



18

— YEAR IN REVIEW

European AgriFood Tech

INVESTING REPORT





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STARTUPS

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!

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AgriFood Tech Funding in Europe: 2018

While the global food tech ecosystem has shown remarkable growth in recent years, Europe has clearly established its own pace and particularities. Europe is regularly positioned as one united market and often characterized as less entrepreneurial with more risk-averse and less sophisticated investors. However it is a continent with many borders, cultures and preferences.

Consequently, it lacks a competitive edge when it comes to the average farm size or the consumer base of one country. In addition, government regulation, on food safety for example, varies per country, too.

As you will read in this report, European trends in agrifood investments are similar to those in the US, with a few exceptions and a more even spread of technologies. Novel farming systems, particularly indoor agriculture, are strong on the continent, undoubtedly related to Europe's leading role in horticulture. Europe is also home to a number of insect farming groups aiming to provide protein replacements for traditional feed and food ingredients.

Overall investment in agrifood tech startups in Europe is

on the rise. Expertise, research and available capital have improved sharply, boosting overall startup activity in the industry. A healthy funnel of quality earlier stage companies is being developed along with a (slowly) growing number of seed stage investors. Later stage capital for sizable follow-up rounds, however, is still underdeveloped. Corporate venture capital is slowly gaining relevance in the European startup ecosystem but overall Europe is still playing catch up.

To stimulate innovation and entrepreneurship in Europe, Rabobank, Wageningen University & Research, Anterra Capital and StartLife jointly launched F&A Next in 2016, collectively believing that innovation will be essential to sustainably feed future generations. Entrepreneurs are needed for their drive, investors for their belief, and corporates for their mass impact. Disruptive innovation alone is not enough; it needs to be implemented and transformed into tangible applications.

We are very pleased to share the latest insights on European agrifood tech with you. Many thanks to the AgFunder team for compiling this report and the participating partners (see page 9) for their contributions.

On behalf of AgFunder and F&A Next,

Jan Meiling, Jeroen Leffelaar and Louisa Burwood-Taylor

AgriFood Tech 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.



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

e.g. fintech for farmers



Upstream



Downstream



Upstream+Downstream

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 29,939 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 painstakingly 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 also ascribe a funding round stage (seed, Series A, Series B, etc) to each and every round, as we believe this is the best way to highlight the maturity of each company. Sometimes, especially outside the US, these round codes are not readily used by companies, so some estimations may be inexact.

For this European edition, we also collected data from various partners (see page 9) who use a range of sources including manual collection, Dealroom, Pitchbook and Tracxn.

We believe our database now represents the most comprehensive and curated database of agrifood tech companies in Europe. Improved reporting in 2018 may impact some of the annual comparisons.

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 are used.

Undisclosed Financings

Of the 427 financings in our curated data set, 82 had undisclosed financing amounts, 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.

Sources & Methodology

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.

Categorization

AgFunder's categorization system is designed to capture broad themes in the agrifood technology landscape (see page 6 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 companies according to their technology and

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.

Thank you to all of our report partners across Europe! (see page 9)

Special Acknowledgement

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

Thanks also to Thomas van den Boezem, Jessica Pothering, and Kevin Camphius, who were instrumental in putting the report together.

data powered by

crunchbase

Our European Report Partners

In addition to our partnership with Crunchbase, we partner with several groups from around the world to help us collect more international data at a local level to ensure we can present the most comprehensive data set in the industry. For this European edition, we partnered with Forward Fooding in the UK, ShakeUp Factory in France, StartupBootcamp in Italy, and Sweden FoodTech, as well as the F&A Next consortium.



SHAKEUP
FACTORY



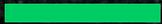
SWEDEN
FOODTECH



Rabobank



Year End Overview 2018



Europe Funding Breakdown 2018

\$1.6bn

INVESTMENT

421

DEALS

9%

PORTION OF
GLOBAL TOTAL

+23%

DEAL
GROWTH

603

UNIQUE
INVESTORS

\$129m

LARGEST
DEAL



Upstream

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

\$900m

INVESTMENT

+200%

GROWTH (\$)

234

DEALS

+34%

GROWTH (#)

\$89m

LARGEST DEAL

Downstream

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

\$600m

INVESTMENT

-50%

GROWTH (\$)

182

DEALS

+9.6%

GROWTH (#)

\$129m

LARGEST DEAL

Outliers

Venture capital is driven by outliers, and the agrifood tech sector is no exception. These two Restaurant Marketplaces contributed the biggest deals of the last five years. It's helpful to be aware of them, as they skew the results of previous years. In 2018, there were no significant outliers.



2015 - \$670M
2017 - \$420M

Germany's Delivery Hero was one of the first Restaurant Marketplaces in Europe and raised well over \$1 billion in private funding before listing on the Frankfurt Stock Exchange in 2017. It's now valued at nearly \$8 billion after listing with a \$5 billion market cap.



2016 - \$275M
2017 - \$385M

The UK's Deliveroo was said to be eyeing a \$4 billion valuation for its next fundraising effort, which has yet to take place. It has raised nearly \$1 billion in private funding so far. It counts Fidelity, General Catalyst, Accel and T. Rowe Price as investors.

Key Insights for 2018

1. Upstream Startups Drive Growth in 2018

- Investment in agrifood tech startups did not grow in 2018, remaining at \$1.6 billion where it closed in 2017. This reflects a decrease in funding to downstream startups – those operating at the retail and consumer end of the supply chain – and an increase in upstream funding.
- Upstream funding claimed just over half of total deal count in Europe (54%) but nearly two thirds of dollar funding (64%).
- Upstream startups – including farm tech, novel farming and food production, midstream technologies and biomaterials – raised nearly \$1 billion in 2018, a massive 200% jump year-over-year.
- Investors backed a diverse array of upstream startups without any outliers pushing totals up. Spanish crop inputs company Ferbiteria's \$89 million private equity round was the largest deal, followed by insect farming group InnovaFeed's \$47 million Series B.
- The decline in funding for downstream startups was largely due to the many exits achieved for food delivery companies after their late stage rounds drove

totals up in previous years. Delivery Hero and Deliveroo, in particular, closed large rounds totaling over \$1.75 billion between 2015 and 2017 (see page 12.)

2. Europe's Share of Global Funding Trails GDP Contribution, But Investor Activity is Strong

- Overall, 421 European foodtech and agtech companies raised \$1.6 billion in 2018, accounting for 9.4% of the \$17 billion raised by companies in the sector globally.
- By comparison, the European Union, which does not include all countries in the continent of Europe nor in this report, contributes around 20% of global GDP, so the region's contribution to the global agrifood tech industry is clearly lacking.
- The region made up for it in deal activity, closing 421 deals at nearly 30% of the number of deals closed globally in 2018.
- While local commentators complain about a lack of investors for the industry, some 605 investors participated in 2018, again representing around 30% of the global investor base in agrifood tech.

Key Insights for 2018 (Continued)

3. Early Stage Growth Leaves Late Stage Lacking

- Early-stage deals dominated in Europe in 2018, with seed stage and Series A deals claiming 42% of total dollars and 66% of deal activity.
- While this is good news for the ecosystem overall, pointing to the creation of new startups in the industry, it also highlights a gap in late stage funding, noted by F&A Next on page 4.
- The aforementioned graduation of many food delivery companies in Europe to the public markets also reduced the amount of late stage funding compared to previous years.
- Globally, early rounds accounted for a similarly large number of deals—78.4%—but only 17.5% of dollars committed. Debt deals in Europe accounted for almost half of the global debt rounds reported, both in deal number and dollars committed.
- The top 15 seed stage deals amounted to \$85.4 million or 35% of total seed stage funding in Europe compared to 16% globally. UK robotics delivery tech firm Starship Technologies claimed the top seed

stage deal both in Europe and globally at \$25 million. That deal alone accounted for 10% of all European seed stage funding.

- Meal replacement and insect protein companies dominated Europe's Series A funding, while there were only 21 Series B funding rounds reported in Europe in 2018.
- The downstream market was impacted by one significant outlier: Spanish delivery company Glovo's \$121 million Series C round, which pulled up the downstream deal average and affected the balance between upstream and downstream dollars raised.

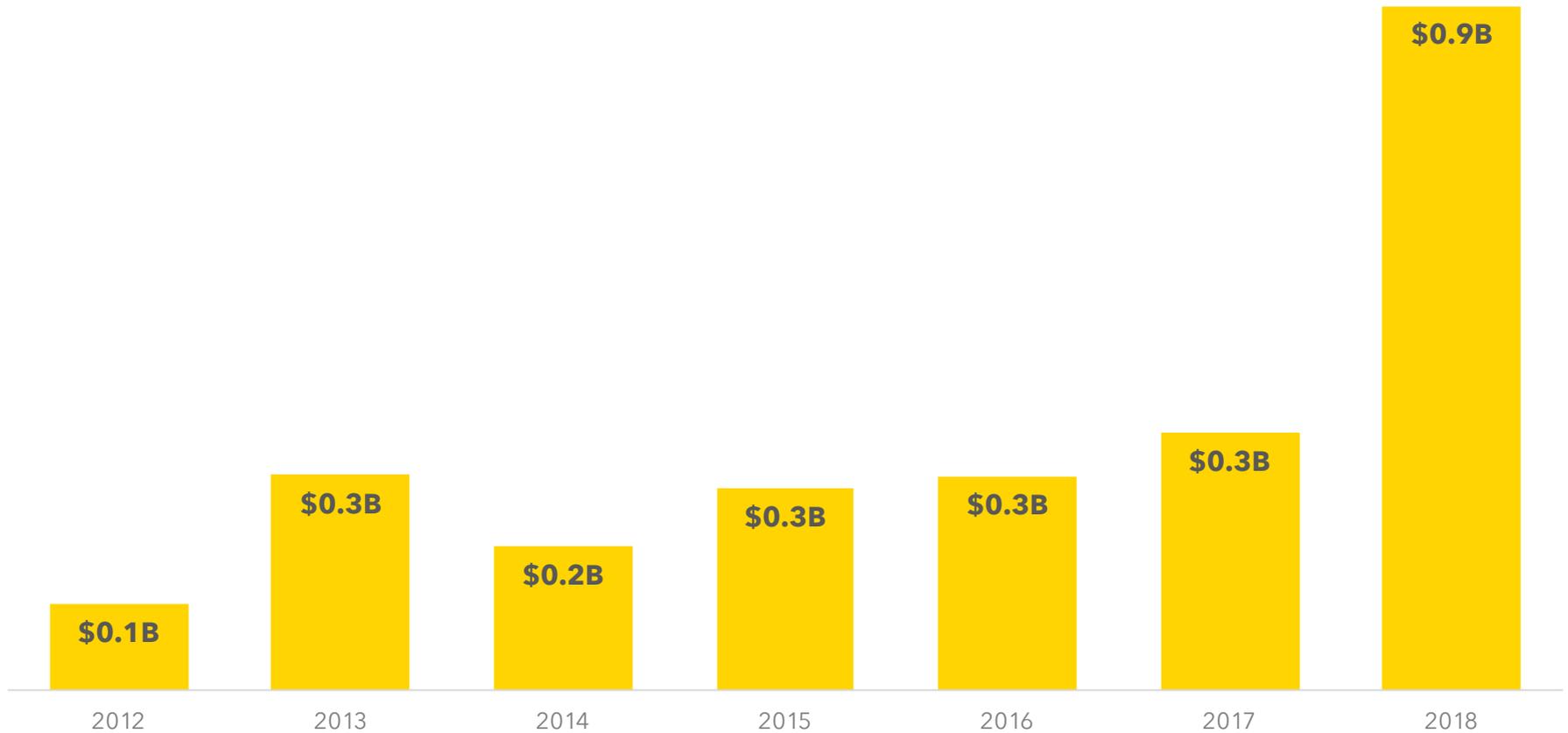
4. UK and France Lead the Way

- The UK and France contributed nearly half of total funding (45%) in 2018 and 40% of deal flow in Europe's agrifood tech market, raising \$388 million and \$324 million respectively.
- They are also the most mature markets. Early stage deals dominated in most other markets, such as Italy, which was third for deal count but 11th for dollars raised.

