



— YEAR IN REVIEW

'17



AgFunder AgriFood Tech

INVESTING REPORT





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investing in
the bold and exceptional entrepreneurs
transforming our food and agriculture system**

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AgriFood Tech: 2017 in Review

After a relatively subdued 2016, we looked to 2017 to be the year when agrifood tech investing got back on track, and resumed the upward trend of previous years with new players entering the market. This was easily achieved with a new record level of venture investment, characterized by a 29% increase in year-over-year funding for agrifood technologies.

Food ecommerce continued to dominate the downstream investment landscape, as the allure of the more established players and their broader consumer market access proved too much for venture capital to resist.

In upstream technologies, 2017 was a fascinating year from an investment perspective. We saw the creation of two new agtech unicorns, as well as an ambitious vertical farming startup with no revenue achieve a \$200 million Series B round, led by the largest venture fund ever created. It looks like farm tech has finally gone mainstream.

The growing concern with the lack of notable exists in the farm tech space also subsided in 2017, as the ag majors began to throw off the shackles of recent mergers and make strategic acquisitions to bolster their technology and talent.

But these laudable developments occurred against a backdrop of declining early stage investment. Seed stage funding dollars dropped by 27% in 2017, along with a 28% decline in number of companies funded. Whilst we applaud the maturing of the market and the larger investment levels coming in for later stage deals, this trend could indicate a weakening pipeline ahead.

With a growing number of accelerators and seed stage funds coming online globally, it appears to be a transient concern as we anticipate good early stage investment volumes in the burgeoning agrifood tech markets like South America and Asia Pacific.

Michael Dean CIO, & The AgFunder Team

AgriFood Tech Category Definitions



Ag Biotechnology

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



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



Bioenergy & Biomaterials

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



Novel Farming Systems

Indoor farms, aquaculture, insect, & algae production



Supply Chain Technologies

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



Agribusiness Marketplaces

Commodities trading platforms, online input procurement, equipment leasing



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 & un-processed ag products to consumer.



Home & Cooking Tech

Smart kitchen appliances, nutrition technologies, food testing devices

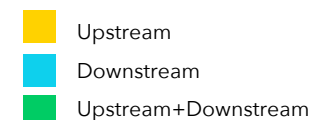


Online Restaurants and Meal Kits

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



Miscellaneous



Sources & Methodology

Data Sources & Curation

Utilizing new advanced machine-learning algorithms and artificial intelligence to help identify and categorize agrifood tech startups, our database has grown to over 11,000 companies, with new startups and historical data being added each day.

The raw data for the AgriFood Tech Funding Report comes from Crunchbase, which gathers publicly available information such as press releases and US Securities and Exchange Filings, as well as crowdsourcing directly from the industry. AgFunder contributes a significant portion of raw data through its own data collection methods that include private communications with investors and companies.

The raw data is then heavily curated by the AgFunder team 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.

We believe our database represents the most comprehensive and curated database of agrifood tech companies globally.

While we are happy to share our findings, we reserve all rights with respect to AgFunder research and this report, and

require it to be fully and accurately cited when any of the data is used.

Because non-US companies are not required to publicly file financings with their regulator, there may be many financings absent from our analysis.

Undisclosed Financings

Of the 994 financings in our curated data set, 267 had undisclosed financings, which 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, CrunchBase displayed multiple financings for the same company in the same year. In the case of distinct funding rounds (Seed, A, B,...) or asset classes (debt v. equity), we counted these as separate rounds. Where a company raised capital two or more times within two months, we aggregated the total into one round.

Sources & Methodology

Categorization

AgFunder's categorization system is designed to capture broad themes in the agrifood technology landscape (see page 5 for a list of categories). As the categories progress through the value chain from farm inputs to the consumer, the mapping becomes complex. The agrifood sector has a wide supply chain spanning 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.

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. With new historical data constantly coming into our system, it makes it difficult to make an apples-

to-apples comparison between years.

For the purposes of this report, covering deals closing on Jan 1 - Dec 31, we give a 15-day grace period between the announcement and the record date. Any new data not recorded before Jan 15, will not be included in the report. Overall, we estimate about 20% of additional funding rounds are eventually reported after the cut-off date, but because most deals are announced and reported at the same time, especially large deals, this only represents about 5% in additional investment.

Since we are always incorporating more historical data, funding totals for past years may not match past AgFunder reports.

Thank you to all of our data partners across the globe! (see page 8)

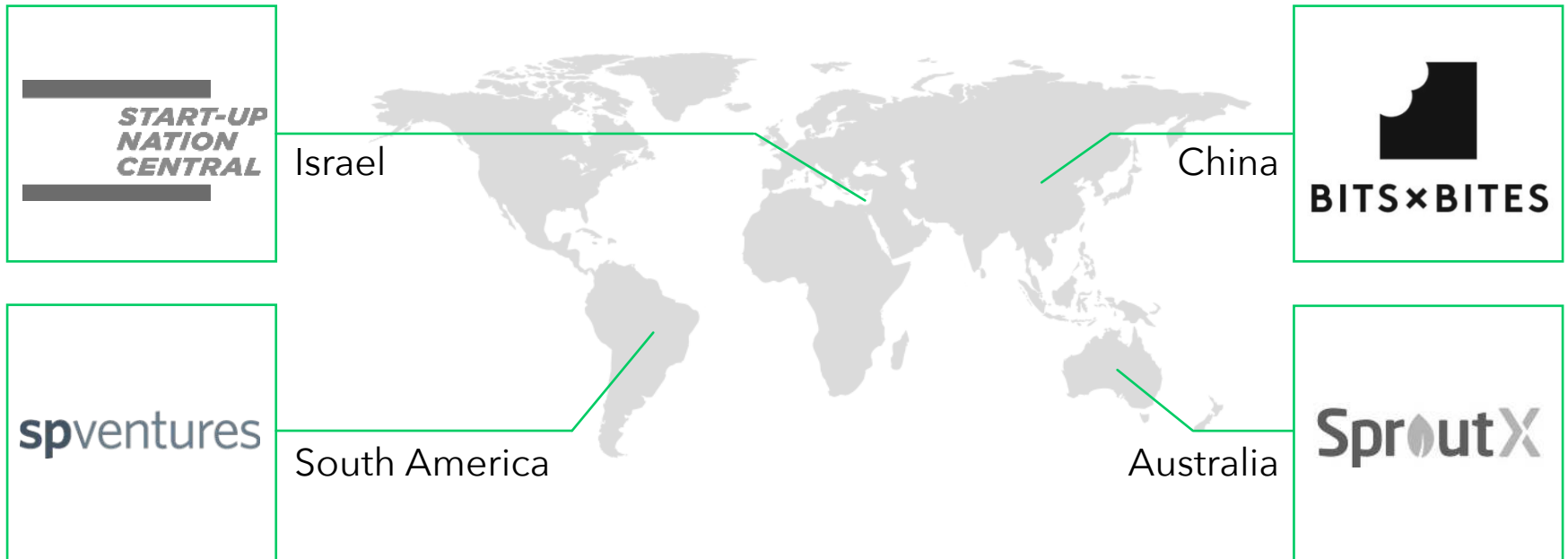
Special Acknowledgement

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

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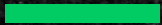
Our International Data Partners

In addition to our partnership with CrunchBase, we've partnered with several groups from around the world to help us collect more international data from a local level to ensure we can present the most comprehensive data set in the industry. Our partners for the 2017 report include Start-up Nation Central in Israel, SP Ventures in Brazil, the BitsxBites Accelerator in China, and the SproutX Accelerator in Australia.





Year End Overview 2017





Co-Investment Fund

Co-invest with AgFunder and other leading venture capitalists
in the next generation of agrifood technology startups

Now Open for Investment

Closing by March 25, 2018

Accredited Investors only. Spots are limited.

Investors admitted on a first-come basis.

<https://agfunder.com/managed-fund>

AgriFood Tech Funding Breakdown 2017

\$10.1bn

INVESTMENT

994

DEALS

+29%

INVESTMENT
GROWTH

-17%

DEAL
GROWTH

1487

UNIQUE
INVESTORS

\$1bn

LARGEST
DEAL

Upstream

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

\$4.2bn

INVESTMENT

+24%

GROWTH (\$)

569

DEALS

-2%

GROWTH (#)

839

UNIQUE INVESTORS

\$275M

LARGEST DEAL

Downstream

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

\$5.9bn

INVESTMENT

+34%

GROWTH (\$)

425

DEALS

-23%

GROWTH (#)

648

UNIQUE INVESTORS

\$1bn

LARGEST DEAL

Notable Exits

By any account, 2017 was a good year for agrifood tech exits. That was not only because exciting exits in agrifood tech have been few and far between for the last few years, but also because a couple of the major ag players – Deere & Company and DowDuPont – made acquisitions. No longer distracted by consolidation and ensuing M&A transactions, this could be a signal that the large strategic players will have more time, and money, to pursue more exits in 2018.



DowDuPont's acquisition of farm management software startup Granular for **\$300 million** in August ticked many boxes for a successful exit including a good investor return and participation from an ag strategic. Granular raised just \$25 million in two rounds from some high profile investors including Andreessen Horowitz, Khosla Ventures, and GV (Google Ventures), along with agriculture investor Fall Line Capital.



John Deere acquired ag robotics startup Blue River Technology for **\$305 million** in September. An obvious match and route for Deere to build out its artificial intelligence capabilities, the deal also provided a good return for investors reaching 4x the valuation of the last round. Investors included Khosla Ventures, Pontifax Agtech, as well as ag industry giants Monsanto and Syngenta. The company raised just over \$30 million in total since its founding.

Key Insights for 2017

1. Jumbo Deals Bring Late Stage Investors

- Large deals characterized 2017 funding for agrifood tech startups as the sector continued to mature and some large, international investors placed bets.
- Perhaps the most high profile deal was the \$200 million Series B close from Plenty, the Californian indoor farming company. The round attracted investment from Japan's SoftBank via its \$100 billion Vision Fund. An early stage business, yet to post any revenue, it broke records for farm tech funding when the deal was announced in July.
- Plenty was soon overtaken by Indigo Agriculture, the microbial seed coating company with an innovative business model, as it raised \$203 million in Series D funding after attracting Dubai's sovereign wealth fund. The round values Indigo at over \$1 billion, taking it to unicorn status.
- The year closed out with another agrifood tech unicorn in Ginkgo Bioworks raising a whopping \$275 million in Series D funding involving private equity firm General Atlantic, Bill Gates and Y Combinator's Continuity Fund.
- The size of these rounds and the nature of the investors -- which include private equity capital -- indicate the intention of some of these startups to build stand-alone businesses with no plans for acquisition by the majors.

2. Strategics Shift Gear with M&A

- Monsanto's purchase of The Climate Corporation for \$1 billion in 2013 was the last major exit for a farm tech startup until 2017, creating impatience and even concern in the sector's VC community. But the narrative changed when John Deere and DowDuPont both made acquisitions of around \$300 million. Deere acquired ag robotics startup Blue River Technology for \$305 million and DowDuPont acquired Granular for \$300 million. Both acquisitions were motivated by the corporates' desire for both technology and personnel.
- While experts have long posited that agriculture was headed for the "pharma model" of innovation, where large entrenched players use acquisition as the primary mode of obtaining new technologies, the large agribusinesses have been distracted by consolidation and the ensuing M&A. Now, the large strategic players could have more time, and money, to pursue more exits in 2018.
- Indigo Agriculture and Farmers Business Network are two startups that have confirmed they plan to list on a public exchange instead of seeking acquisition as an exit.

Key Insights for 2017 (Continued)

3. Seed Stage Slips as Sector Matures

- While total seed funding dropped by 28% year-over-year, funding at every other stage increased with Series D deals posting the greatest increase in total value: +108% year-over-year to \$2.3 billion.
- Consistent with global trends, the number of agrifood tech funding deals dropped 17% in 2017, compared to a 27% drop globally, according to Venture Pulse report.
- Most of this contraction came at the seed stage where activity dropped 29% year-over-year compared to just a 4% contraction between 2015 and 2016.
- Though having a greater share of deals at the later stage shows a maturing in the sector, loss of activity at the seed stage doesn't bode well for years to come. It is also somewhat surprising considering the large number of accelerator programs and early-stage resources dedicated to agrifood tech across the globe.

4. New Geographies Start to Rise

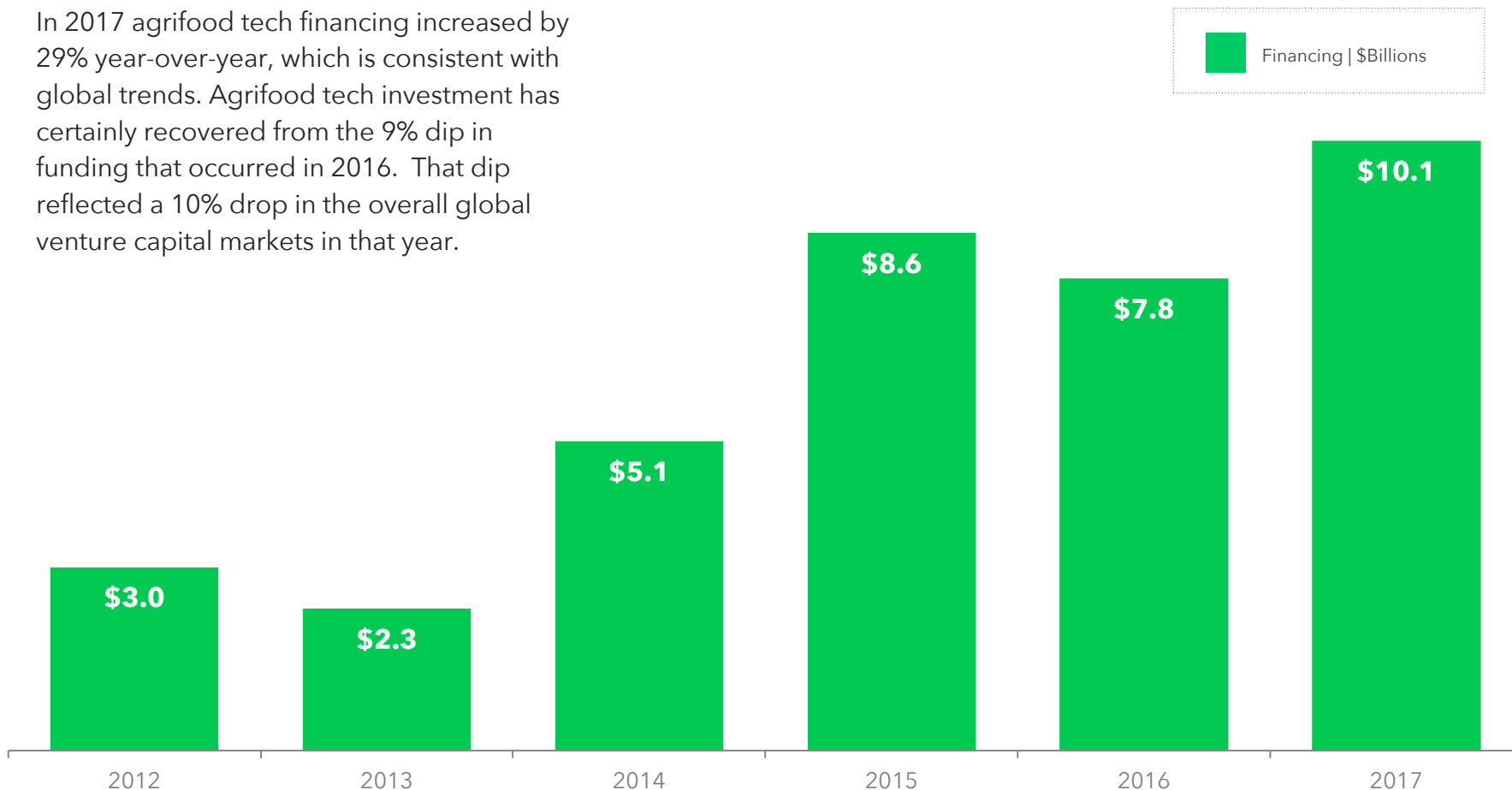
- Though seed stage deals are down worldwide, suggesting a potential dip in future innovation, several developing

countries are stoking early stage innovation through new accelerators and funds.

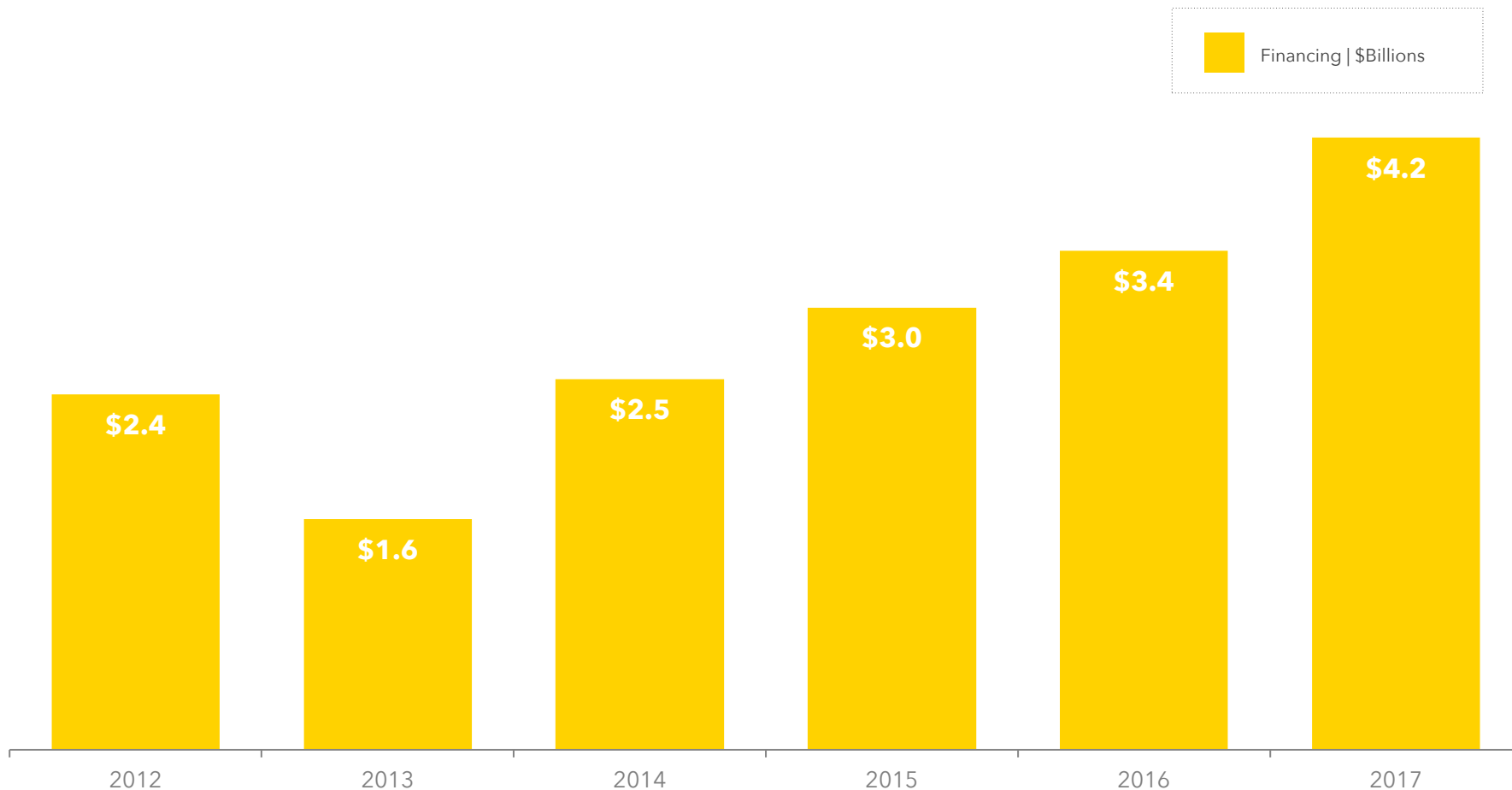
- Latin America, with some of the world's largest agriculture industries, is starting to catch up with its overseas counterparts, particularly in Brazil and Argentina where SP Ventures and NXTTP Labs were among the most active farm tech investors in 2017. Brazil's SP Ventures made six investments while Argentina's NXTTP Labs, an accelerator VC, made eight. This trend moved in line with overall venture capital figures; VenturePulse indicated Brazil's VC ecosystem grew 47% in 2017 to close \$575 million in investment overall, with strong activity in fintech.
- Agrifood tech investments can be slow to mimic global venture trends, but we anticipate fintech and agrifood tech to combine in future Brazilian agrifood tech deals. A stronger connection between China and Latin America may also be beneficial to agrifood tech startups.
- Israel, Australia, and Ireland are other countries on an upward trajectory in terms of deal count as early stage resources get going.

