



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 90,000+ 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. •







Our India Report Partner

Omnivore is a venture capital firm, based in India, which funds entrepreneurs building the future of agriculture and food systems. Omnivore pioneered agritech investing in India, backing over 25 startups since 2011. Every day, Omnivore portfolio companies drive agricultural prosperity and transform food systems across India, making farming more profitable, resilient, sustainable, and climate-proof.

AgriFood in India in 2021

The Covid-19 pandemic had already reached India by the start of fiscal year 2020-2021 (FY21), and the country subsequently went into a nationwide lockdown. Consumption dipped, supply chains broke down, public finances deteriorated, and the overall economy slowed.

Despite this, the agrifoodtech sector witnessed an investment boom, with a 100% year-on-year jump in total funding. Seed investments into the sector grew threefold as entrepreneurs rushed to solve food system problems underscored by the pandemic.

This growth in investment can be attributed to the resuscitation of Restaurant Marketplaces and eGrocery, with both categories experiencing roughly 2x growth in funding as more consumers shifted to purchasing meals, groceries, and other essentials online. Food delivery giant Zomato alone raised \$1.2 billion ahead of its IPO. However, due to the overall economic slowdown and reduction in consumer spending, investments in Premium Branded Foods &

Restaurants and Online Restaurants & Mealkits dipped.

Closer to the farm, the number of upstream agrifoodtech deals surpassed downstream deals for the first time.

Agribusiness Marketplaces, which provide farmers with online access to a variety of offline products and services, rose to prominence; "full-stack" farmer platform DeHaat, for example, raised two consecutive rounds – a \$12 million Series A and a \$30 million Series B – from investors including AgFunder, Omnivore, Prosus, Sequoia Capital, and FMO.

However, it was Midstream Technologies that saw the most funding activity. Startups including Arya, Waycool, and Jumbotail raised mega-rounds in FY21, driven by the need to improve efficiency in India's fragmented and outdated supply chains, which were hit hard by Covid-19.

During the pandemic, agrifoodtech entrepreneurs were responsible for keeping smallholder farmers and food supply chains afloat. While big-ticket funding in India has typically been concentrated on consumer-facing enterprises, investors are discovering a wealth of untapped opportunity further up the agrifood value chain. Also, improved awareness among generalist VC funds is evident from their increasing participation in upstream deals – a trend we believe will continue in the coming years.

Mark Kahn, Jack Ellis, and the Omnivore and AgFunder teams





Image courtesy of Intello Labs

India AgriFood Startup Funding Breakdown April 2020- March 2021

\$2.1bn

189

97%

37%

\$660m

INVESTMENT

DEALS

INVESTMENT GROWTH **DEAL GROWTH**

LARGEST DEAL

Upstream

Ag Biotech; Farm Management Software, Sensing & IoT; Farm Robotics & Equipment; Bioenergy & Biomaterials; Novel Farming Systems; Innovative Food; Agribusiness Marketplaces; Midstream Technologies

\$318m

INVESTMENT

98

DEALS

\$49.7m

LARGEST DEAL

Downstream

In-store Restaurant & Retail; Online Restaurants & Mealkits; eGrocery; Restaurant Marketplaces; Home & Cooking; Cloud Retail Infrastructure; Premium Branded Foods & Restaurants

\$1.77bn

INVESTMENT

91

DEALS

\$660m

LARGEST DEAL



Key Insights

1. Downstream investment boost increases overall funding into the agrifoodtech space

- Total investments in agrifoodtech startups for FY21 stood at \$2.1 billion, up 97% from FY20. Deal volume also saw significant growth, with 189 deals in FY21 versus 136 deals in FY20.
- Downstream startups raised \$1.77 billion in FY21, up 140% from FY20. The significant growth in downstream investments was primarily due to Zomato, which raised \$1.2 billion (~67% of the total funding into downstream categories) in the lead up to its heavily subscribed IPO in early FY22.
- Upstream startups continued to garner investor interest with a slight increase in total year-on-year funding. But because of the downstream sector's explosive growth, the share of upstream investments fell significantly to 15% of total FY21 investments, down from 42% in FY20.

