



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.





F&A Next is dedicated to accelerating innovation in Food and Agriculture by connecting major players.

The F&A Next community consists of entrepreneurs, corporates, investors and scientists, who are dedicated to innovation in food and agriculture. F&A Next is expanding its community. Join us!

F&A Next Founders









AgriFoodTech Investing in Europe in 2021

For all of the trials and tribulations of 2020, the agrifoodtech sector proved incredibly resilient (as we all did.)

Global trends point to a maturing sector with investors increasingly eager to cut checks for deep-tech upstream ventures as well as less capital-intensive software companies. Those trends resonated in Europe's agrifoodtech scene, even with a slight dip in capital commitments in 2020.

European agrifoodtech ventures raised \$3.3 billion in 2020, a 15% drop from 2019. We expect the total investment tally to reach \$3.8 billion as new 2020 deals come to light. At that level, Europe's 2020 funding would only represent a 2.6% decrease from 2019.

Counter to global trends, the decrease was down to a drop in late-stage deals. This appears to be the start of a new investment cycle in Europe, based on historical data, particularly last year's late-stage deal spike. Indeed, last year we saw companies like Germany's Marley Spoon IPO after a late-stage round in 2019, while the UK's Deliveroo paused fundraising in 2020 ahead of a planned IPO. There were also

a number of undisclosed late-stage funding rounds that made the total commitments appear lower.

There was heightened activity in early-stage investing, however, both in terms of dollars committed and number of deals closed. The big winners: European startups developing Novel Farming Systems, Innovative Foods, and addressing Covid-19 impacts with Restaurant and Retail Eech and eGrocery solutions.

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. To account for data reporting latency, we've included projected totals based on quantitative analysis of the expected number of deals reported by December 31, 2021. We've based this off patterns from inbound data across previous years.

As we observed in our Mid-Year review, now is the time to invest in agrifoodtech. In Europe, investors have a new crop of early-stage innovators on the rise that will be eagerly watched (and supported) as they progress in the coming years.

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

Jessica Pothering, Louisa Burwood-Taylor, and the AgFunder team



2021 Highlights from F&A Next's Founders

Covid-19 heightened vulnerabilities in food and agriculture, exposing the need for sustainable practices and efficiency in the supply chain. In Europe, as globally, food retailers faced the brunt of the pandemic's impacts, while new entrants in last-mile food delivery emerged because forced at-home consumption accelerated consumer acceptance of digital offerings.

Consumers dialed up demands for transparency about the origins of their food. At the same time, processed convenience products like ready-made meals substituted fresh products. According to multiple surveys, the eating at home trend is likely to continue even when life normalizes.

One somewhat surprising trend: Dutch innovators ascended to the top of Europe's alternative protein craze, with Mosa Meat and The Protein Brewery raising two of the largest three deals in the category in 2020.

The European ecosystem remains small compared to other markets like the US, but clearly has its own unique dynamics and momentum, in spite of a small drop-in investment activity in 2020.

The total number of deals in 2020 ended up just over 20% more than 2019 (with the projected total even higher) thanks to a strong rise in Seed and Series A funding. Indeed, more than 65% of all deals were at the seed stage, pointing to strong entrepreneurial activity on the continent and positively, to the start of a new innovation cycle. Upstream investment surpassed downstream investments, as they did globally in 2020.

Geographically, Europe's ecosystem is widening. While the UK and France continue to dominate, smaller markets like Greece, Lithuania and Iceland are showing up on the innovation map. Several new agrifoodtech-focused investors also entered the network, while many established agrifood venture capital firms are raising new funds.

Closer to home, Wageningen Campus is delivering on its promise to accelerate agrifoodtech entrepreneurship and innovation in the Netherlands thanks to coordinated initiatives by FoodValley, StartLife, Invest-NL and Wageningen University and Research. The latter launched The AtlasInvest Entrepreneurship Grant to support student entrepreneurs with impactful ideas.

We hope you enjoyed the second virtual edition of F&A Next. Please stay connected and we very much look forward to catching up with all of you in person soon.

Jan Meiling, StartLife | Jeroen Leffelaar, Rabobank



Cover & Section Images

Special thanks to the portfolio companies of AgFunder and the F&A Next founders who contributed images to this year's report.



SAIA Agrobotics is working to help growers accelerate the adoption of indoor farming by providing harvesting and crop handling services for greenhouse users. (F&A Next Heroes)

Learn more



Connecterra is a Dutch AI startup using sensors, data, machine learning to help farm operations become more efficient, productive and sustainable. (AgFunder portfolio.) Learn More



Supplant is a brand-new blend of sugars from plant fibers, meaning It's lower in calories, low glycemic, prebiotic, and can help create a more efficient agricultural ecosystem. (AgFunder portfolio.)