Annual Financings 2012-2017

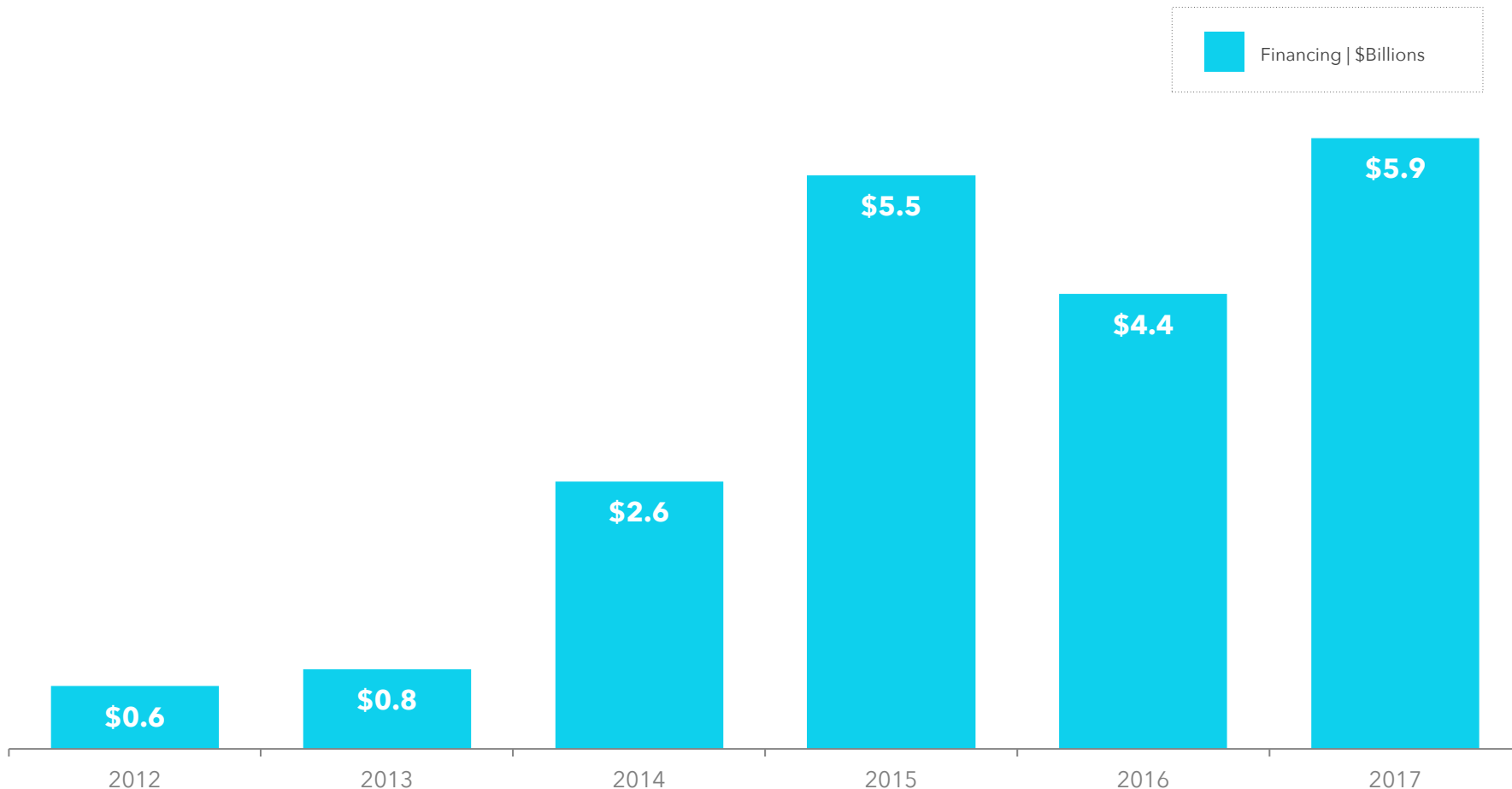
In 2017 agrifood tech financing increased by 29% year-over-year, which is consistent with global trends. Agrifood tech investment has certainly recovered from the 9% dip in funding that occurred in 2016. That dip reflected a 10% drop in the overall global venture capital markets in that year.



Annual Financings 2012-2017 (Upstream)

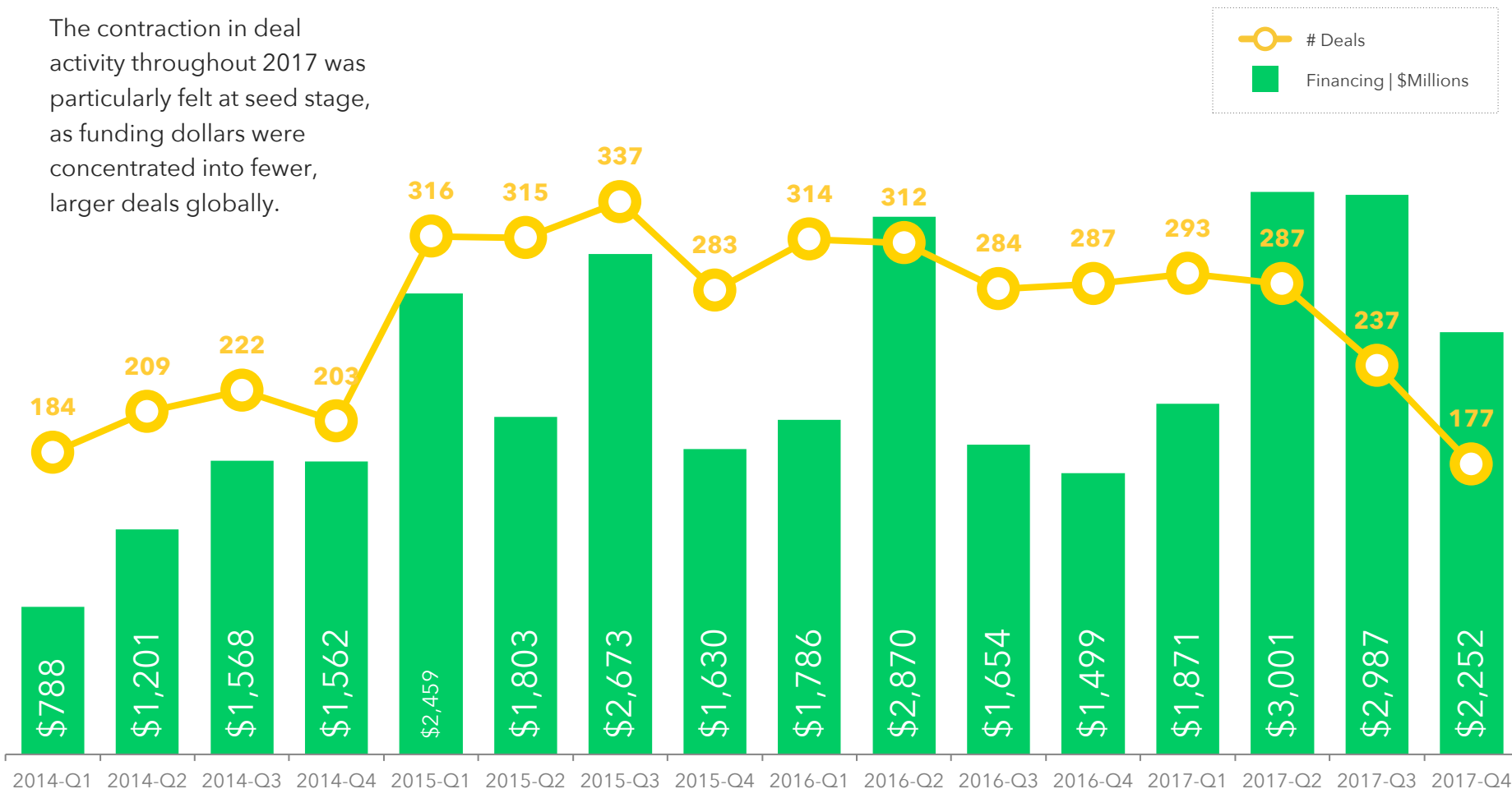


Annual Financings 2012-2017 (Downstream)

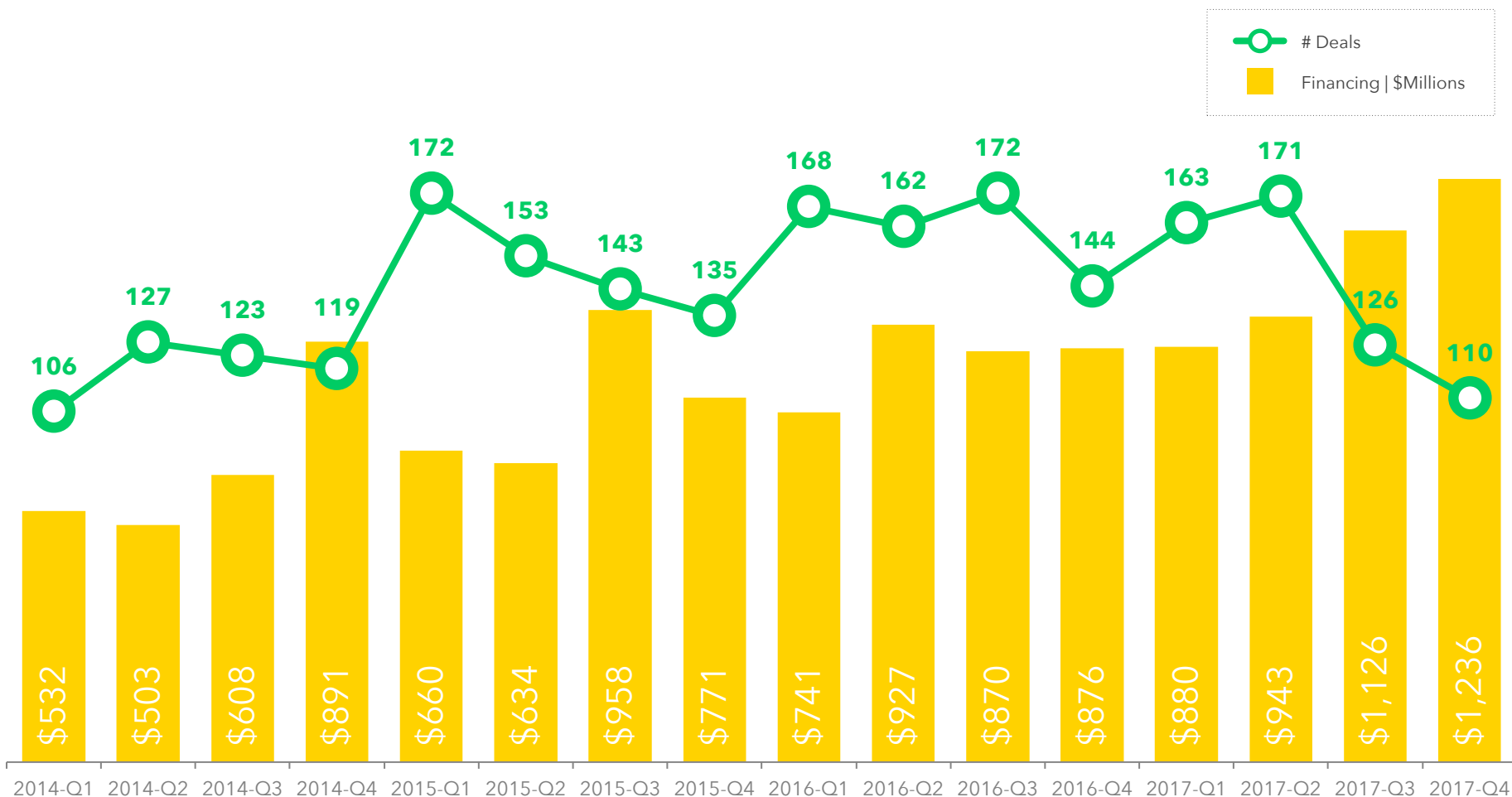


Quarterly Deal Volume and Activity

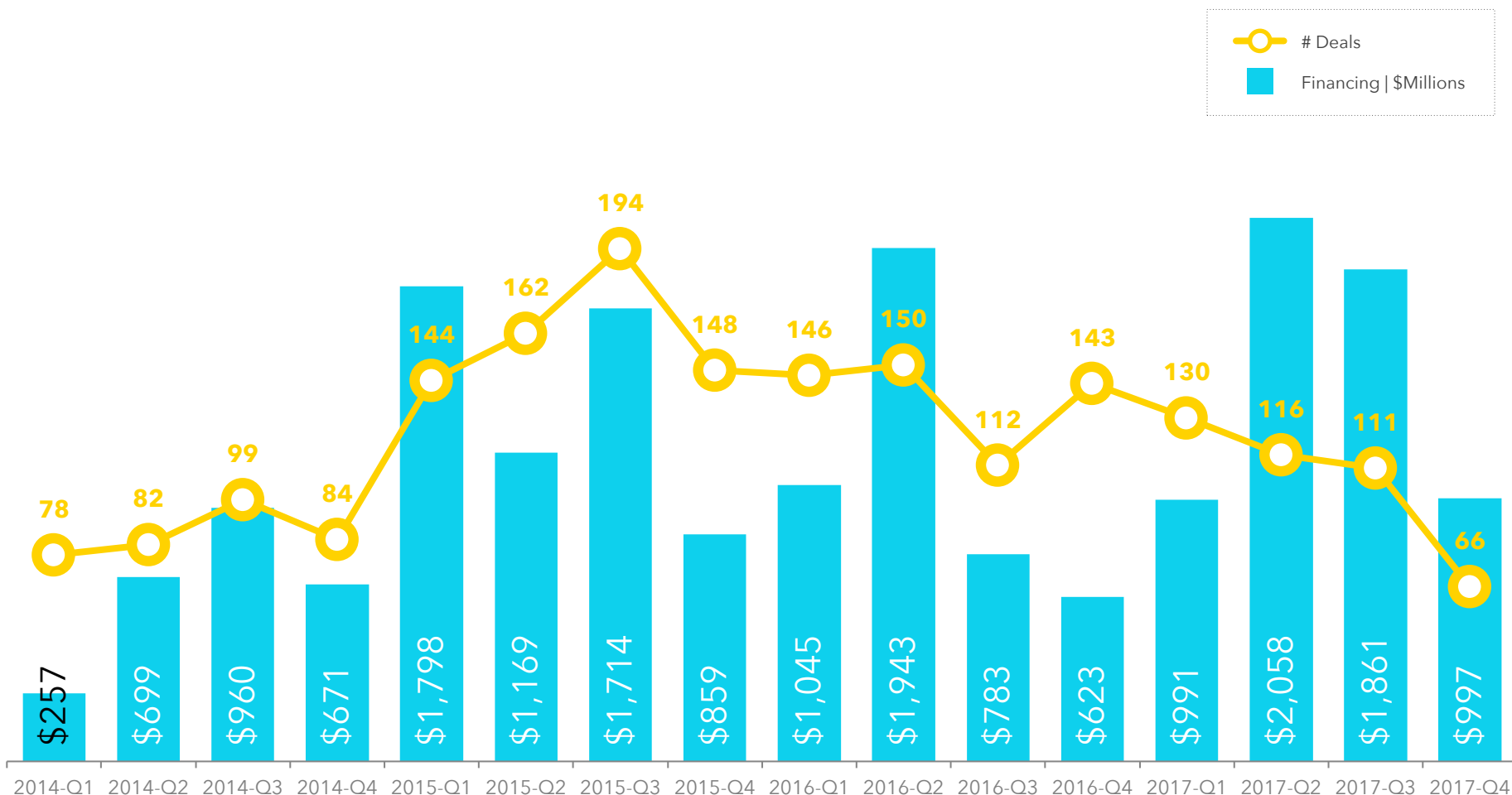
The contraction in deal activity throughout 2017 was particularly felt at seed stage, as funding dollars were concentrated into fewer, larger deals globally.



Quarterly Deal Volume and Activity (Upstream)



Quarterly Deal Volume and Activity (Downstream)





Innovation Services

Setting up your own Corporate Innovation Center here in Silicon Valley can cost well over \$1 million annually. By accessing our investment infrastructure, AgFunder Innovation Services can get you there faster and at a fraction of the cost. Whether you need help setting up your own Corporate Venture Capital unit, or want a team in Silicon Valley to help support your Business Development or Partnerships teams. We can help.

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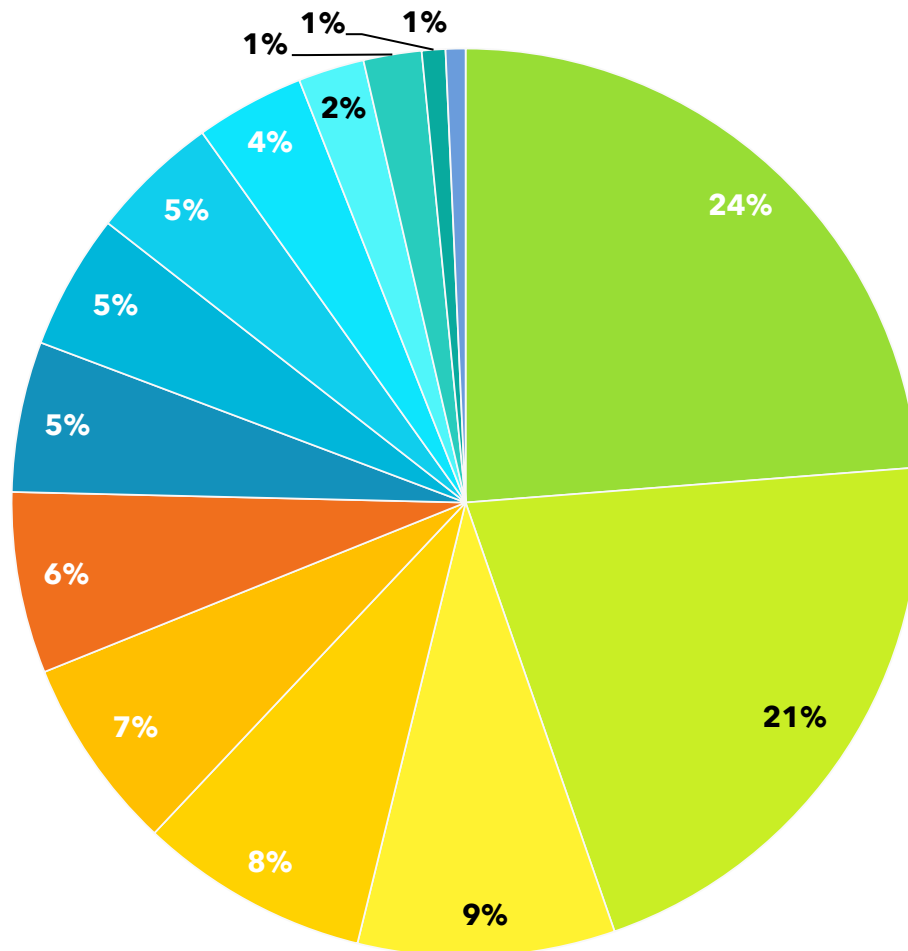
Deals by Category



Key Insights - Category

1. eGrocery startups raised 96% more funding in 2017 than 2016, driven largely by international deals that demonstrate investors' continued interest in the space despite multiple VC-backed failures.
2. While Restaurant Marketplaces seemed to continue to dominate funding in the Mid Year report, by the end of 2017 the category represented a smaller portion of the agrifood tech funding than in the past with 21% of the pie. However overall, funding for the category still increased 14% year-over-year.
3. Midstream Technologies became the third best-funded category in 2017 with 9% of total funding and 89 startups raising \$924 million. Growth in Midstream Technologies funding volume is largely based on the \$275 million Series D round for microbe manufacturing company Ginkgo Bioworks, which represents 30% of funding in that category.
4. Novel Farming Systems had a big year in 2017 raising \$652 million across 57 deals, a 233% increase on 2016. This growing category doubled its share of agrifood tech dollars to represent 6% of total funding in 2017. Plenty's \$200 million Series B was by far the largest contributor to this category. Without this record-breaking deal, Novel Farming Systems would drop four places in the ranking behind Agribusiness Marketplaces, Online Restaurants and Meal Kits, and Farm Management Software, Sensing, & IoT.
5. Ag Biotechnology continues to decrease in both investment and share of the total agrifood tech pie, dropping by 11% in total funding year-over-year in 2017 despite two deals bringing in \$100 million or more. While showing signs that investor appetite for ag biotechnology may be slowing down, this category also demonstrates that \$100+ million rounds are becoming more common across all categories whether technically "hot" or not. Restaurant Marketplaces, eGrocery, Midstream Technologies, Ag Biotechnology, Novel Farming Systems, In-store Retail & Restaurant Tech, and Agribusiness Marketplaces all saw deals over \$100 million.
6. Funding volume for Innovative Food startups stayed virtually the same year-over-year raising \$411 million in 2017. However, deal count in this category dropped by 23% to 50 deals keeping with the trend of fewer, larger deals overall.

