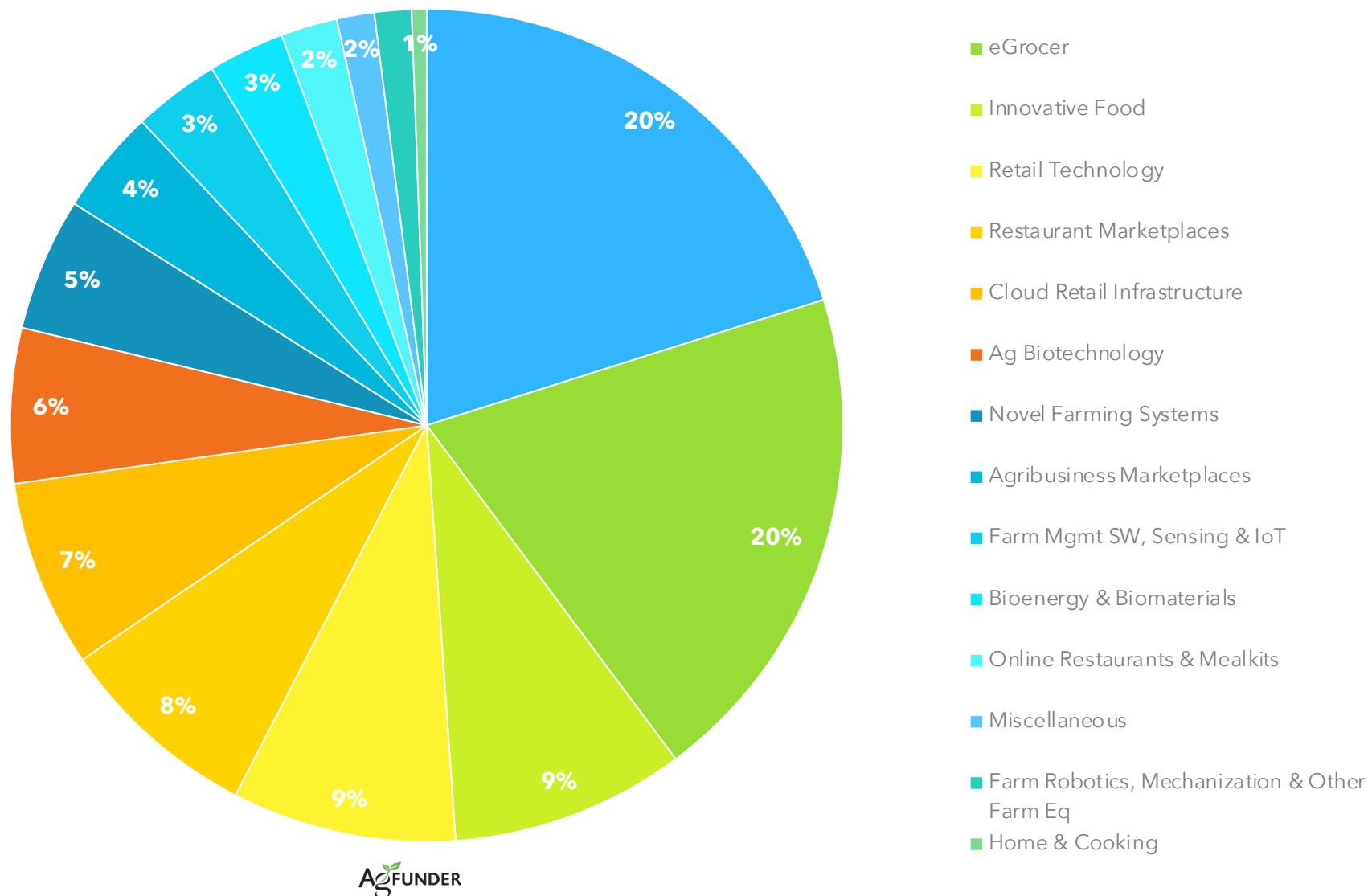


2020 Deal Volume and Activity by Category



2020 AgriFoodTech Investment

DEALS BY CATEGORY



Deal Activity and Volume by Category | 2019 vs 2020

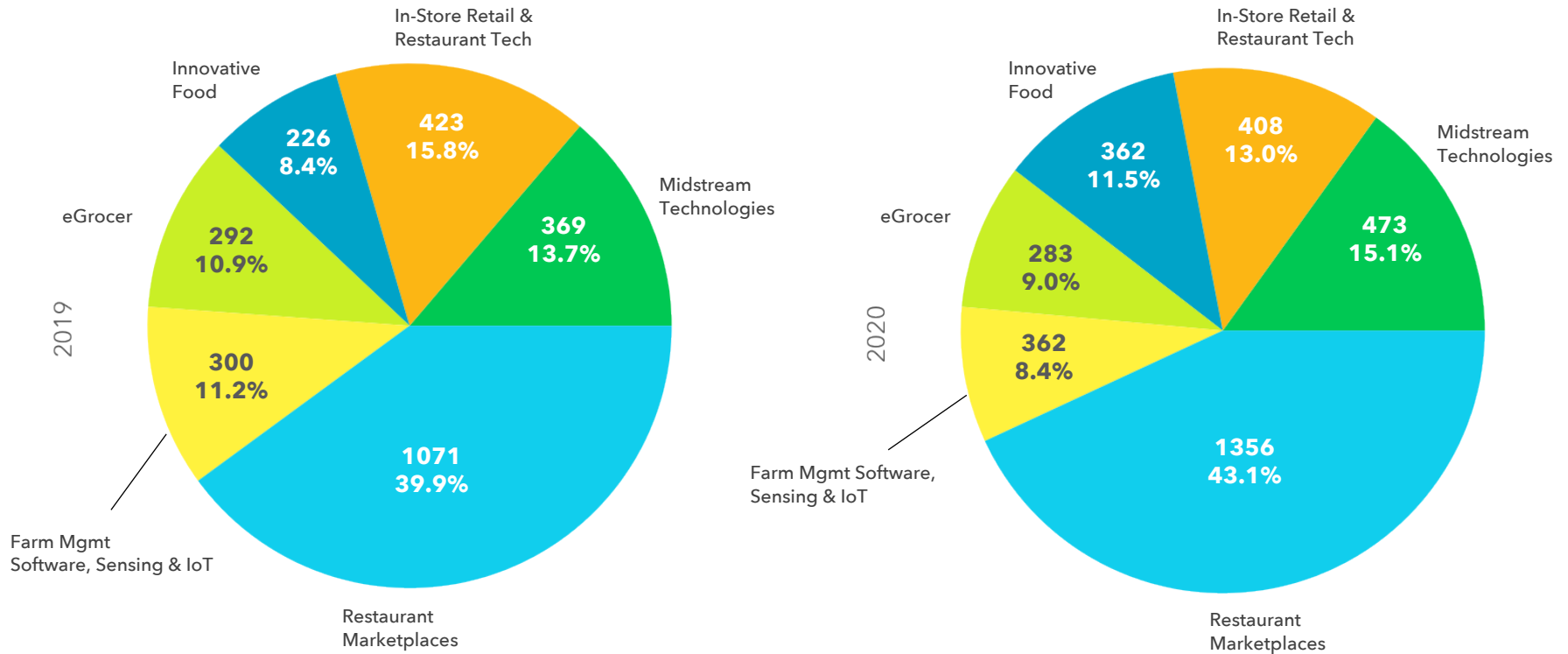
→ Ag Biotech and Innovative Food increased substantially by both deal count and total dollars invested between 2019 and 2020.

→ Some large deals in the Midstream category, especially Lineage Logistic's \$1.6bn round, pushed totals up significantly more than deal activity; however a 30% increase in number of deals YoY highlights increasing innovation in the supply chain.

→ The delta for the Cloud Retail Infrastructure category was skewed by a large \$400m deal in 2019 by Travis Kalanick's CloudKitchens



Category Deal Activity 2019 vs 2020





GROW Impact Fund

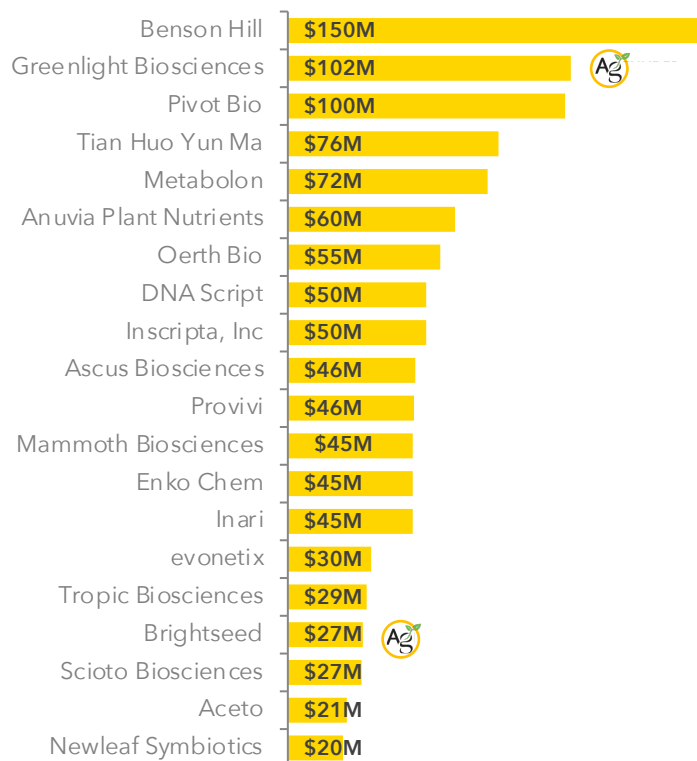
Invest in new technologies and innovative business models to deliver impact and sustainability to our food system.

Learn more: <https://agfunder.com/invest/impact-fund/>



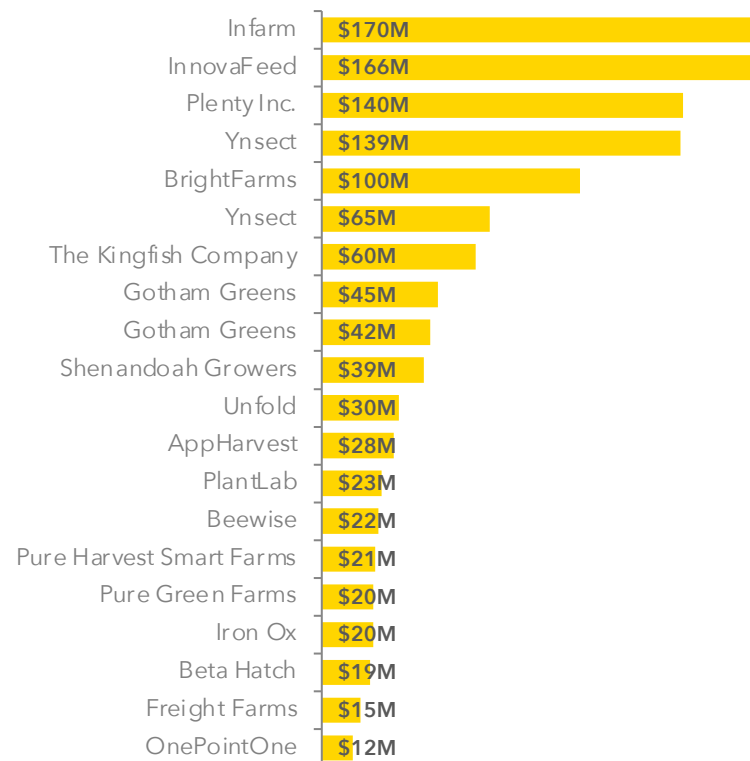
Top Ag Biotech Deals

Gene editing technologies continue to dominate the leaderboard as biologicals face efficacy challenges. Pivot Bio's fertilizer reducing microbes remain the one to beat. Some startups turned their attention towards Covid-19.



Top Novel Farming Systems Deals

The insect farming sector had a big year, closing multiple growth-stage rounds, while Infarm's differentiated indoor farming business model enabled it to close a debt and equity first close of its Series C.