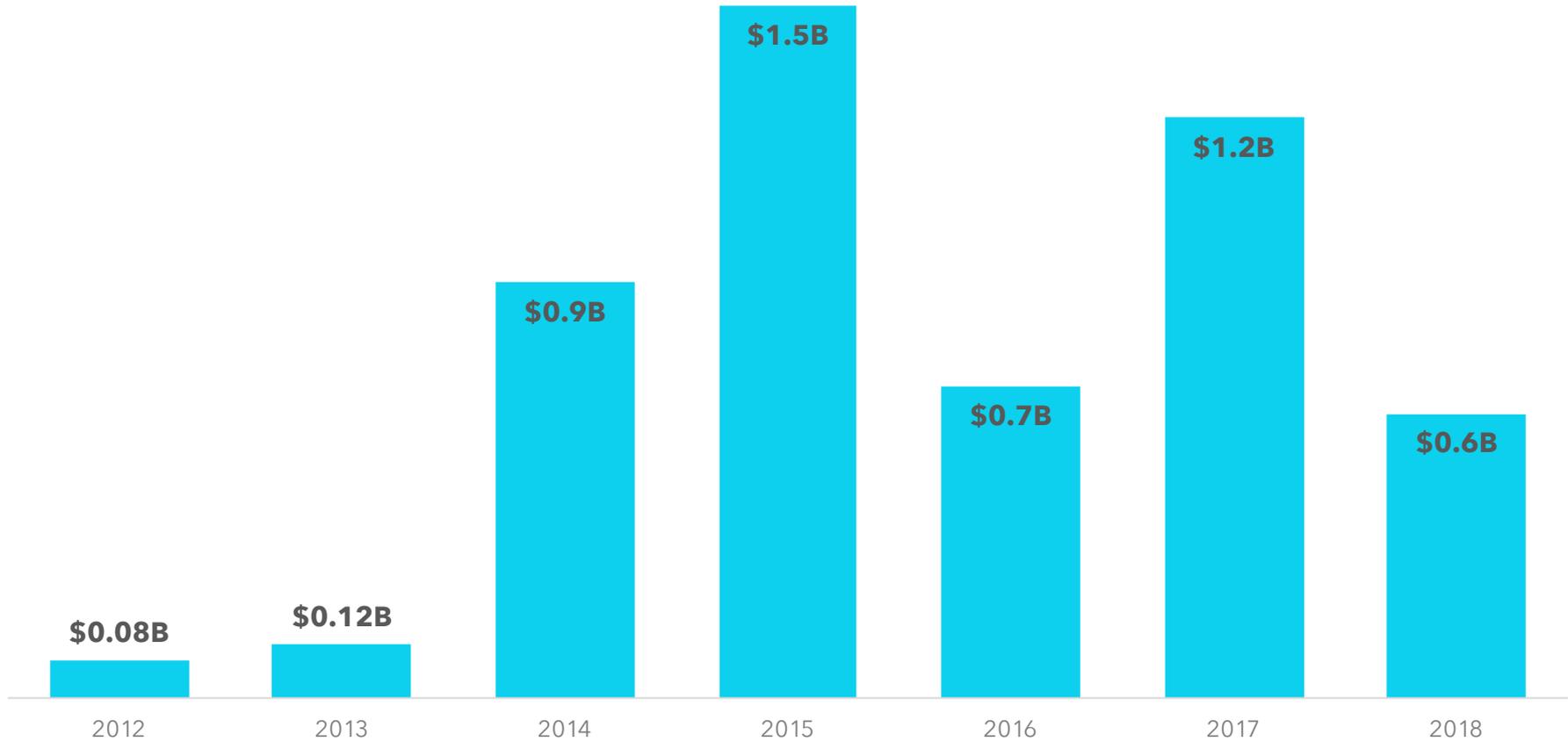
Annual Financings | 2012-2018



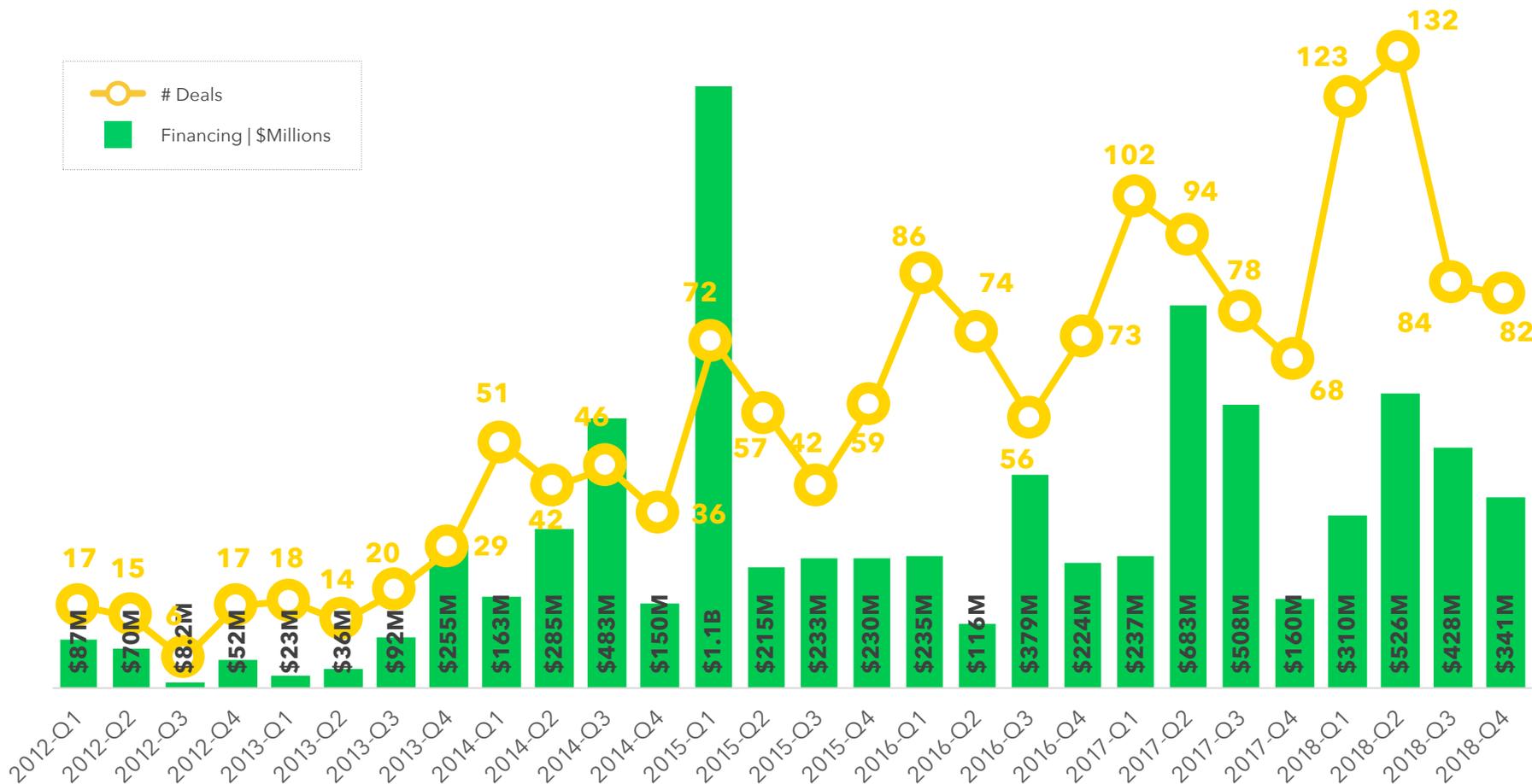
Annual Financings | 2012-2018



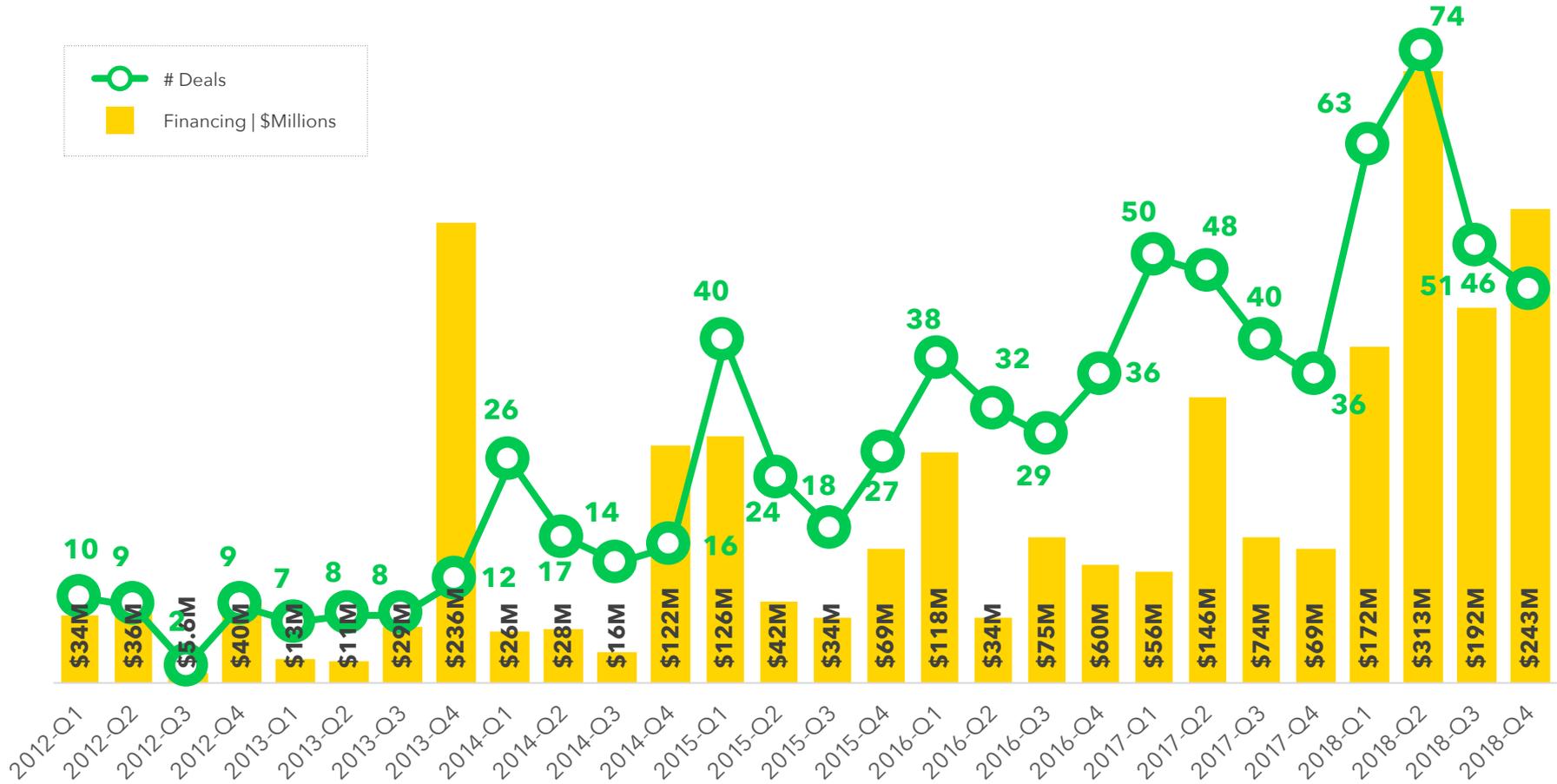
Annual Financings | 2012-2018



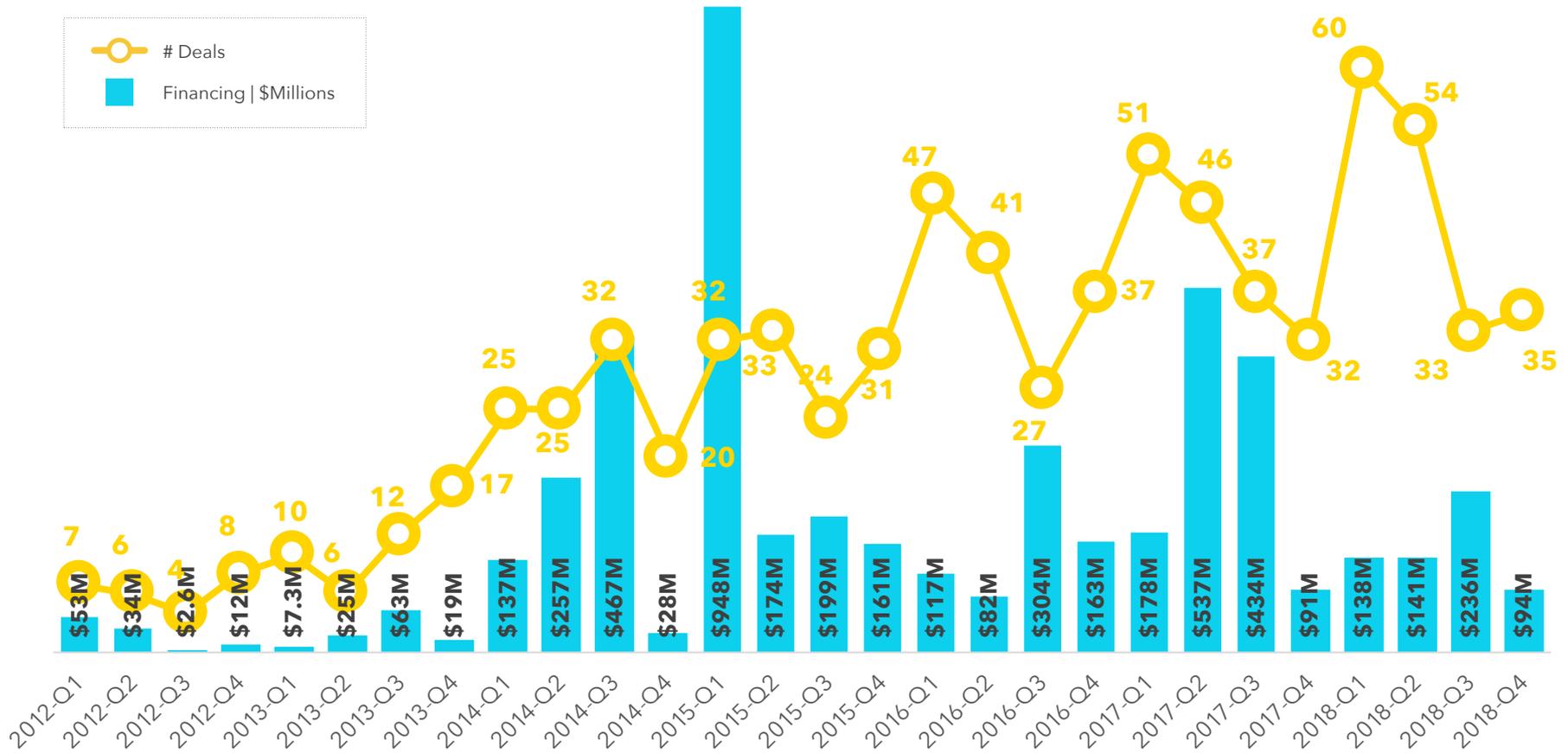
Quarterly Deal Volume and Activity



Quarterly Deal Volume and Activity



Quarterly Deal Volume and Activity





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.

services@agfunder.com

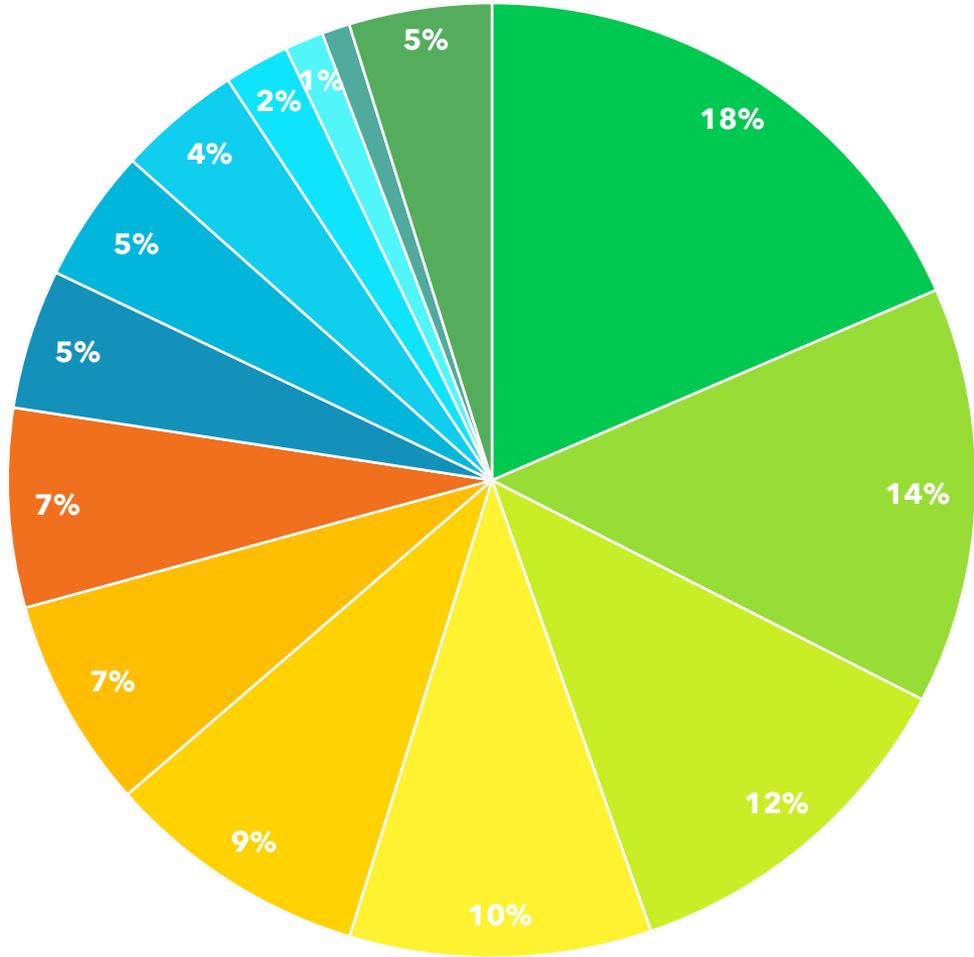


Deals by Category

Key Insights – by Category

- Funding to upstream startups represented 56% of total funding in 2018, a break from the global industry where downstream continues to dominate with the proliferation of food delivery startups in all corners of the globe.
- After leading the food delivery segment for many years resulting in the successful exit of many eGrocer and restaurant delivery startups, Europe now has more agrifood investment in startups operating closer to the farm and in the supply chain.
- Broadly the European agrifood tech ecosystem is more diversified than globally, where three downstream categories - Restaurant Marketplaces, eGrocer and Restaurant & Retail Tech - accounted for over half of investment in 2018.
- While an outlier from Spain (Glovo) somewhat skewed the data in the Restaurant and Retail tech category, it was still the most active with 61 deals closing. There's been an acceleration in innovations for restaurants and retailers as they face challenges such as labor shortages and regulation, as well as competition from food e-commerce.