<u>Learn More</u>



Ful Foods produces citrusy beverages from microalgae. Ful's production process enables the company to remove more carbon than it emits, making its products carbon negative. (F&A Next Heroes)

Learn more



La Fourche is a French online, organic store that promises savings of up to 50% cheaper delivered to your door.

Learn more



Wefarm is a farmer-to-farmer network and agribusiness marketplace for emerging markets, based out of the UK. It currently has over 2 million East African farmers on the platform. (AgFunder portfolio.) Learn More





European AgriFoodTech Funding Breakdown 2020

\$3.3bn

\$3.8bn*

504

680*

618

\$316m

INVESTMENT

PROJECTED TOTAL INVESTMENT

DEALS

PROJECTED TOTAL DEALS

UNIQUE INVESTORS

LARGEST DEAL

Upstream

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

\$1.8bn*

INVESTMENT

420*

DEALS

\$170m

LARGEST DEAL

Downstream

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

\$1.2bn*

INVESTMENT

260*

DEALS

\$316m

LARGEST DEAL



Key Insights

While agrifoodtech funding soared globally in 2020, commitments to European startups dropped, falling to \$3.3 billion from \$3.9 billion in 2019. Even after a projected increase to \$3.8 billion as we gather more data from the year, funding decreased on the continent.

To blame: the significant drop in late-stage deals, which saw its lowest level of funding since 2013. This could be cyclical for the continent's agrifoodtech sector, however. The last big drop in late-stage funding (2016) followed a late-stage spike (2015), much like the one the sector witnessed in 2019.

The continent is busy seeding the next wave of growth-stage companies: Seed and Series A-stage companies comprised 86% of round counts in 2020.

Downstream funding dropped nearly \$900 million from last year, again, largely because of a lack of late-stage deal activity.

Upstream funding was the bright spot in 2020 European agrifoodtech investing, as it was globally. Startups working close the farm brought in \$600 million more in 2020 than in 2019 and an additional 90 ventures raised rounds.

Key category moves:

- Upstream investment increased 50% YoY to \$1.8
 billion, surpassing downstream investment.
- It marks a major shift from 2019, when the top funded categories were Restaurant Marketplaces, eGrocery and Cloud Retail Infrastructure. The three collectively accounted for nearly 50% of European agrifoodtech funding last year, but only 19% in 2020. (There were no Cloud Retail deals in 2020.)
- Novel Farming ventures claimed the largest share of agrifoodtech investments in Europe, with some big rounds for insect farming ventures in particular.
- In-Store Restaurant and Retail Tech took in 19% of 2020 funding—a considerably higher percentage than the global trend. Three companies are responsible for 88% of the capital committed to the sector.
- Innovative Food held on to third place and grew both in round counts and dollars committed.



Key Insights

Globally, agrifoodtech is no longer an early-stage industry. Europe's ecosystem is far smaller than the US, but the latest data show that the continent has already gone through a couple of innovation cycles, in the downstream sector at least.

Europe's late-stage activity plummeted while early-stage increased, signaling that 2020 was the start of a new innovation cycle on the continent.

Median deal sizes are climbing, except for at the seed stage. This suggests that as companies raise later rounds, they're able to secure more capital than their earliergeneration peers.

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

Geographically, the ecosystem is widening. Though the map continues to be dominated by the UK and Northern Europe, this year's Top 20 list included Greece, Lithuania and Iceland. Russian startups raised about \$47 million more in 2020 than in 2019.

Behind the late-stage drop

Many of the late-stage deals in 2020 were undisclosed rounds, such as Germany beverage delivery company Flaschenpost, which raised a Series D round in May. It was then acquired by Dr. Oetker for \$1 billion in November.

Other late-stage companies had significant milestones: Germany's Marley Spoon IPO'ed in April after raising \$30 million in 2019.

And big late-stage ventures, like UK's Deliveroo, took 2020 after large rounds in 2019. Deliveroo, for example, was busy preparing for an IPO.