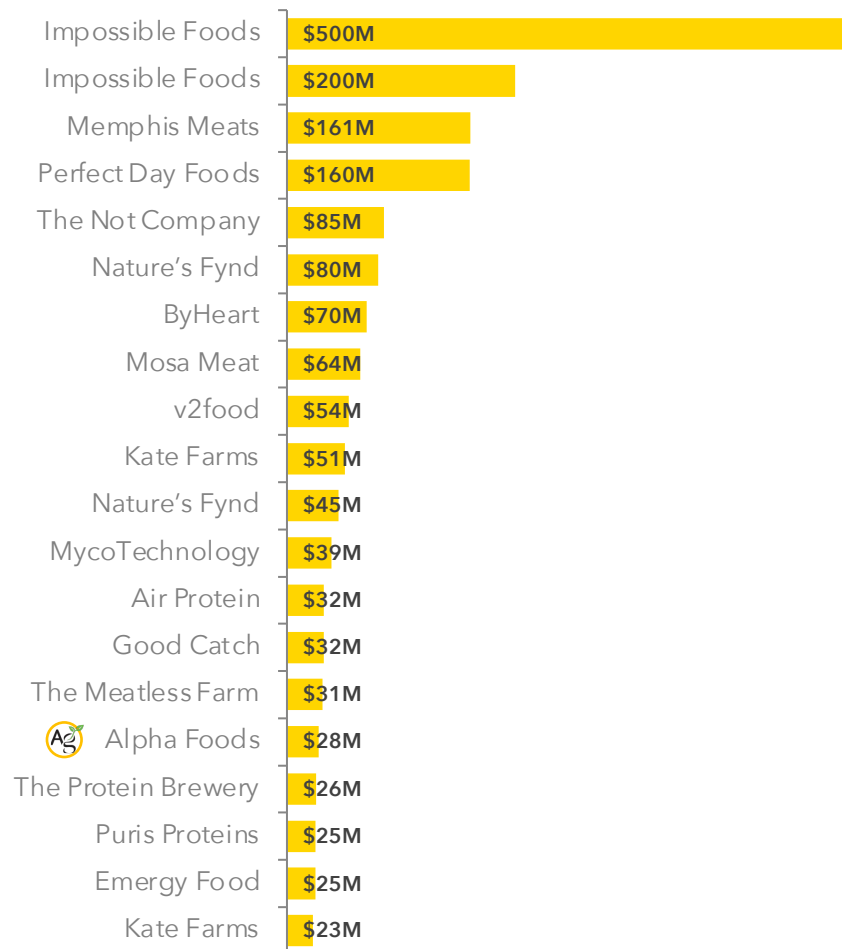


AgFunder portfolio company



Top Innovative Food Deals

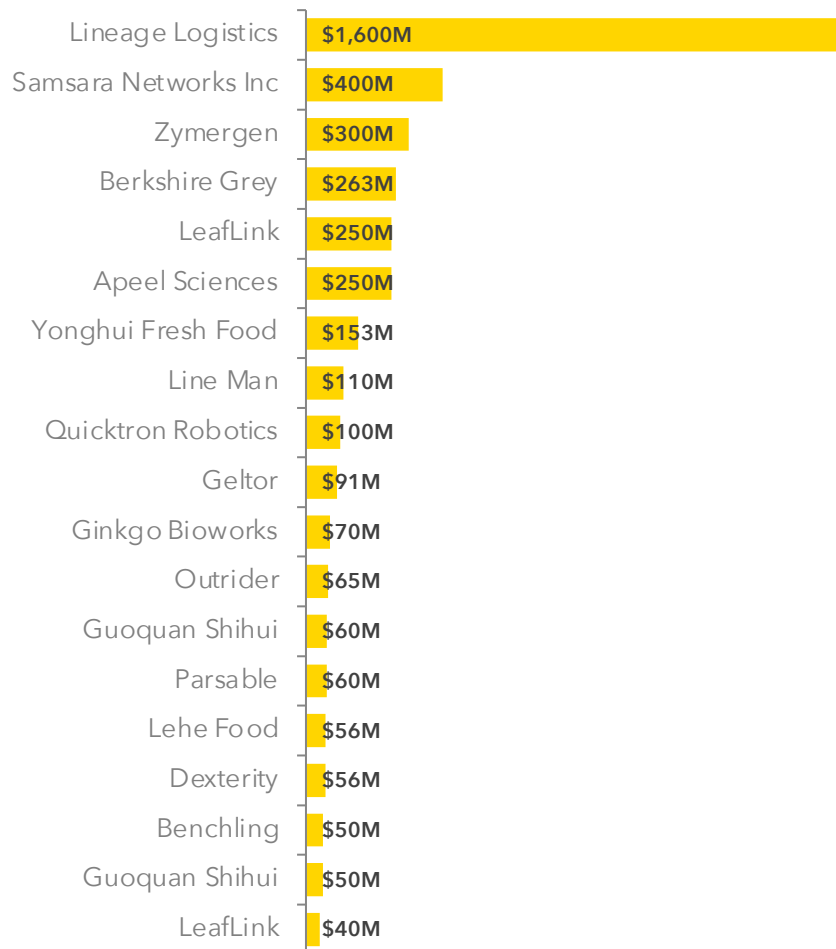
- The top deals in this table were made by some of alternative protein's very first movers, and the size of these deals is indicative of the maturity of this industry today.
- The fact that Impossible Foods was able to quickly raise \$500m at the very start of the pandemic when uncertainty was high indicates the strength of investor conviction in this category.
- Sizeable raises by Memphis Meats and Mosa Meat are inching cultured meats and proteins closer to the market. Numerous such companies have recently held high-profile tastings and reported production costs in the low-double and high-single digits – a major accomplishment in a field reporting per-unit costs in the hundreds and thousands of dollars just a few years ago.



 AgFunder portfolio company

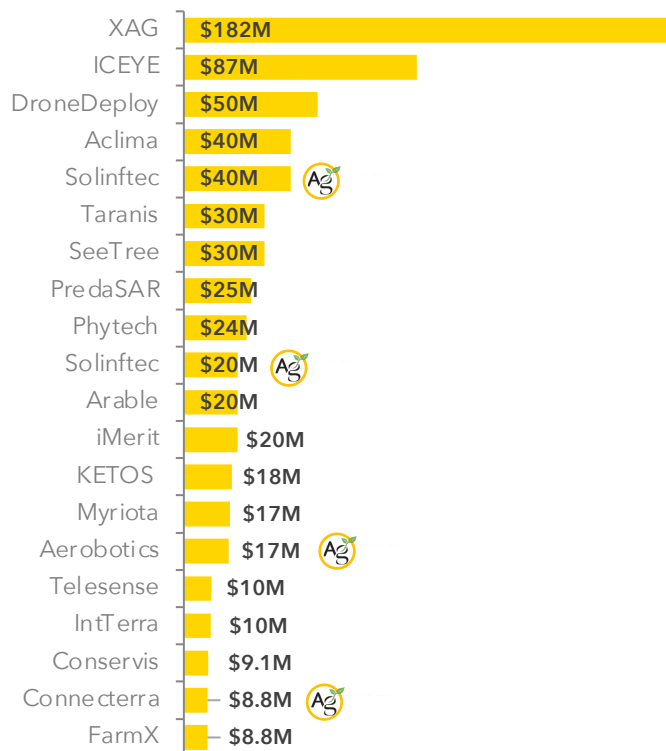
Top Midstream Tech Deals

- While the food supply chain showed remarkable resilience during 2020, the pandemic had a disastrous impact at various points in 2020.
- Dangerous infection rates at meat packing plants in the US, gallons of milk thrown away down drains, produce left to rot in the fields - these are just some of the scarring images many will never forget.
- Companies focused on increasing efficiency in the supply chain saw some huge rounds including Lineage Logistics' whopping private equity round for its network of cold storage facilities and automated warehouses around the world.
- Sustainable ingredients suppliers also featured like Zymergen, Geltor, Ginkgo Bioworks and Apeel Sciences.



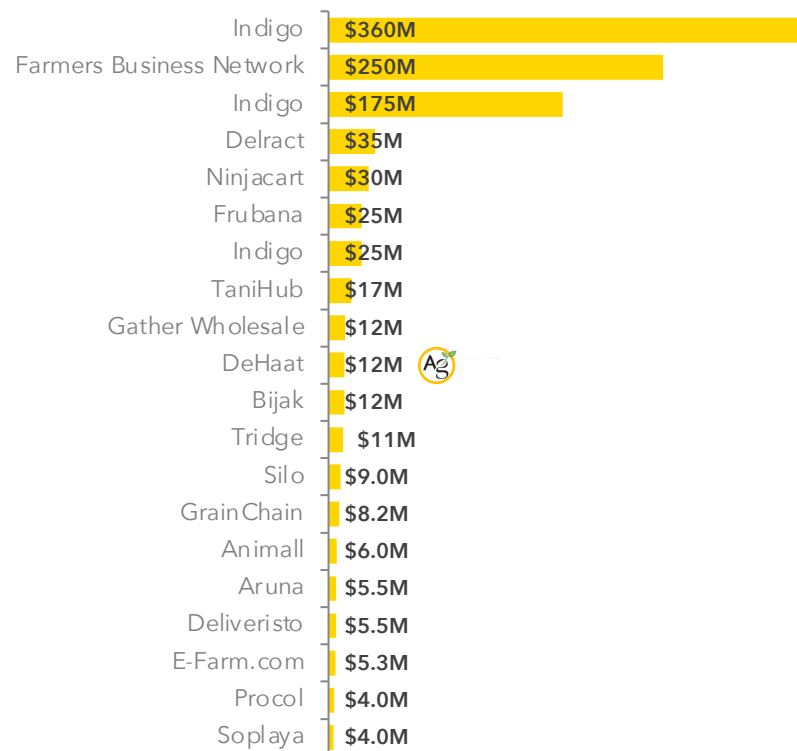
Top Farm Management SW, Sensing

It was a challenging year for early-stage startups in this category as investors flocked to less risky, easier to understand areas of agrifoodtech. Deal activity is projected to drop 10% YoY as a result, but dollar investment will be on par with 2019 as established names successfully raised larger growth stage rounds.



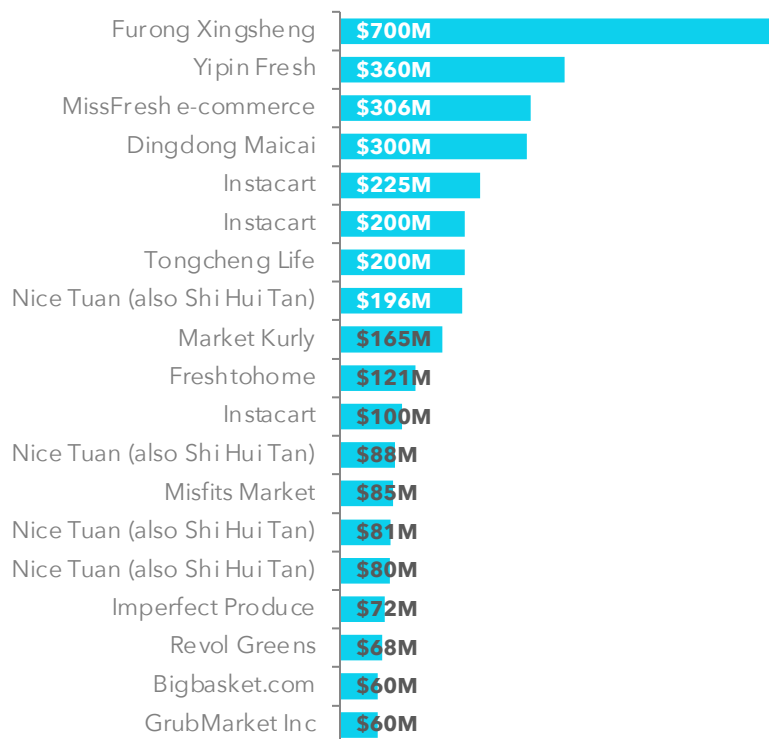
Top Agribusiness Marketplace Deals

Agribusiness marketplaces gathered pace during the year as an essential means for farmers to access inputs and markets for their produce. Indigo made progress with its carbon trading market, but questions remain about its valuation. Farmers Business Network also entered the carbon market in 2020.



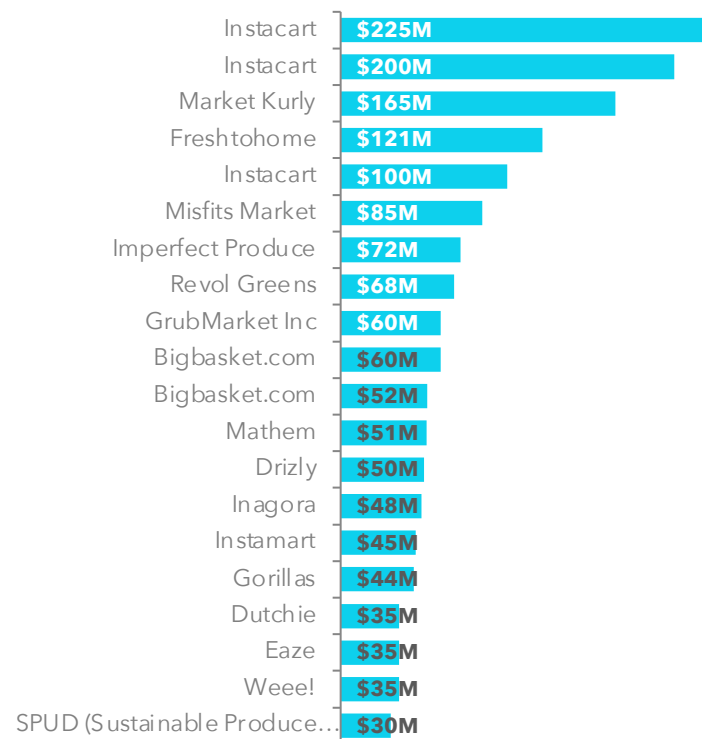
Top eGrocery Deals

For all the momentum the pandemic gave to online grocery, funding to the sector would be a blip if it weren't for Chinese companies and consumers. In all, China's eGrocery companies raked in \$2.9 billion in 2020 – 57% of the category total last year, with several companies raising multiple rounds for expansion.