2. Restaurant Marketplaces continue to be the most funded category

- Restaurant Marketplaces remained the dominant investment category, raising \$1.33 billion, or 64% of total FY21 agrifoodtech funding.
- Covid-19 briefly impacted startups in the Restaurant Marketplaces category, owing to stringent lockdown measures and a shift in consumer behavior. However, they were quick to recover by expanding their services to delivering groceries and essential goods, leveraging their

- wide-spread urban distribution capabilities and underutilized delivery fleets.
- 3. Premium consumption took a hit due to the Covid-19 pandemic, but continues to be an active category
- The pandemic drove some consumers towards food products they considered to be safer, healthier, and of higher quality, as they thought more about where their food comes from; a trend noticed globally. But the economic slowdown meant that overall demand for, and investment in, downstream consumer-facing categories dropped.
- Premium Branded Foods & Restaurants raised \$88 million in FY21, down from \$168 million in FY20. The category was nevertheless the second most active in FY21 in terms of deal volume, tying with eGrocery and Agribusiness Marketplaces.
- Online Restaurants raised \$64 million in FY21, down from \$156 million in FY20. FY21 saw several new Online Restaurant startups emerge and raise early-stage rounds as cloud kitchens became the norm during the pandemic.
- Covid-19 led to a behavior shift among a large segment of consumers, who chose to shop for groceries and essential goods via online platforms. This led to a resurgence of the eGrocery category, which saw a 2x jump in investment and deal volume.



Key Insights (Continued)

4. Upstream startups continue to see an acceleration of investor interest

- Upstream agrifoodtech startups, comprising of farm-linked and supply chain-linked ventures, raised a total of \$318 million across 98 deals in FY21, slightly higher than the \$312 million raised across 56 deals in FY20. For the first time, the number of upstream deals surpassed downstream deals.
- Fragmented supply chains, small landholdings, low farm yields, and low farmer incomes, along with increasing rural smartphone penetration, offer significant opportunities for disruption in farm digitalization, supply chain efficiency, and precision agriculture.
- While Omnivore continued to be the most active investor in upstream categories, FY21 also saw prominent generalist funds participating in multiple upstream deals, including Sequoia Capital (DeHaat, Bijak, Animall, Procol); Matrix Partners (Country Delight, Captain Fresh, Vegrow); Beenext (Animall, Procol, Blue Sky Analytics); and Blume (Procol, Pixxel, Jai Kisan).
- Midstream Technologies and Agribusiness Marketplaces were the most active upstream categories, both in terms of deal volume and capital raised. Farm Management Software, Sensing & IoT is fast emerging as an active category with an 8x year-on-year jump in investments and 2x growth in deal volume.

5. Midstream Technologies dominate upstream

- Midstream Technologyies raised \$176 million across 29 deals, making it the most active agrifoodtech category by deal volume. Midstream Technologies startups accounted for 60% of total upstream investments and 30% of upstream deals.
- FY20 saw more than 50% of Midstream funding go to one company: Ninjacart. FY21 saw greater Midstream investment distribution, with six startups raising rounds greater than \$10 million. This was driven by the need to improve efficiency in India's fragmented supply chains, which were severely impacted by the Covid-19 pandemic.

6. Agribusiness Marketplace startups rise to prominence

• The pandemic impacted farmers and agribusinesses alike: produce markets were shuttered, transportation services halted, and agricultural labor wasn't accessible. These issues created opportunities for online marketplace startups providing access to products and services for farmers and agribusinesses. As a result, Agribusiness Marketplaces raised \$86 million in FY21, up from \$30 million in FY20. It was the second most active category in the upstream segment in terms of both investment and deal volume.