- Biotech is a natural strength for the region with some of the world's leading crop inputs suppliers and research institutions, like our partner Wageningen, based in Europe. The sector was dominated by sustainable alternatives to chemical and synthetic pesticides and fertilizers, as well as some using gene-editing technologies.
- Funding to Farm Management Software and Sensing startups increased over 500% as did Farm Robotics & Equipment.
- Midstream Technologies, a varied category between the farmer and the retailer, was another leading category, representing 12% of funding and many of the region's largest deals of the year.
- Insect farming startups dominated the Novel Farming Systems category with some of the industry's most mature startups moving into scale-up mode, such as InnovaFeed, which raised a Series A and B round in one year. This year, 2019, also got off to a good start with the close of robotic-enabled insect farm Ynsect's \$125m round, the largest ever for insect farming.

2018 Europe AgriFood Tech Investment



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



Deal Volume and Activity by Category

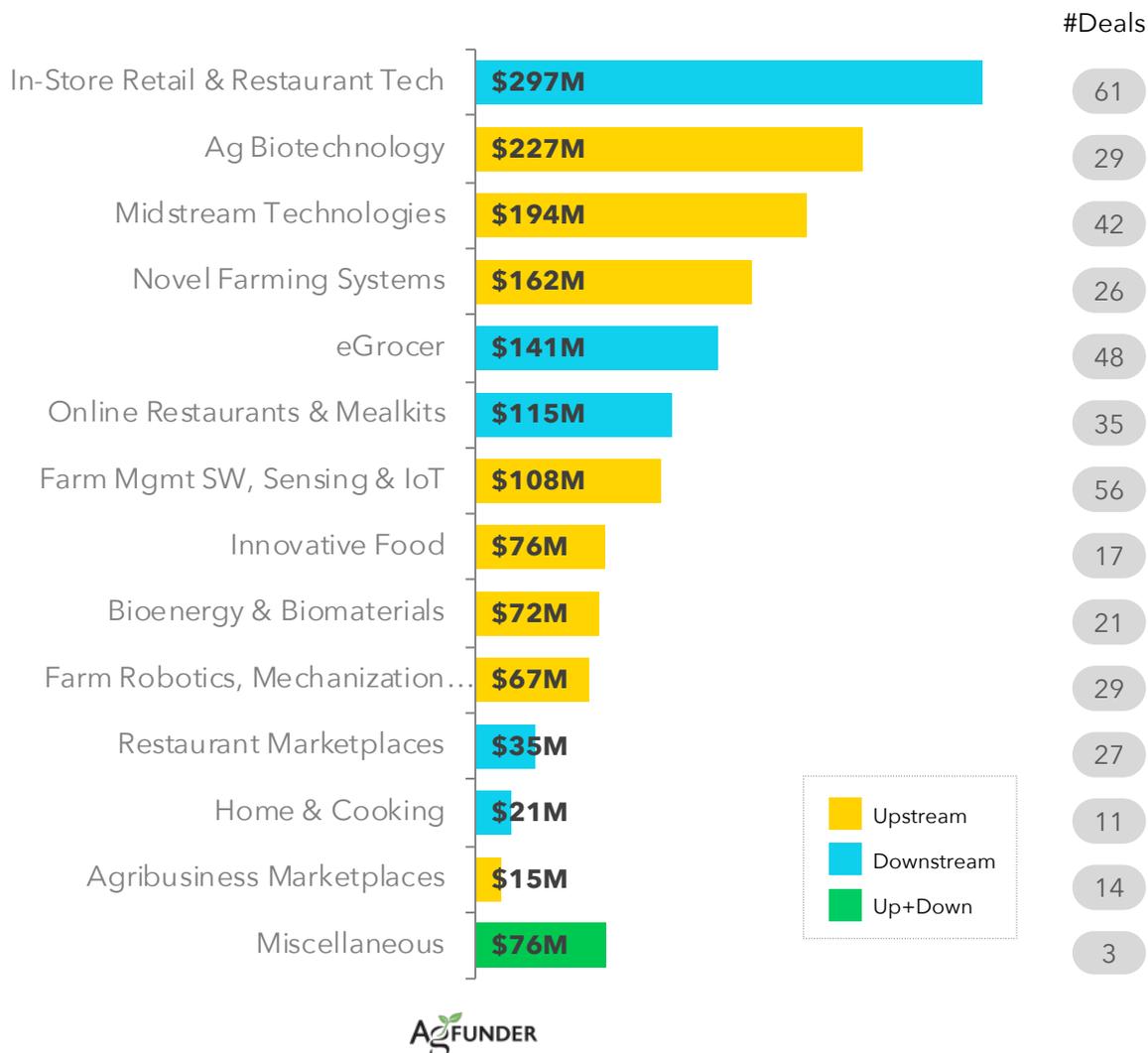
The diversity of Europe's agrifood tech industry is notable compared to the global market where downstream food delivery startups continue to dominate.

While a \$129 million Series C for Spain's Glovo App skewed the totals for retail technologies, it was still an active sector with a 7% growth in the number of deals.

It's no surprise that Europe is strong in Ag Biotech, home to two of the world's largest crop inputs suppliers (Bayer and BASF), and some of the world's leading agricultural science institutions including our partner Wageningen.