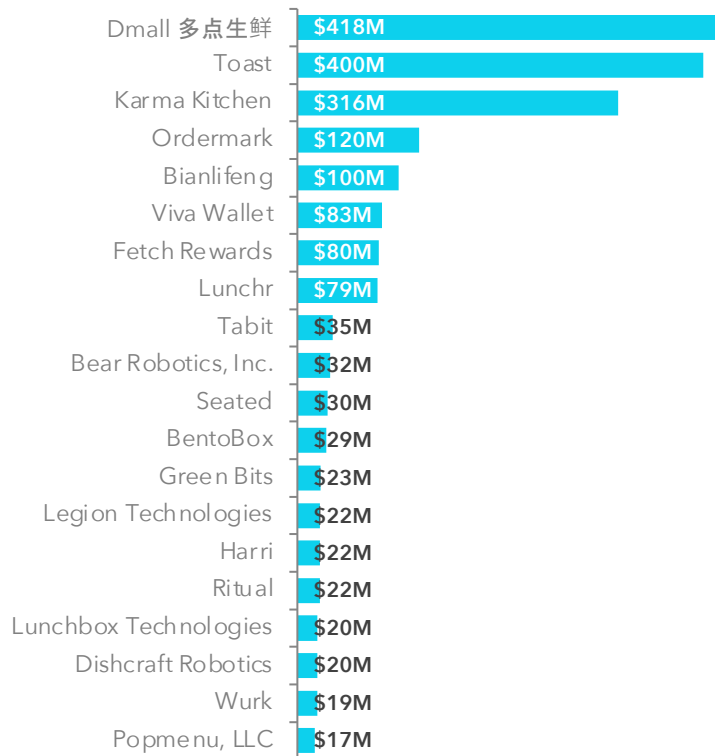
Top eGrocery Deals ex-China

US-based Instacart held down the e-Grocer fort for the rest of the world closing multiple deals in 2020. India's 1.3 billion people are increasingly adopting online grocery, through companies like BigBasket. Niche eGrocers, like "ugly produce" sellers Misfits Market and Imperfect Foods, are also on the rise.



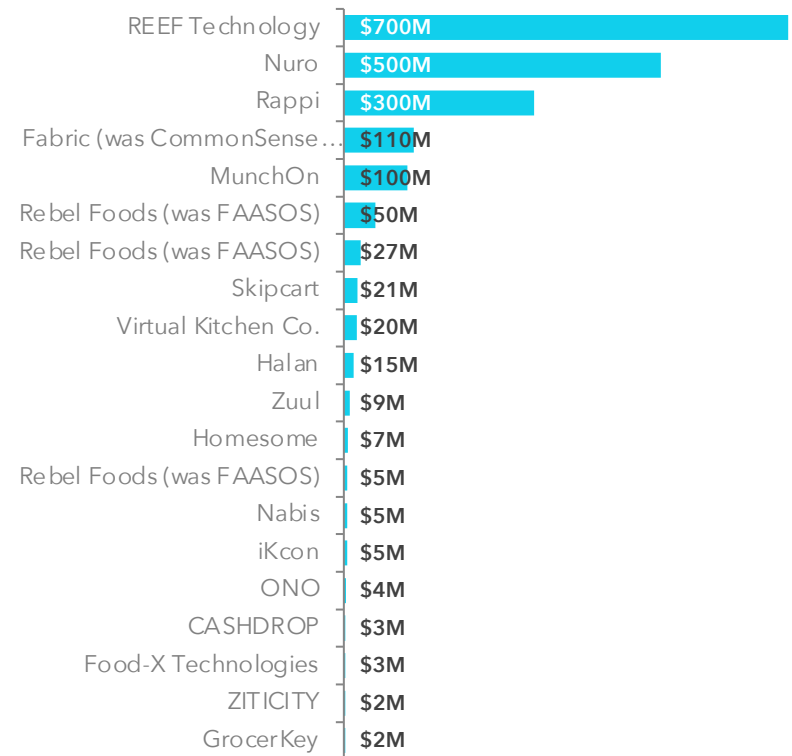
Top In-store Retail & Restaurant Tech

Toast was lucky to raise a huge Series F round just before Covid-19 hit giving it a valuation of \$5bn. While many startups in this category are focused on optimizing grocery stores, it was somewhat surprising to see so much activity in restaurant tech.



Top Cloud Retail Tech

Investment activity in this category, which enables the at-home dining trend, logically increased with leading deals going to REEF's neighborhood kitchens and Nuro's last mile delivery robots.



Deals by Stage

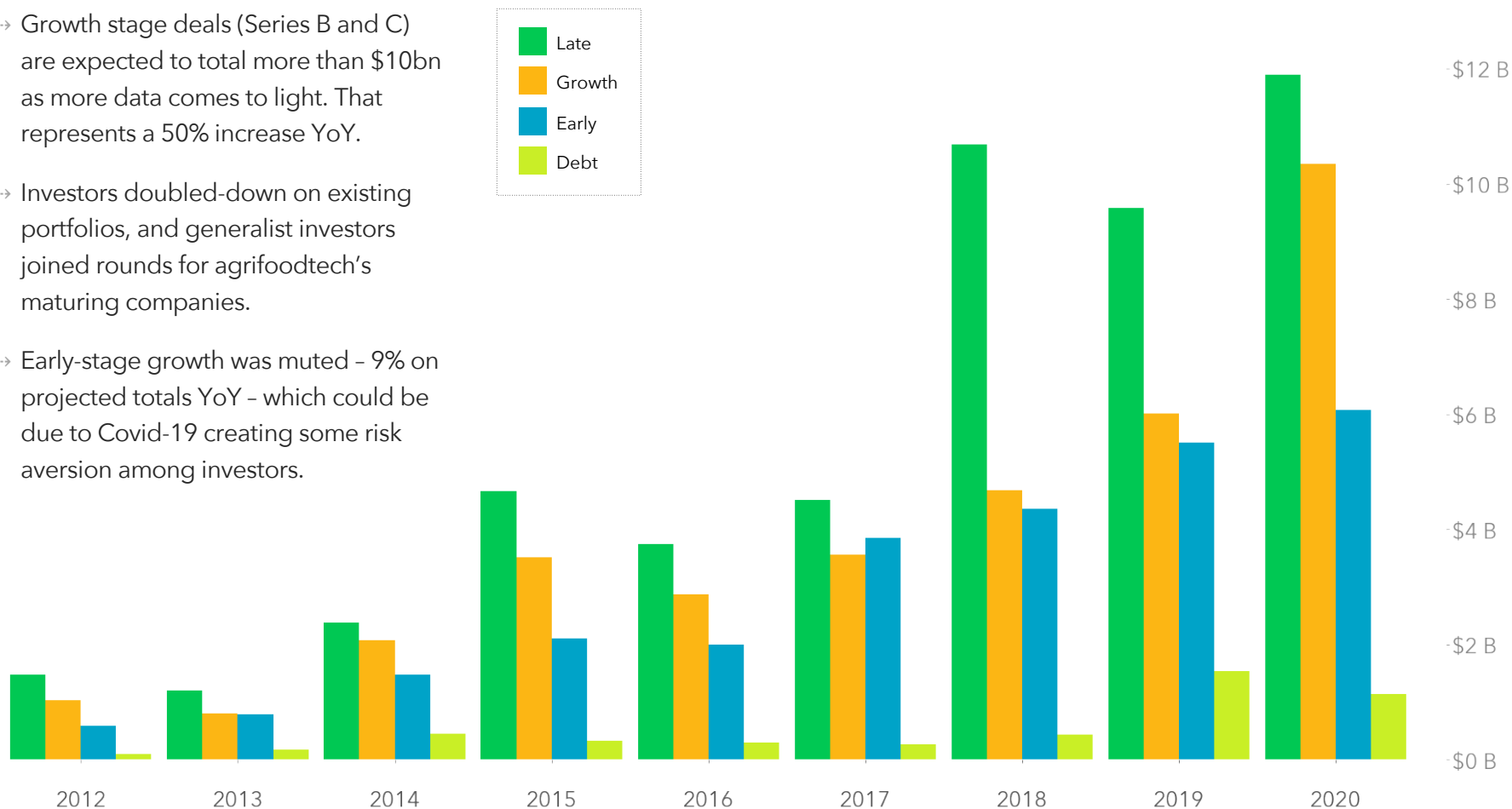


Projected Deal \$ Volume by Stage | 2012 - 2020

→ Growth stage deals (Series B and C) are expected to total more than \$10bn as more data comes to light. That represents a 50% increase YoY.

→ Investors doubled-down on existing portfolios, and generalist investors joined rounds for agrifoodtech's maturing companies.

→ Early-stage growth was muted – 9% on projected totals YoY – which could be due to Covid-19 creating some risk aversion among investors.

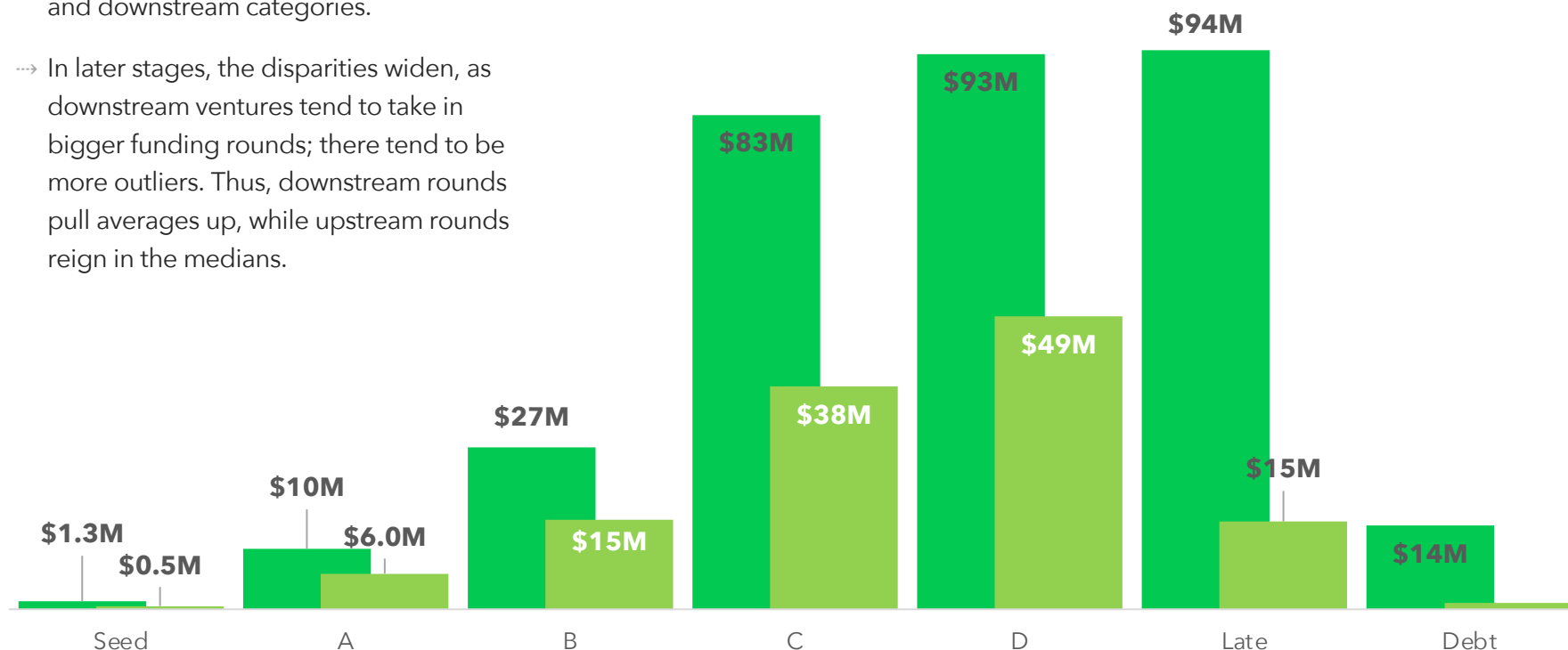
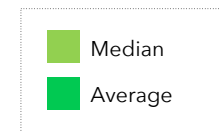