Annual AgriFood Startup Funding FY 2018-2021

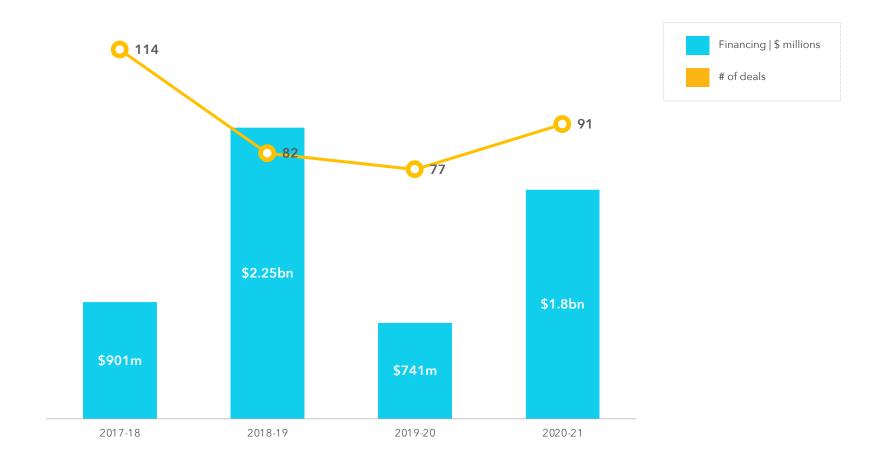








Downstream AgriFood Startup Funding FY 2018-2021



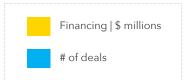






Upstream AgriFood Startup Funding FY 2018-2021

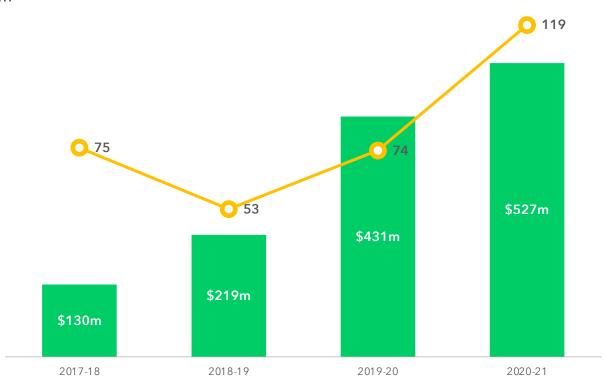






Farm Tech Startup Funding 2018-2021

This chart looks specifically at funding to startups operating on the farm











AgriFood Startup 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, hemp products



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



Innovative Food

Cell-cultured meat, novel ingredients, plant-based proteins



Premium Branded Foods & Restaurants

Premium food experience including better product design, formulation, packaging & thematic restaurants



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, retailers & marketplaces for sale & delivery of processed or un-processed ag products to consumer



Home & Cooking Tech

Smart kitchen appliances, nutrition technologies, food testing devices



Online Restaurants & Mealkits

Startups offering culinary meals & sending preportioned ingredients to cook at home



Cloud Retail Infrastructure

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



Miscellaneous

e.g. fintech for farmers



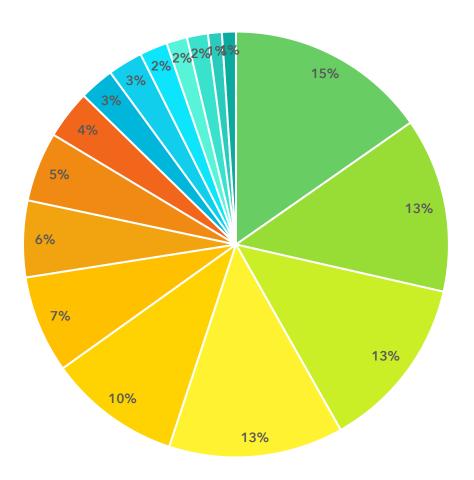
Upstream



Both

^{*} Given the importance of consumption upgrade as a driver in India and China's startup ecosystems, we added an extra category for Premium Branded Foods & Restaurants into these reports.

2021 India Agrifood Startup Deal Volume Breakdown

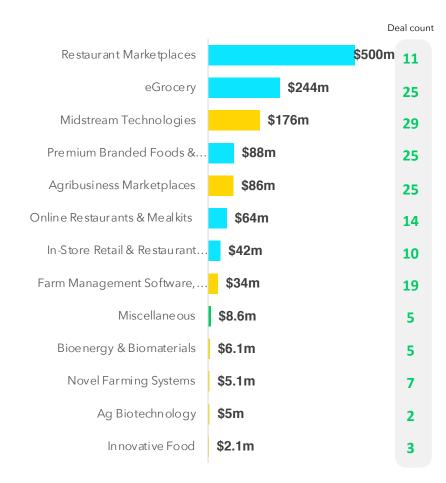


- Midstream Technologies
- Agribusiness Marketplaces
- eGrocery
- Premium Branded Foods & Restaurants
- Farm Management Software, Sensing & IoT
- Online Restaurants & Mealkits
- Restaurant Marketplaces
- In-Store Retail & Restaurant Tech
- Novel Farming Systems
- Bioenergy & Biomaterials
- Miscellaneous
- Cloud Retail Infrastructure
- Farm Robotics, Mechanization & Equipment
- Innovative Food
- Ag Biotechnology
- Home & Cooking Tech