2017 AgriFood Tech Investment

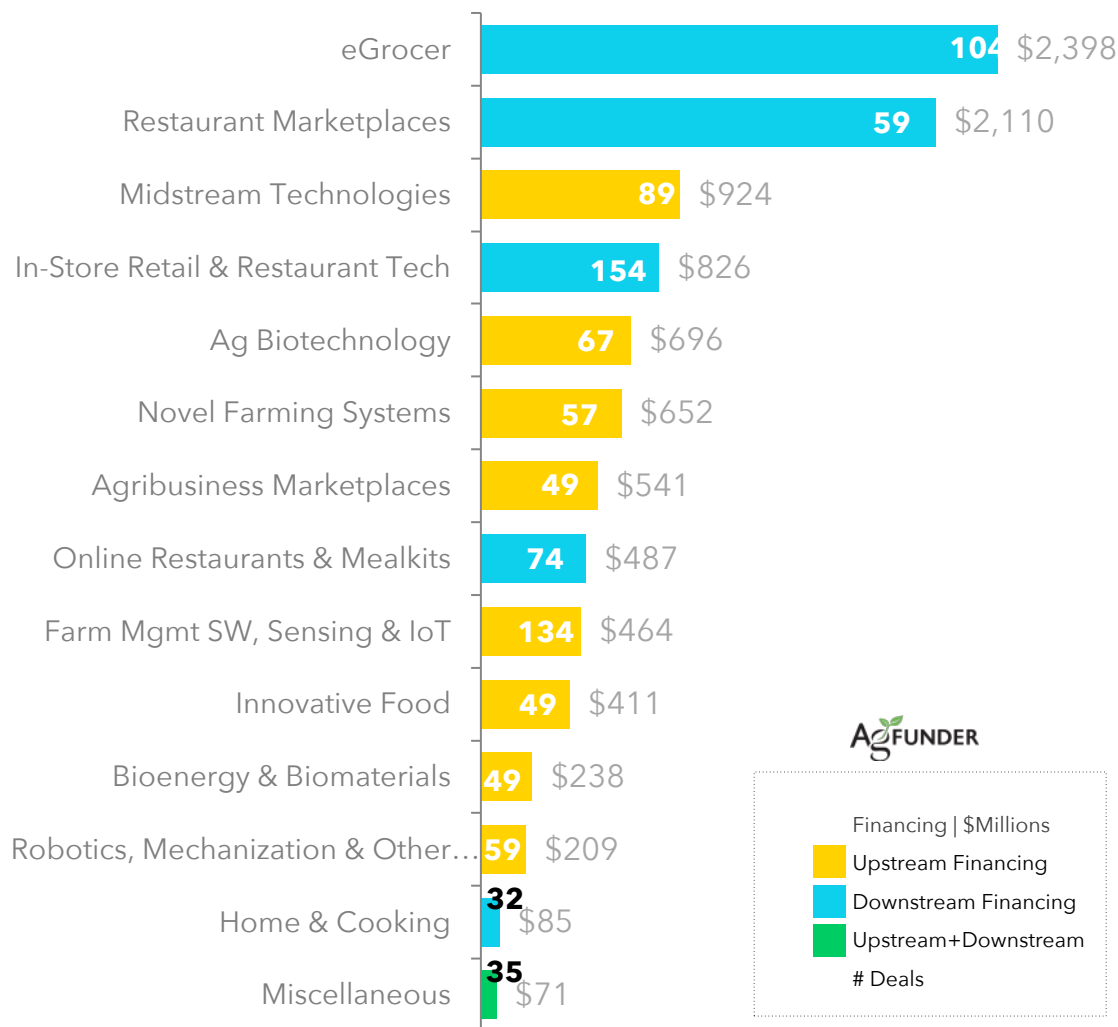


- eGrocer
- Restaurant Marketplaces
- Midstream Technologies
- In-Store Retail & Restaurant
- Ag Biotechnology
- Novel Farming Systems
- Agribusiness Marketplaces
- Online Restaurants
- Farm Mgmt SW, Sensing & IoT
- Innovative Food
- Bioenergy & Biomaterials
- Robotics, Mech. & Farm Eq
- Home & Cooking
- Miscellaneous



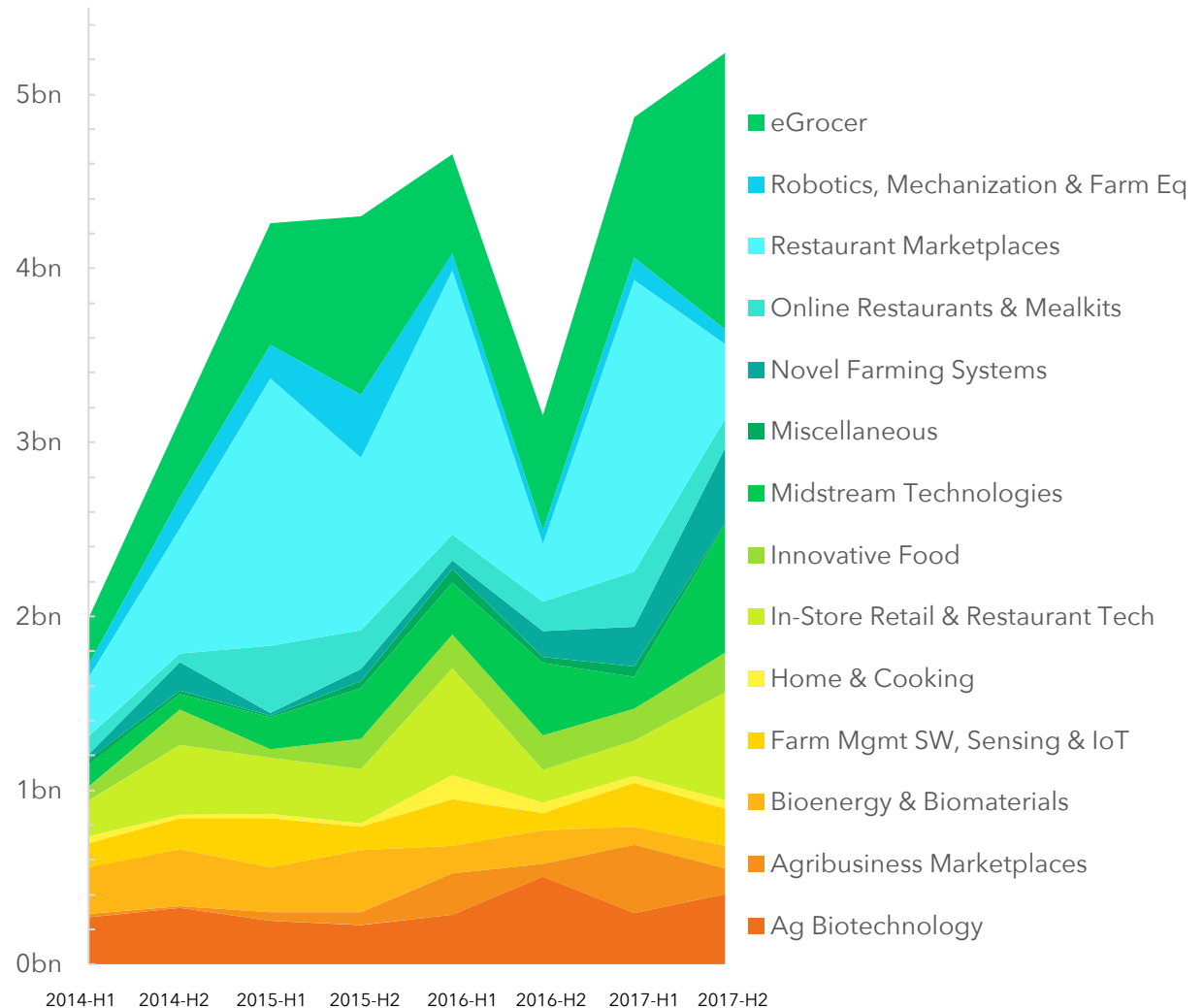
Deal Volume and Activity by Category

- Though the number of eGrocery deals declined 33% year-over-year, dollar financing in this category increased 96%, overtaking Restaurant Marketplaces, the best-funded category in 2016. Seven eGrocery startups raised more than \$100 million including Chinese eGrocer MissFresh's \$500 million and Instacart's \$400 million Series D rounds.
- Other categories, such as Online Restaurants and Midstream Technologies, also saw this drop in deal count with a bump in total dollar funding highlighting the overall trend for larger deals as the sector matures.
- Funding for Home and Cooking startups, which include consumer appliances for growing and preparing food, contracted by 58% while deal count virtually stayed the same year-over-year.



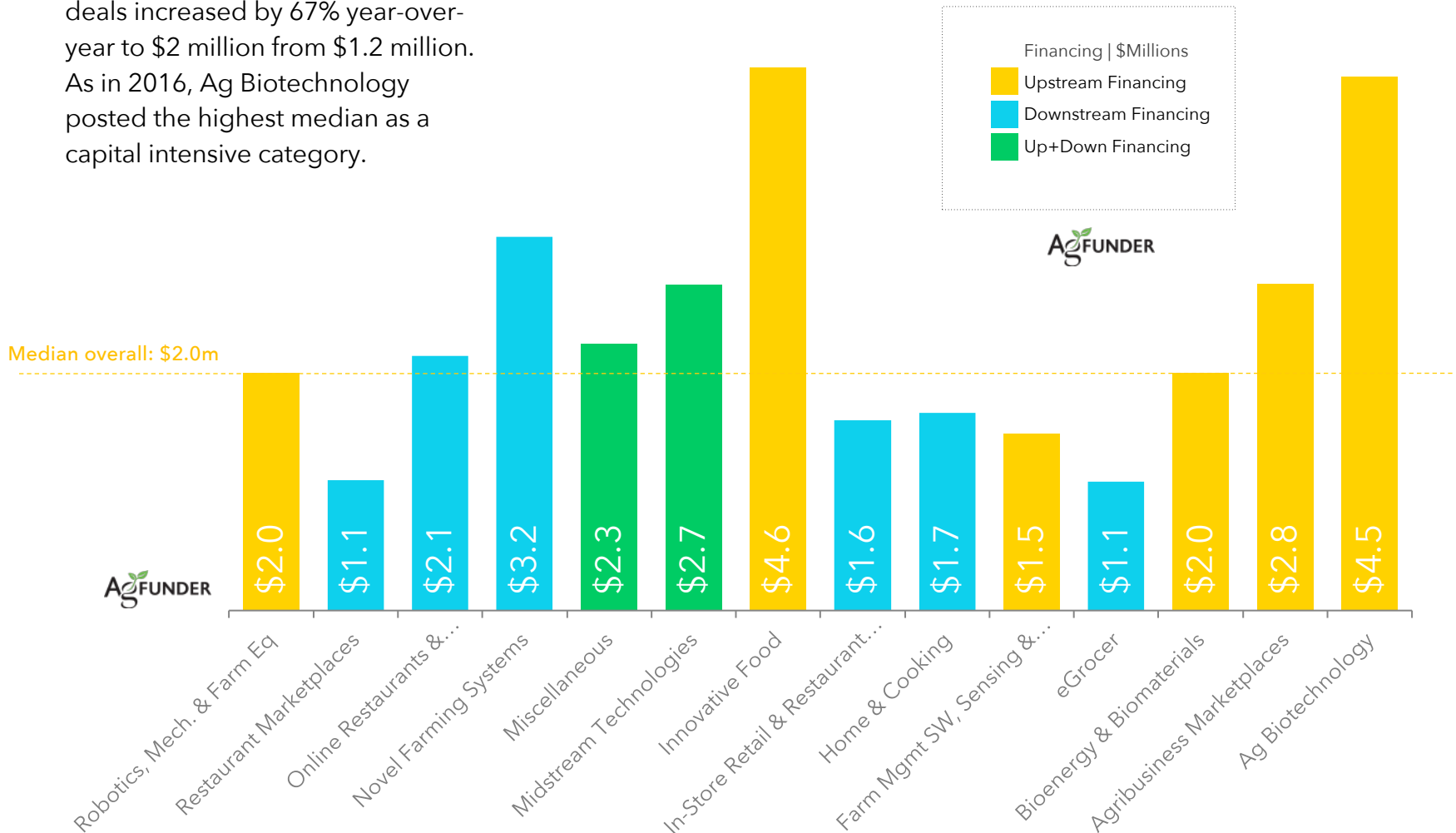
Investment by Category 2014-2017

- Investment grew year-over-year in 11 categories including eGrocery (96% to \$2.4bn), Restaurant Marketplaces (14% to \$2.1bn), In-store Retail & Restaurant Tech (3% to \$826m), Midstream Technologies (29% to \$924m), Innovative Food (5% to \$411m), Farm Management Software, Sensing, & IoT (27% to \$464m), Online Restaurants (54% to \$487m), Agribusiness Marketplaces (73% to \$541m), Novel Farming Systems (233% to \$652m), Robotics Mechanization & Farm Equipment (17% to \$209m).
- Categories that experienced a drop in funding were Ag Biotech (-11%), Bioenergy & Biomaterials (-33%), Home and Cooking (-58%), and Miscellaneous (-38%).



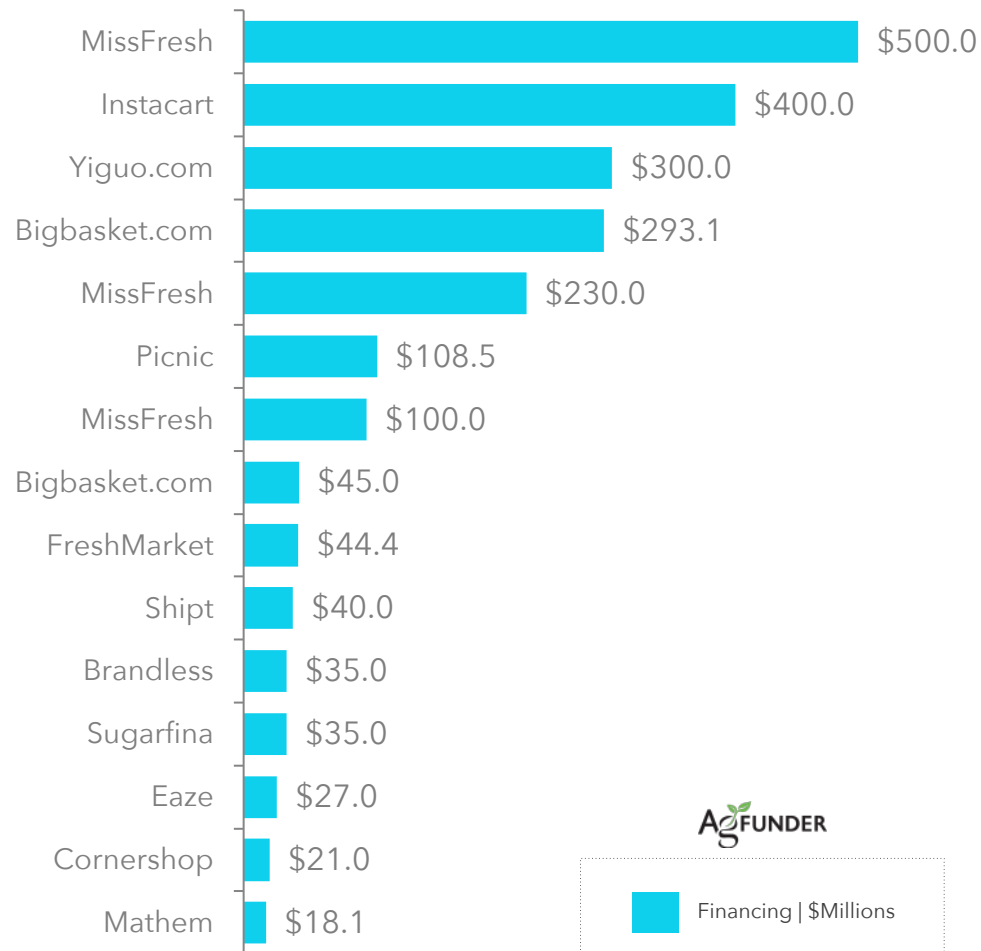
Median Deal Size by Category

- Overall, the median size of agrifood deals increased by 67% year-over-year to \$2 million from \$1.2 million. As in 2016, Ag Biotechnology posted the highest median as a capital intensive category.



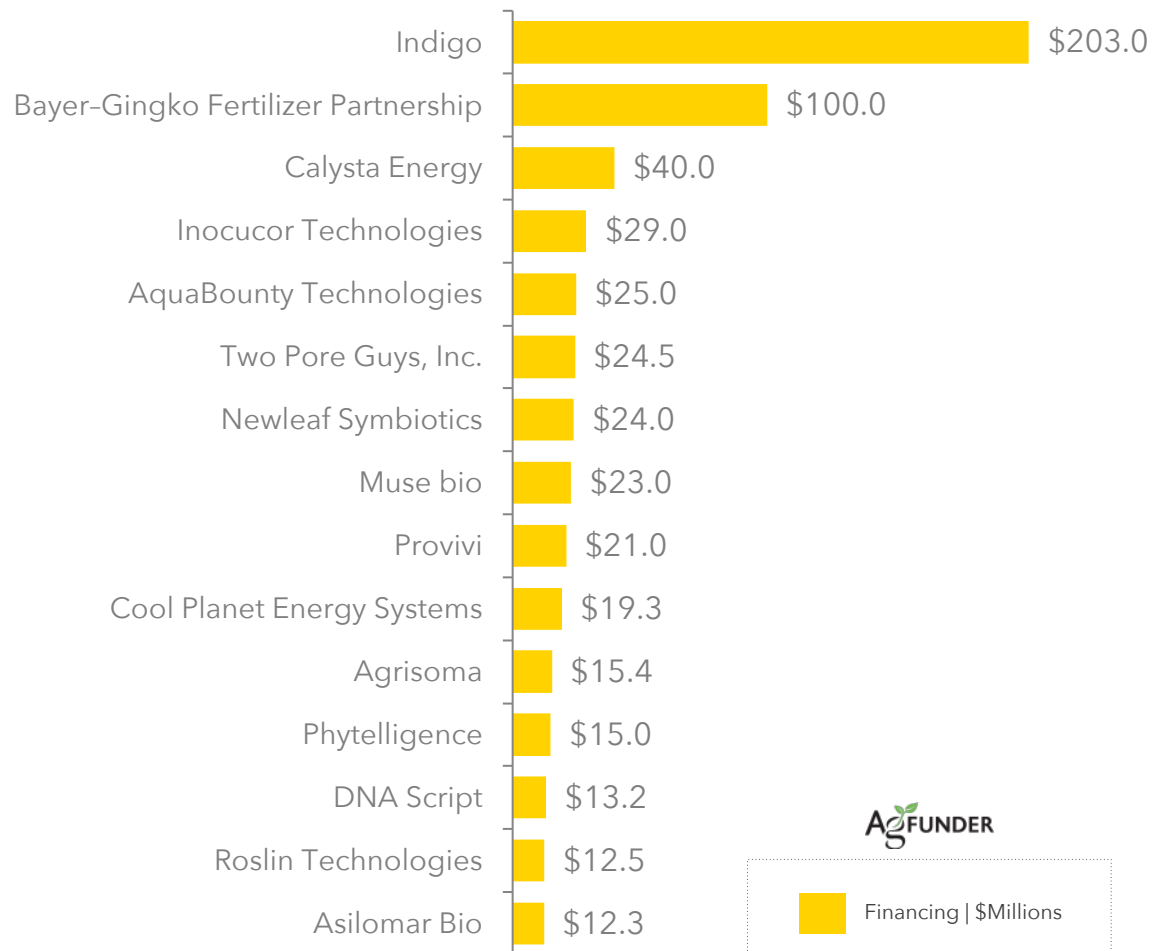
Top 15 eGrocery Deals

- eGrocery startups raised \$2.4 billion in 2017 - up 96% from 2016. As consumers around the world become accustomed to buying food online, ecommerce continues to be a prominent force in agrifood tech investment despite having more startup casualties than most.
- Chinese eGrocers dominate this list not only in funding, but in number. MissFresh, Yiguo, and FreshMarket are all Chinese startups. Other countries outside the US represented are India (BigBasket), The Netherlands (Picnic), and Sweden (Mathem).
- Brandless is the youngest company within the top eGrocery deals. The San Francisco-based startup, which sells only private-label products, has raised two rounds of funding since its founding in 2016.
- Eaze is a San Francisco-based cannabis delivery service. The company raised a \$27 million Series B round in 2017 in part, in order to get ready for the legalization of recreational cannabis in California, which went into effect in January 2018.