Proportionally, Europe has a greater footprint in Novel Farming Systems - including indoor ag and aquaculture systems - than globally where it represents just 4% of funding in 2018.

The region also leads in eGrocery and has achieved the most significant exits in food delivery to-date (see page 65).



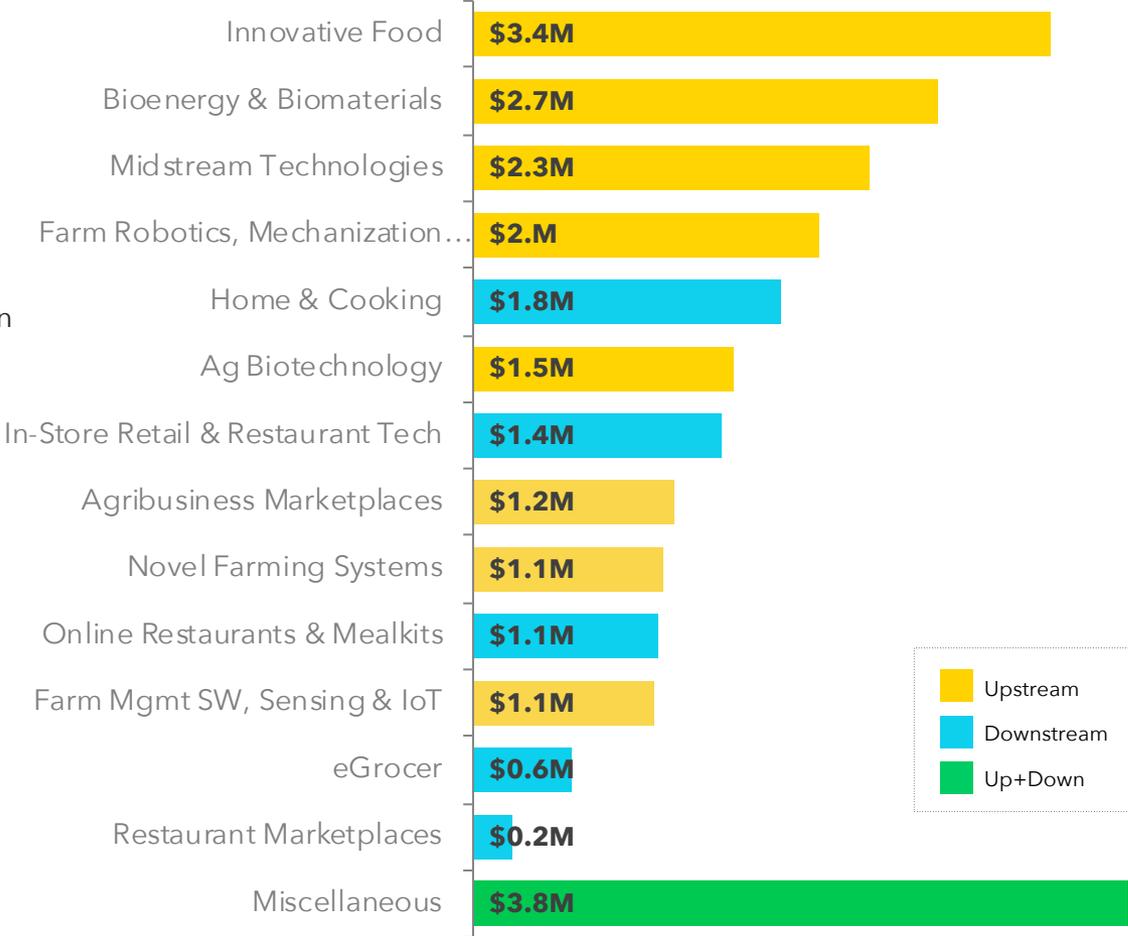
Median Deal Size by Category

Robotics, biotech and alternative protein businesses are typically capital intensive due to the large amount of research and development required.

The Innovative Food category also includes one of Europe’s highest profile foodtech startups Huel, the meal replacement drink competitor to Soylent in the US, which raised a Series A round of over \$26m.

There were three Miscellaneous deals, including a late-stage outlier in iwoca, a fintech startup for small businesses including restaurants, which raised nearly \$69 million in venture debt funding. Two Series A rounds for another fintech play - crowdfunding for agrifood - and a startup focused on reversing desertification pushed the median up.

It’s a new dawn for Restaurant Marketplaces after the maturation of Europe’s early movers; in 2018 it became an early stage category again with only Seed and Series A deals.



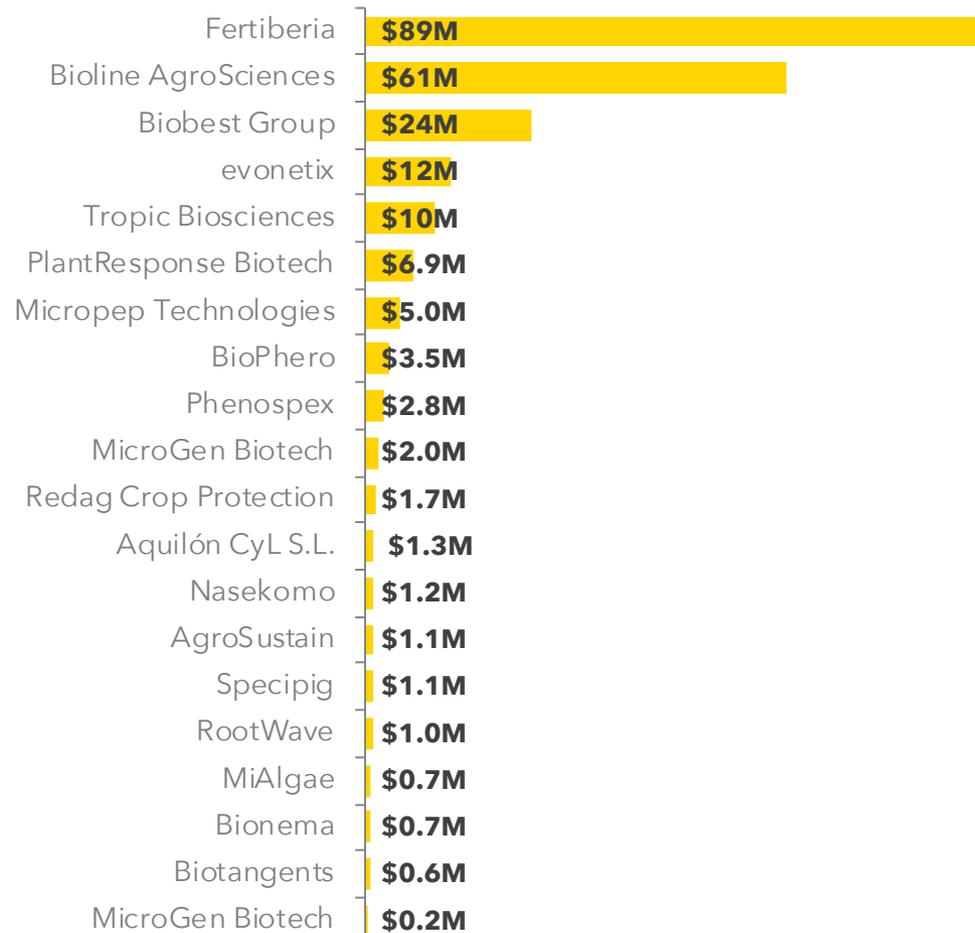
Top Ag Biotechnology Deals



The Ag Biotech category includes all biological or chemical tools and processes used on the farm. It is a broad category involving many different types of technology and science, including breeding, genetics, microbiome research, synthetic chemistry, and animal health.

Startup companies are developing and nurturing new capabilities in plant breeding, gene editing, biologicals, microbiome research and more to disrupt the status quo with new and more sustainable inputs.

Concerns about the overuse of synthetic products in agriculture led to an increase in the number of companies researching sustainable alternatives. The UK's RootWave, for example, is enabling the use of electricity to kill weeds by boiling them inside out, from the root up. The company raised in total \$3.76 and will open up a new round this year.

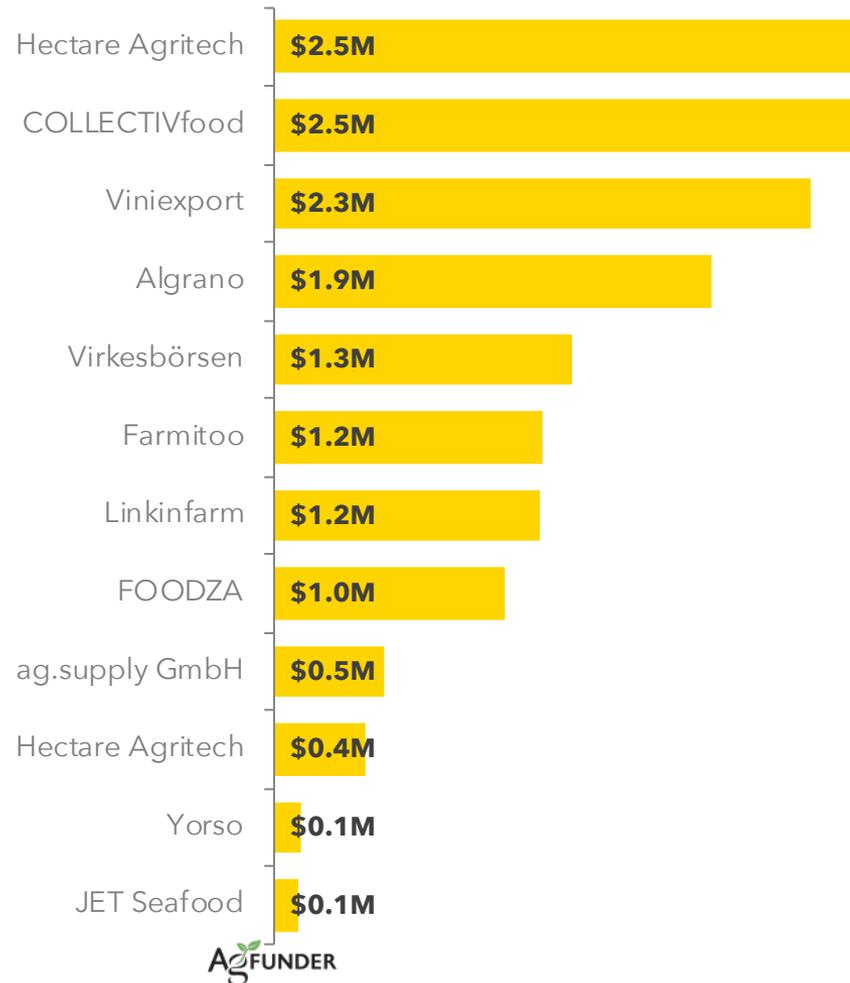


Top Agribusiness Marketplace Deals

Agribusiness Marketplace startups in Europe raised \$15 million in 2018, a 57% year-over-year increase, but Europe still lags other markets in the world, where marketplaces represents a larger portion of the overall industry.

This is good news for early mover Hectare Agritech. The UK startup operates two marketplaces, Graindex and SellMyLivestock, and has another two applications: one for payments (FarmPay) and the other, a cow matchmaking app for breeding (Tudder)! The Portsmouth-based startup raised two rounds of Seed stage funding in 2018, including a crowdfunding campaign.

COLLECTIVfood is a marketplace for the foodservice, catering and hospitality industries to purchase directly from farmers and food producers to cut middleman out of the supply chain. Also from the UK, it closed a seed round in 2018.