Investments & Deal Volume by Category

- Midstream Technologies emerged as the most active category, with 29 deals. Investments were driven by the need to improve efficiency in India's fragmented supply chains that were severely impacted by the Covid-19 pandemic.
- Restaurant Marketplace startups drew in the most capital, accounting for 64% of total funding in agrifoodtech. Zomato raised \$1.2 billion, or 95% of total capital invested in this category.
- Premium Branded Foods & Restaurants and eGrocery also remained active categories, with 25 deals each. eGrocery got a boost from the pandemic because of shifting consumer buying habits. Premium Branded Foods & Restaurants and Online Restaurants saw a dip in overall funding due to the pandemic-related economic slowdown.
- Investors spotted the opportunity to invest in the needs of farmers and other agribusinesses in the value chain, driving a 3x uptick in funding for Agribusiness Marketplaces.
- Increased need for on-farm technologies to enhance farming operations also drove investment activity in the Farm Management Software, Sensing & IoT category, which saw an 8x jump in funding and 2x growth in deal volume.

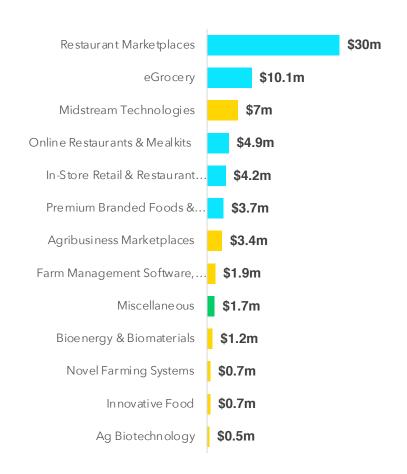






Average Deal Size by Category

- Zomato raised \$1.2 billion in FY21 across four \$150 million-plus rounds ahead of its IPO in July, which skewed the average deal size in the Restaurant Marketplaces category.
- Midstream Technologies investment activity focused on newer entrants building solutions in logistics, traceability, and processing across the agrifood value chain.
- In-Store Retail & Restaurant Tech startups saw a 2x jump in average deal size from FY20, driven by restaurants and retailers adopting tech solutions to take their businesses online and serve customers during the Covid-19 pandemic.
- The average deal size in Premier Branded Foods & Restaurants dipped slightly because the majority of capital went into early-stage rounds.
- The average deal size in Farm Management Software, Sensing & IoT increased almost 4x, driven by farmers' adoption of technology to monitor and enhance farm operations during the pandemic lockdown period.
- The Ag Biotechnology, Biomaterials, Novel Farming Systems, and Innovative Food categories remain nascent, with startups raising smaller, early-stage checks to test product-market fit.

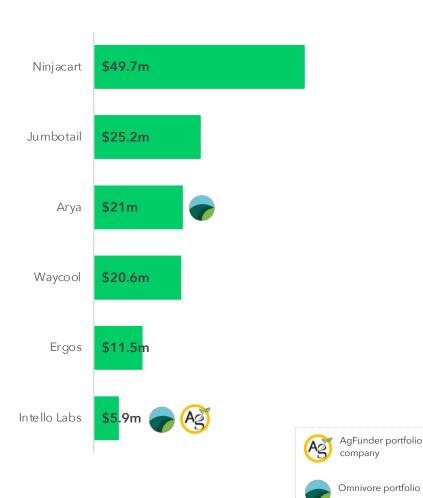






Top Midstream Technology Deals

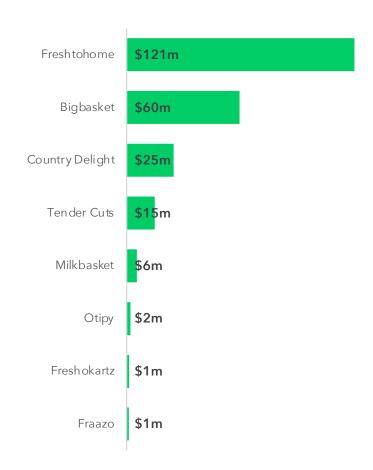
- Midstream Technologies startups raised a total of \$176 million in FY21, down slightly from the \$204 million raised in FY20. Deal count increased from 20 in FY20 to 29 in FY21, making Midstream Technologies the most active category in the agrifoodtech sector.
- B2B fresh produce platform Ninjacart raised \$49.7 million in Series C funding from Flipkart (Walmart) and Syngenta Ventures in the year's largest upstream deal.
- Arya Collateral, which operates a post-harvest services platform focused on storage and credit, raised \$21 million (Series B) from Quona Capital, Omnivore, and Lightrock.
- South India-focused B2B platform Waycool raised \$20.6 million (Series C) from Lightrock, Lightbox, FMO, and Innoven Capital.
- Al-based quality assessment platform Intello Labs raised \$5.9 million (Series A) from Saama Capital, SVG Ventures, Nexus, Omnivore, and AgFunder's GROW Impact Fund.