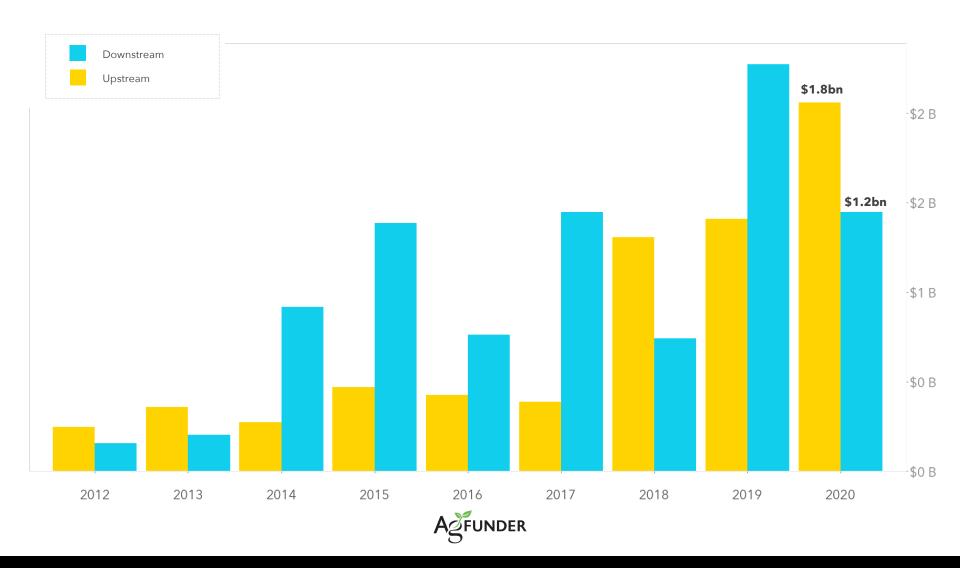


Annual Financings | 2012-2020



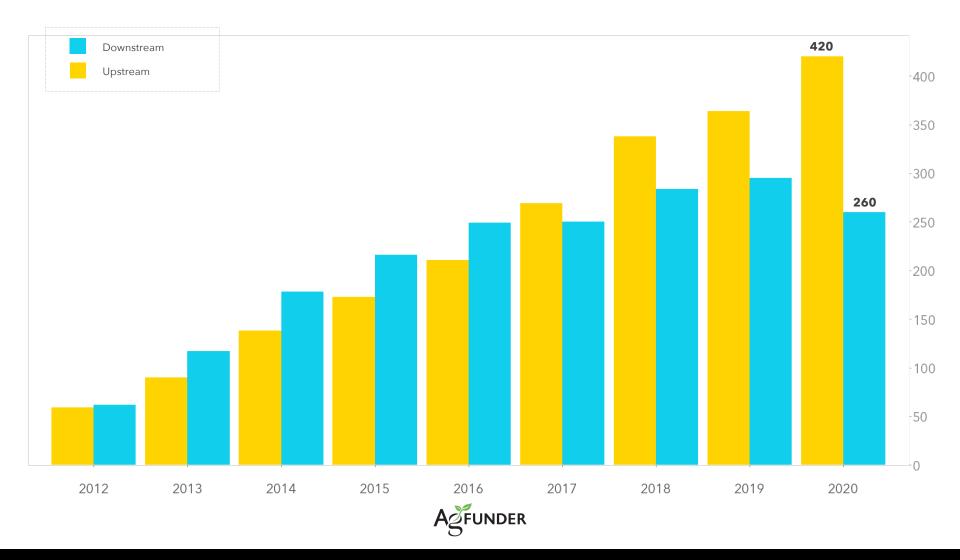


Projected Annual Funding (\$) | 2012-2020



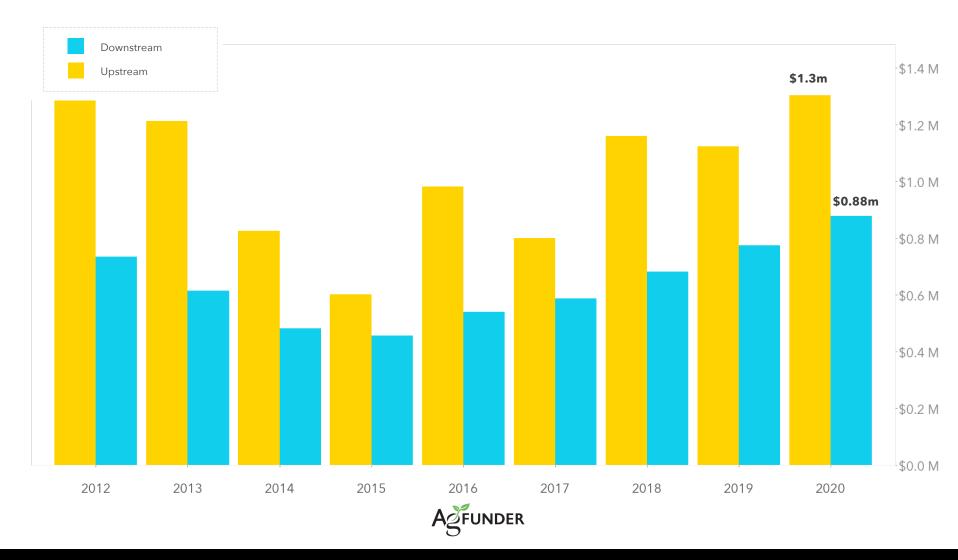


Projected Number of Deals (#) | 2012-2020





Median Deal Size | 2012-2020







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 eq, 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 applian€es, nutrition technologies, food testing devices.