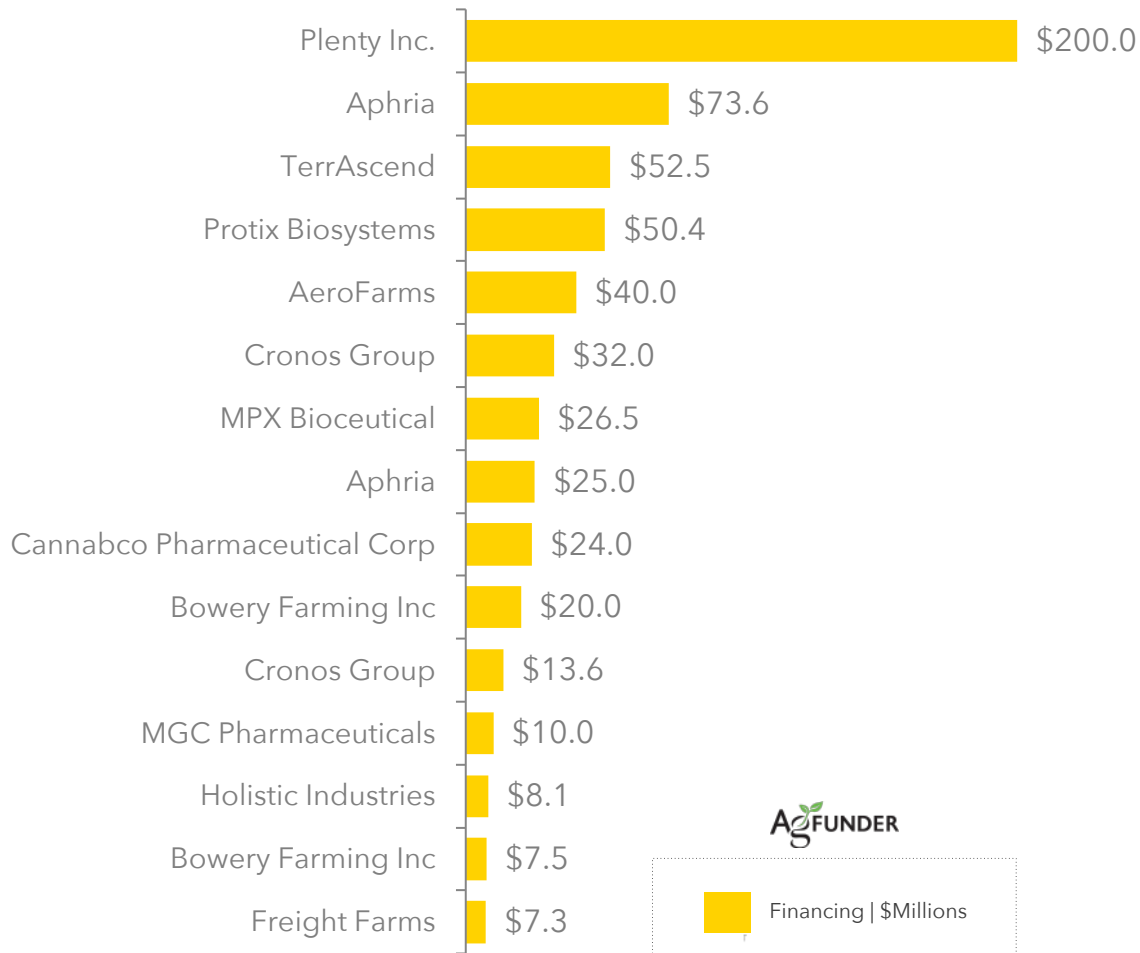
Top 15 Ag Biotechnology Deals

- Ag biotechnology financing contracted 11% year-over-year to reach \$670 million, yet it contains some of the largest deals of the year.
- The leading ag biotech deals demonstrate the diversity within this category that goes far beyond crop inputs and seeds to genetically modified seafood (AquaBounty) and animal feed (Calysta and Roslin Tech).
- Indigo Agriculture, the Boston-based microbial crop technology startup, closed its Series D funding round on \$203 million: the largest fundraising effort by a farm tech company to date.
- Other biological crop input startups Inocucor Technologies, Newleaf Symbiotics, Provivi, and the yet unnamed Bayer - Ginkgo Bioworks joint venture, also made the top 10 ag biotech deals.



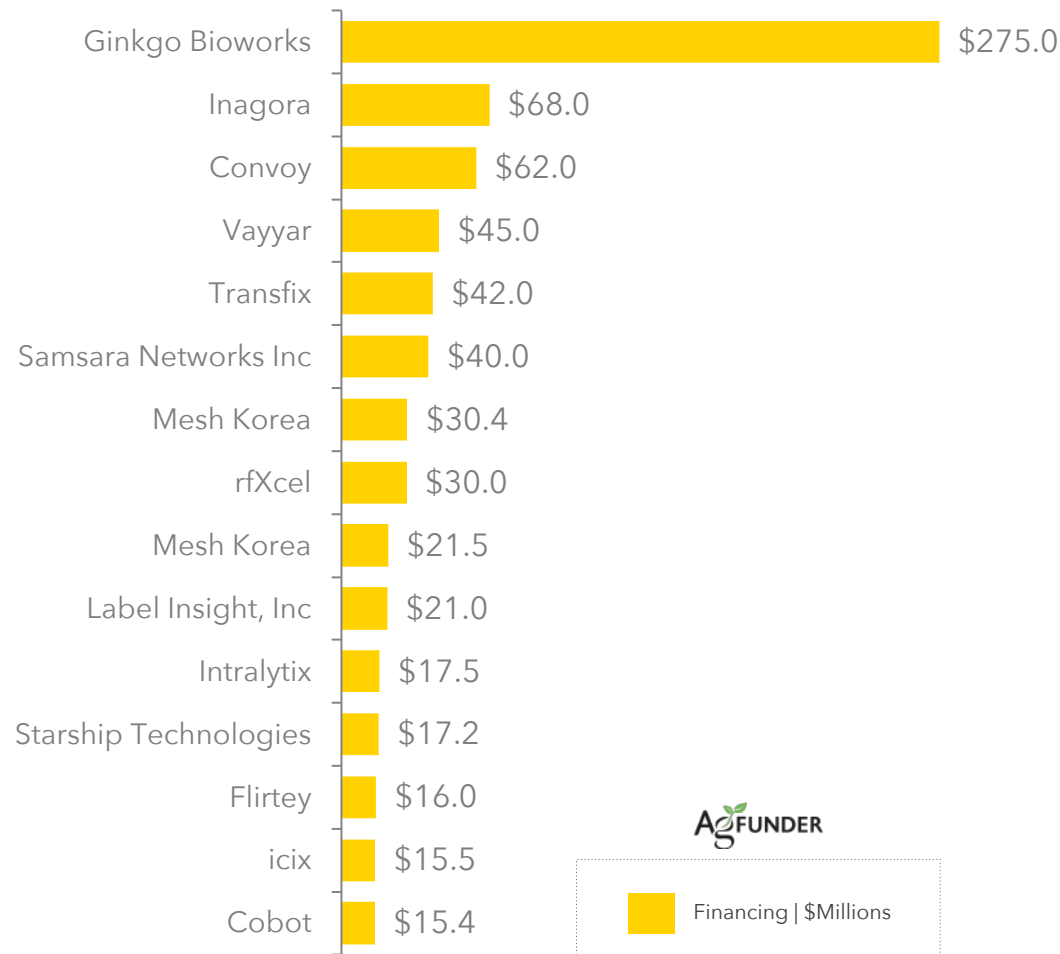
Top 15 Novel Farming Systems Deals

- The top deal in Novel Farming Systems, a \$200 million Series B round for indoor agriculture startup Plenty, was the largest ever farm tech deal at the time of its announcement in July, though by the end of the year it had been overtaken by Indigo Agriculture.
- Nine of the top 15 Novel Farming Systems deals were in the cannabis space with top deals from Aphria, TerrAscend, Cronos Group, MPX Bioceutical, Cannabco Pharmaceutical, and Holistic Industries. Micro-cap Aphria has two of the largest 15 deals, raising a total of \$77.5 million in late-stage funding in 2017.
- Protix Biosystems remains the highest raising insect farming startup to date with its \$50 million Series D round.
- Indoor vegetable farms AeroFarms, Bowery Farming, and Freight Farms also made the league with their Series D, Series A, and Series B rounds.



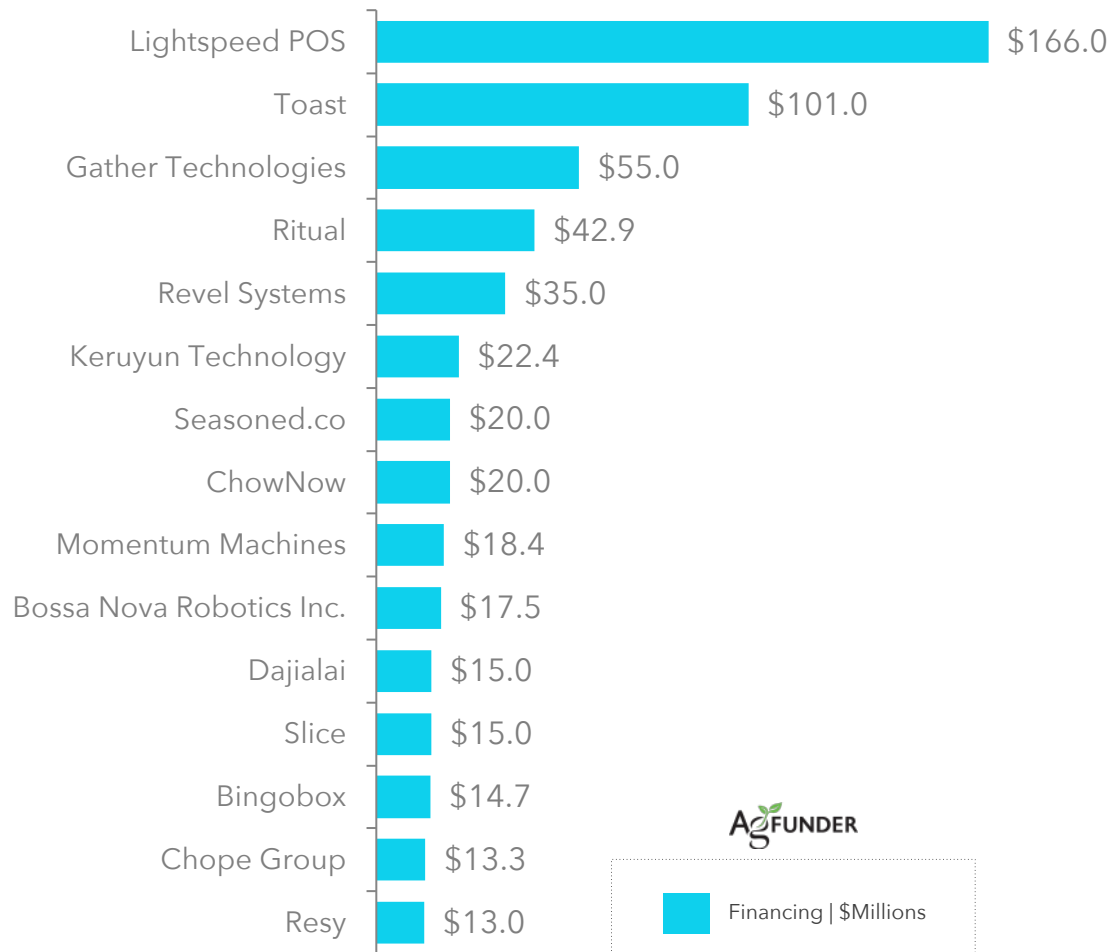
Top 15 Midstream Deals

- Increasing demand for transparency, traceability, efficiency and safe food drives much of the innovation taking place in the midstream category (post farm gate/pre-consumer).
- Investment in Midstream Technologies startups increased 29% year-over-year to \$924 million.
- Ginkgo Bioworks, a Boston startup genetically engineering microbes for the flavor, fragrance, agriculture, and food industries, closed out 2017 with a \$275 million Series D round, bringing the company's total funding to \$429 million. Ginkgo is also partnering with Bayer on a yet-unnamed \$100 million ag biotech joint venture.
- Prominent midstream startups are often multi-industrial. Convoy, for example, is a service that matches loads with available contract truck drivers. The service has been particularly valuable for growers of produce with a short season and short shelf-life.



Top 15 In-Store Retail & Restaurant Deals

- In-store Retail & Restaurant Tech saw modest growth in 2017 growing 3% to \$826 million.
- The top-raising startups were both point of sale systems with Canada's Lightspeed POS and Boston-based Toast.
- In-restaurant robotics remains a slow-growing sector of agrifood tech, but two robotics startups made the top 15. Momentum Machines, the creator of the burger-making robot, raised a \$18.4 million Series A from GV (Google Ventures), and Khosla Ventures among others. And Bossa Nova raised a \$17.5 million Series B round involving Intel Capital. Bossa Nova robots scan shelves in order to count inventory and find misplaced items while dodging obstacles like stray shopping carts.



Farm Tech Spotlight 2017

\$2.6bn

INVESTED

+32%

INVESTMENT GROWTH

345

DEALS

-9%

DEAL GROWTH

625

UNIQUE INVESTORS

\$203m

BIGGEST DEAL



Key Insights – Farm Technology

1. Farm technology is an important subset of the agrifood tech landscape, and is often what's intended when people refer to the more inclusive definition of 'agtech.' By our definition, farm tech exclusively captures the companies with technologies in use on farms. For edge cases, we've erred toward a more exclusive definition. See the full list of categories within farm tech on the next page. Some of these category names are identical to those within the full agrifood tech context but in this section, the startups within them are restricted to those used on the farm.
2. Farm tech investment represented 26% of total agrifood tech funding volume in 2017, reaching \$2.6 billion. The farm tech funding total represents a 32% year-over-year increase, while deal activity actually decreased by 9% as larger and later stage deals pushed up the investment total.
3. Farm tech saw some exciting exits in 2017 with John Deere acquiring robotics company Blue River Technology for \$305 million, and DowDuPont acquiring farm management software platform Granular for \$300 million. Both exits were applauded by investors as large agricultural corporates look to acquire the innovation they find difficult to foster in-house. Likewise, international fertilizer giant Yara acquired nitrogen modeling platform Adapt-N from Agronomic Technology Corp for an undisclosed amount.
4. Agribusiness Marketplaces are quickly becoming the category to watch within farm tech as Farmers Business Network (FBN) in the US and Maihuolang in China became some of the best-funded farm tech startups. The category raised \$511 million in 2017 representing 77% growth year-over-year, which included two rounds from FBN totaling \$150 million.
5. Novel Farming Systems also raised eye-catching rounds in 2017, including indoor vegetable farming startup Plenty's \$200 million Series B from Japan's Softbank, insect farming company Protix Biosystems' \$50 million round, and AeroFarms' \$40 million Series D round. Cannabis growers also posted big raises pushing funding in this category to increase by 243% to \$652 million.

Farm Tech Category Definitions



Ag Biotechnology

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



Farm Management Software, Sensing & IoT

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



Robotics, Mechanization & Equipment

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



Novel Farming Systems

Indoor farms, aquaculture, insect, algae & microbe production (excludes consumer home grow kits)



Agribusiness Marketplaces

Commodities trading platforms, online input procurement, equipment leasing used by farmers



Bioenergy & Biomaterials

On-farm ag waste processing, biomaterials production, anaerobic digesters (excludes supply chain companies)



Farm-to-Consumer eGrocery

Online platforms for farmers to sell and deliver their produce direct to consumers

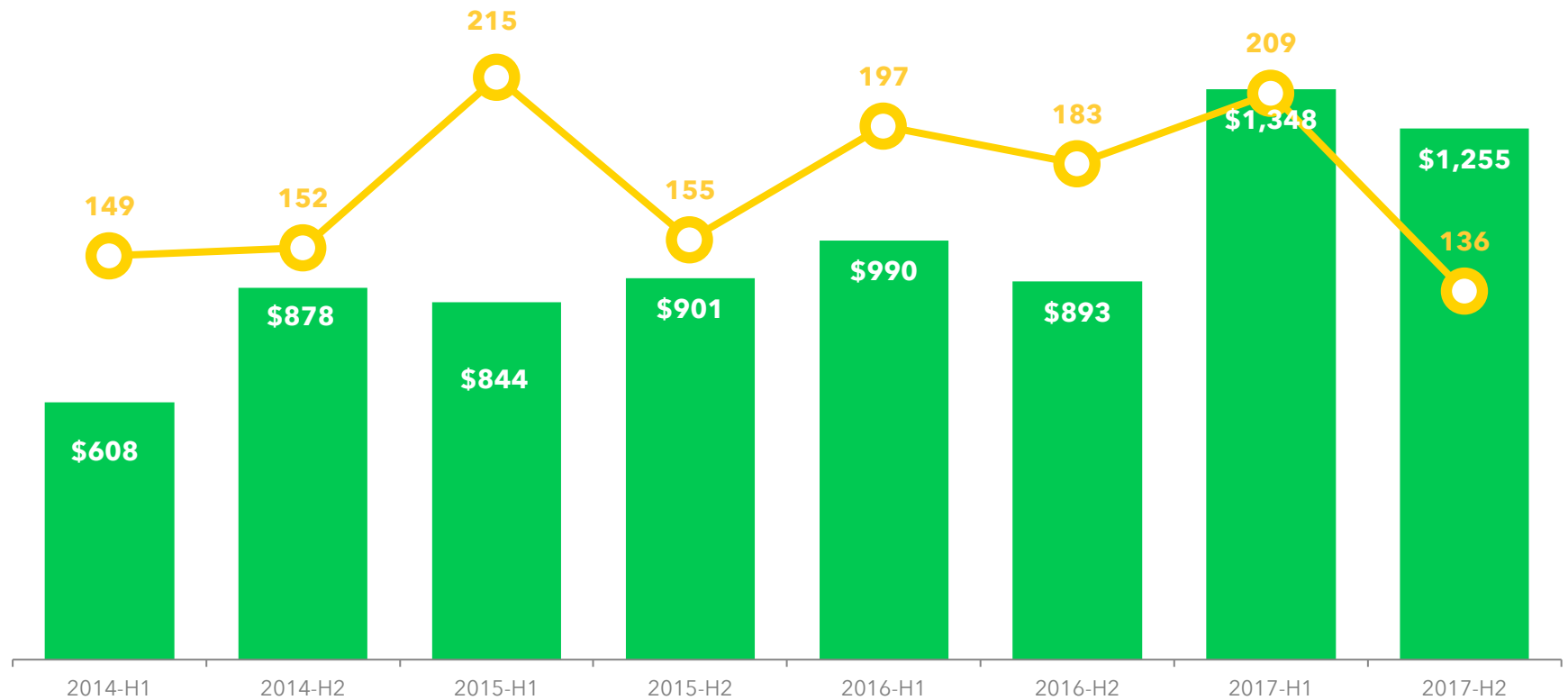
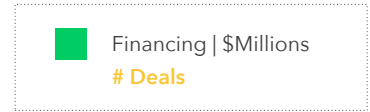


Miscellaneous

Land management tech, financial services for farmers, etc.