Deal Average and Median by Stage

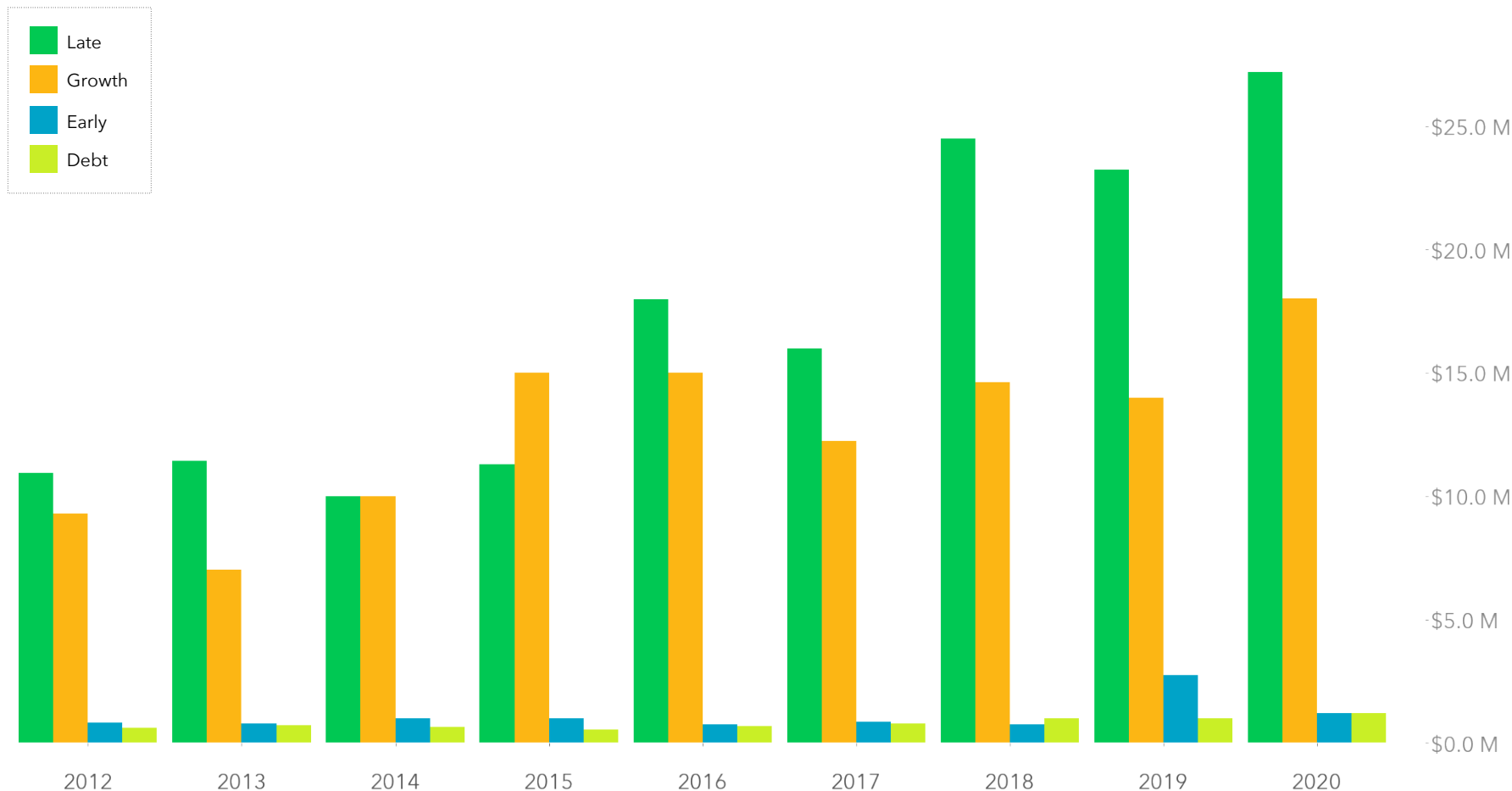
→ Median and average deal sizes differ for upstream and downstream ventures.

→ At the seed and Series A stages, the two trend closely together in both upstream and downstream categories.

→ In later stages, the disparities widen, as downstream ventures tend to take in bigger funding rounds; there tend to be more outliers. Thus, downstream rounds pull averages up, while upstream rounds reign in the medians.

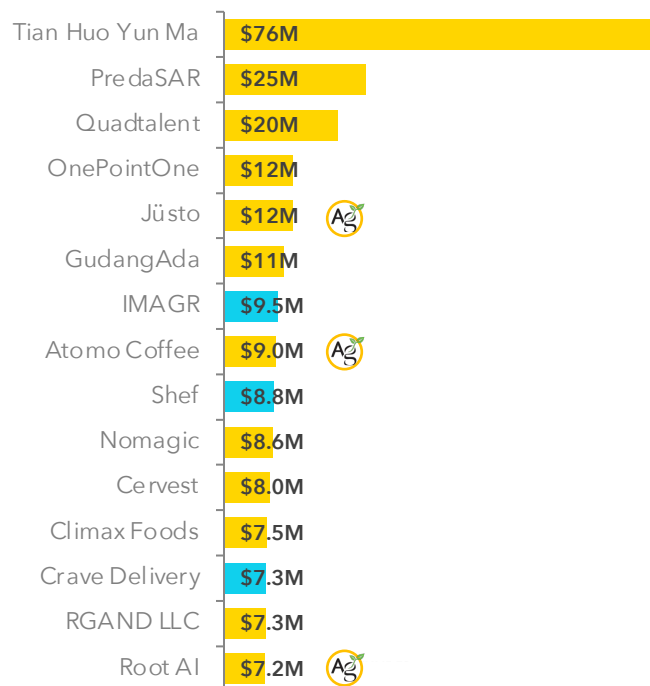


Median Round Size by Stage - 2012-2020



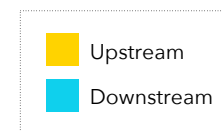
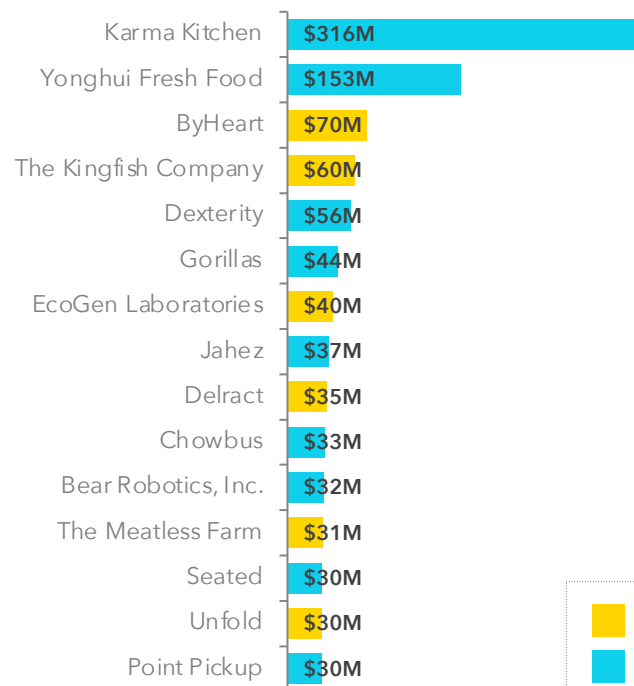
Top 15 Seed Deals

Chinese biotech company Tian Huo Yun Ma raised an exceptionally large seed round. The range of technologies at the seed stage include remote sensing (PredaSAR), alt-proteins (Climax Foods), eGrocery (Justo), and farm robotics (RootAI).



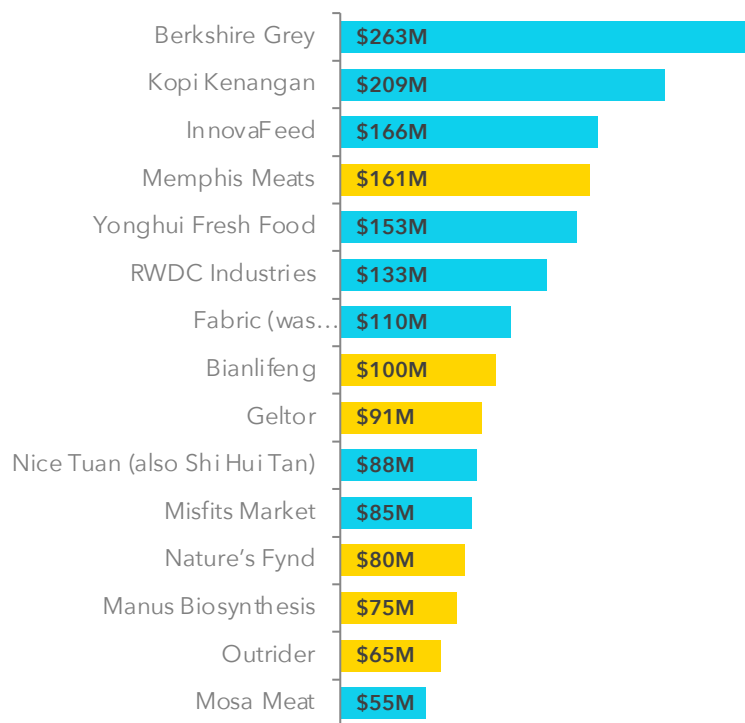
Top 15 Series A Deals

In contrast to the top seed stage deals, downstream technologies dominated the top Series A deal list. UK-based Karma Kitchen, which provides kitchen spaces to businesses, inked \$316m in July as it became clear that indoor dining would not likely rebound soon. Germany's Gorillas raised \$44m to expand on-demand grocery delivery.



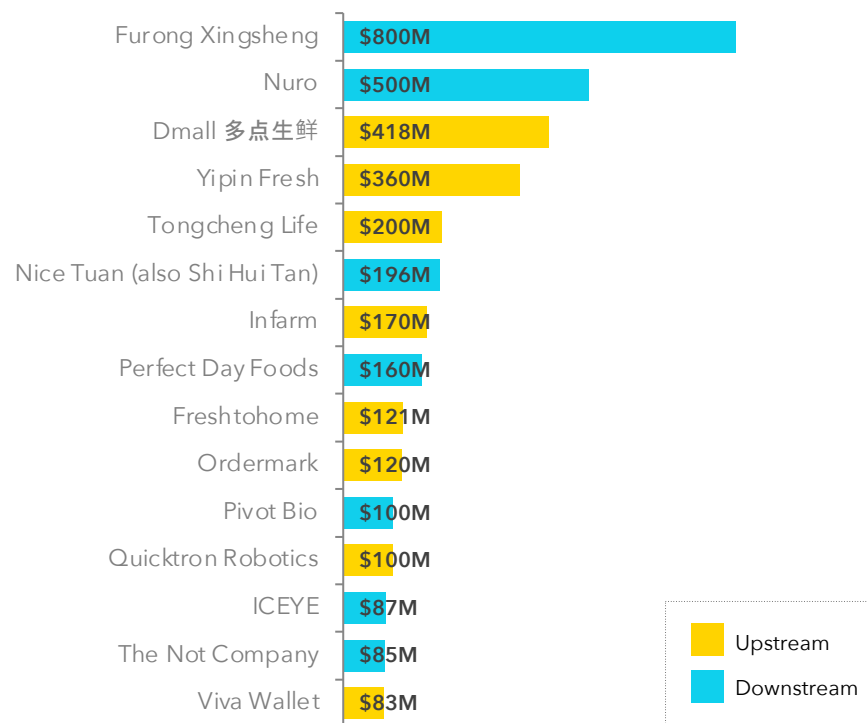
Top 15 Series B Deals

Robotics and automation venture Berkshire Grey raised its first round since in 2013. Kopi Kenangan is boosting Indonesia's domestic coffee consumption in a market known for exports. Cultured meat companies Memphis Meats and Mosa Meat signal they're edging towards commercialization.



Top 15 Series C Deals

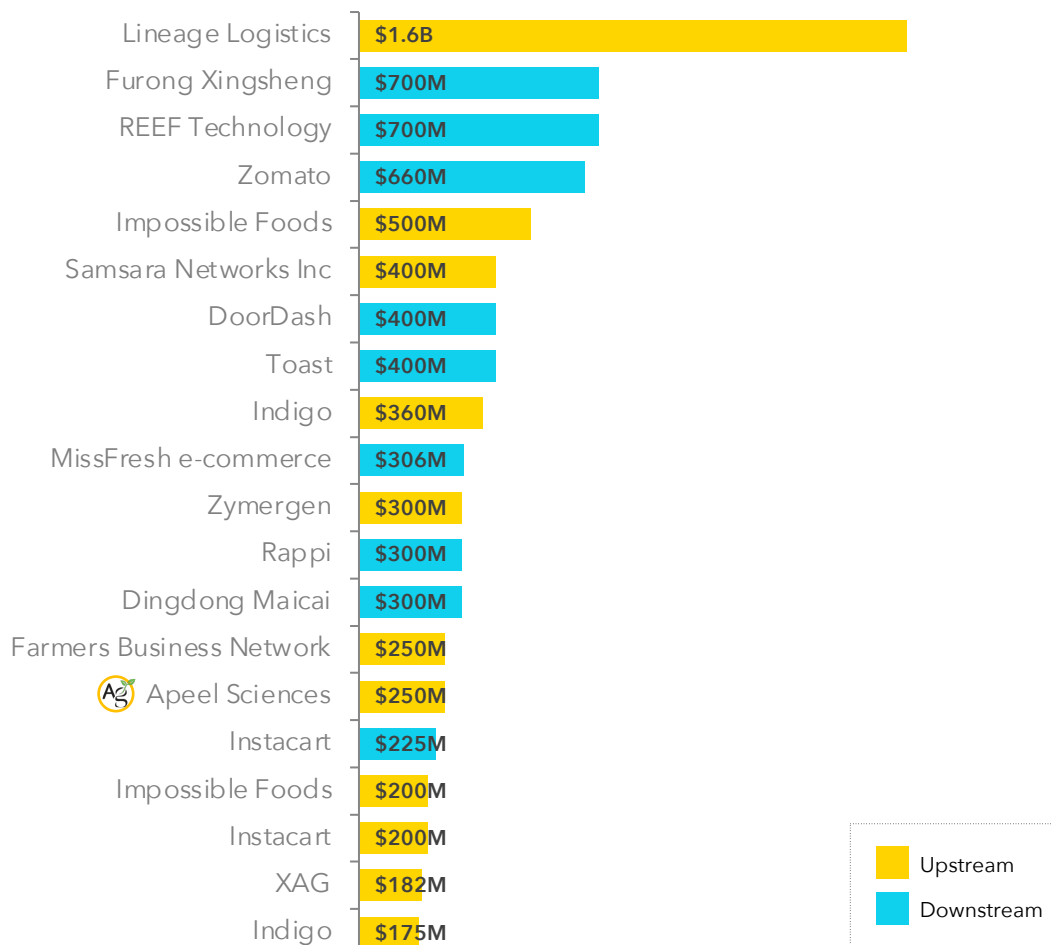
The Series C chart tells a story of demand for hyper-local and fresh foods – both upstream and downstream – from vertical farming in Germany (Infarm), to fresh but discounted grocery delivery in China (Yipin Fresh) and fresh meats in India (Freshtohome).