Online Restaurants & Mealkits

Startups offering culinary meals and sending preportioned ingredients to cook at home.



Cloud Retail Infrastructure

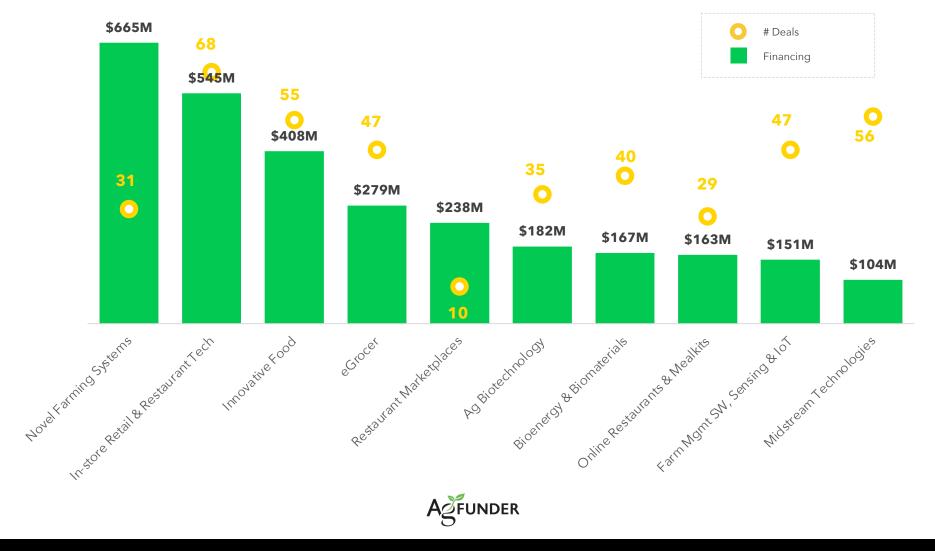
On-demand enabling tech, ghost kitchens, last-mile delivery robots & services





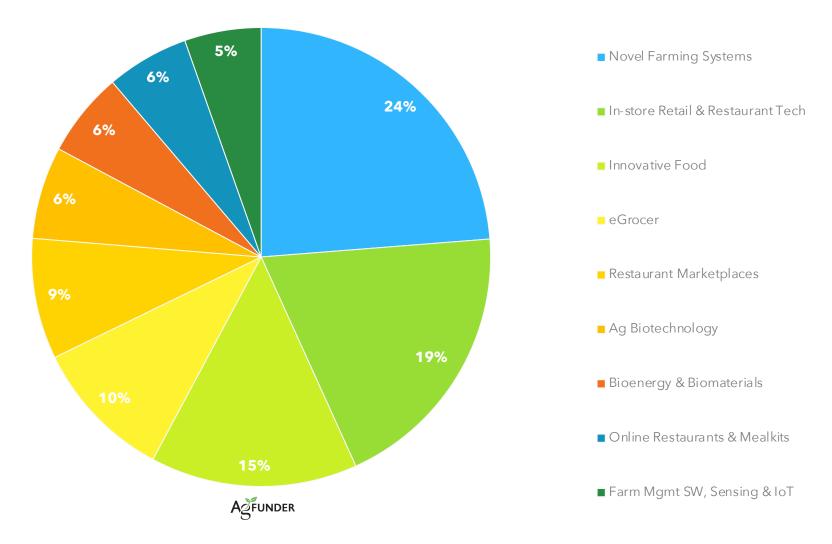
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2020 Deal Volume and Activity by Category