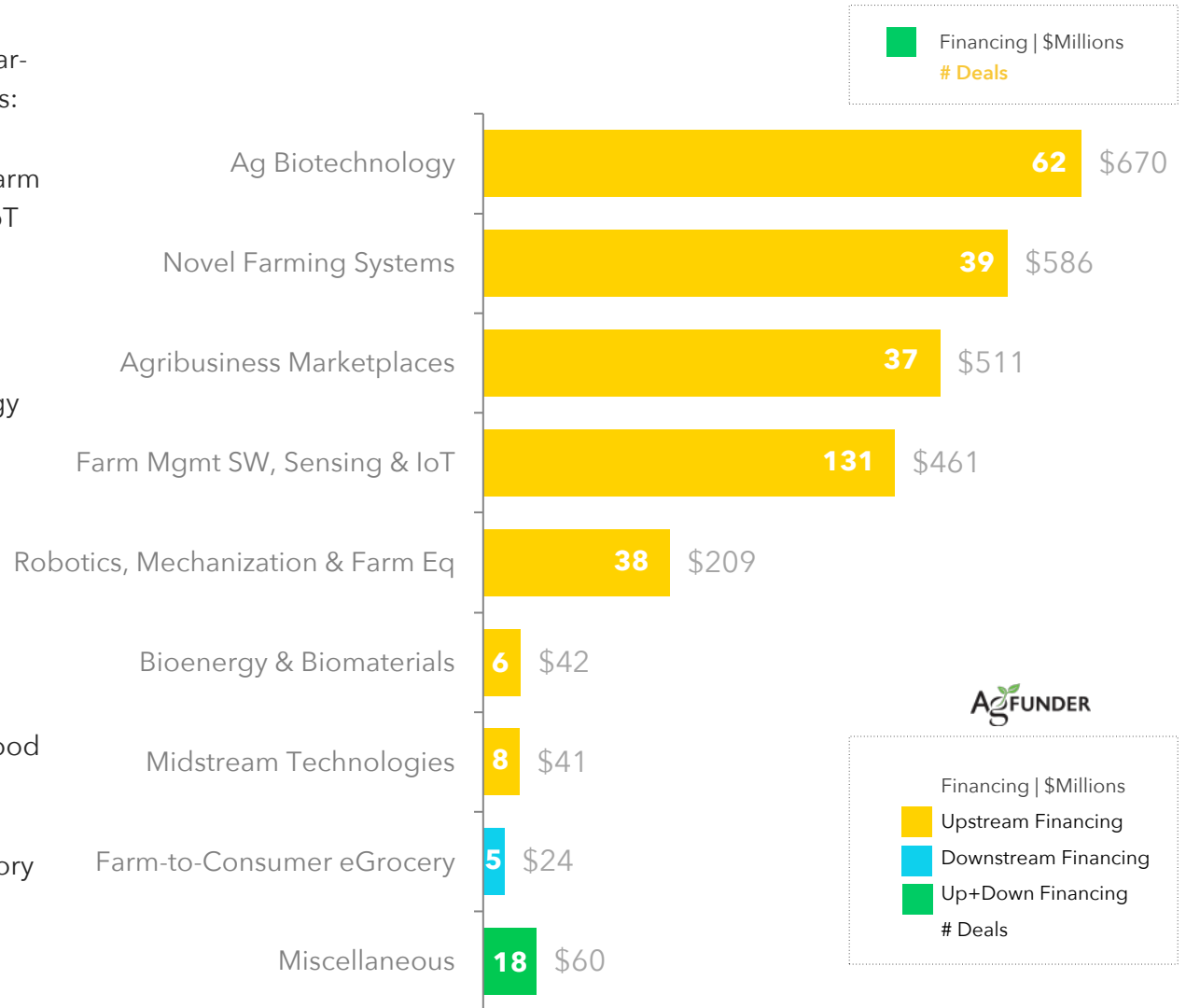
Farm Tech Financing 2014-2017

- Farm tech funding volumes increased 32% year-over-year, but deal activity declined 9% as larger and later stage deals dominated the space in 2017. As more 2017 historical data is released we can expect to see an increase in the total number of (typically small) companies funded without greatly affecting the total funding dollars.



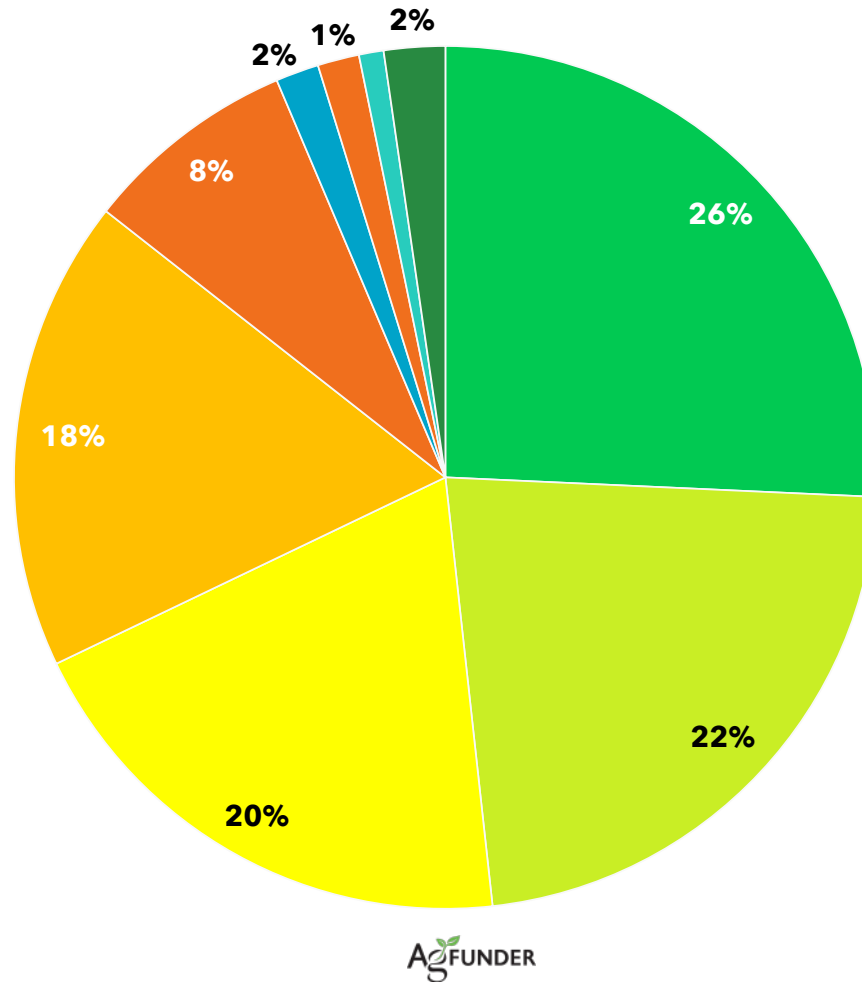
Farm Tech Deal Volume & Activity by Category

- Farm tech investments increased year-over-year in five farm tech categories: Novel Farming Systems (243%), Agribusiness Marketplaces (77%), Farm Management Software, Sensing & IoT (37%), Robotics, Mechanization & Other Farm Equipment (16%), and Bioenergy & Biomaterials (500%).
- On the other hand, Ag Biotechnology (-11%) and Farm-to-Consumer eGrocery (-33%) experienced contractions in funding.
- Keeping with the theme of fewer, larger deals in 2017, deal count decreased in almost every category within farm tech, though not as dramatically as in the whole of agrifood tech. Ag Biotechnology (-30%) and eGrocery (-50%) saw the steepest drops in deal count. No other category saw deal count changed more than 10% year-over-year.



Farm Technology Category Breakdown

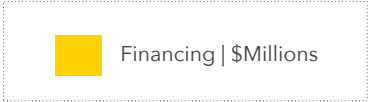
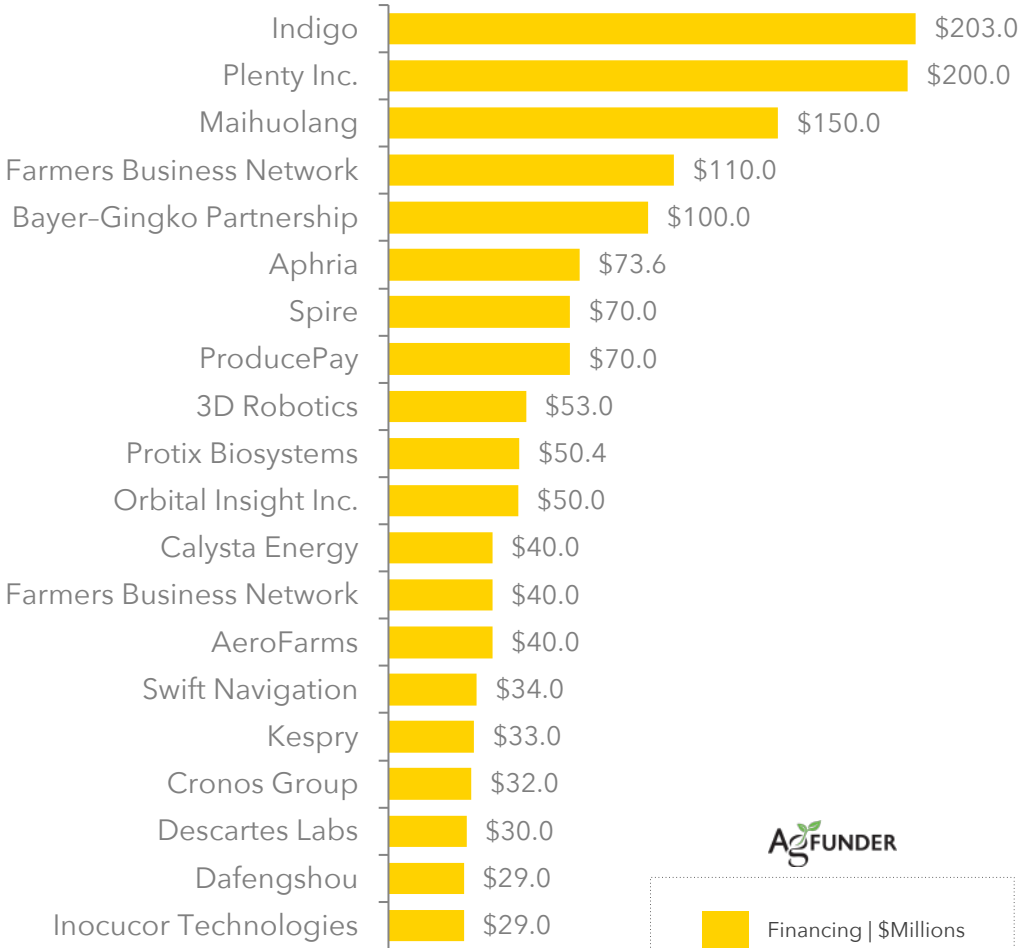
- In 2017, Novel Farming Systems jumped over Agribusiness Marketplaces and Farm Management Software, Sensing & IoT to become the second best-financed category within farm tech. Since many of these businesses have high overhead costs, we expect more large rounds to come in this category with the caveat that investors may want to see clear results from existing players before funding new ones.



- Ag Biotechnology
- Novel Farming Systems
- Agribusiness Marketplaces
- Farm Mgmt SW, Sensing & IoT
- Robotics, Mechanization & Farm Eq
- Bioenergy & Biomaterials
- Midstream Technologies
- Farm-to-Consumer eGrocery
- Miscellaneous











Top 20 Farm Tech Deals

- There is perhaps no more visible marker of the maturing of the farm tech startup ecosystem than the growing values of the top farm tech deals. In 2016 only two top deals were valued at more than \$50 million, but in 2017, half of the top 20 deals exceeded \$50 million.
- The Top 20 deals for startups operating at the farm level were wide-ranging, including Novel Farming Systems, Ag Biotechnology, Agribusiness Marketplaces, and Farm Management Software, Sensing, & IoT.
- The first sign that 2017 would be a big year for farm tech was the \$150 million Series A for Chinese Agribusiness Marketplace Maihuolang, followed by indoor farm Plenty's \$200 million Series A. These large, early rounds set a new tone for farm tech deals.
- European insect farming group Protix raised the largest insect farming deal on record with a \$50 million round. Though excitement around insect farming persists, it has not yet been matched with equivalent funding.



Most Active Farm Tech Investors

- In what can likely be taken as a sign of the gradual mainstreaming of farm tech investing, the two most active investors are not sector-focused.
- SOSV, the “accelerator VC”, tops both the farm tech and overall agrifood tech investor leagues.
- Sector-focused accelerators across the globe were also active investors including SVG Partners, manager of California’s THRIVE Agtech accelerator, NXTP Labs, the Latin American accelerator, and SproutX, Australia’s first agtech accelerator.
- Syngenta Ventures was the most active strategic corporate VC in the fam tech space making five investments in 2017. Monsanto Growth Ventures (4), Maumee Ventures (3), BASF Venture Capital (3), Taylor Farms Ventures (2), and Cargill (1) also participated in deals.

	INVESTOR	LOCATION	# INVESTMENTS
	SOSV	Princeton, NJ	12
	Y Combinator	Mountain View, CA	10
	SVG Partners	Los Gatos, CA	9
	NXTP Labs	Buenos Aires, Argentina	8
	SproutX	Melbourne, Australia	6
	SP Ventures	Sao Paulo, Brazil	6
	Fall Line Capital	San Mateo, CA	5
	GV	Mountain View, CA	5
	Syngenta Ventures	Basel, Switzerland	5
	Lewis & Clark Ventures	St. Louis, MO	5



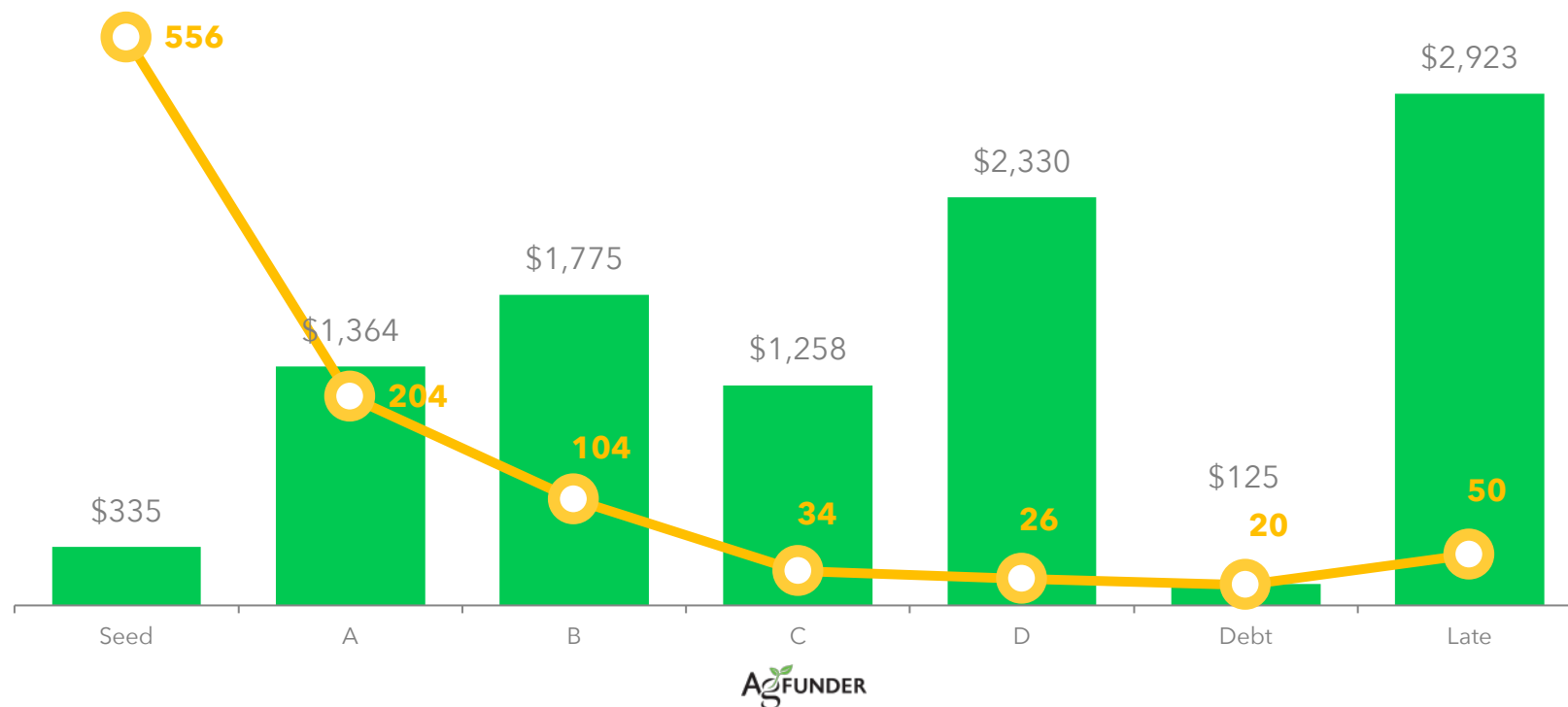
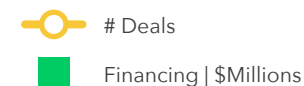
Deals by Stage

Key Insights – by Stage

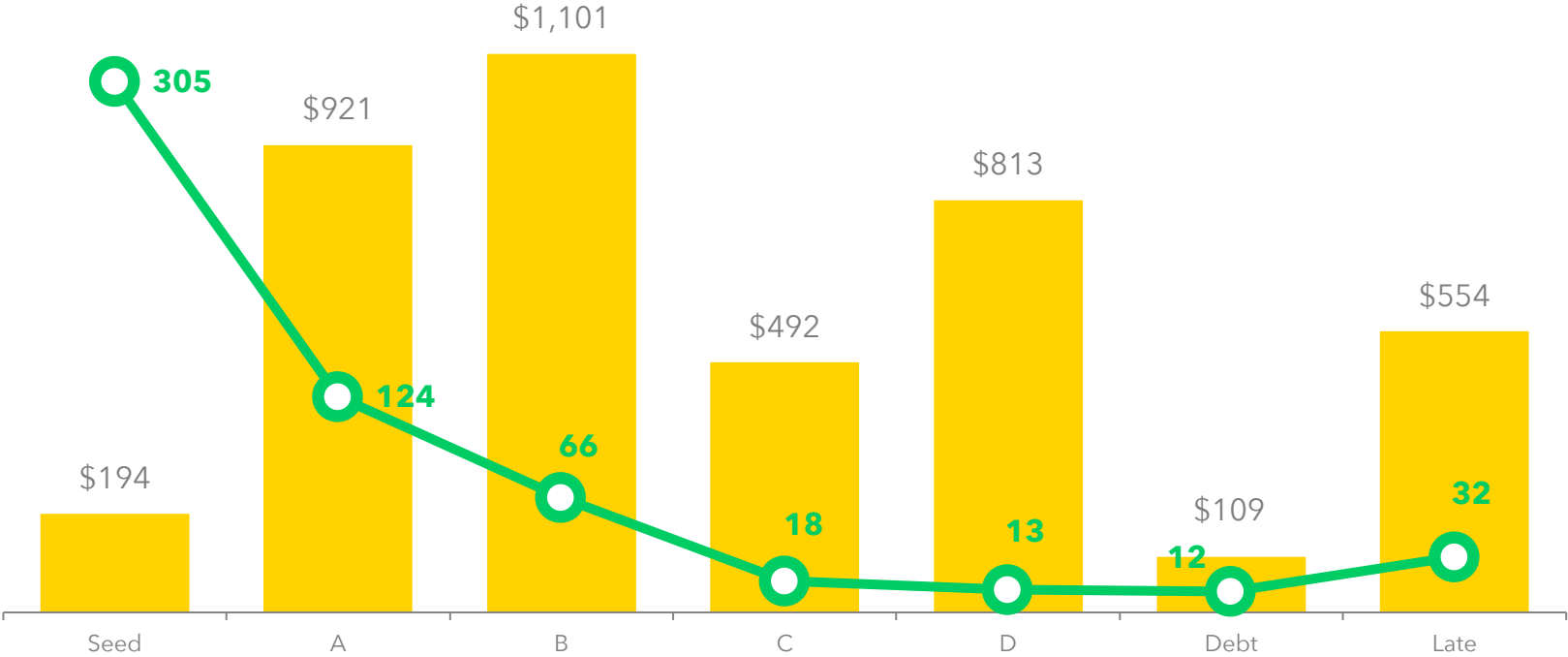
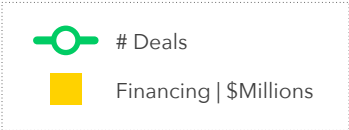
1. Overall agrifood tech deal count dropped by 17% to 994 deals in 2017 and most of that considerable drop was at the seed stage. Seed stage deal activity fell by 27% with a much more obvious drop in the second half of 2017. The average size of seed stage deals increased by 60% however, suggesting the presence of outliers at this early stage. Indeed Starship Technologies, a land-based delivery robot startup, raised a \$17.2 million seed round - the largest agrifood tech seed stage deal on record, according to AgFunder data going back to 2012.
2. Growth in agrifood tech funding was largest at Series D stage where it increased 108% to reach \$2.3 billion. Among the largest Series D rounds in 2017 were Chinese eGrocer MissFresh (\$500m), US eGrocer Instacart (\$400m), Chinese eGrocer Yiguo (\$300m), US midstream company Ginkgo Bioworks (\$275m), and US ag biotechnology startup Indigo Agriculture (\$203m). All of these companies are part of a global trend for venture-backed companies to stay independent longer, holding out for larger valuations. This is made possible by investors that seem to be maintaining an appetite for these mature startups. For example, Indigo Agriculture has already told *AgFunderNews* that the company will likely remain privately held until it lists publicly.
3. The median deal size for Series D rounds grew 52% to \$35 million, which is mirrored in global VC markets and suggests that investors have a healthy appetite for big swings that have undergone some level of market testing.
4. Funding at Series A stage increased by 46% totaling \$1.3 billion - the largest funding total for the stage in any year on AgFunder record. Although the total was partly driven by Chinese Agribusiness Marketplace Maihuolang (\$150m) and the unnamed ag biotechnology joint venture between Bayer and Ginkgo Bioworks (\$100m), the median deal size at Series A stage increased by 67% with the average deal size right behind (up 60%). This suggests that despite a few large deals, the growth in this stage is authentic and not dependent on outliers.