Upstream
Downstream

Top Late Deals

- Many of the top late stage deals are household names by now including Impossible Foods and Instacart, both of which raised two rounds during the year to shore up capital to face the pandemic,
- The top three companies are all focused on improving efficiencies in the supply chain and for the retailer; Lineage Logistics's cold chain management, Furong Xingsheng's logistics for community supermarkets, and REEF's parking lots-turned-ghost kitchens enabling restaurants to serve more consumers.
- While this chart has traditionally been dominated by downstream companies, it's exciting to see how upstream ventures have matured and are increasingly able to command large valuations.



 AgFunder portfolio company

How the food system is being reimagined

There is no escaping Covid-19's impact on the end-to-end food ecosystem, highlighting how essential but fragile it is. Underscored by a set of megatrends and the acceleration of these trends that the pandemic brought with it, tremendous change is taking place across the food system. Fundamentally, it's being reimagined. But what does that mean? As we consider how forces outside the industry propel a reimagined food system, companies are faced with unique paradoxes.

These tensions – driven by changing consumer behaviors and a desire to be planet friendly and intrinsically connected – are the tipping point in a shift from scale and silos to a personalized and linked ecosystem. At the intersection of these paradoxes are possible solutions that can help food companies identify growth opportunities to thrive today and create long-term value for the future. What is uncovered at those intersections tells a story – what's yours?

Megatrends



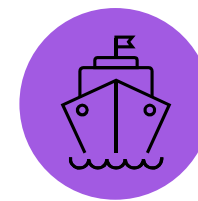
Technology and
innovation



Consumer
demographics



Environmental



Infrastructure
and trade

➔ • **Connected system • Consumer centric • Planet friendly** • ➔

Personalization



Scale

Trends towards personalization where scale in production remains the underlying infrastructure.

137%

The level of investment in innovative food more than doubled from 2019 to 2020.¹

Big food



small food

"Big food" is perceived as less wholesome and more ethically suspect than "small food."

46%

Almost half of all global consumers say locally sourced is a more important priority now than it was in the past.²

Fix



Feed

Health care R&D is almost 10x higher than consumer products R&D.

62%

Nearly two-thirds of global consumers will make healthier choices in what they buy.³

Less carbon



More protein

Consumers demand higher-quality protein from fewer resources.

50%

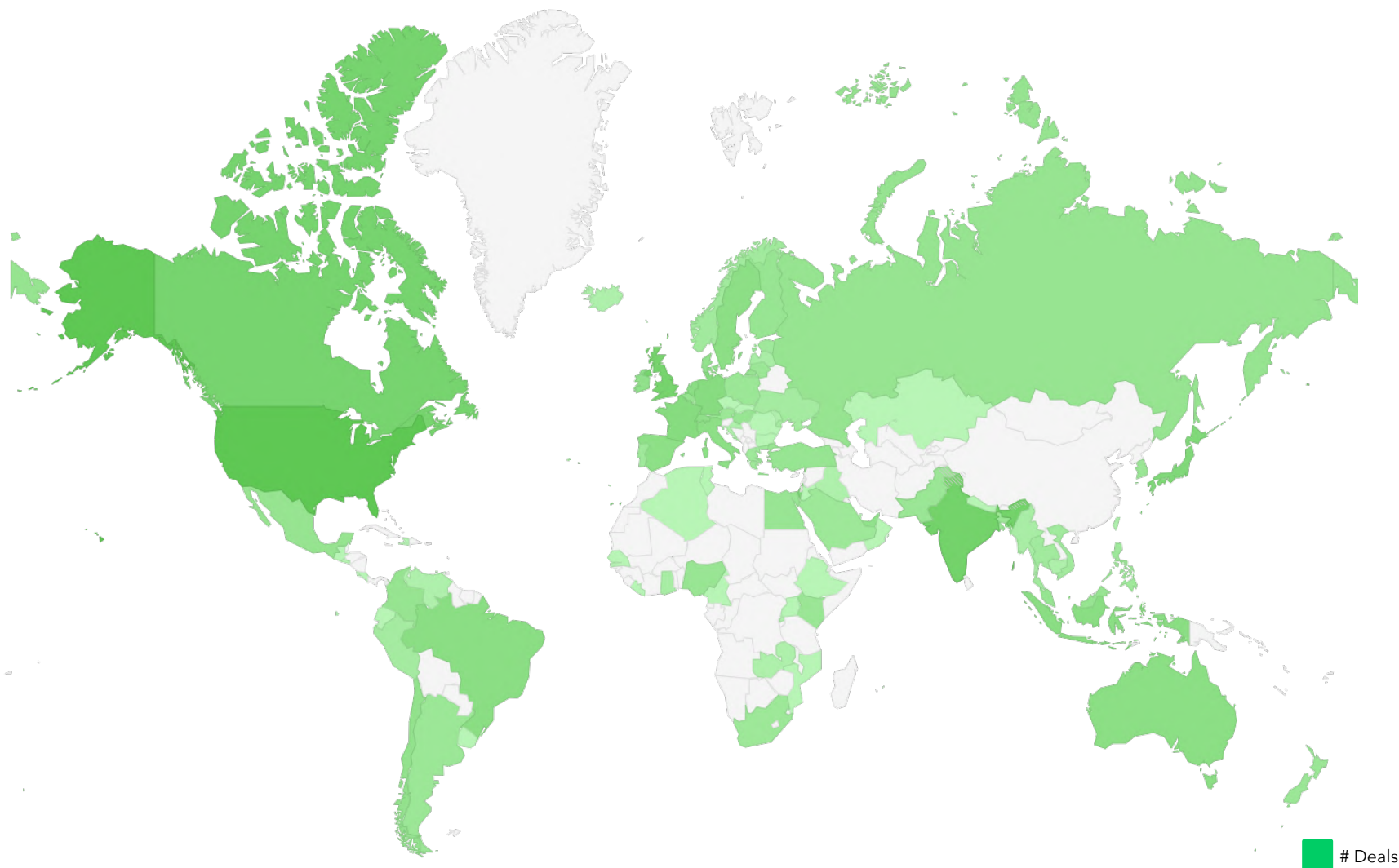
Half of US consumers identify "sustainability" with climate change mitigation and adaption.⁴

¹ AgFunder AgriFood Tech 2020 report | ² EY-Parthenon Sustainability survey (December 2020) | ³ EY Future Consumer Index, global (October 2020) | ⁴ EY Future Consumer Index, global (October 2020)