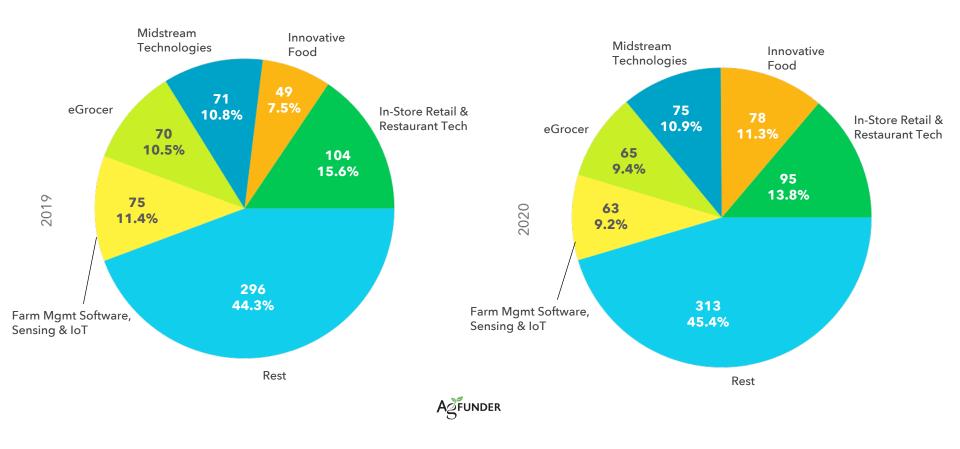


European Deal Volume (\$) by Category





Deal Count (#) by Category 2019 vs 2020







Fund IV

Invest with us in iconic, next generation and planet positive foodtech and agtech startups.

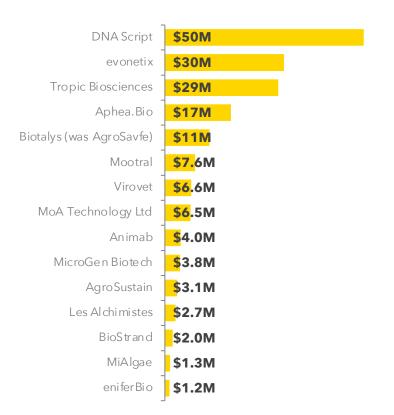
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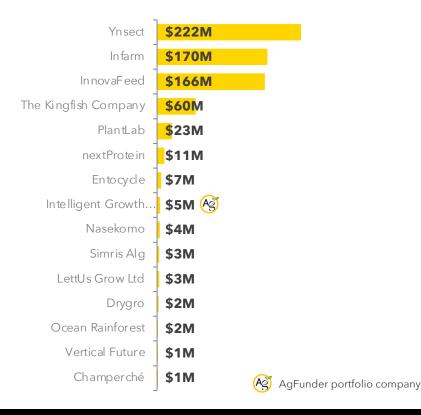
A Top Ag Biotech Deals

Gene editing technologies continue to dominate. French "Synthetic DNA" producer DNA Script extended its Series B round, raising an additional \$50 million on top of \$39 million in 2019. Some biotech startups raised capital for turning their attention to Covid-19.



Top Novel Farming Systems Deals

European innovators lead the novel farming sector worldwide. Insect farming is having a moment, with French innovation (Ynsect, InnovaFeed, also, nextProtein) at the forefront. For indoor ag, German hyperlocal vertical farming venture InFarm raised the biggest round both in Europe and globally in 2020.

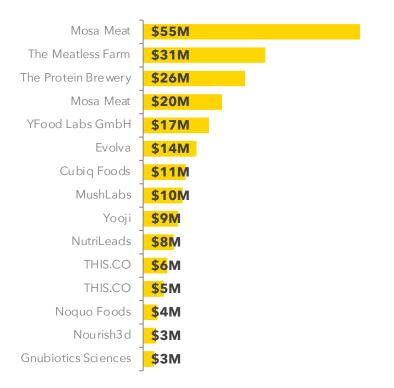






Top Innovative Food Deals

Alt-meat is here to stay. The Netherlands' cultured-meat company Mosa Meat raised two slugs of capital to put its hamburger on track for market, pending regulatory clarity. Cubiq is growing cellular fats. The Meatless Farm, The Protein Brewery and THIS.CO are focused on new plant-based alternative meats.



\$

Top Biomaterials & Bioenergy Deals

Entering the scene: companies supporting the agrifood sector's clean energy transition. Lithuania-based Green Genius develops distributed clean energy products, including for food companies like Poland's Marwit Foods.

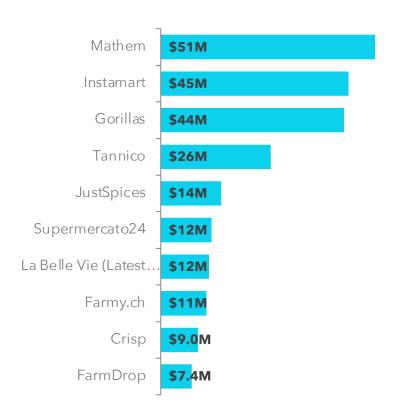






Top eGrocery Deals

European eGrocery companies raised just \$279 million in 2020-half of what they raised in 2019. They're also bringing in significantly smaller rounds than their global peers. No European companies made it on the top 15 global list of eGrocery rounds, where deal sizes ranged from \$60 million to \$700 million.