Deal Volume and Activity by Stage

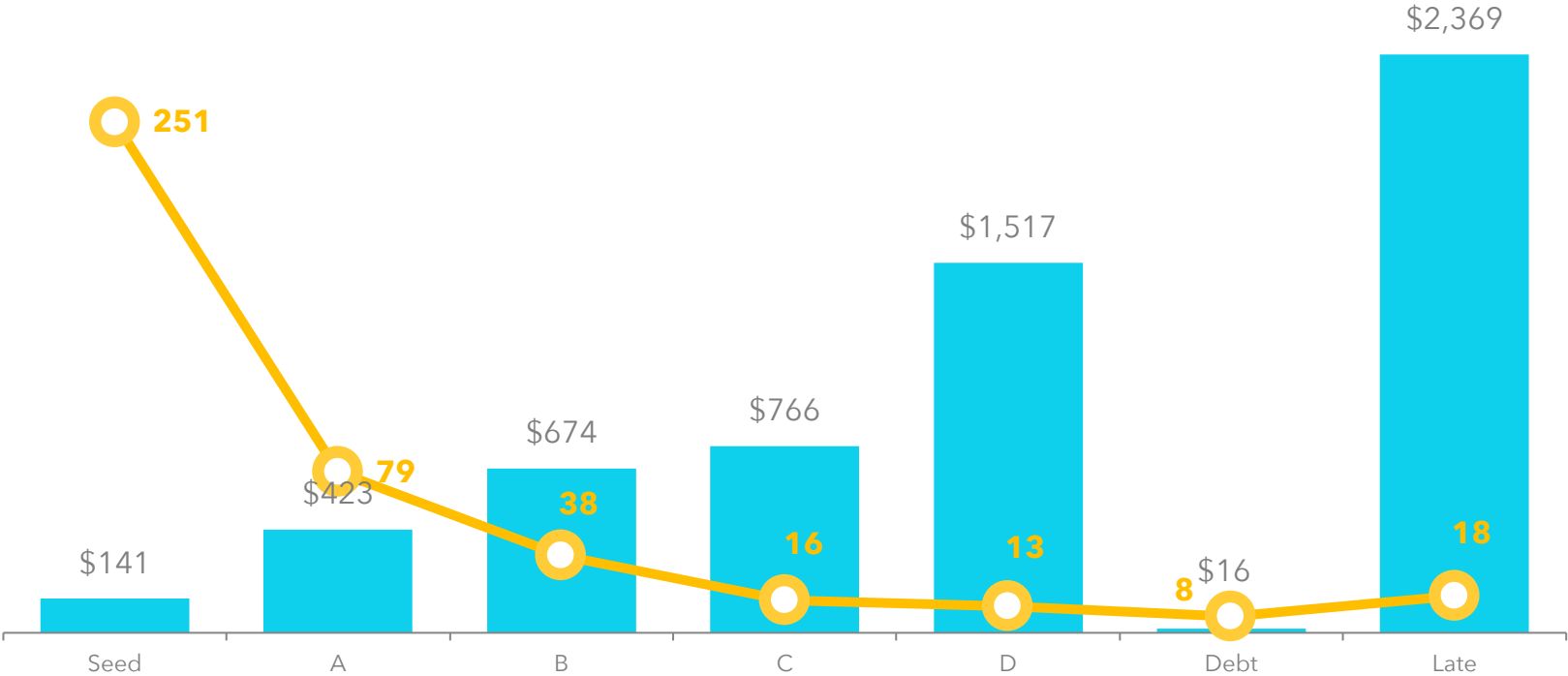
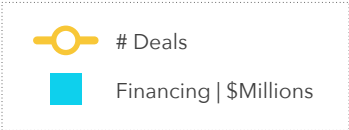
Startups matured beyond Series D in nearly every category within agrifood tech in 2017. Food ecommerce outliers ele.me, Delivery Hero, Deliveroo, and Big Basket together make up 71% of 2017 late-stage funding.



Upstream: Deal Volume and Activity by Stage

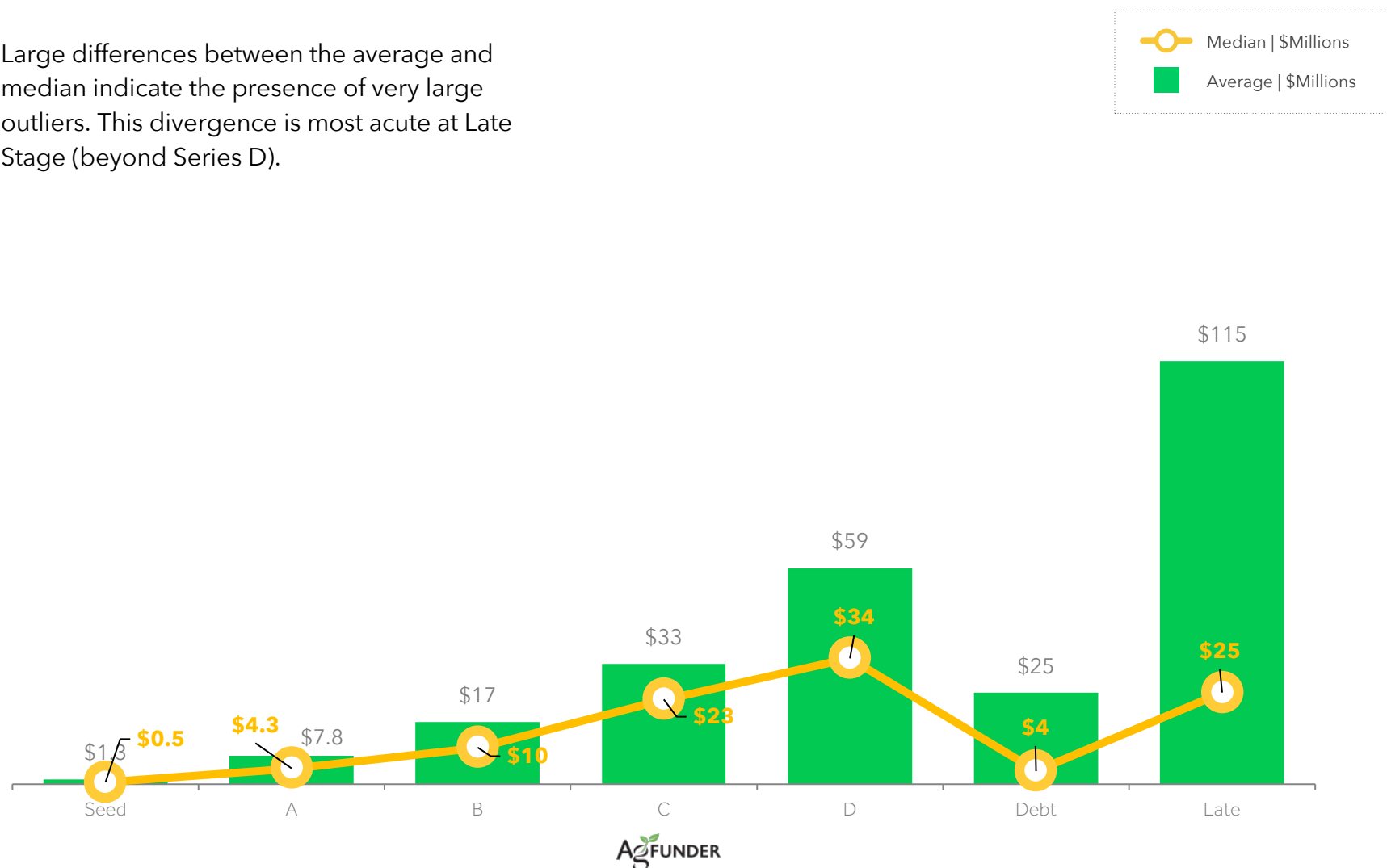


Downstream: Deal Volume and Activity by Stage



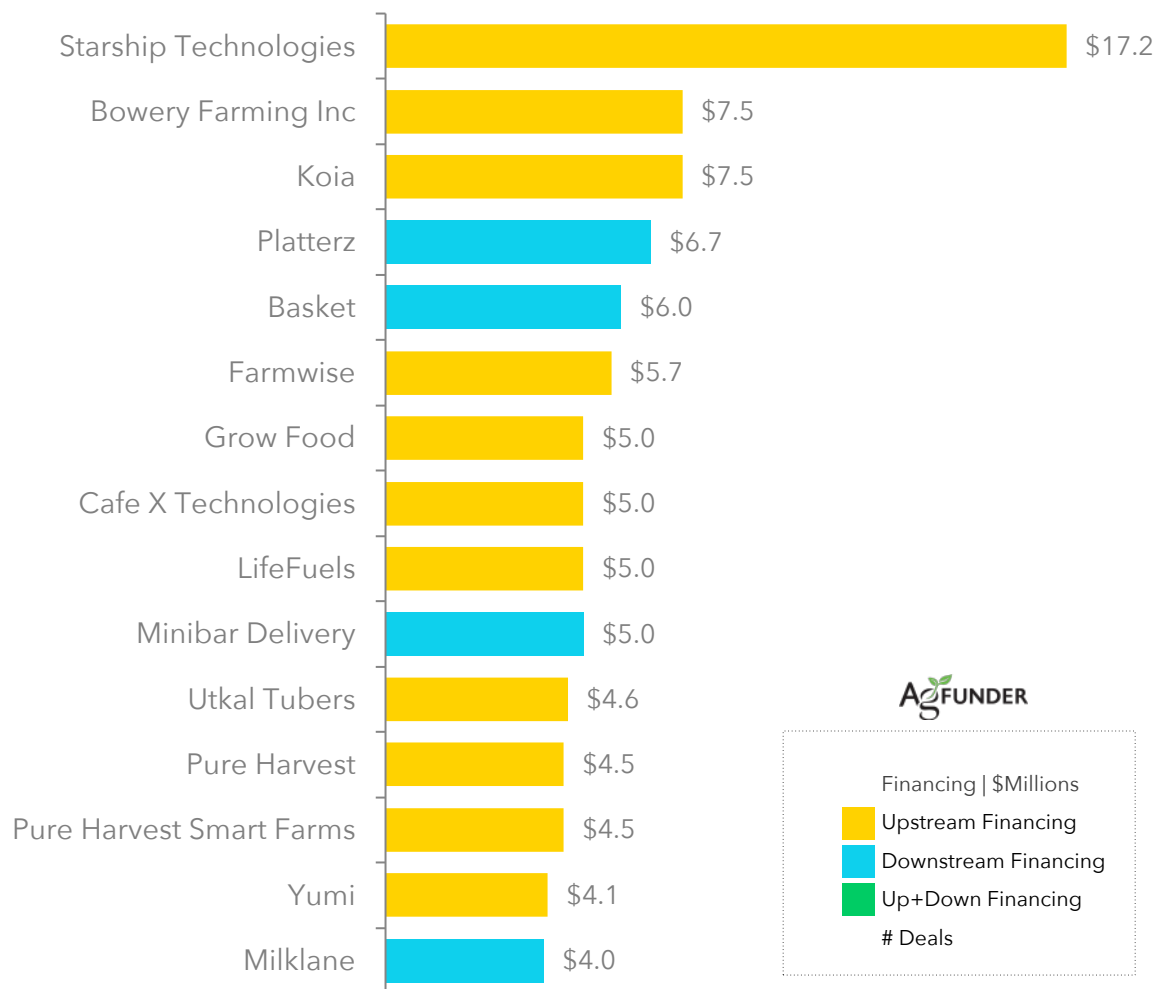
Deal Average and Median by Stage

- Large differences between the average and median indicate the presence of very large outliers. This divergence is most acute at Late Stage (beyond Series D).



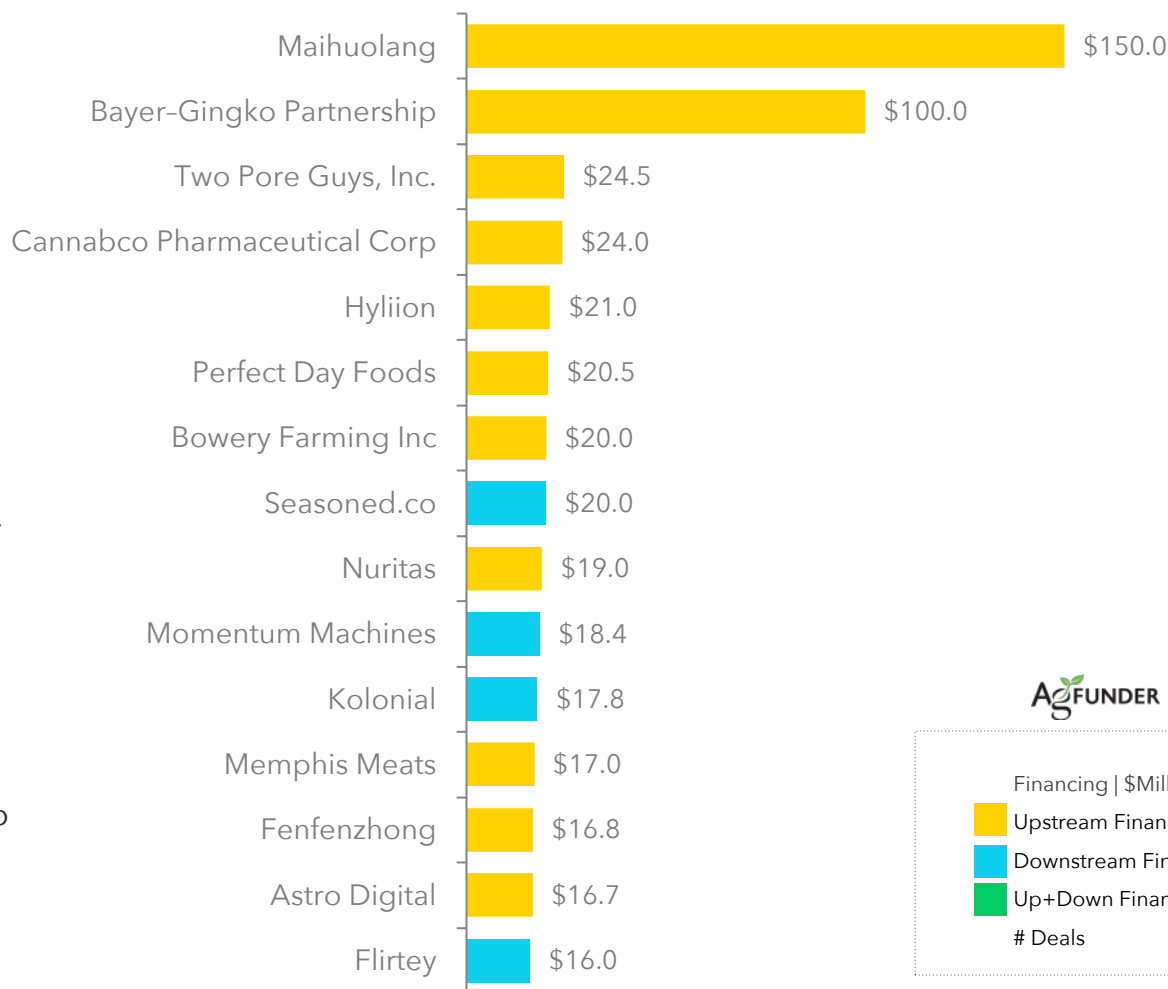
Top 15 Seed Deals

- Seed stage funding contracted by 28% to \$335 million in 2017 from \$464 million in 2016, while the number of deals dropped by 27% to 556. This trend is consistent with an overall drop in funding at the seed stage across all sectors of venture capital, according to VenturePulse.
- Autonomous delivery startups raised some of the largest seed stage deals including Starship Technologies, Yumi, and Platterz.
- Vegetable harvesting robot Farmwise and automated café Café X Technologies also raised large seed deals.
- New York-based indoor farm group Bowery and animal diagnostics startup TL Biolabs raised seed funding from high profile general tech VCs such as GV (Google Ventures) and Andreessen Horowitz.



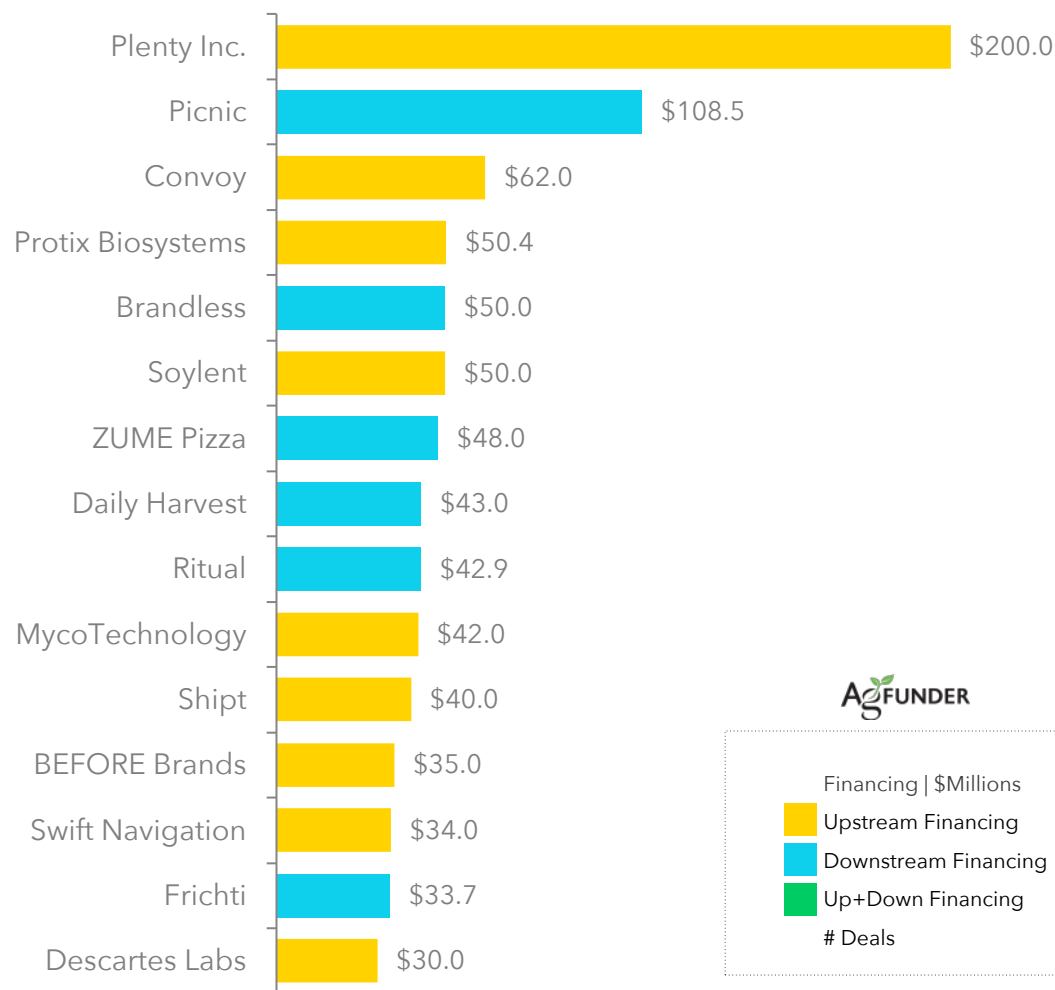
Top 15 Series A Deals

- Series A stage funding increased by 48% in 2017 to \$1.36 billion from \$919 million, while the deal count only increased by 10% to.
- The Bayer-Ginkgo Bioworks partnership is the first round of funding for this yet-unnamed ag biotech startup, which will be co-located with Ginkgo in Boston.
- Two cellular agriculture startups raised top Series A deals in 2017. Perfect Day Foods is creating animal-free dairy products and Memphis Meats is working on cultured meat. Both companies are American.
- Animal diagnostics device startup Two Pore Guys raised funding from Khosla Ventures.