Top Farm Management SW & IoT Deals

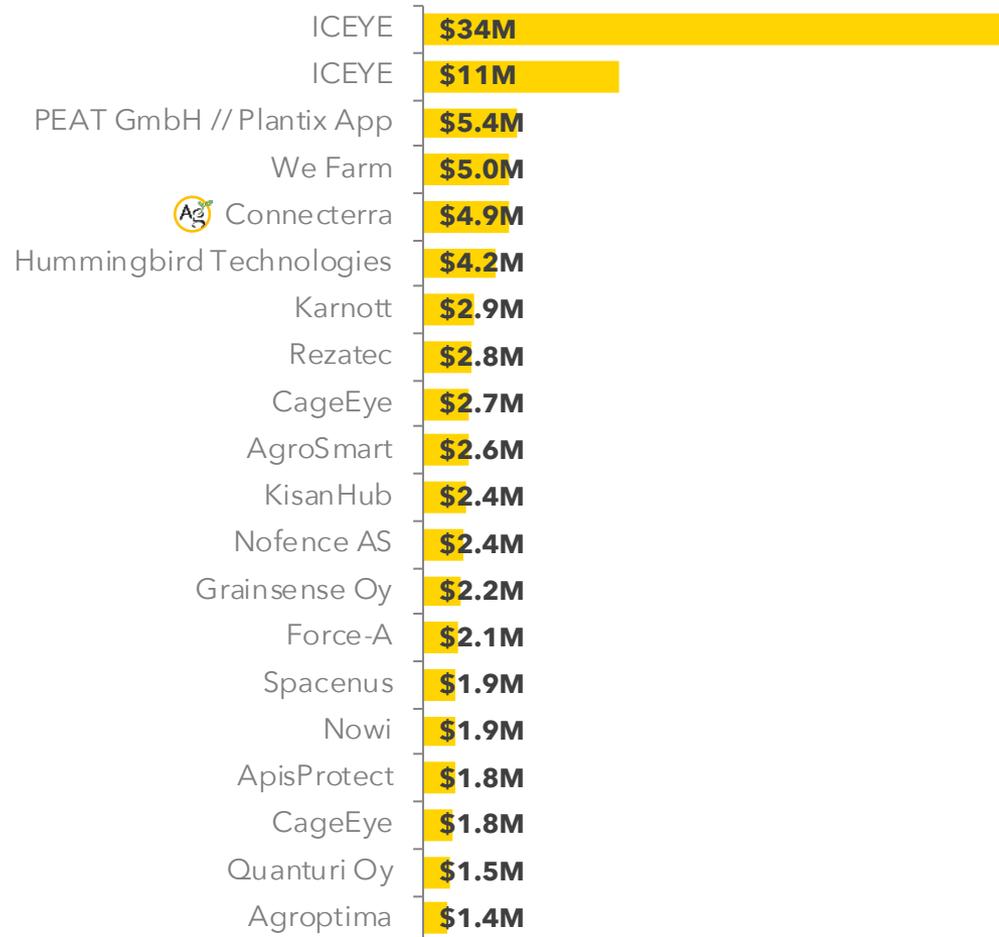


Findland's ICEYE dominated fundraising in Europe's Farm Management Software and IoT category, raising \$45 million in two funding rounds in 2018. The company's two rounds (out of 56 total for the category) comprised nearly 42% of the category total.

UK-based We Farm, a knowledge-sharing platform that is designed to connect the world's small-scale farmers around the world, raised a \$5 million of seed round

Dutch AI-based dairy platform Connecterra raised 4.9 million in Series A funding. Its roster of backers was diverse, hailing from Russia, the UK, the US and the Middle East.

And Spain's Agroptima raised a \$1.4 million seed round for what it claims is the largest farm management software platform in Europe, encompassing 1.3 million acres across 1,700 clients.



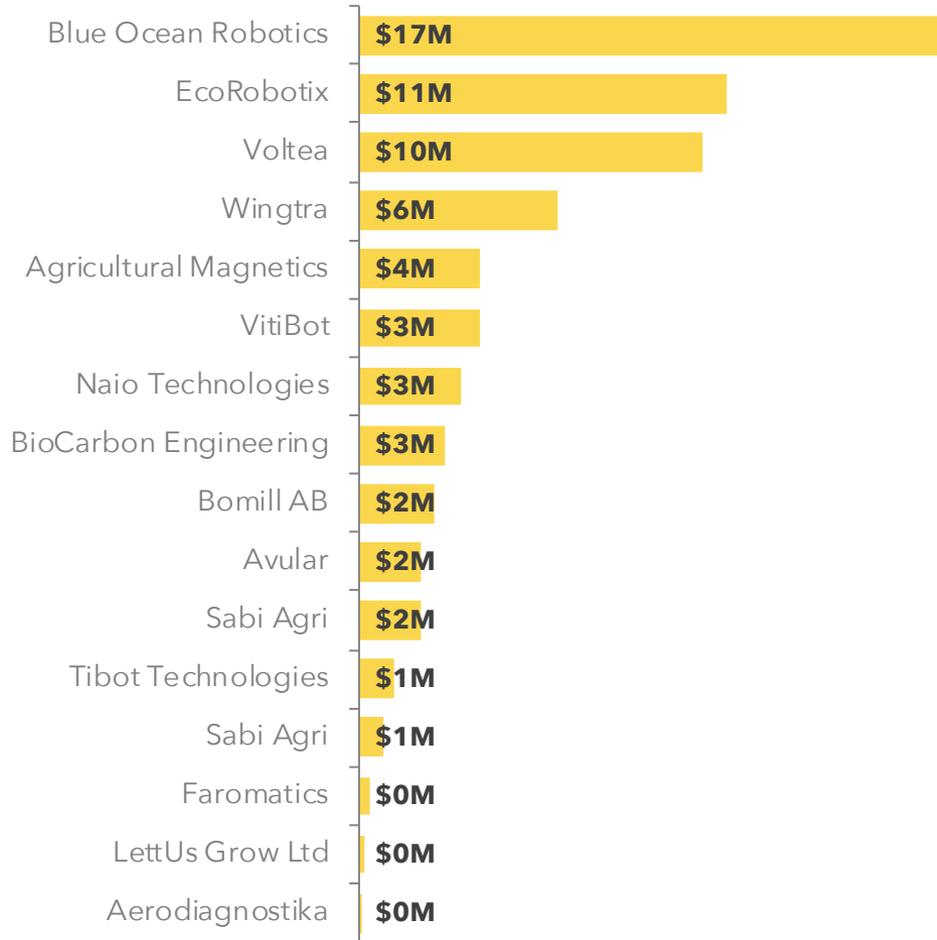
Top Farm Robotics Deals

Most farm robotics startups fall into three categories: spraying and weeding; harvesting; and controlled environment agriculture.

Pre-harvest field robotics is perhaps the most mature segment of the farm robotics startups space.

Switzerland’s EcoRobotix, a developer of an autonomous machine for the ecological and economical weeding of row crops, meadows and inter-cropping cultures, raised \$10.7 million in a Series B funding round led by BASF Venture Capital and Capagro.

Robotics for harvesting is a promising emerging technology, particularly as farmers grapple with increasing costs of labor and energy and declining profitability.



Top Midstream Tech Deals



The Midstream Technology category includes several of the very few late-stage deals that closed in Europe in 2018.

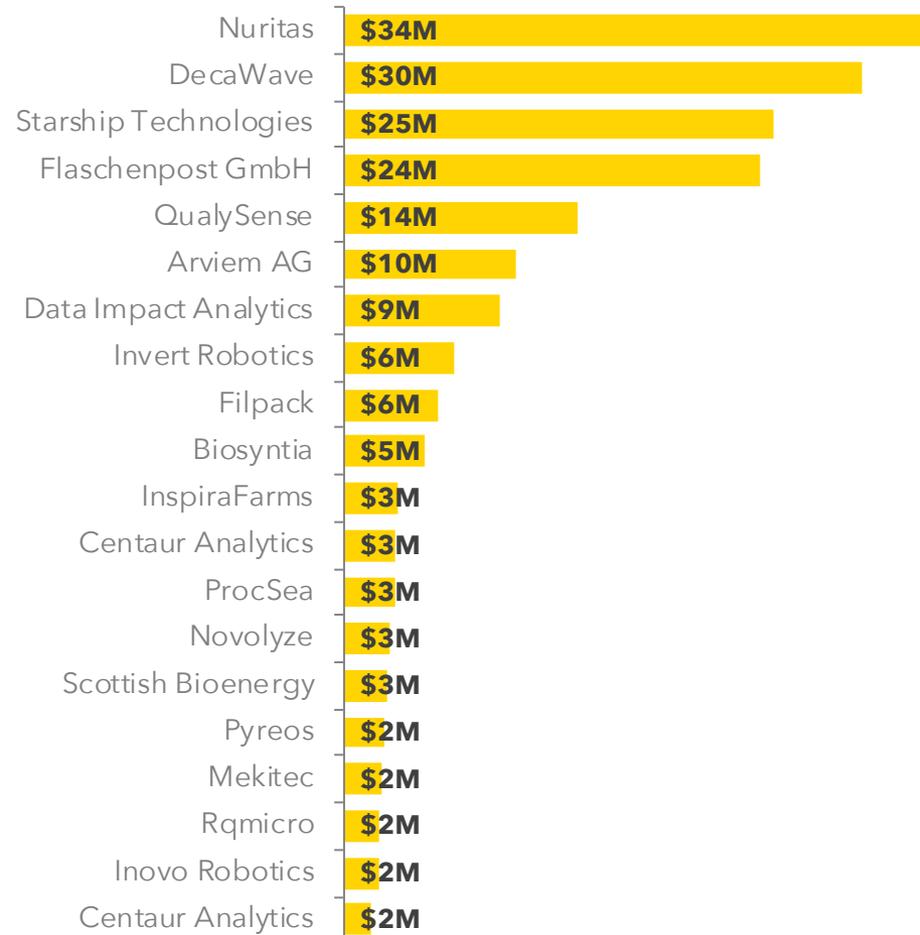
Ireland's DecaWave raised a \$30m Series D round while Pyreos, a UK infra-red sensor company for food safety and other applications, closed one of just five Series C deals during 2018.

Germany's Flaschenpost closed a Series B for its online beverage distribution platform that features automation of logistical processes and a route planning algorithm.

Two Swiss companies closed B-stage and later rounds: grain sorting tech company QualySense and cargo tracking group Arviem.

Seed stage activity was still strong accounting for 67% of deals in the category. The UK's Starship Technologies completed a large seed round for its self-driving robot delivery technology.

Grain monitoring and testing was another hot area (QualySense and Centaur Analytics).



Top Novel Farming Systems Deals

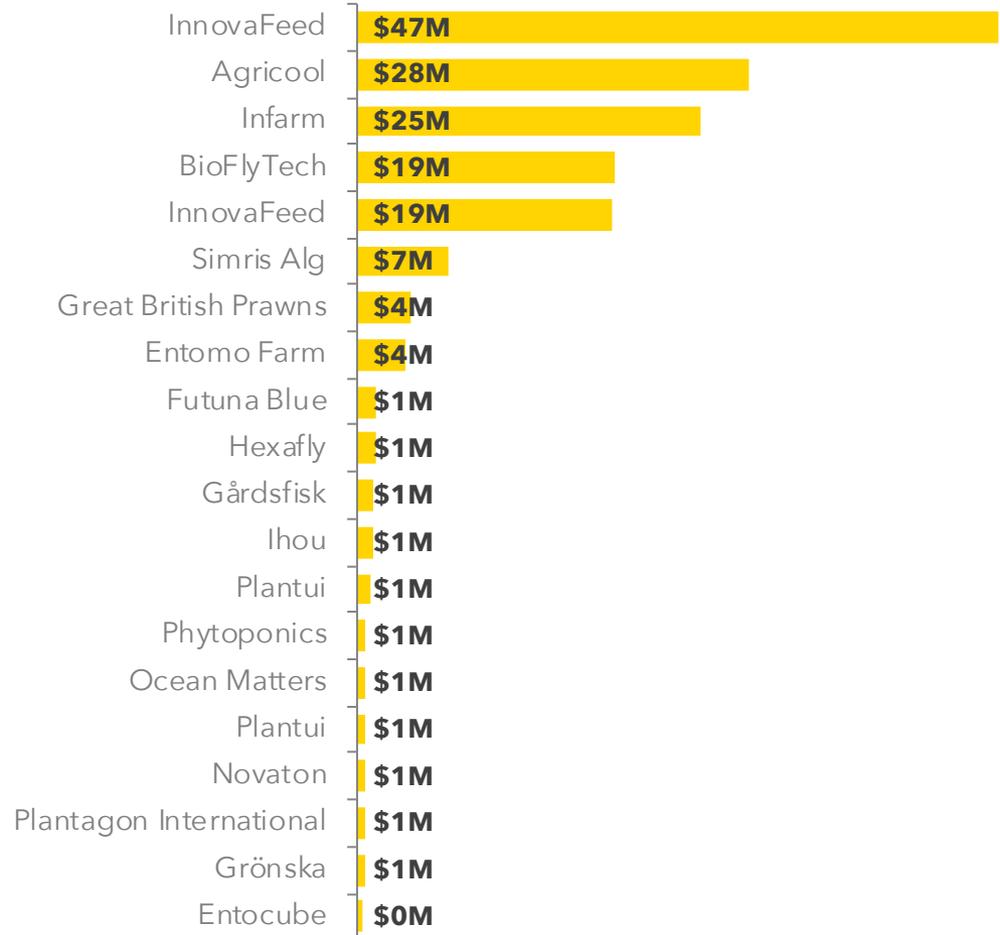


Europe is a leader in Novel Farming Systems, which encompass tech-enabled indoor agriculture, insect farming, and aquaculture.