Top eGrocery Deals

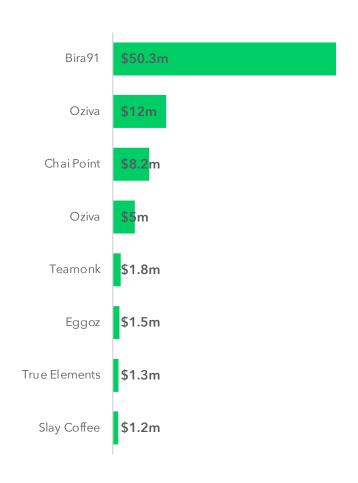
- Investment and deal volume in the eGrocery category saw
 a 100% year-on-year increase, with eGrocery startups
 raising \$244 million across 25 deals. Consumer behavior
 shifted online in FY21 with Covid-19 lockdown measures
 in place. Most of the capital raised (85%) went to just
 three players: fresh produce retailer BigBasket, seafood
 retailer FreshToHome, and dairy products platform
 Country Delight.
- FreshToHome raised \$121 million (Series C) from Abu Dhabi Investment Office and Ascent Capital.
- BigBasket raised \$60 million (late stage) from CDC Group, NuVentures, and Mirae Asset.
- Country Delight raised \$25 million in a Series C round led by Matrix Partners to deliver high quality milk, sourced from farms, directly to consumers.
- Omnichannel meat and seafood retailer TenderCuts raised \$15 million (Series A) from Paragon Partners and NABVentures in the year's largest agrifoodtech Series A round.





Premium Branded Foods & Restaurant Deals

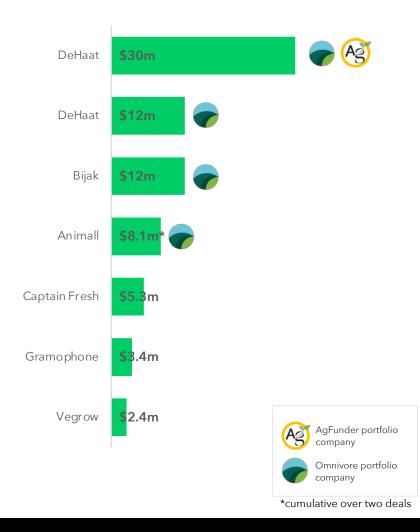
- Consumer concerns around safety, health, and quality drove investment into players building premium fresh and processed food offerings. Yet the pandemic-related economic slowdown led to a dip in overall funding for this segment, dropping to \$88 million in FY21 from \$168 million in FY20. Deal numbers also fell to 25 in FY21 compared to 37 in FY20.
- Beer brand Bira 91 raised \$50.3 million (Series B) from Sequoia Capital, Kirin Holdings, and Sofina.
- Plant-based nutrition startup Oziva \$12 million (Series B) from Eight Roads Ventures, F-Prime Capital Partners, and Matrix Partners. Oziva also raised \$5 million (Series A) from Matrix Partners and Titan Capital.
- Premium tea and snacks company Chai Point raised \$8.2 million (Series C) from Eight Roads Ventures, Saama Capital, and DSG Consumer Partners.
- Farm-sourced egg brand Eggoz raised \$1.5 million (Seed) from Avaana Capital and Rebright Partners.
- Several packaged goods companies continued to raise on the back of consumer demand for healthy foods. These include breakfast snack brand True Elements, children's snack brand Timios, vitamin supplements maker Power Gummy, dietary supplements brand Nutrova, and nutritional foods brand Habbit Health.