Top 15 Series B Deals

- Series B funding grew by 19% year-over-year in 2017 growing to \$1.8 billion from \$1.5 billion, while the deal count at this stage saw almost no change. Almost all of this growth can be attributed to indoor farming company Plenty's \$200 million Series B round led by SoftBank. Without this record-breaking round, the stage would have grown by just 5% in terms of deal volume.
- Though the top Series B deals display much of the diversity within agrifood tech, consumer-facing startups such as Brandless, Soylent, Daily Harvest and Picnic are dominant.
- Grocery delivery startup Shipt raised its \$40 million Series B round in June 2017 and was acquired by retail giant Target in December 2017.



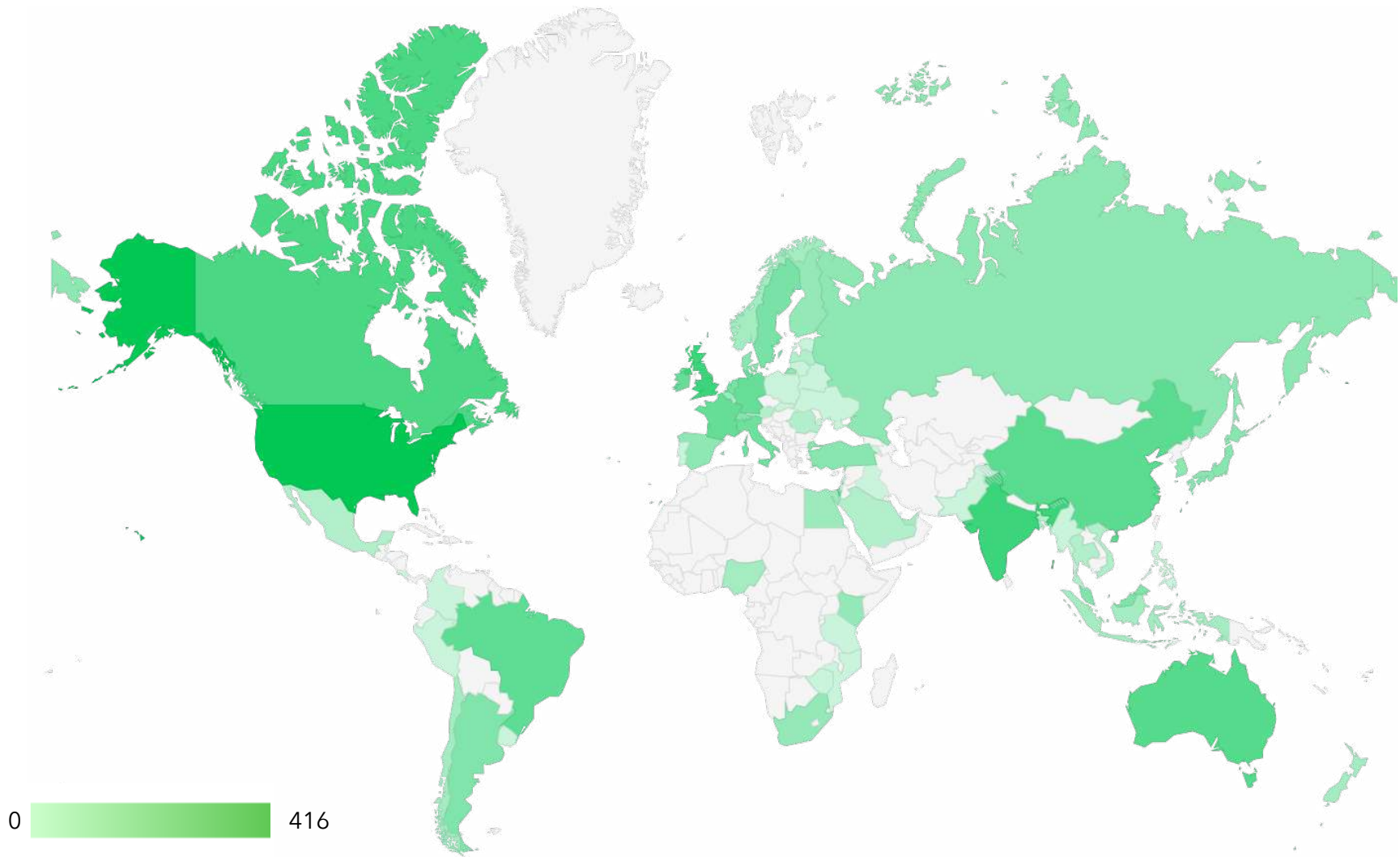
A black and white silhouette of a person wearing a beanie and a jacket, holding a scythe with a dark cloth draped over the blade. The person is standing in a field of tall grass. In the background, the silhouette of a mosque with a large dome and minarets is visible against a light sky. The overall mood is somber and contemplative.

Deals by Geography

Key insights – by Geography

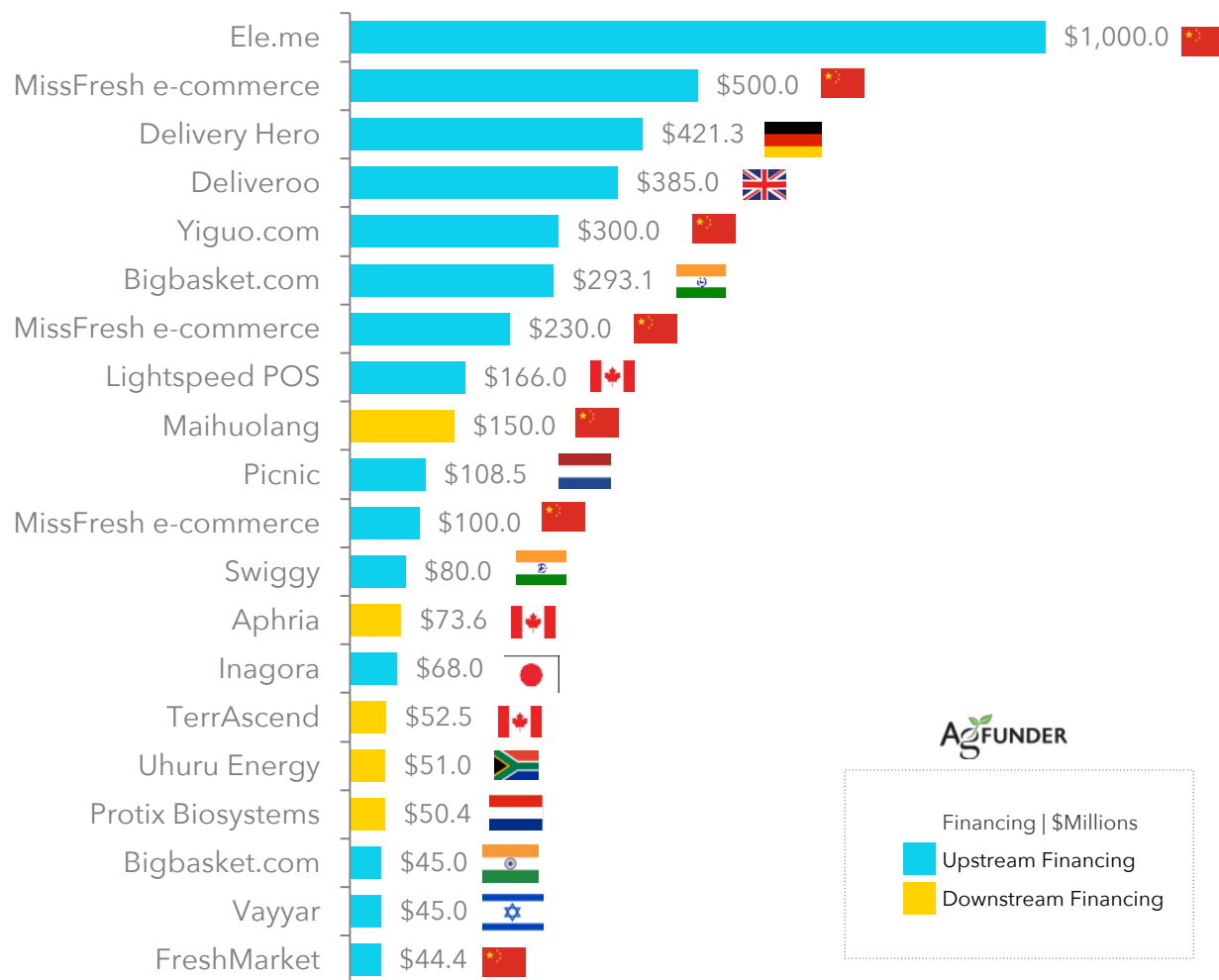
1. Agrifood startups raised funding in 59 countries globally. The United States continues to dominate the overall deal count with 42% of deal activity and 45% of deal volume. This is unsurprising with a robust startup ecosystem and an increasing amount of early stage support for AgriFood entrepreneurs in the form of accelerators, incubators, pitch competitions and more. However, the US is not immune to global trends and the country's deal count decreased by 26% even despite a 34% jump in deal volume.
2. Deal flow is increasing internationally as countries such as Argentina, Brazil, Australia, and Ireland are gradually building up their agrifood tech startup ecosystems with early-stage support from incubators and accelerators. Though this growth has not yet been met with a significantly increased share of total agrifood financing, deal activity in Brazil, Israel, Australia, Ireland, Sweden, Singapore, Malaysia, Argentina, Turkey, South Korea, Denmark, South Africa, Norway, and Egypt increased in 2017 despite the sector's overall trend for the reverse.
4. Ireland doubled its deal count year-over-year, likely a result of the country's recent investment in the agrifood tech sector through government and private actors.
5. Though China's agrifood tech deals are consistently breaking records in terms of their size, the country saw a 20% contraction in deal flow. Chinese deals have historically centered around China's growing internet economy and consumer technologies, but 2017 saw a diversification of deals. China's 28 deals represented Novel Farming Systems, In-store Retail & Restaurant Tech, eGrocery, Innovative Food, Midstream Technologies, Agribusiness Marketplaces, Restaurant Marketplaces, Online Restaurants, and Robotics, Mechanization & Farm Equipment.
6. Australia posted notable growth, with deal count increasing 76% and dollars invested growing as well by 46% year-over-year. With 91% of its 32 deals at seed stage, we expect Australia to continue to gain share of the overall agrifood tech pie as these companies mature. Half of these seed stage deals were in the Farm Management Software, Sensing & IoT category suggesting that Australia may play a larger role in farm tech in coming years.

Global Investment: Number of Deals per Country



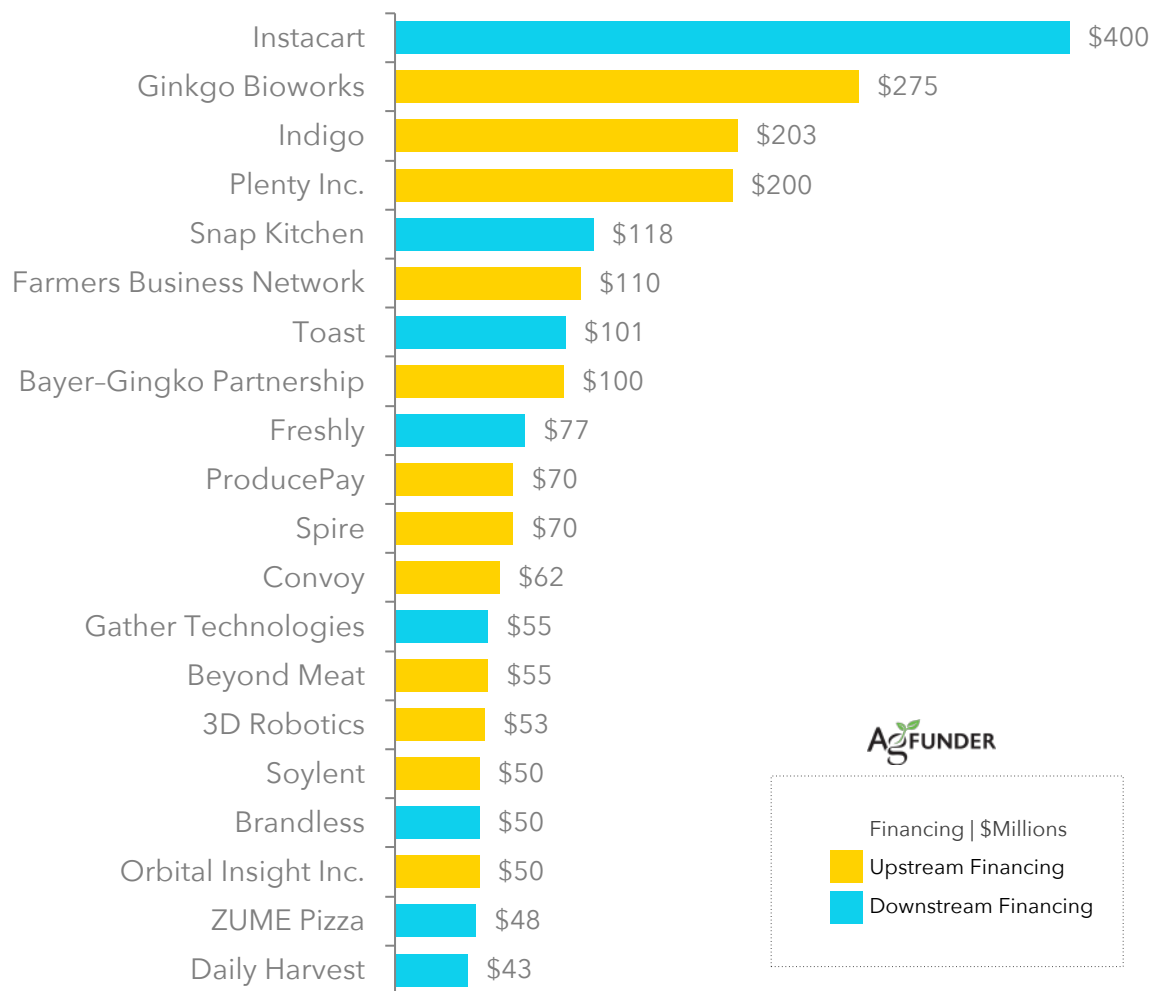
Top 20 Non-U.S. Deals

- China continues to exert dominance over international deal volume, mostly on the downstream side of the value chain. Both the Series C and D rounds for Chinese eGrocer MissFresh made it into the top 20.
- As farm tech slowly matures outside the US, we expect the share of top deals to swing gradually away from food commerce, but this is not yet the case with 70% of the top 20 international deals from food ecommerce startups.
- The largest agrifood tech deal for both 2016 and 2017 went to the same Chinese company: food ecommerce giant ele.me, which raised a \$1 billion late stage round in June 2017.
- Cannabis companies continue to bring in some of the largest deals of the year with Canada’s TerrAscend and Aphria.

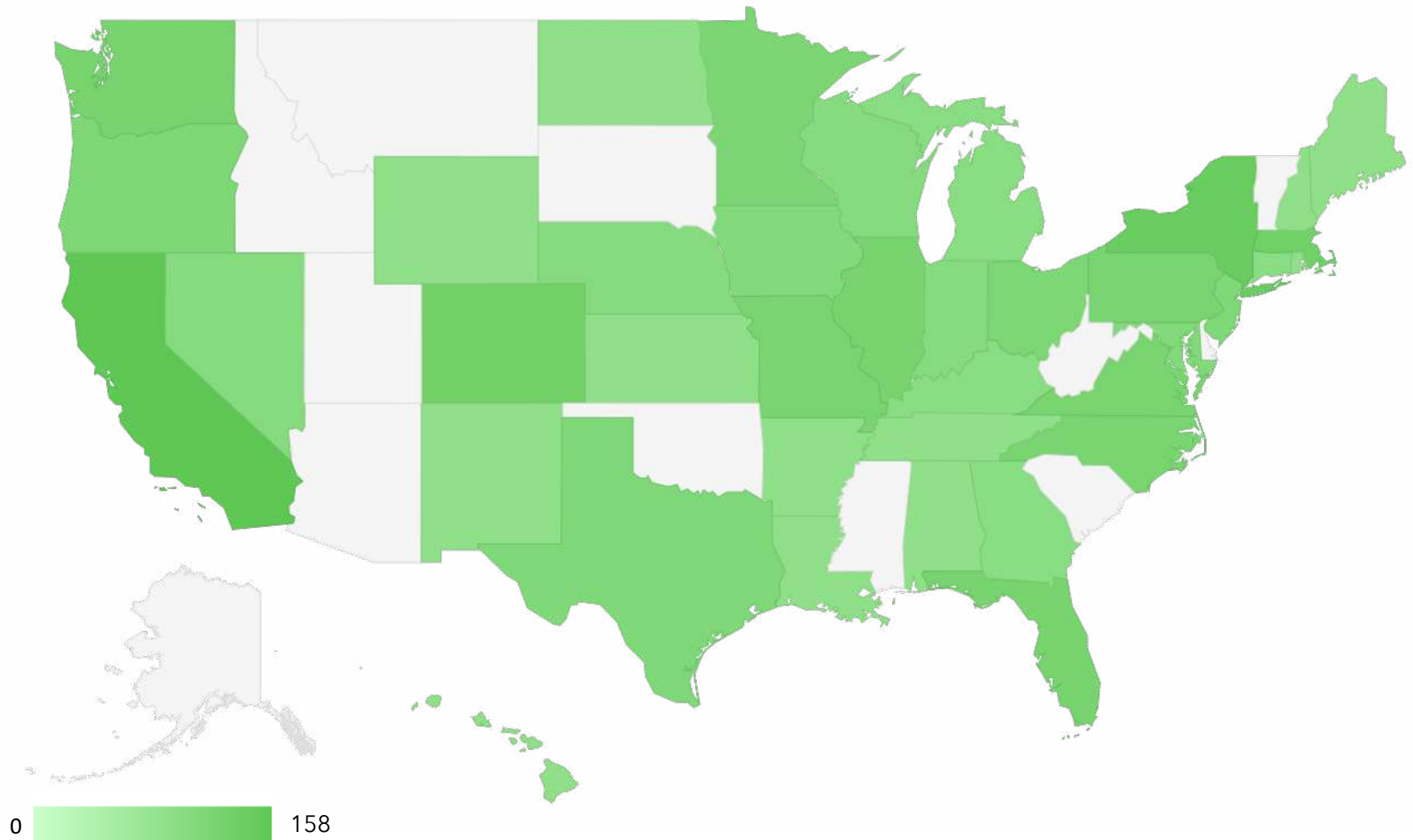


Top 20 US Venture Deals

- The top five US deals are a clear demonstration of the variety in agrifood tech startups in the US, and how the sector is maturing including eGrocery, Midstream Tech, Ag Biotech, Novel Farming Systems, and Online Restaurants.
- Other categories in the top 20 include Agribusiness Marketplaces, Innovative Food, In-store Retail & Restaurant Tech, and Farm Management Software, Sensing, & IoT.
- Bayer and Ginkgo Bioworks' joint venture has yet to announce its name or any team members. Ginkgo Bioworks' own Series D round was the largest Farm Tech deal of 2017, breaking Plenty's record from earlier in the year.
- Zume Pizza's Series B round marked a turning point for restaurant robotics. The pizza delivery restaurant with a robotic chef breathed life into this sleepy space with investment from AME Cloud Ventures.



U.S. Investment: Number of Deals by State



U.S. Investment: Value of Deals by State

- California continues to lead in agrifood tech deal volume in the US, making up 48% of total US financing and 38% of US deal flow. Forty-two percent of California's deals were on-farm technologies.
- The runner up for the past several years, New York, fell to third place in 2017 financings, with Massachusetts taking the second slot in dollars raised, though not in deal count. Large deals (four over \$100 million) pushed deal volume up for this biotech hub.
- Florida ranks fifth in deal count and 16th in total financing, suggesting that the state may jump up in prominence in the US if these small deals lead to larger rounds.