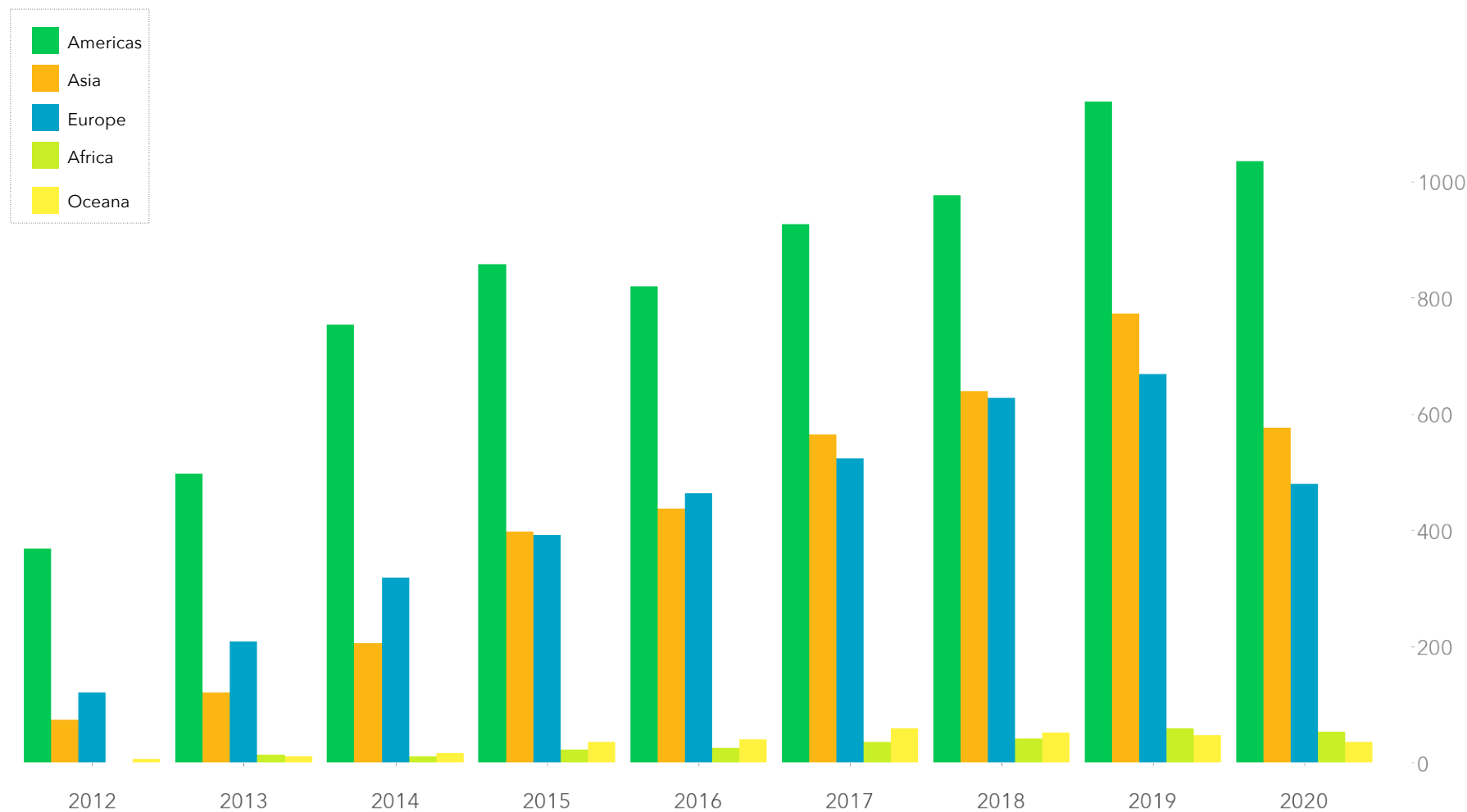


Deals by Country

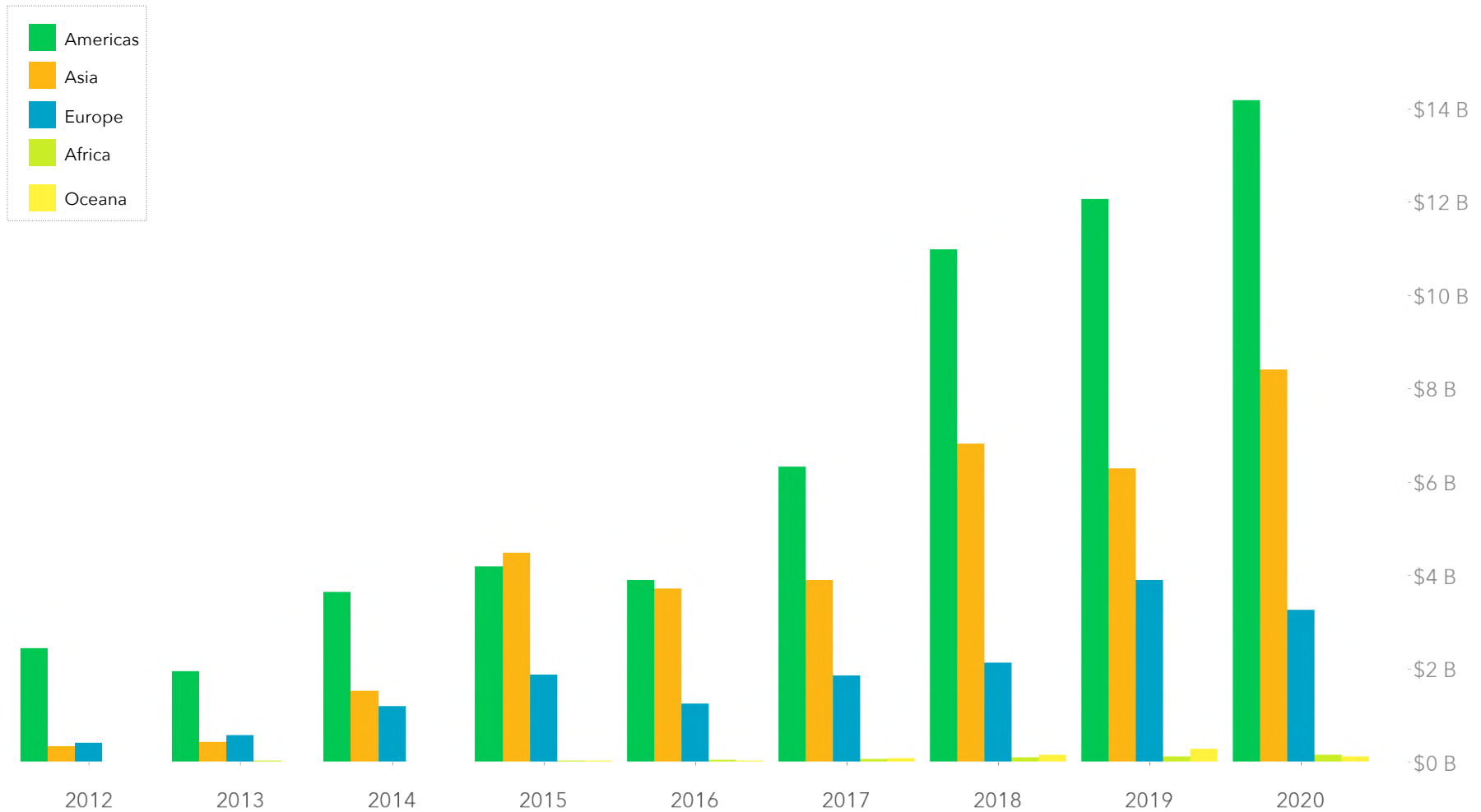
Global Investment World Map



Global Deal Activity by Region

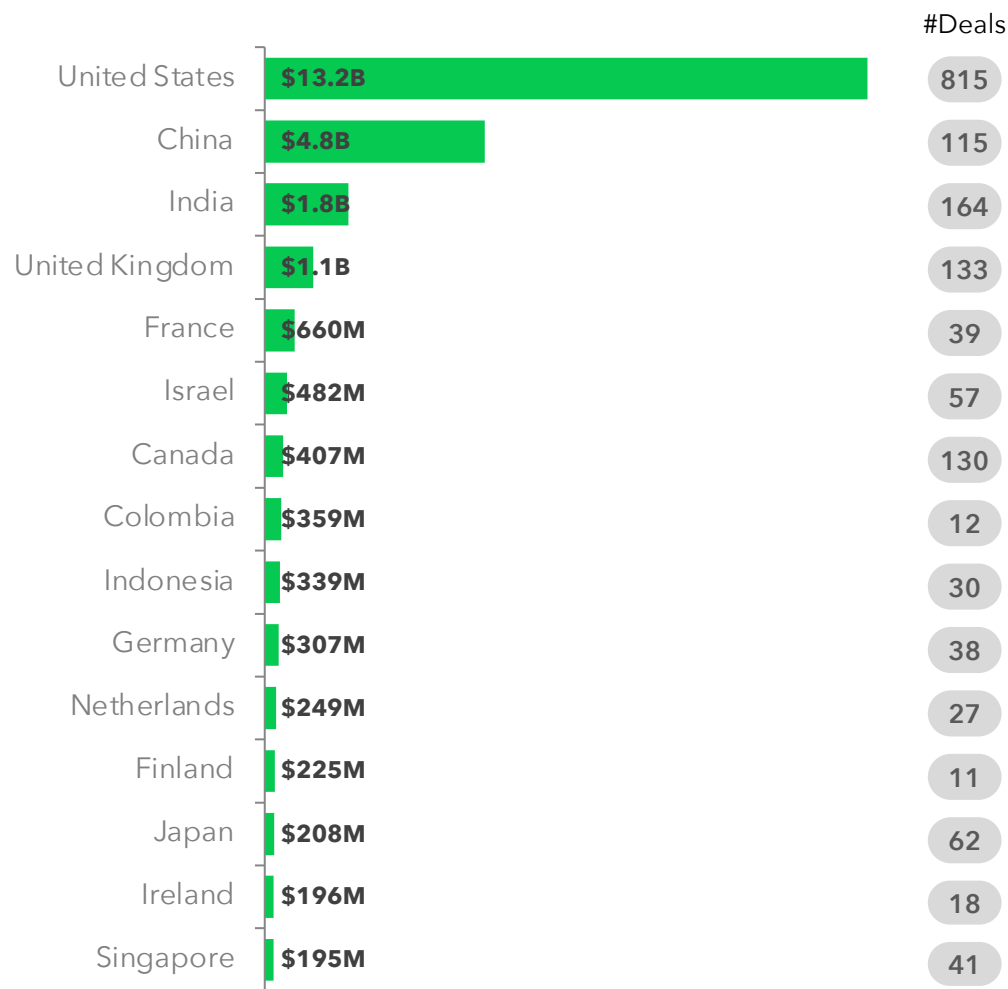


Global Investment by Region



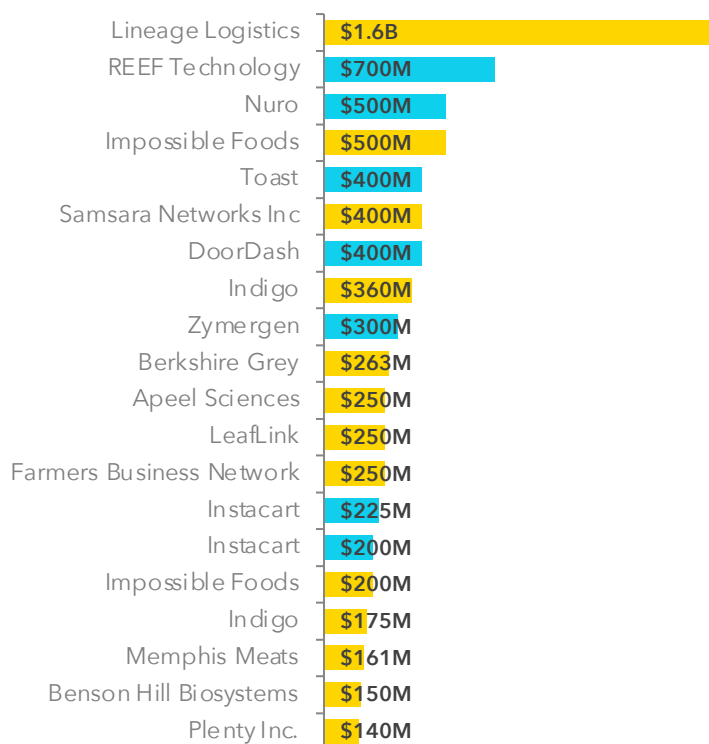
Top 20 Countries by Investment

- US companies recovered investment market share in 2020 bucking the trend of the last few years when other geographies accelerated investment in their developing agrifoodtech ecosystems. This could be a slight flight to safety in the wake of the pandemic, as well as investors doubling down on previous bets in their portfolios.
- Chinese deal activity declined but there were some huge deals for downstream services particularly eGrocery.
- Colombia reached the top 15 with relatively few deals after Rappi, its unicorn last mile delivery platform, raised \$300m in last stage funding.
- The UK continues to lead the European region despite Brexit-related uncertainty.



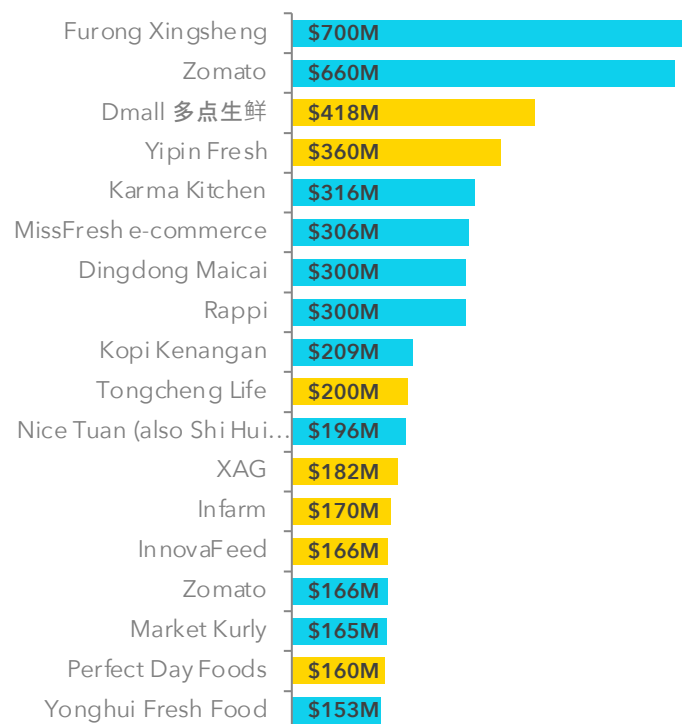
Top US Deals

The top deals in the US tell a story of how investors were thinking of food supply chains in 2020. Automation plays a big part. Lineage Logistics and Nuro automate warehousing, the cold chain and delivery. So does sustainability, with alt-protein players, and Indigo Ag and Apeel all tackling it in various ways.

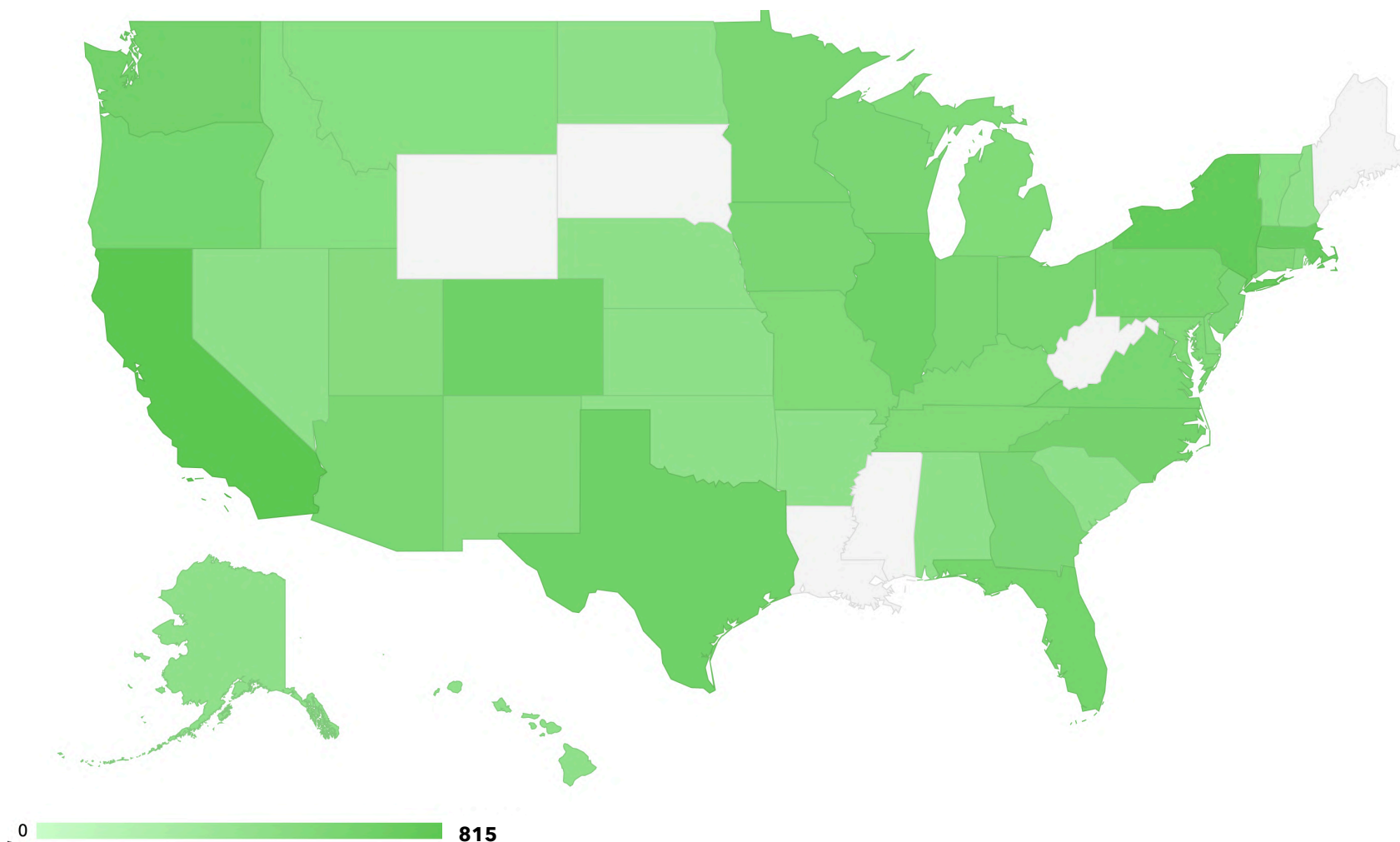


Top Non-US Deals

Internationally, top deals were dominated by food delivery and e-commerce. The top five deals are all e-Grocery, and mostly Chinese companies. Pause for kitchen space manager Karma Kitchen, then it's delivery again. Infarm and InnovaFeed put novel farming on the list.