Top In-Store Restaurant and Retail Tech

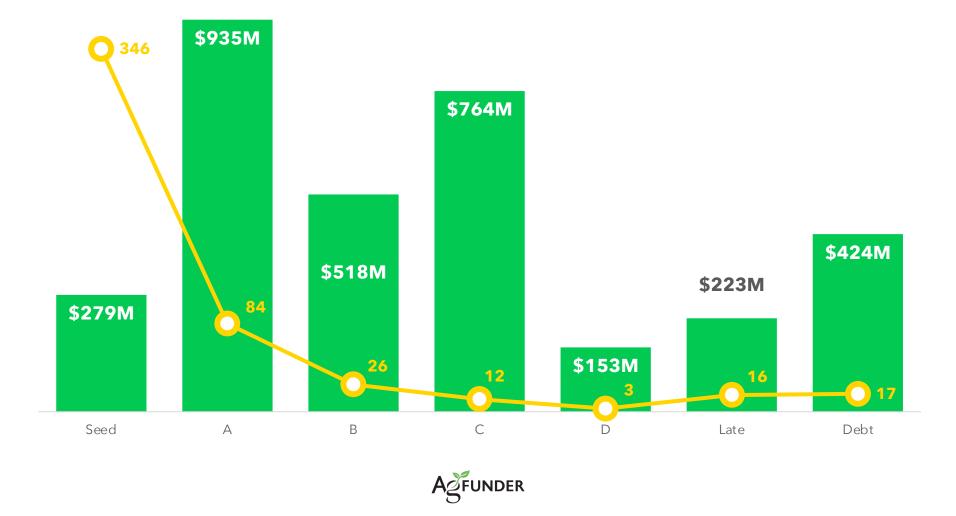
Meanwhile, In-store Restaurant and Retail Tech companies more than doubled their capital intake from 2019. UK-based kitchen leasing company Karma Kitchen accounted for more than half of the sector's \$545 million. France's Lunchr, which had focused on workplace lunches, pivoted effectively during the pandemic.



Deals by Stage

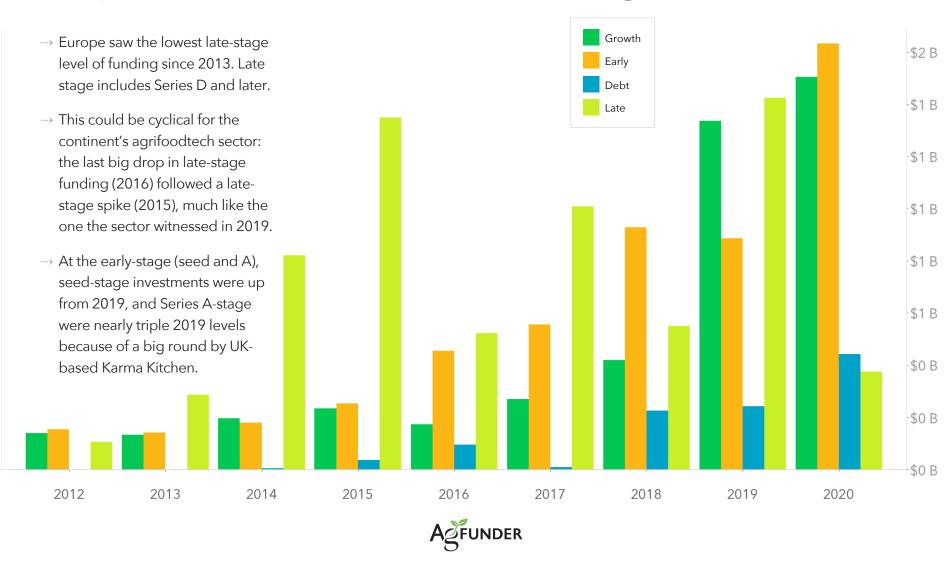


Deal Volume (\$) and Count (#) by Stage





Projected Deal Volume (\$) by Stage | 2012 - 2020

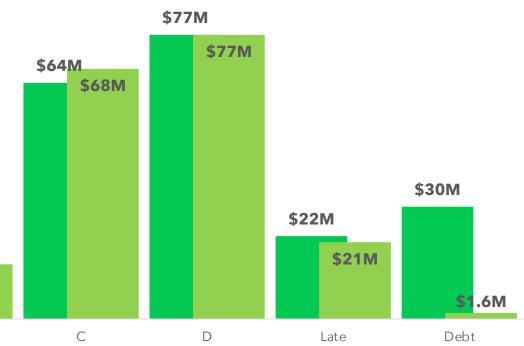


Deal Average and Median by Stage

- Median and average deal sizes differ for upstream and downstream ventures.
- Unlike the global trend, the divergence in Europe happens early on. European downstream ventures overtook upstream ventures' round sizes at the Series A stage.
- → 210 upstream ventures raised \$182 million in seed funding in 2020, while 57 raised \$431 in Series A funding.
- 134 downstream ventures raised only \$96 million in seed funding, while 26 raised \$486 in Series A funding.