The region is home to some of the most advanced insect farms and 2019 is already off to a strong start after France's Ynsect closed a \$125 million Series C in February.

Investment in the category increased 116% year-over-year to \$162 million in 2018. French, Swedish and UK startups led the pack, with 15 Novel Farming Systems startups contributing \$112 million towards the total.

There are surprisingly few indoor ag startups in the Netherlands considering the vast number of greenhouse operations, which are already using the latest in LED lighting.



Top Innovative Food Deals

Innovative food is a category encompassing new food formats, such as cell-cultured and plant-based meats, novel ingredients, such as algae, and healthy alternatives such as sugar replacements.

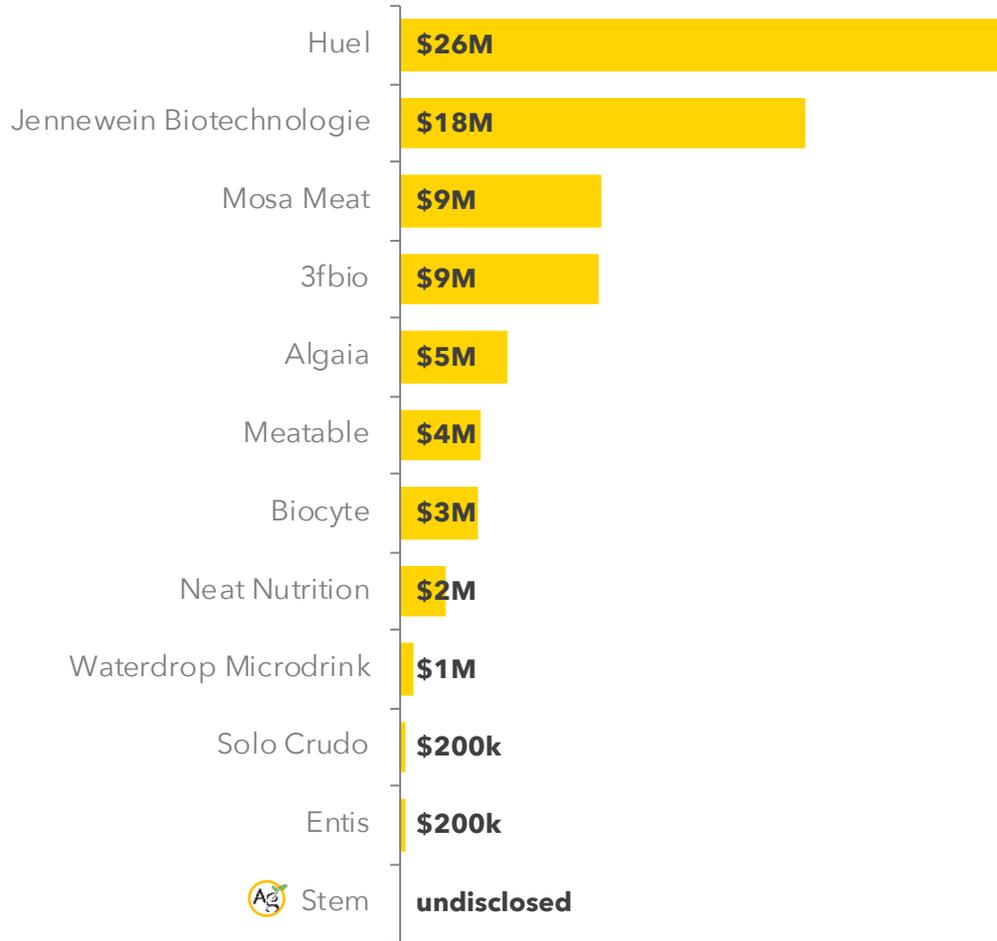
While still a small category within Europe’s overall agrifood tech industry, investment in Innovative Food startups increased 170% year-over-year to \$76 million across 17 deals.

European Innovative Food startups are also diverse covering all the aforementioned technologies.

Huel is one of the most well-known with its meal replacement drink rivaling Soylent in the US. It raised a large Series A round backed by Highland Europe.

Jennewein Biotech develops sugar molecules with health benefits, while Stem is also developing an alternative sweetener.

Mosa Meat was founded by Mark Post and is the first to grow a burger in a laboratory.



Top In-Store Retail & Restaurant Tech Deals

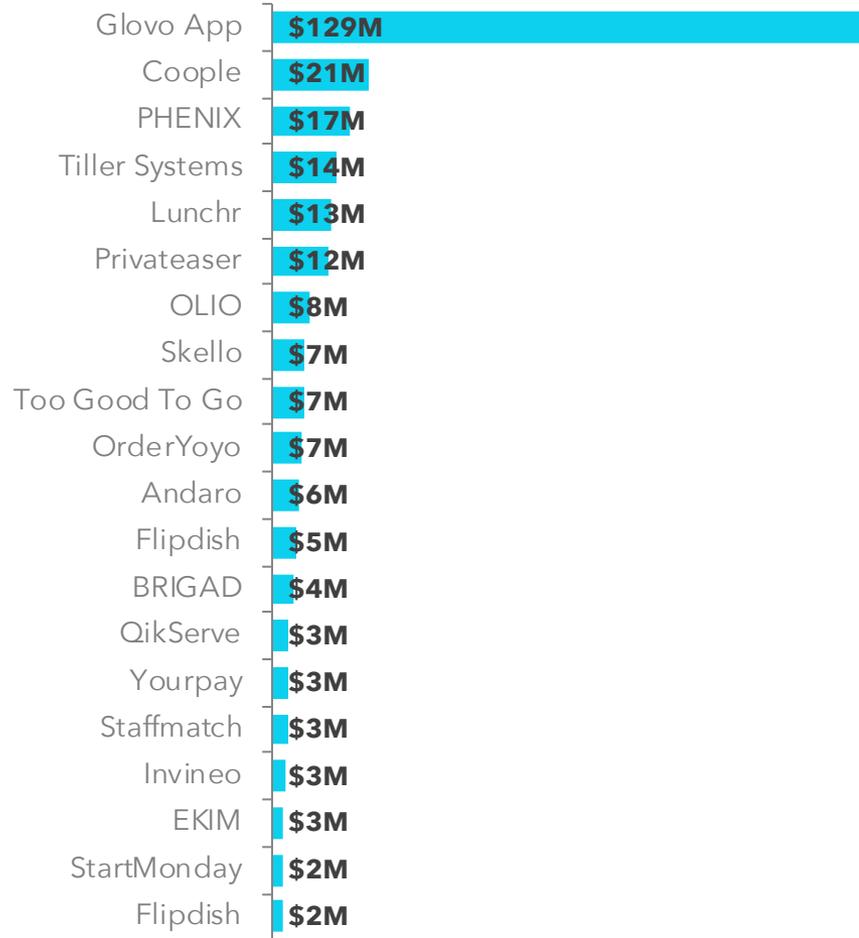


While the Series C from Spanish delivery app Glovo skewed the overall funding data in this category somewhat, investment in retail tech increased dramatically in Europe - up 230% year-over-year from \$90m in 2017 (or +87% excluding Glovo).

There are various reasons for this including regulations that oblige restaurants to update their cashier systems. (Tiller Systems and QikServe fall into this classification.)

The hospitality industry is beset with recruitment challenges globally; hiring and catering management apps like Skello and Staffmatch are aiming to alleviate pressure.

Startups, including the UK's OLIO and Too Good To Go, are also attempting to help restaurants and stores reduce their food waste, or repurpose it.



Top 20 eGrocer Deals



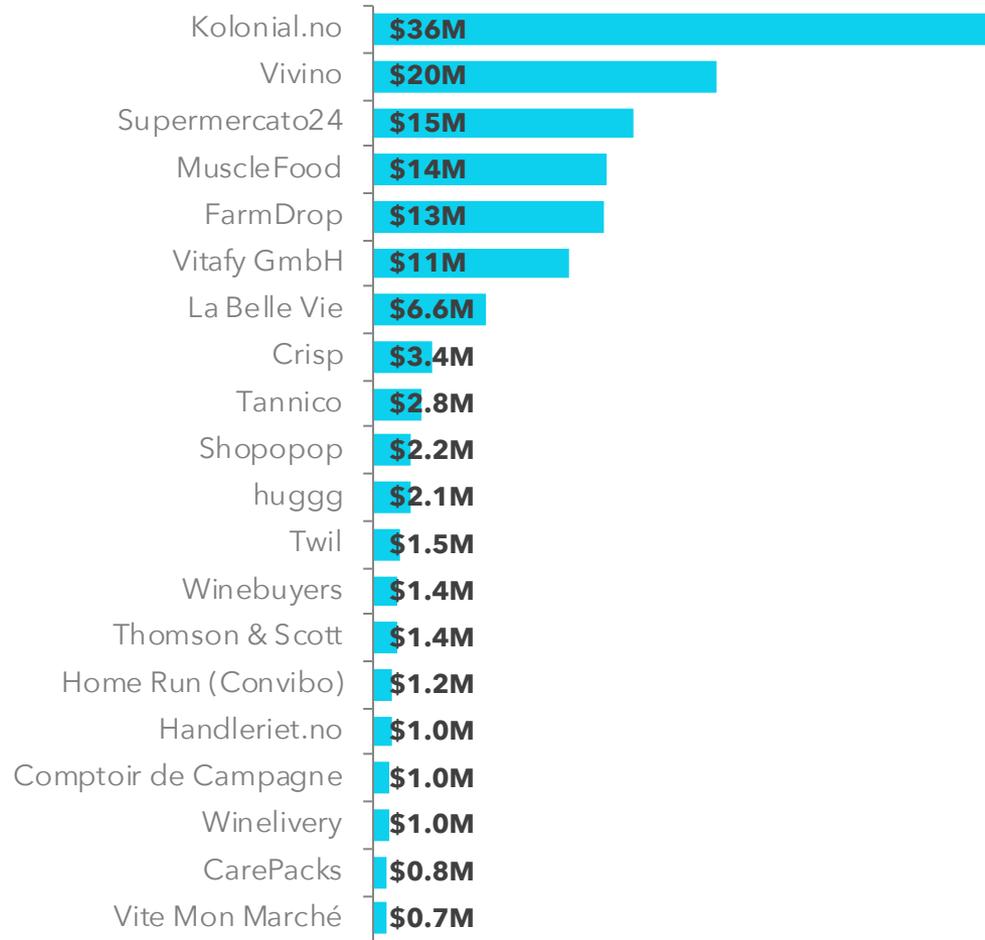
Investment in eGrocery startups dropped 38% to \$141 million in 2018, perhaps because of fatigue among investors for food delivery startups and the emergence of leaders in some countries.

Kolonial.no is Norway’s leading eGrocer, which raised a Series B round including Sweden’s Kinnevik investment fund.

Vivino is a relatively mature wine e-commerce startup from Denmark, which raised one of the few Series C rounds during the year. It attracted a range of leading European investors including Balderton Capital and Creandum.

Italy’s Supermercato24 has become the largest and most mature eGrocer in the country after raising its Series B funding.

FarmDrop is the UK’s farm-to-consumer platform, which closed a Series B, and MuscleFood is a meat-focused delivery service also from the UK.