Top Agribusiness Marketplace Deals

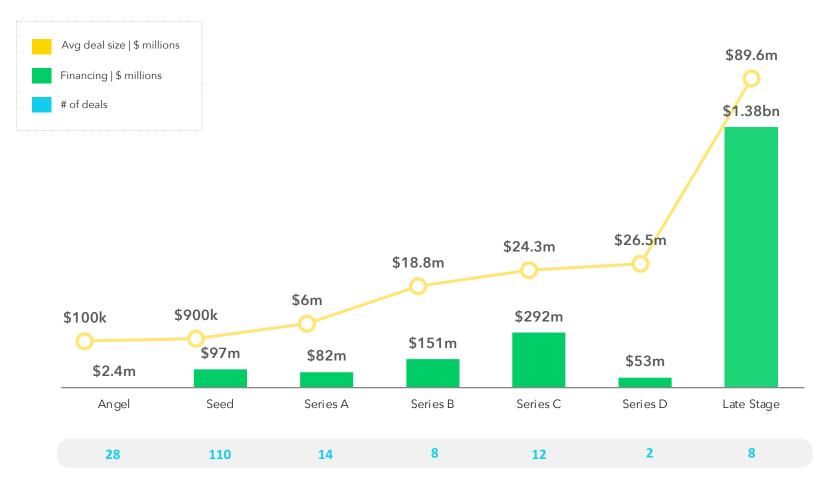
- Agribusiness Marketplace startups raised \$86 million in FY21, a 3x jump from the \$30 million raised in FY20. Volume also increased to 25 deals in FY21 from 14 in FY20, owing to the emergence of several marketplace platforms providing access to products and services for farmers and agribusinesses.
- "Full-stack" farmer platform DeHaat raised two consecutive rounds at \$12 million (Series A) and \$30 million (Series B) from investors including AgFunder, Omnivore, and FMO.
- Wholesale agri-commodity trading platform Bijak raised \$12 million (Series A) from Sequoia's Surge accelerator, Omidyar Network, and Omnivore, among others.
- Livestock trading platform Animall raised \$8.1 million (across two Series A deals) from Surge, Beenext, Omnivore, and Rocketship.
- Farm inputs e-commerce platform Gramophone raised \$3.4 million (Series A) from Siana Capital, InfoEdge Ventures, and Asha Impact.
- B2B marketplace for fish and seafood Captain Fresh raised \$5.3 million (across two Seed deals) from Matrix Partners and Ankur Capital.







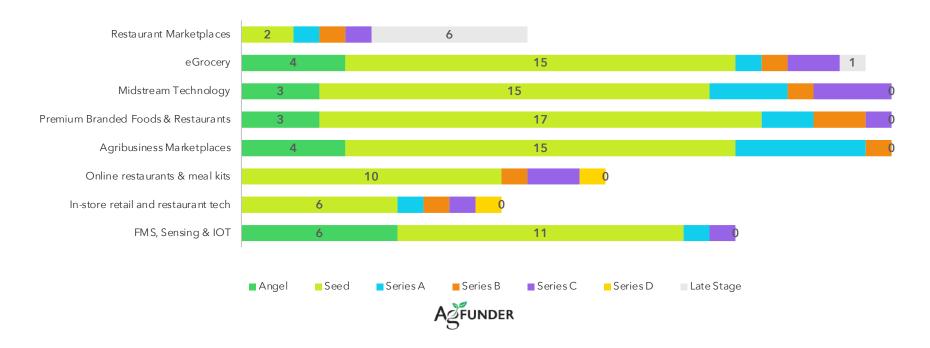
Investment & Deal Volume by Stage







Deal Volume by Category



- Premium Branded Foods & Restaurants startups raised the greatest number of Seed rounds (17), followed by eGrocery, Midstream Technologies, and Agribusiness Marketplaces (15 each).
- Agribusiness Marketplace startups raised the most Series A deals, followed by Midstream Technologies startups.

- Midstream Technologies saw the most Series C deals, followed by eGrocery.
- Restaurant Marketplaces landed the most late-stage deals.
 The only other category in which ventures secured late-stage funding in FY21 was eGrocery.