U.S. Investments: Number of Deals By State Map



U.S. Investments : Value of Investments by State

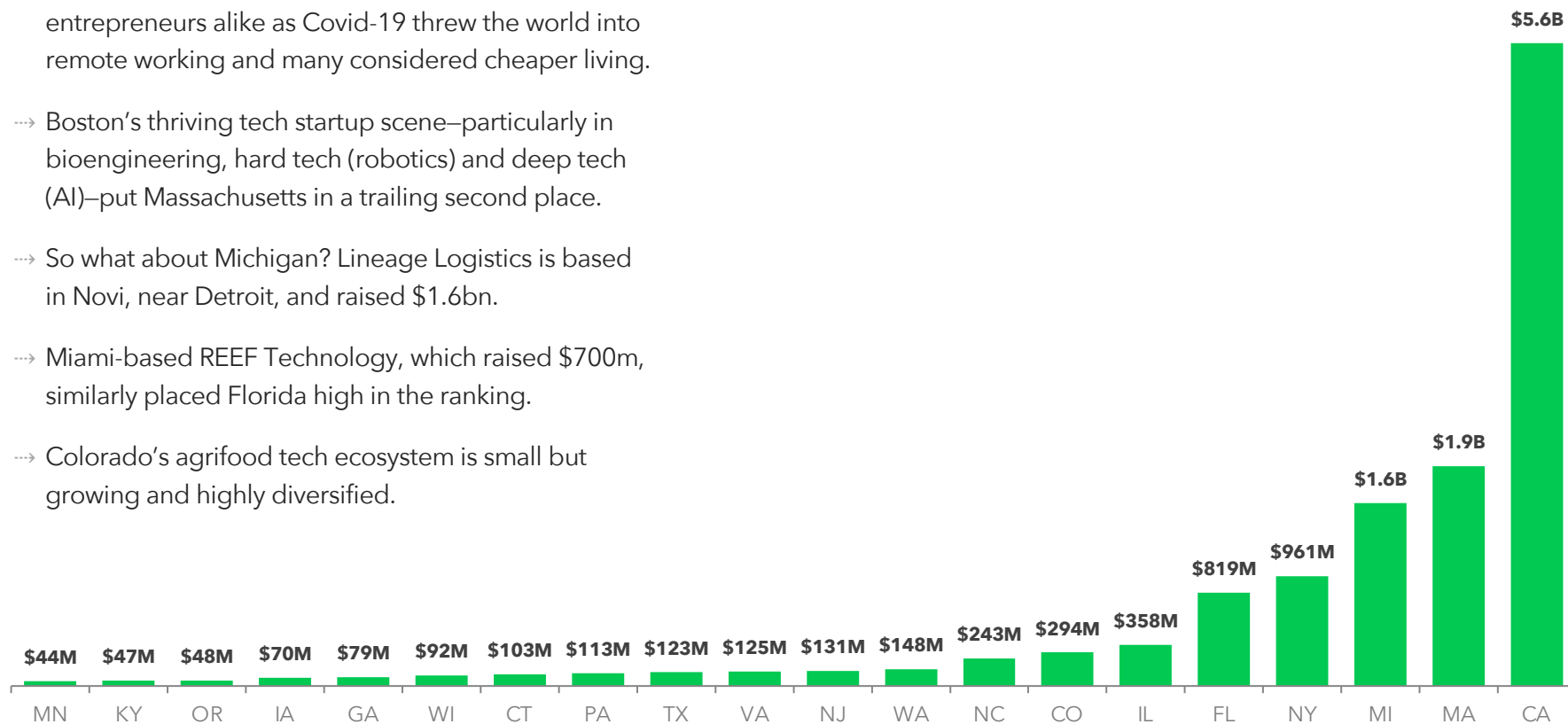
→ Silicon Valley plus an agricultural center of the US makes California's dominance in agrifoodtech investing no surprise. A question mark remains whether Silicon Valley will remain the destination for investors and entrepreneurs alike as Covid-19 threw the world into remote working and many considered cheaper living.

→ Boston's thriving tech startup scene—particularly in bioengineering, hard tech (robotics) and deep tech (AI)—put Massachusetts in a trailing second place.

→ So what about Michigan? Lineage Logistics is based in Novi, near Detroit, and raised \$1.6bn.

→ Miami-based REEF Technology, which raised \$700m, similarly placed Florida high in the ranking.

→ Colorado's agrifood tech ecosystem is small but growing and highly diversified.



The image shows several stacks of LAVA Plant-Based Yogurt containers. The containers are in various colors: blue for Blueberry, purple for Vanilla, pink for Raspberry, and orange for Mango. Each container features the LAVA logo and the words 'Plant-Based Yogurt'. The background is a blurred green plant.


Investor Activity

Most Active Accelerator Funds

RANK	INVESTOR	LOCATION	# INVESTMENTS
1	YCombinator	Mountain View, CA	45*
2	SOSV	Princeton, NJ	40*
3	TechStars	Global	36*
4	500 Startups	San Francisco, CA	16*
5	Plug & Play Ventures	Global	15
6	SVG Partners/THRIVE	Los Gatos, CA	13
7	Sparklabs Cultiv8	Sydney, Australia	12
8	Big Idea Ventures Alchemist Accelerator	Singapore, New York, US ???	10
9	The Yield Lab	St Louis, MO, Rosario, Argentina	8
10	VentureCatalysts	Maharashtra, India	9
10	GROW Impact Accelerator	Singapore	9
12	Trendlines Rockstart	Tel Aviv, Israel Amsterdam, Netherlands	8

*includes investments made by multiple accelerators and/or follow-on funds

Most Active Venture Capital Fund Managers*

RANK	INVESTOR	LOCATION	# INVESTMENTS
1	S2G Ventures	Chicago, IL	37
 2	AgFunder	San Francisco, CA	21
3	Temasek	Singapore	17
4	Crowdcube	London, UK	15
5	Innova Memphis	Memphis, Tennessee	14
6	Astanor Ventures	London, UK	11
7	Alexandria Venture Investments CPT Capital Blue Horizon Ventures GGV Capital Stray Dog Capital	Durham, NC London, UK Zurich, Switzerland Menlo Park, CA Leawood, KS	10
8	Prelude Ventures Omnivore Sequoia Capital China	San Francisco, CA Mumbai IN Beijing, China	9
9	Horizons Ventures	Hong Kong, China	8
10	Tencent Holdings Ospraie Ag Sciences Tiger Global Management Global Founders Capital Hiventures Rabobank Food & Agri Fund	Shenzhen, China New York, NY New York, NY Berlin, Germany Budapest, Hungary Utrecht, Netherlands	7

*by number of companies invested in, including follow-ons

s2g^{ventures}

VERDANT
P A R T N E R S™

M & A

Food Tech M&A Insights from s2gventures

While exit expectations waned at the beginning of last year as the pandemic began, several large FoodTech companies held sizable exit events. Generally speaking, acquisition and public market activity were centered around digital platforms for food delivery, including restaurant marketplaces, meal kits, and online grocery. While several deals transacted in Innovative Foods, which includes novel ingredient and alternative food products, and other general food product companies, these deals tended to be relatively small. In many subsectors there was more capital raising activity than exits.

Last year ended on a high note with DoorDash's landmark IPO. On opening day, DoorDash's IPO priced at \$102, and rose 86% to close at \$189.51. While the stock has seen highs and lows, its stock price continues to grow and shows a glimpse of pent-up demand from public market investors that desire greater FoodTech exposure.

We also saw further global consolidation of Restaurant Marketplaces and food delivery. In early 2020, Just Eat acquired Takeaway for \$8.3 billion and then the combined entity, named Just Eat Takeaway, acquired Grubhub for \$7.3 billion in June. Uber continues to build its food business through the acquisitions of Postmates for \$2.65 billion and Cornershop for

\$459 million. Globally, we saw Deliveroo IPO in the UK and the Woowa Brother sell to Delivery Hero for \$4.6 billion in South Korea. Beyond these digital food delivery platforms, there were other select large exits, including Rockstar Energy's sale to PepsiCo for \$3.85 billion and Utz Quality Foods' sale to Collier Creek Holdings for \$1.56 billion.

In the years to come, we expect to see a compositional shift in subsector exits to include a higher percentage of Innovative Food companies, Midstream Technologies, and better-for-you brands. This is caused from a confluence of contributing factors, with one factor being the amount of cash food manufacturers have on hand after 2020. Food manufacturers had a successful year with consumers shifting to at-home eating, and when coupled with murmurs of divestitures of legacy brands, may lead to a highly acquisitive 2021 and 2022. With that said, we've observed delineation in valuation rationale, while some continue to acquire for the promise of future growth, others are increasingly focused on acquiring profitable companies. We expect we'll see a bit of both this year.

Select FoodTech Exits | 2020*

Target	Target country	Acquirer	Technology	Est. Price (\$m)	Select Investors
Takeaway	United Kingdom	Just Eat	Restaurant Marketplace	\$8,248.24	
Frisco.PI	Poland	Eurocash Group	eGrocery	\$79.82	
Freshly	USA	Nestle	Online Restaurants and Meal Kits	\$1,500.00	Allied Investors Group, Highland Capital
Grubhub	USA	Just Eat Takeaway	Restaurant Marketplace	\$7,300.00	
Fairlife	USA	Coca-Cola	Dairy Products	\$562.92	Coca-Cola, Select Milk Producers
Cornershop	USA	Uber	eGrocery	\$459.00	Accel, Endeavor Catalyst, Creandum
Demae-can	Japan	Naver	Restaurant Marketplace	\$458.23	
Woowa Brothers	South Korea	Delivery Hero	Restaurant Marketplace	\$4,597.70	Goldman Sachs, GIC, Sequoia, Stonebridge
InstaShop (Specialty Retail)	United Arab Emirates	Delivery Hero	eGrocery	\$360.00	Jabbar Internet Group, Souq, VentureFriends
DoorDash	USA	IPO	Restaurant Marketplace	\$32,400.97	Benchmark, Khosla, Kleiner Perkins, Temasek, Coatue, Y Combinator, T. Rowe Price
Rockstar Energy	USA	PepsiCo	Energy Drink Manufacturer	\$3,850.00	
Factor_	USA	HelloFresh	Online Restaurants and Meal Kits	\$277.00	Hyde Park Angels, Valor Equity Partners
Postmates	USA	Uber	Restaurant Marketplace	\$2,650.00	FirstMark, Founders Fund, Tiger Global
Deliveroo	United Kingdom	IPO	Restaurant Marketplace	\$2,532.98	
Vitalic Health	India	Reliance Retail Ventures	Innovative Food	\$137.70	
Retty	Japan	IPO	Restaurant Tech	\$121.20	Eight Roads, NTT Docomo, Mitsubishi UFJ
Buitoni Food	USA	Brynwood Partners	Food Products	\$115.00	Nestle
Keruyun	China	Alibaba Group	In-Store Retail & Restaurant Tech	\$114.63	Baidu, CISC, CITIC Securities, Tianxing Capital
Utz Quality Foods	USA	Collier Creek Holdings	Food Products	\$1,560.00	

*data from Pitchbook

Crop Tech M&A Insights

from **VERDANT**
P A R T N E R S

Despite the interruption of Covid-19 and resulting slowing adoption of agtech, it was one of the strongest years on record for M&A. We tracked 37 completed deals in 2020, comprised of agronomic data and analytics, farm operations and profitability management, irrigation control, and biologicals. US-based acquisitions represented over 50% of deals, similar to 2019, followed by Europe (19%), and Asia-Pacific (11%).

A few other trends to look out for in 2021:

- Deal activity between tech providers in the same category grew such as irrigation tech driven by Valmont and CropX. Precision water monitoring and control brings measurable cost savings to growers while lessening management time and resource usage, a combination that will lead to more strategic acquisitions, especially by strategics and retail distribution participants.
- Non agrifood companies are coming into the fold such as Telus, a Canadian telecommunications company that's purchasing several agtech companies for a new business unit. Verdant received significant inbound M&A interest from non agrifood groups in 2020.