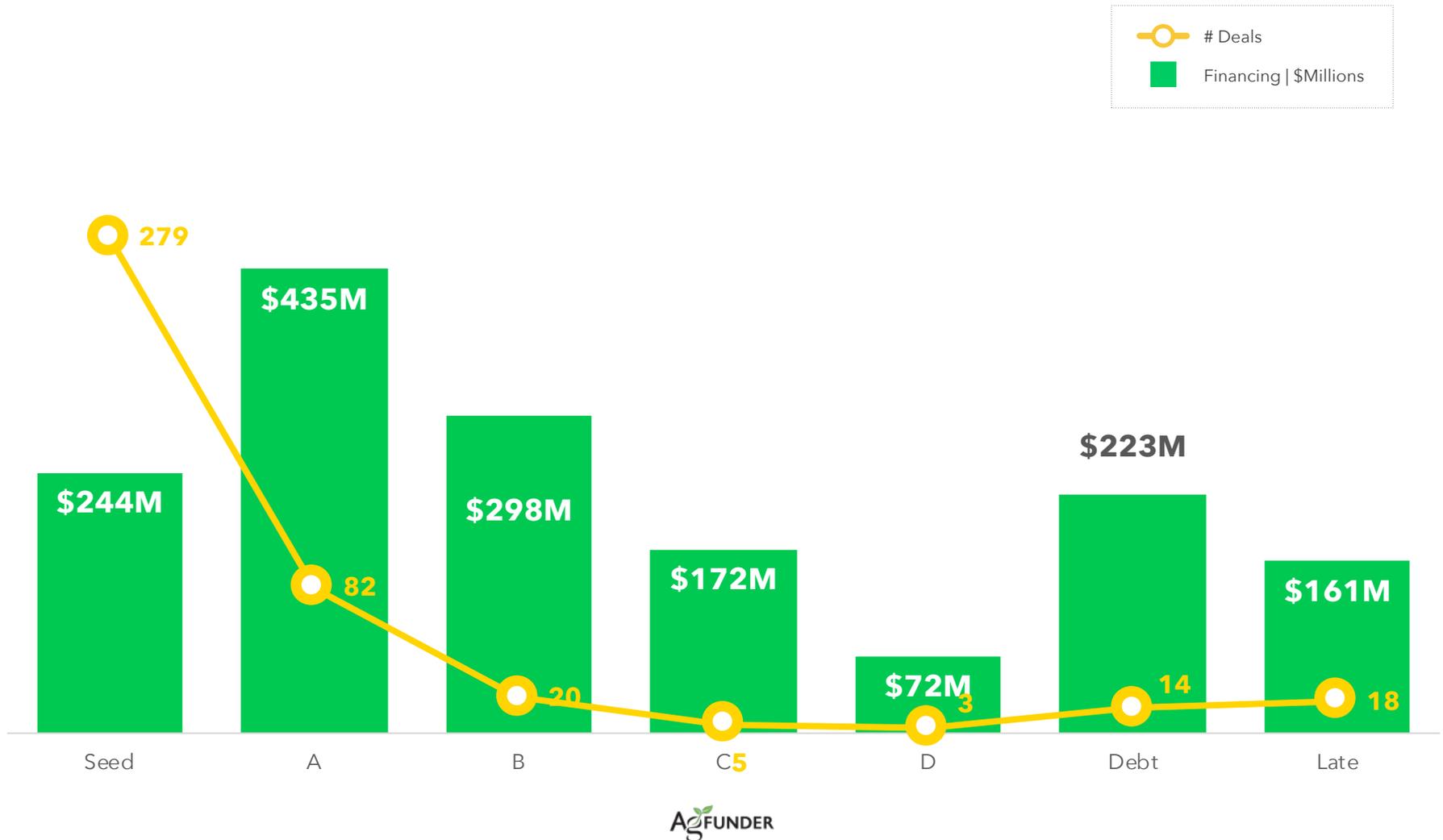


Deals by Stage

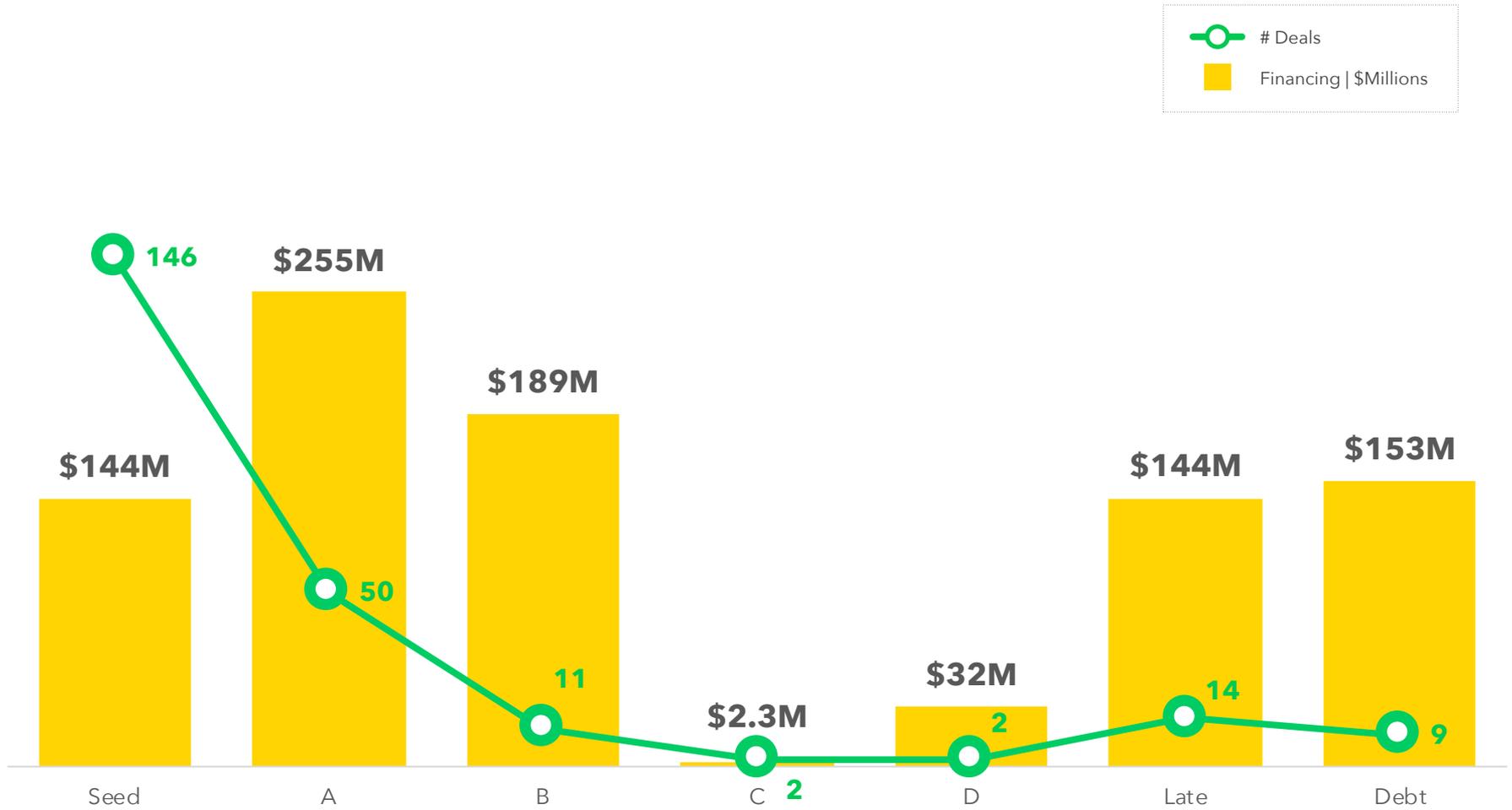
Key Insights – by Stage

- Across stages, European startups typically raised smaller rounds than their global counterparts.
- With Spanish delivery company Glovo's \$121 million Series C round factored out, the median deal size globally was significantly larger – by more than \$50 million. Series A deals were also smaller in Europe. Series D deals, of which there were only three in Europe, were an anomaly, with the average deal size being smaller than the median.
- The top 15 seed stage deals amounted to \$85.4 million or 35% of total seed stage funding in Europe compared to 16% globally. U.K. robotics-based delivery tech firm Starship Technologies claimed the top seed stage deal both in Europe and globally at \$25 million. That deal alone accounted for 10% of all European seed stage funding.
- Meal replacement and insect protein companies dominated Europe's Series A funding list. U.K.-based meal replacement company Huel – a competitor to Soylent – topped the list with a \$26 million Series A round, while another meal replacement company, Feed., came in at number four on Europe's list. Meanwhile the second and third spots were claimed by insect farming companies in France (InnovaFeed) and Spain (BioflyTech), which each raised \$19 million.
- There were only 21 Series B funding rounds reported in Europe in 2018. France's InnovaFeed topped the list with a \$47 million Series B round that it raised in December after its \$19 million Series A in February. With the late addition of that data point to our global dataset, the company would have claimed the eighth largest Series B round globally.
- Biological pest management product companies dominated Europe's late-stage funding rounds: U.K.-based Bioline Agrosciences secured \$61 million and Belgium's Biobest raised \$24 million. The \$85 million raised between the two companies accounted for 53% of all late-stage funding in Europe in 2018.
- Overall, the 14 companies that secured late-stage funding in Europe comprised an almost negligible share of the global total: \$161 million out of \$5.7 billion globally, or less than 3% of dollars transacted.

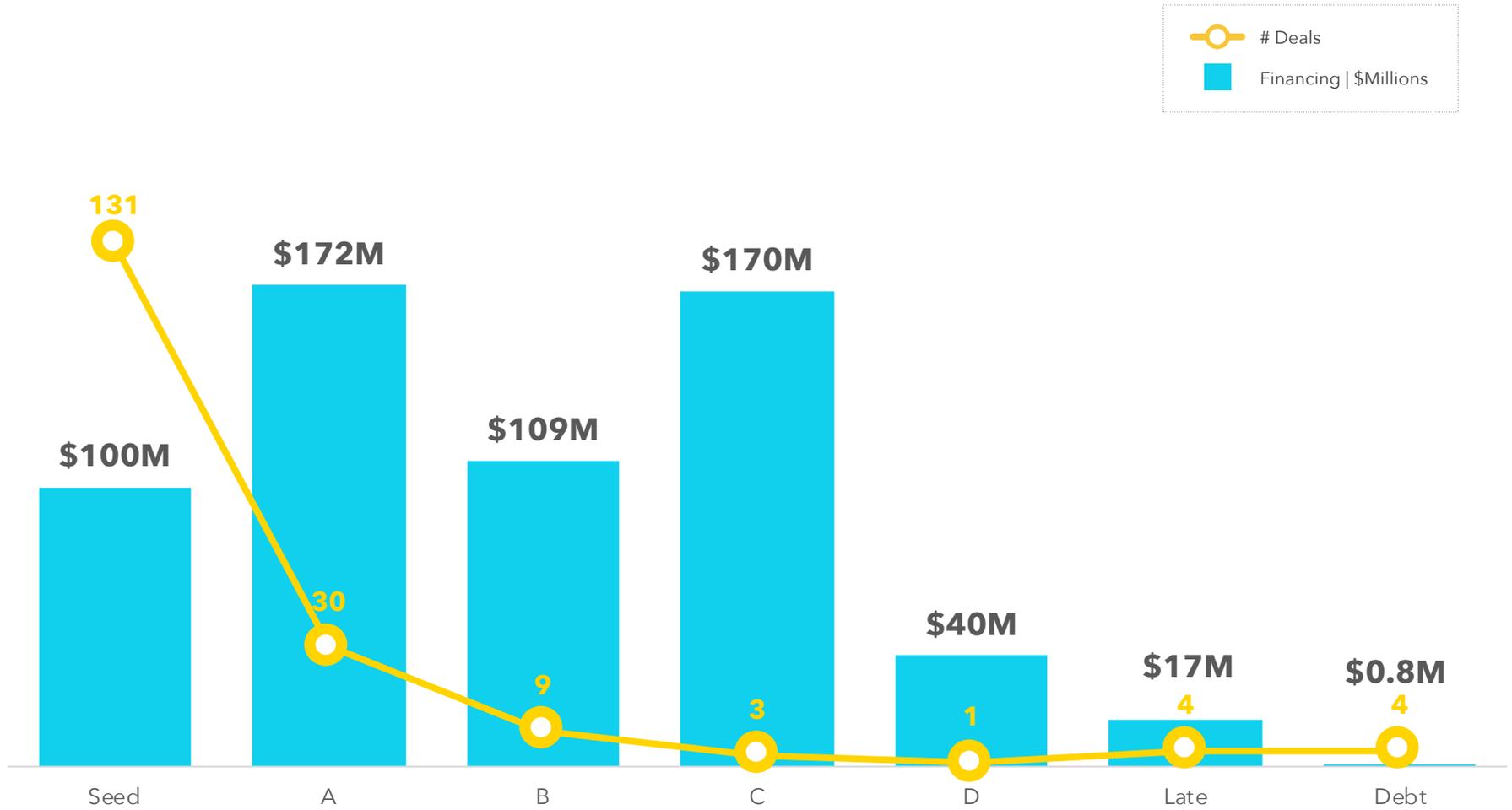
Overall Deal Volume and Activity by Stage