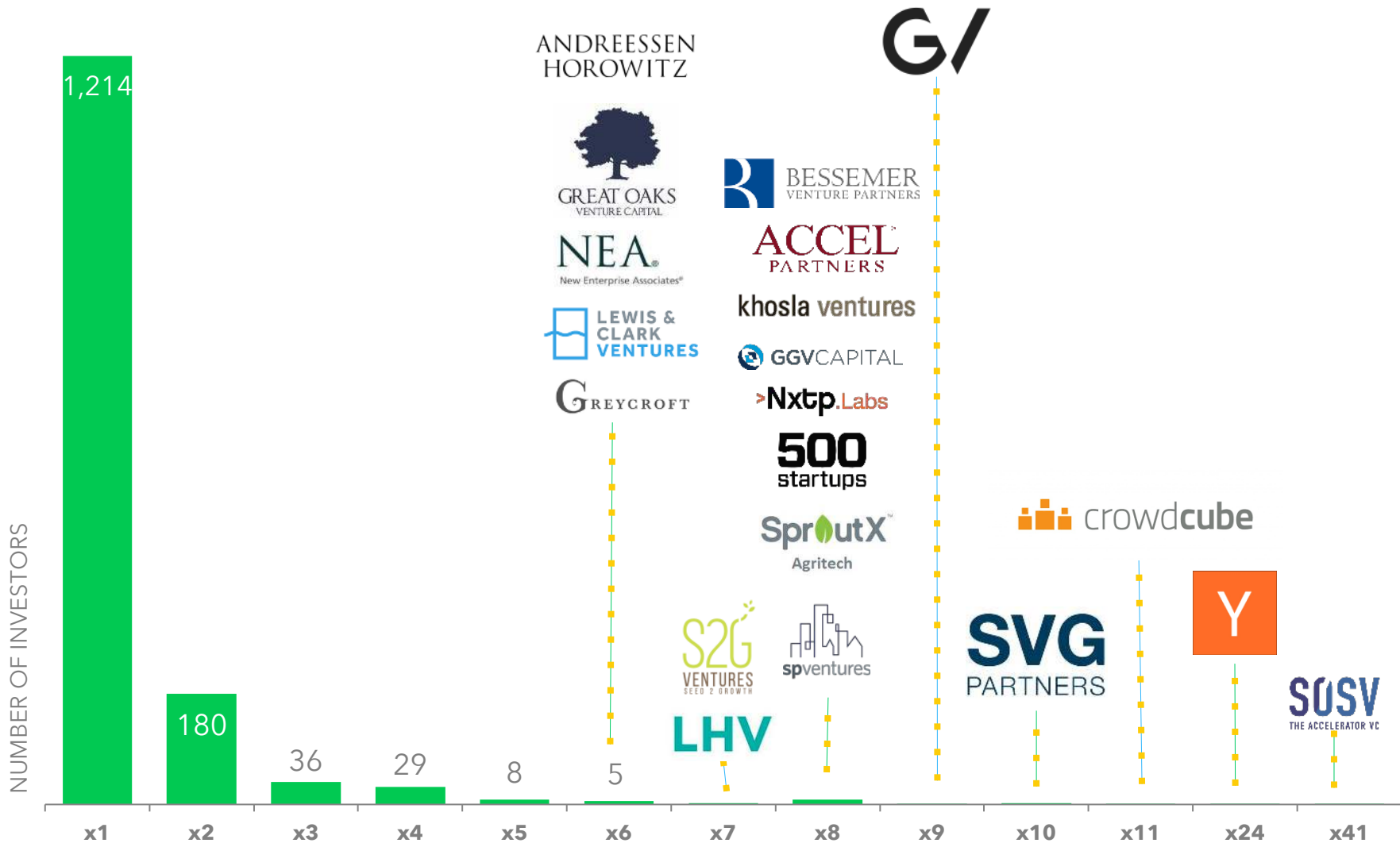


Investor Activity

Key insights – Investor Activity

1. The number of unique investors participating in agrifood tech deals more than doubled year-over-year in 2017 increasing to 1487 from 670 in 2016 -- a figure that has steadily increased every year since AgFunder records began, demonstrating the increasing interest in the agrifood tech space. The group is diversifying and looking more and more in line with more traditional tech investing as generalist VCs catch on to the potential of agrifood tech. Though not even close to the accelerator boom of 2016 when sixteen new accelerators launched across the globe, nine new accelerators launched in 2017 in Australia, the US, India, Brazil, Vietnam, and Germany.
2. The most active agrifood tech investors in 2017 were “accelerator VC” SOSV and Y Combinator with 41 and 24 deals respectively. SOSV’s participation varied, covering Bioenergy & Biomaterials, Innovative Food, Novel Farming Systems, Ag Biotechnology, Farm Mgmt SW, Sensing & IoT, and In- Store Retail & Restaurant Tech.
3. Silicon Valley VCs GV (Google Ventures), Sequoia Capital, Khosla Ventures and Andreessen Horowitz among others showed an increased interest in agrifood tech investments in 2017. GV alone participated in nine deals.
4. In 2017 we saw an uptick in participation from notable sovereign wealth funds and mega-funds from outside the US. Singapore’s Temasek made further agrifood investments in 2017 along with the Investment Corporation of Dubai, Meraas, the investment vehicle of Sheikh Mohammed bin Rashid, of Dubai, Softbank’s Vision Fund, and Japanese trading house Mitsui & co. Private equity groups like ADM Capital, global asset management firms like Alliance Bernstein, and even a pension fund in the Municipal Employee Retirement System of Michigan are also getting involved.
5. Agrifood strategics stepped up the pace a bit as Syngenta Ventures (5), Monsanto Growth Ventures (4), Maumee Ventures (3) BASF Venture Capital (3), Taylor Farms Ventures (2), Wilbur-Ellis’s Cavallo Ventures (2), Cargill (1), and Tate & Lyle Ventures (1) all made investments.

Number of Deals by Investors & Accelerators

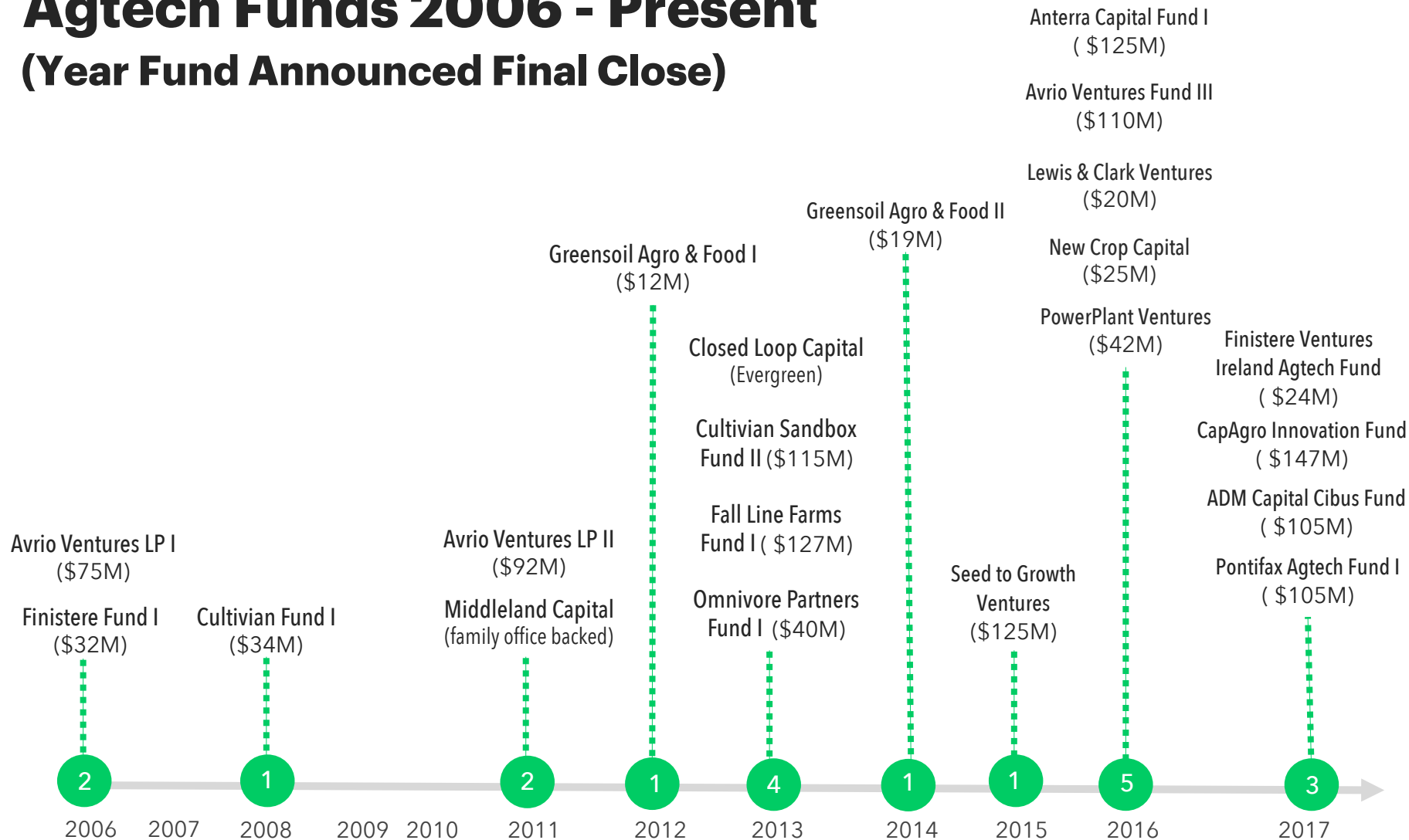


Most Active Venture Funds

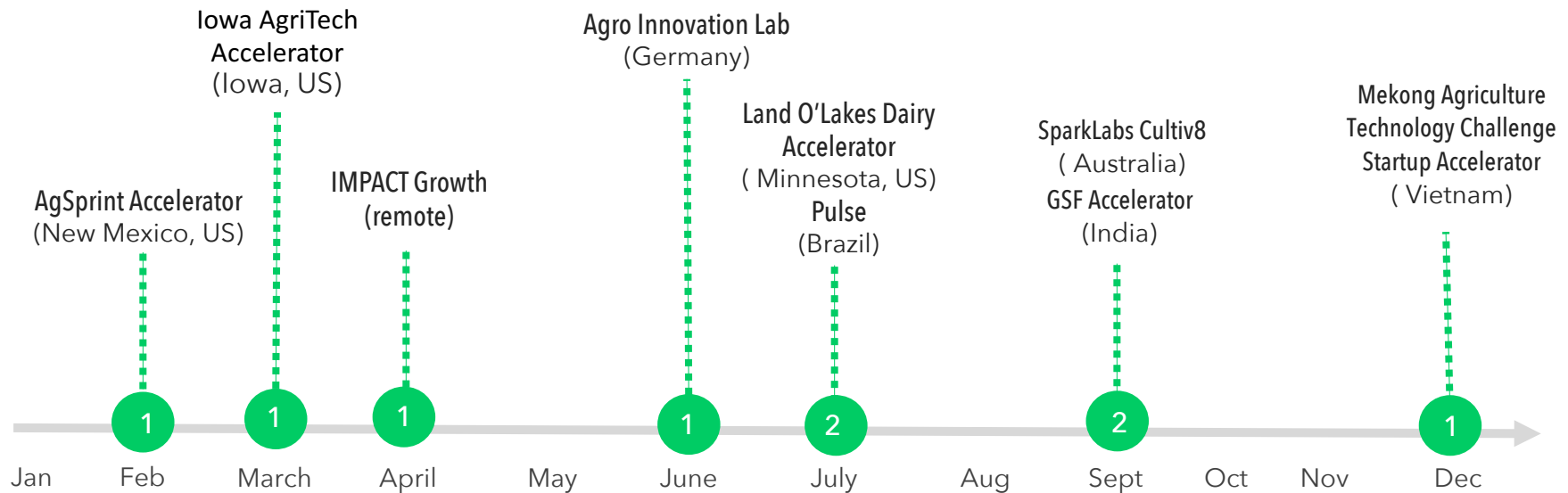
RANK	INVESTOR	LOCATION	# INVESTMENTS
1	SOSV	Princeton, NJ	41
2	Y Combinator	Mountain View, CA	24
3	SVG Partners	Los Gatos, CA	10
4	GV (Google Ventures)	Mountain View, CA	9
5	Bessemer Venture Partners	Menlo Park, CA	8
5	GGV Capital	Menlo Park, CA	8
5	500 Startups	Mountain View, CA	8
5	SP Ventures	Sao Paulo, Brazil	8
5	Khosla Ventures	Menlo Park, CA	8
5	Accel Partners	Palo Alto, CA	8
5	SproutX	Melbourne, Australia	8
5	NXTP Labs	Buenos Aires, Argentina	8

Agtech Funds 2006 - Present

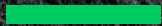
(Year Fund Announced Final Close)



New Agtech Accelerators' & Resources



M & A



Mergers & Acquisitions (1 of 3)

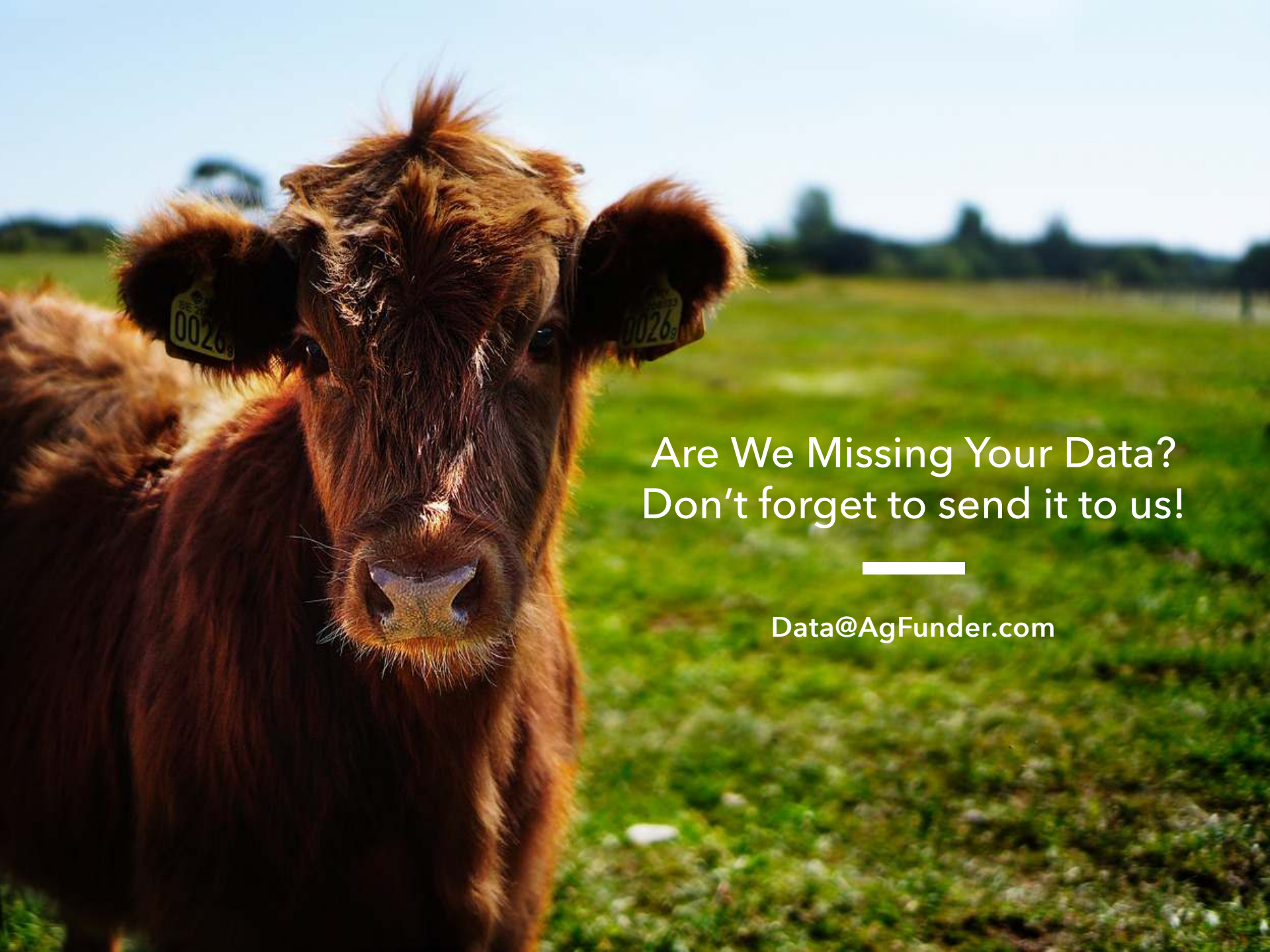
Target	Target Country	Acquirer	Targets Category
Bioline Ltd	UK	InVivo Group	Ag Biotechnology
BUG Agentes Biológicos	Brazil	Koppert	Ag Biotechnology
Ceres	USA	Land O' Lakes	Ag Biotechnology
Ekompany	Netherlands	Kingenta	Ag Biotechnology
EnviroFlight	USA	Interexon	Ag Biotechnology
Gen9	USA	Ginkgo Bioworks	Ag Biotechnology
Edeniq	USA	Aemetis	Bioenergy & Biomaterials
BIOMAR Microbial Technologies	Spain	4d pharma	Bioenergy & Biomaterials
Extrakt Chemie	Germany	Frutarom	Bioenergy & Biomaterials
Segetis	United States	GFBiochemicals	Bioenergy & Biomaterials
Granular	USA	DowDupont	Farm Mgmt Software, Sensing & IoT
Agam Advanced Agronomy	Israel	Rivulis Irrigation	Farm Mgmt Software, Sensing & IoT
Precision Planting	USA	AGCO	Farm Mgmt Software, Sensing & IoT
Focus Technology Group	USA	AGDATA	Farm Mgmt Software, Sensing & IoT
proPlant	Germany	Bayer	Farm Mgmt Software, Sensing & IoT
Silent Herdsman	UK	Afimilk	Farm Mgmt Software, Sensing & IoT
Oso Technologies	USA	Scott's Miracle Grow	Farm Mgmt Software, Sensing & IoT
Blossom	USA	Scott's Miracle Grow	Farm Mgmt Software, Sensing & IoT
SupraSensor	USA	The Climate Corp	Farm Mgmt Software, Sensing & IoT
VitalFields	Estonia	The Climate Corp	Farm Mgmt Software, Sensing & IoT

Mergers & Acquisitions (2 of 3)

Target	Target Country	Acquirer	Targets Category
AXIO-NET	Germany	Trimble	Farm Mgmt Software, Sensing & IoT
Farmeron	USA	Virtus Nutrition	Farm Mgmt Software, Sensing & IoT
GrowCameras.com	USA	GreenGro Technologies	Farm Mgmt Software, Sensing & IoT
AgSolver	USA	EFC Systems	Farm Mgmt Software, Sensing & IoT
Adapt-N	USA	Yara	Farm Mgmt Software, Sensing & IoT
Abe's Market	USA	Direct Eats	Food Marketplace/E-commerce
EatOnGo	India	InnerChef	Food Marketplace/E-commerce
Flavor Labs	India	InnerChef	Food Marketplace/E-commerce
Place of Origin	India	Craftsvilla	Food Marketplace/E-commerce
TinyOwl	India	Roadrunnr	Food Marketplace/E-commerce
CookNook	USA	Homemade	Food Marketplace/E-commerce
SpoonRocket	USA	iFood	Food Marketplace/E-commerce
FarmBox	USA	GrubMarket	Food Marketplace/E-commerce
Urban Acres	USA	Greenling	Food Marketplace/E-commerce
Foodinho	Italy	Glovo	Food Marketplace/E-commerce
The Fresh Diet	USA	New Fresh	Food Marketplace/E-commerce
Eat24	USA	GrubHub	Food Marketplace/E-commerce
Baidu Delivery	China	ele.me	Food Marketplace/E-commerce
Runnr	India	Zomato	Food Marketplace/E-commerce
Anova	USA	Electrolux	Home & Cooking

Mergers & Acquisitions (3 of 3)

Target	Target Country	Acquirer	Targets Category
Innophos Holdings Inc	USA	Novel Ingredients	Innovative Food
Daiya Foods	Canada	Otsuka	Innovative Food
Canada Blockchain Hosting Corp	USA	Calyx Bioventures	Midstream Technologies
Ozone International	USA	Wheatsheaf Group	Midstream Technologies
Parcel	USA	Walmart	Midstream Technologies
Food Genius	USA	US Foods	Midstream Technologies
Undisclosed	USA	CropLogic	Miscellaneous
Pantry	USA	Byte	Miscellaneous
Calagri	USA	Pacific Ag	Miscellaneous
Botanicare	USA	Scott's Miracle Grow	Novel Farm Systems
Gavita Holland	Netherlands	Scott's Miracle Grow	Novel Farm Systems
AeroGrow	USA	Scott's Miracle Grow	Novel Farm Systems
Backyard Farms	USA	Mastronardi	Novel Farm Systems
Fair Insects	USA	Protix Biosystems	Novel Farm Systems
Radish	USA	Tovala	Online Restaurants & Mealkits
Skyward	USA	Verizon	Robotics & Other Farm Eq
Netafim	Israel	Mexichem	Robotics & Other Farm Eq
AerWay	Canada	Salford Group	Robotics & Other Farm Eq
Blue River Technologies	USA	John Deere	Robotics & Other Farm Eq
Hagie Manufacturing	USA	John Deere	Robotics & Other Farm Eq
Keenan	Ireland	Alltech	Robotics & Other Farm Eq



Are We Missing Your Data?
Don't forget to send it to us!



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