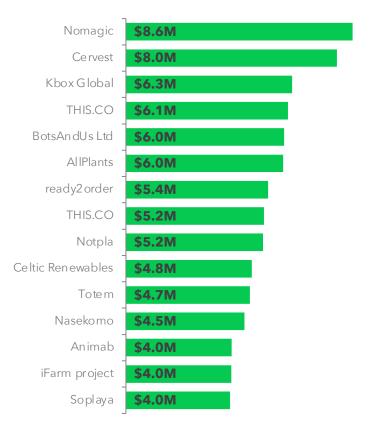






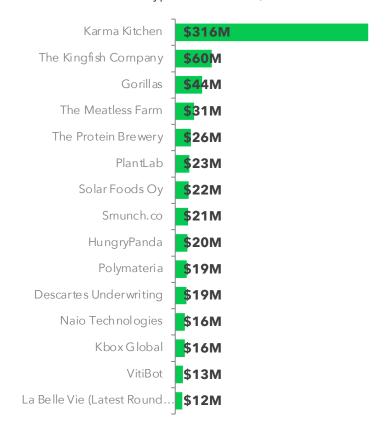
Top 15 Seed Deals

Seed stage deals deal count and share of total capital commitment was up slightly in 2020, accounting for 69% of deal count and 8.5% of capital invested. Poland's farm bot maker Nomagic topped the list, followed by the U.K.'s climate analytics software company Cervest.



Top 15 Series A Deals

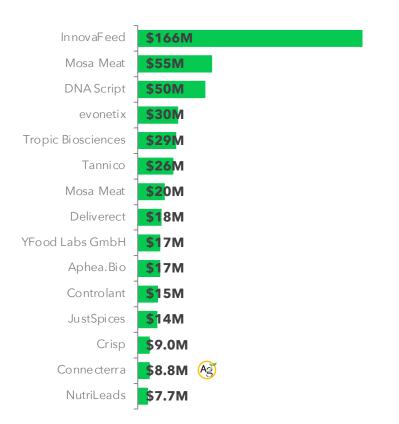
UK-based kitchen space rental company Karma Kitchen is responsible for a huge bump in Series A-stage funding in 2020 and accounted for 34% of total Series A financing. Also on the list: Dutch novel farming ventures The Kingfish Company and PlantLab and German hyper-fast eGrocer, Gorillas.





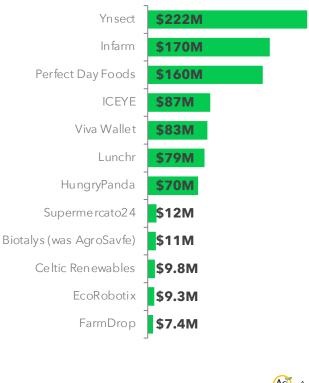
Top 15 Series B Deals

Series B rounds appeared a little fatter in 2020 than 2019 because of French insect farming venture InnovaFeed's large round, which accounted for a third of Series B funding. Other leaders: Dutch cultured meat venture Mosa Meat, and French and UK "synthetic DNA" companies DNA Script and evonetix.



Top Series C Deals

Novel farming also led the Top Series C deal roster: French insect farm Ynsect's \$222 million raise was a continuation of its \$150 million Series C raise last year, German hyper-local vertical farming venture, Infarm. Also on the list: Finnish remote sensing venture ICEYE and Greek digital payments venture Viva Wallet.