- Consolidation among biologicals companies increased in 2020 and we expect that to continue particularly for companies with proprietary formulations and proven traction. Driven by consumer and policymaker sustainability demands; improving product efficacy; and increasing crop tolerance to conventional alternatives, biologicals are increasingly popular with farmers.

2021 predictions

- Consolidation in 2021 will be driven by resource efficiency tech and profitability optimization.
- Carbon platforms and digital measurement, monitoring, and marketplaces to support this sector, are more efficiently acquired than built.
- Stronger interest from private equity buyers and continued consolidation by ag retail.
- Data collection, analytics, and management players will continue consolidating niche products and services into complete, robust solutions through a single user interface.

Farm Tech M&A and Exits | 2020

Target	Target country	Acquirer	Technology	Est. Price	Select exit investors/owners
Rivulis	Israel	Temasek	Irrigation Tech	\$365m	
Growers Holdings	USA	Israel Chemicals (ICL)	Farm Management SW	\$60m	
AgSense (49%)	USA	Valmont	Irrigation Tech	\$42m	Foundation Capital, Chrysalix VC, Chilton Investments
ClearAg	USA	DTN	Data & Analytics	\$12m	
Verdant BioSciences (52%)	Singapore	Ackermans & van Haaren	Biotechnology & Biologicals	\$8.6m	
Trellis	USA	Akerna	Novel Farming Systems	\$2m	
151 Research	Canada	AGCO	Sensing & IoT		venBio Partners, Arrowmark Partners
Affinity Management Ltd. (Compass)	Canada	Ag Growth International	Farm Management SW		
Agbridge	USA	Nutrien Ltd.	Sensing & IoT		
AGI AgIntegrated	USA	TELUS	Data & Analytics		
Agrian	USA	TELUS	Farm Management SW		MPM Capital, Avalon Ventures, Kansas Bioscience Authority
Agrilution	Germany	Miele	Novel Farming Systems		
Agrinos	USA	AMVAC	Biotechnology & Biologicals		
Cibus (Canola)	Canada	FBN	Biotechnology & Biologicals		
Crop Boss	Canada	Provision Analytics	Farm Management SW		
CropMetrics	USA	CropX	Irrigation Tech		
enEvolv, Inc.	USA	Zymergen	Biotechnology & Biologicals		
Farmsave	Australia	FBN	Ag Marketplace		

Farm Tech M&A and Exits | 2020

Target	Target country	Acquirer	Technology	Select exit investors/owners
Geocom	Brazil	Koppert Biological Systems	Precision & Equipment	Farm Journal
Greenbook	USA	AgWorld	Data & Analytics	
Grupo Agrotecnologia	Spain	Rovensa	Biotechnology & Biologicals	
Haplotech	Canada	FBN	Biotechnology & Biologicals	
Harvest Profit	USA	Deere and Company	Farm Management SW	
HydroGro	USA	The McGregor Company	Advanced Breeding	
Net Irrigate LLC	USA	Lindsay	Irrigation Tech	
Pathway BioLogic	USA	Plant Response	Biotechnology & Biologicals	Robert Bosch GmbH
Plantect	Japan	Bayer CropScience K.K.	Novel Farming Systems	
PrecisionKing	USA	Valmont	Irrigation Tech	
Probe Schedule	USA	Wilbur-Ellis Company	Irrigation Tech	Pacific Channel
Regen	New Zealand	CropX	Irrigation Tech	The Yield Lab, BioGenerator, Allen Angel Capital
RNAgri Inc.	USA	RNAissance Ag LLC (TechAccel LLC)	Biotechnology & Biologicals	
Salesbee	Switzerland	Plantix (PEAT GmbH)	Ag Marketplace	Metalmark Capital
Valagro	Italy	Syngenta Group	Biotechnology & Biologicals	Latitude GPS
Visio-Green Agriculture	France	Sencrop	Sensing & IoT	
Westbridge Agricultural Products	USA	Erber Group	Biotechnology & Biologicals	e-Novia & Valagro
Yaxe	Italy	e-Novia & Valagro (JV)	Farm Management SW	Green Towers GmbH, Ergas Ventures LLC.

A hand holding a white stylus points towards a tablet displaying various business charts, including a pie chart and bar graphs. The background is blurred, showing a desk and a cup.

Sources & Methodology

What is AgriFoodTech?

AgriFoodTech is the small but growing segment of the startup and venture capital universe that's aiming to improve or disrupt the global food and agriculture industry.

As with all industries, technology plays a key role in the operation of the agrifood sector – a \$7.8 trillion industry, responsible for feeding the planet and employing well over 40% of the global population. The pace of innovation has not kept up with other industries and today agriculture remains the least digitized of all major industries, according to McKinsey.

The industrial agrifood sector is also less efficient than other industries, with an increasing number of demands and constraints being placed on it. These pressures include a growing global population; climate change and global warming; environmental degradation; changing consumer demands; limited natural resources; food waste; consumer health issues; and chronic disease.

The need for agrifoodtech innovation is greater than ever. This creates many opportunities for entrepreneurs and technologists to disrupt the industry and create new efficiencies at various points in the value chain.

Broadly speaking, agrifoodtech startups are aiming to solve the following challenges: food waste, CO2 emissions, chemical residues and run-off, drought, labor shortages, health and sugar consumption, opaque supply chains, distribution inefficiencies,

food safety and traceability, farm efficiency and profitability, and unsustainable meat production.

There are many ways to categorize agrifoodtech startups highlighting the complexity of the industry. See page 16 for more information on our categorization system, which we developed in consultation with venture capitalists, entrepreneurs, and other industry experts.



Sources & Methodology

Data Sources & Curation

Utilizing new advanced machine-learning algorithms and artificial intelligence to help identify and categorize agrifoodtech startups, our knowledge base has grown to over 29,939 companies, with new startups and historical data being added each day.

The raw data for our reports comes from Crunchbase, which gathers publicly-available information such as press releases and US Securities and Exchange Commission filings, as well as crowdsourcing directly from the industry. AgFunder contributes data from its own collection methods, including private communications with investors and companies. We also collect data from partners across the globe (see page 57 below) to ensure we have the most comprehensive, accurate and curated dataset and knowledge base of agrifoodtech companies and investments.

The raw data are painstakingly curated by the AgFunder team to ensure they are relevant, accurate, up-to-date, and categorized according to AgFunder's proprietary tagging system.

We update and improve our dataset continuously throughout the year, meaning total figures from previous years' reports will shift as our dataset becomes more complete. To provide numbers that can be fairly compared to the previous year, estimates for total deal volumes and amounts for this year are adjusted using a model of

how they will appear 12 months in the future. The adjustments (roughly +17% for overall dollar volumes and +45% for deal counts, with more granular adjustments by stage where appropriate) are modelled based on trends in historical data dating back to 2017.

While we are happy to share our findings, we reserve all rights with respect to AgFunder research and this report and we require it to be fully and accurately cited when any of the data, charts, or commentary are used.

Undisclosed Financings

Of the 2240 financings in this report's curated dataset, 660 were undisclosed and could not be determined through research or direct sources. We exclude undisclosed financings when computing averages and median values. In some cases, we're able to confidentially obtain financing figures directly from investors on the condition they're only included in aggregate.

Multiple Financings

In some cases, Crunchbase displays multiple financings for the same company in the same year. This can be because a company closes subsequent rounds in the same year, but it can also be the result of several closes of the same round. We keep them separate unless they are announced as one single round.

Sources & Methodology

Categorization

AgFunder's categorization system is designed to capture broad themes across the complex agrifoodtech value chain (*see page 16 for a list of categories*). The agrifood sector has a wide supply chain spanning inputs and industrials, farming, logistics, wholesale distribution, processing, retail distribution, and the consumer. In many cases, technologies such as marketplaces connect different links in the supply chain and so in this report we've chosen to focus on high-level themes. To assist with the categorization and to avoid subjectivity, AgFunder first employs over 150 machine learning and artificial intelligence models to suggest category placement and to help tag the company according to the technology and its place in the supply chain. Finally, the AgFunder team manually reviews the suggestions for each company, often with significant research and debate among our team.

In 2019, we added a new category, Cloud Retail Infrastructure, to relieve the Midstream Tech category of 'later-stream' deals we felt no longer fit. Cloud Retail Infrastructure includes the growing number of technologies enabling companies to provide customers with on-demand, at-home dining such as ghost kitchens and last-mile delivery services including delivery robots.

We've also taken a stricter stance on cannabis and CBD-related startups; there needs to be clear proprietary technology involved. We will not include pure consumer packaged goods or pure production, as we wouldn't include pure production in any other crop. If we believe the growing facilities are particularly high tech or utilize proprietary technology, we will still include it in our Novel Farming Systems category. The same goes for processed products; if the extraction technique is particularly innovative, we'll include it as a Biomaterials or Midstream Tech startup. Large vertically-integrated cannabis companies are also excluded.

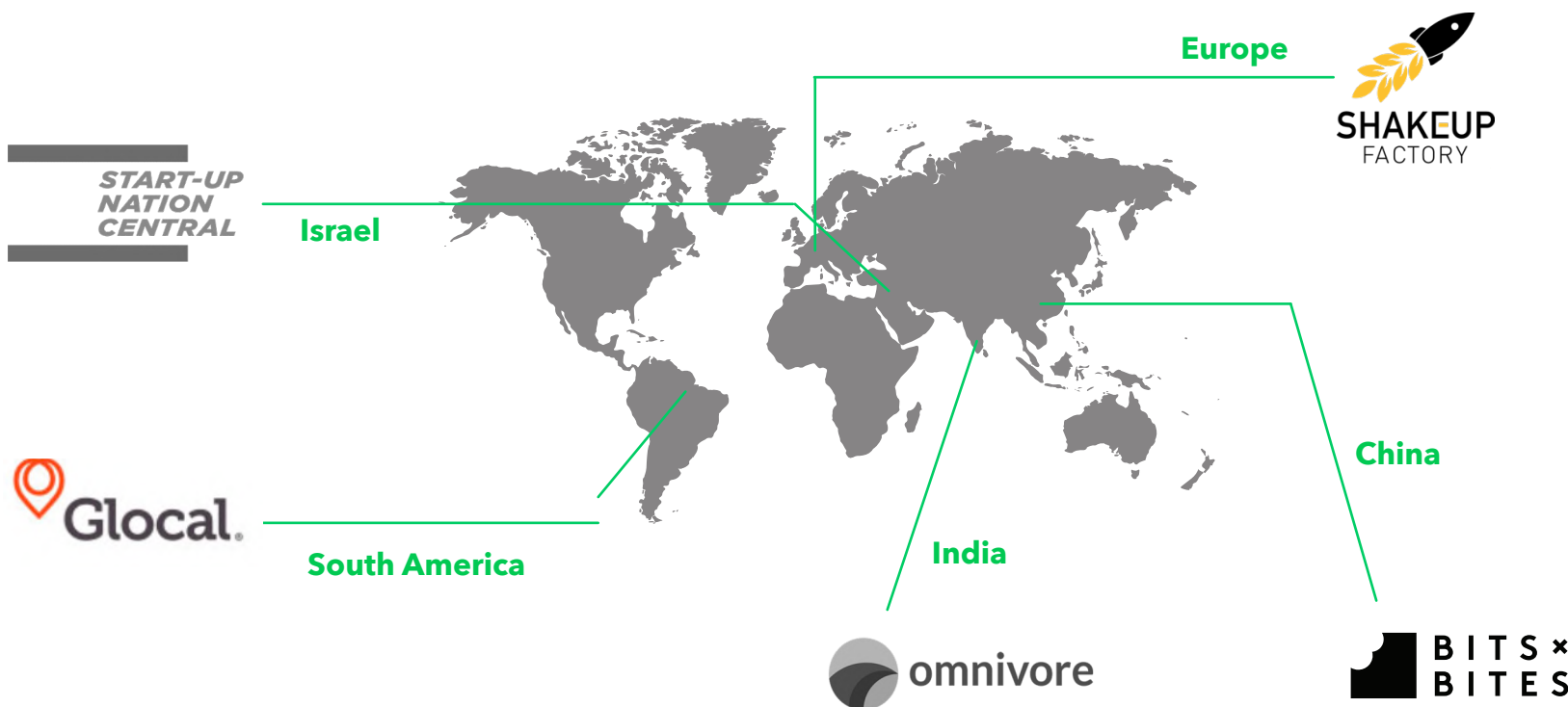
Special Acknowledgement

Special thanks to Tim Li, Ellen Ehram, and the rest of the Crunchbase team for their support and assistance.

data powered by
crunchbase

Our International Data Partners

In addition to our partnership with **Crunchbase**, we've partnered with several groups from around the world to help us collect more international data at the local level to ensure we can present the most comprehensive data set in the industry. Our partners for the 2019 report include Start-up Nation Central in Israel, SP Ventures in Brazil, Glocal in Argentina, Bits x Bites in China, ShakeUp Factory in Europe, and Omnivore in India. Thanks also to Sofia Ramirez for her Latin America contributions.



Are we missing your data?
Don't forget to send it to us!



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or add direct onto
[Crunchbase.com](https://www.crunchbase.com)