Notable Seed Stage Deals

- \$97 million was deployed across 110 Seed deals in FY21, representing a significant increase from FY20 (\$35 million across 50 deals.)
- Hyperspectral imagery startup Pixxel raised \$7.3 million from Lightspeed, Blume, GrowX, Omnivore, and Techstars, making it the largest Seed round in the agrifoodtech space.
- Rural fintech platform Jai Kisan raised \$3.9 million from Arkam Ventures, Blume, and Better Capital.
- Agri-commodity procurement platform Procol raised \$3.8 million from Sequoia's Surge, Beenext, and Blume.
- Farmer social network and community platform Krishify raised \$2.9 million from Orios and Omidyar Network.
- Wholesale fruit and vegetable marketplace Vegrow raised \$2.5 million from Matrix Partners and Ankur Capital.
- Precision ag and plant bioscience platform Absolute Foods raised \$2.3 million from Surge.



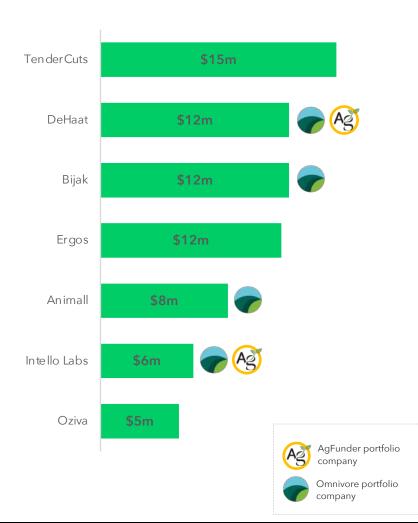


*Cumulative over two deals



Notable Series A Stage Deals

- Investors committed \$82 million across 14 Series A deals in FY21, down from \$117 million across 31 deals in FY20. FY21 saw larger Series A ticket sizes, however, with the average size increasing to \$6 million from \$4 million in FY20.
- Consumer demand for higher-quality produce drove funding for omnichannel meat and seafood retailer TenderCuts, which raised \$15 million from NABVentures and Paragon Partners in the largest Series A round in the agrifoodtech space.
- Farmer marketplace platform DeHaat raised \$12 million from AgFunder, Omnivore, FMO, and Sequoia Capital.
- Grain supply-chain platform Ergos raised \$11.5 million from CDC Group, Chiratae Ventures, and Aavishkaar Capital.
- Food quality assessment startup Intello Labs raised \$5.9 million from AgFunder's GROW, Omnivore, Saama Capital, SVG Ventures' Thrive, and Nexus..







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 30 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

The raw data for the report comes from multiple public and proprietary channels such as Crunchbase, Tracxn, AgFunder, VCCircle, and Pitchbook, which gather publicly available information such as press releases and regulatory filings, as well as crowdsourcing directly from the industry. Only startups falling in our defined categories (see pages 14 and 30) are included. The raw data has been heavily curated by the AgFunder and Omnivore teams to ensure that it is relevant, accurate, up-to-date, complete, and categorized according to AgFunder's proprietary tagging system for inclusion in our report.

Although some deals are not disclosed - which might affect some results - we believe our database reflects the overall situation of agrifood startups in India.

While we are happy to share our findings, AgFunder and Omnivore, our India report partner, reserve all rights with respect to all material contained in this report and require it to be fully and accurately cited when reproduced.

Undisclosed Financings

Of the 189 financings in our curated data set, nine were undisclosed and further detail could not be determined through research or direct sources. We excluded undisclosed financings when computing averages and median values. In some cases, we were able to confidentially obtain financing figures directly from the the investors, on the condition that they only be included in the aggregate figures.

Multiple Financings

In some cases, multiple financings were reported for the same company in the same year. In the case of distinct funding rounds (Seed, A, B,...), we counted these as separate rounds. Where a company raised capital two or more times within three months, we aggregated the total into one round. In some cases, the company raised more than one Seed or Series A round separated by more than a few months; in such cases, we have considered them as separate deals.



Sources & Methodology

Categorization

AgFunder's categorization system is designed to capture broad themes across the complex agrifoodtech value chain (see page 14 for a list of categories). The agri-food 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.

The AgFunder and Omnivore teams manually reviewed each deal in this report.

Given the importance of consumption upgrade as a driver in India's startup ecosystem, AgFunder and Omnivore implemented an extra category - Premium Branded Foods &

Restaurants - to reflect this influential trend. This category also appears in AgFunder's China report.

Timelines

In most cases, the details of a funding are recorded within a few days of its first public announcement. However, there are times when these details are only shared months or even years after the deal has officially closed.

Reporting Period

We have used the Indian financial year, ending March 31, for the purposes of this report. Therefore, the numbers in this report reflect performance for FY21, i.e., April 1, 2020–March 31, 2021.