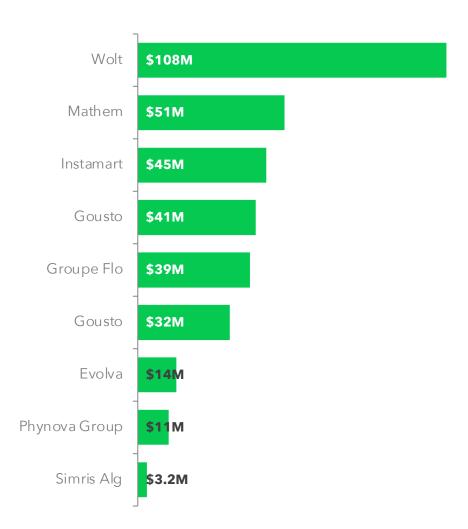






Top Late Deals

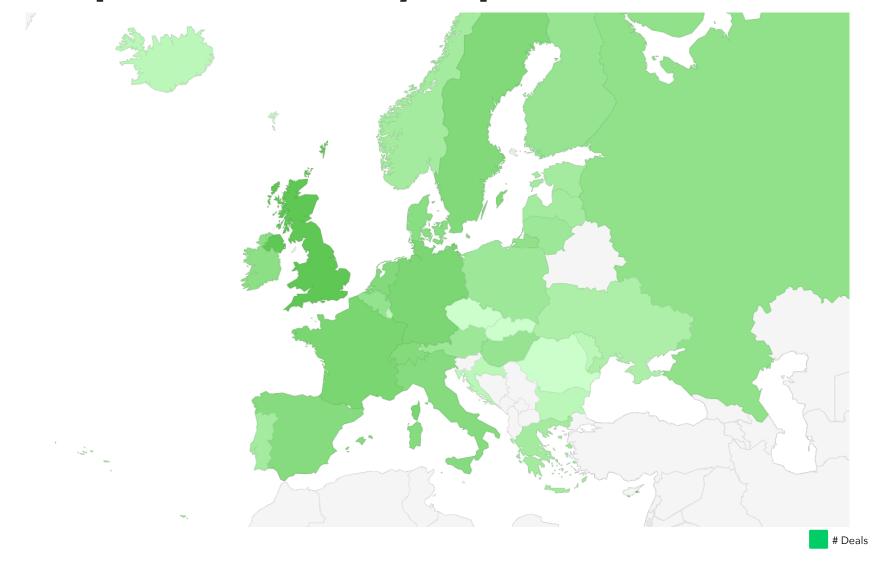
- Europe may have a short list of late-stage deals for 2020, but it makes up for it with interesting activity.
- Finnish delivery company Wolt graduated from a Series C in 2019 to a Series D in 2020. Sweden's Mathem reappeared on the 2020 list, following a \$97 million round last year.
- UK-based meal kit service Gousto raised two rounds—in April and November—granting it unicorn status. Russia's Instamart was acquired by Sberbank in November, becoming Sbermarket, after its Series D in April.
- Not on the list: Germany's Flaschenpost was acquired by Dr. Oetker for \$1 billion in November, following an undisclosed Series D in May. The UK's Deliveroo, which raised \$575 million in 2019 and then took 2020 off ahead of a planned IPO. Also, Germany's Marley Spoon IPO'ed in April after raising \$30 million in 2019.







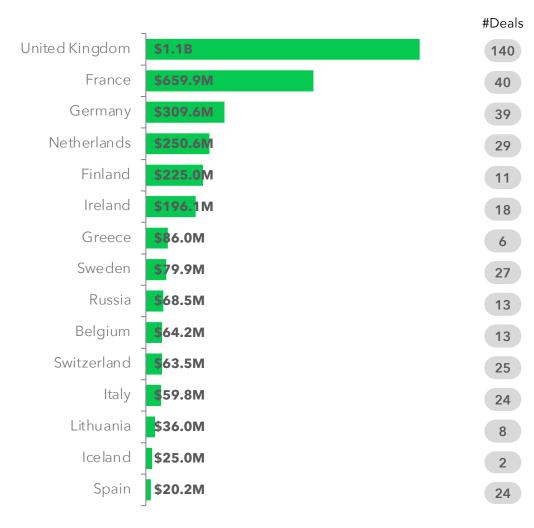
European Deal Activity Map





Top 20 Countries by Investment

- There were a few notable changes from 2019.
- Germany replaced Spain as the third biggest agrifoodtech market in 2020, because of Infarm's \$170 million Series C. About half of the German companies funded did not disclose the size of their rounds.
- Greece not only made the list in 2020, it claimed the seventh spot with only six deals.
 That's because of digital payments company Viva Wallet's \$83 million Series C round.
- → Spain dropped from third place to 20th. Ten of Spain's 24 deals had undisclosed funding sizes. A notable un-change: UK startups raised the same amount of capital in 2020 as the did last year (though the number of companies that raised was higher: 140, up from 112.) About half of the commitments went to two companies: Karma Kitchen (Series A) and iwoca (debt.)







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 512 financings in this report's curated dataset, 119 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 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 Ehrsam, and the rest of the Crunchbase team for their support and assistance.

crunchbase