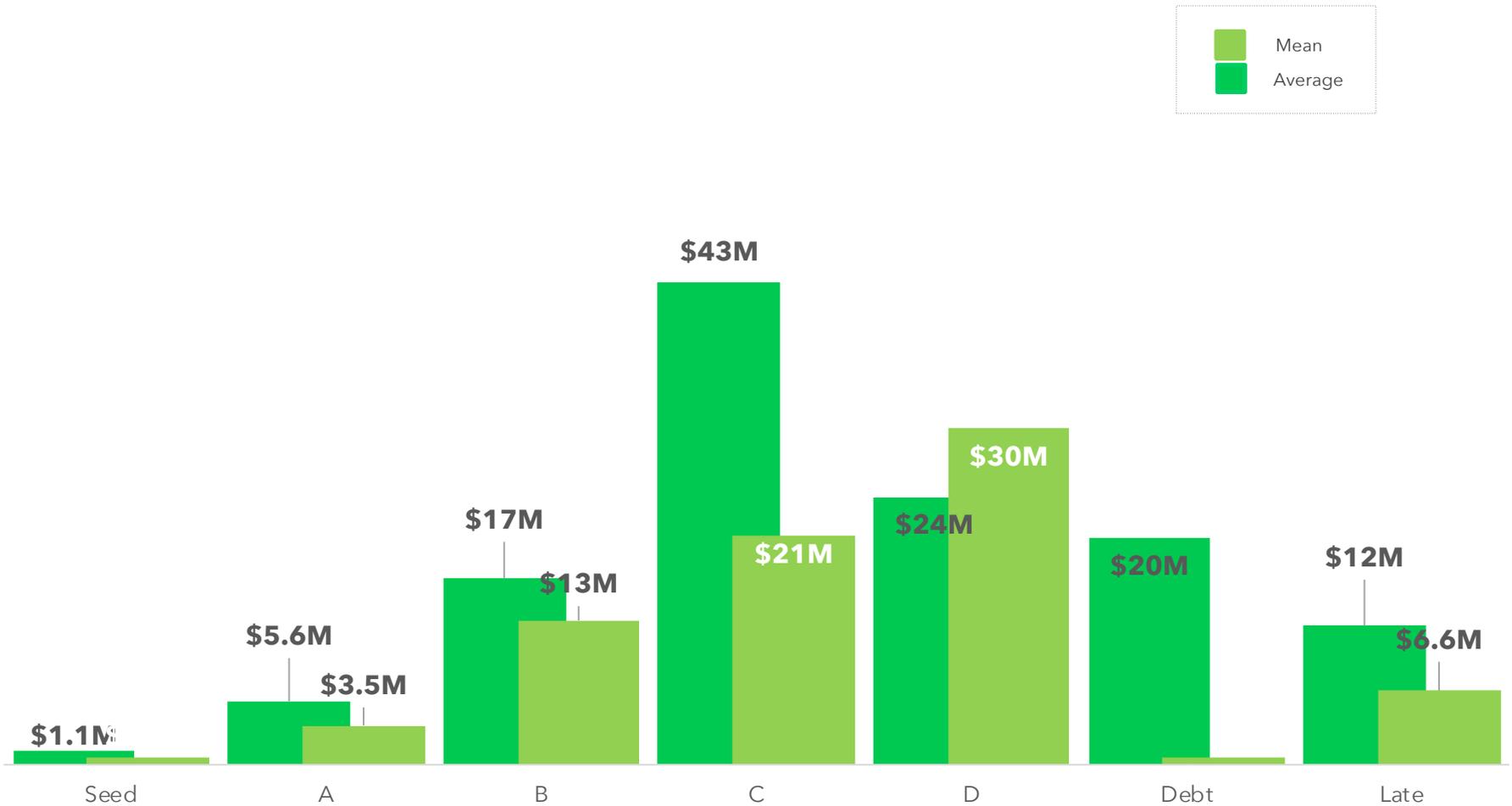
Deal Volume & Activity by Stage



Deal Volume & Activity by Stage



Deal Average and Median by Stage



Top 15 Seed Deals

The top 15 seed stage deals amounted to \$85.4 million or 35% of total seed stage funding in Europe, compared to 16% globally.

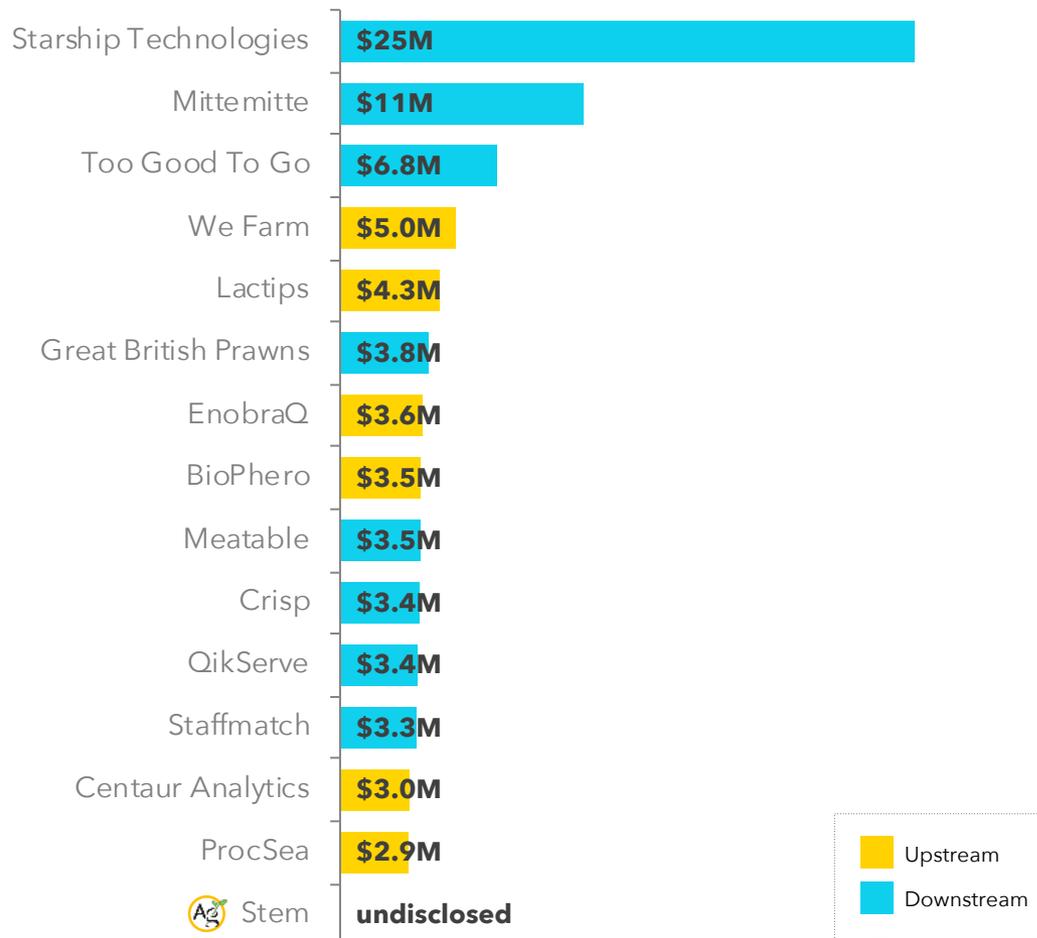
While downstream funding dropped in 2018, there was still significant early stage activity.

UK robotics-based delivery tech firm Starship Technologies claimed the top seed stage deal both in Europe and globally at \$25 million. That deal alone accounted for 10% of all European seed stage funding.

Mitte, named after a borough in Berlin, is a home device for purifying water, while Too Good to Go is a UK app aiming to reduce food waste.

AgFunder invested in sugar replacement startup Stem at the seed stage in an undisclosed deal placing it within the top 15.

Centaur Analytics is one of just four deals to close in Greece with its grain monitoring tech.



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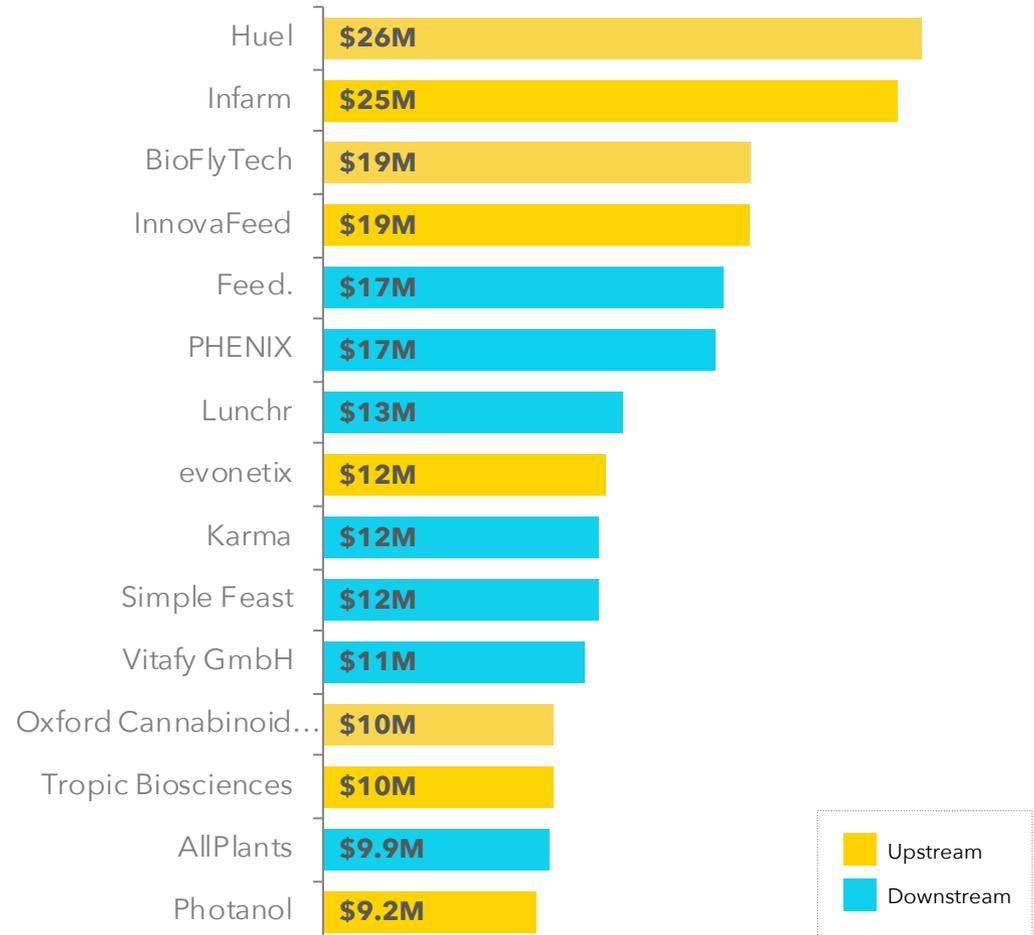
Top Series A Deals

The split between European upstream and downstream Series A venture funding was pretty even across the list, with upstream ventures claiming \$115.1 million and downstream ventures claiming \$107 million.

UK-based meal replacement company Huel – a competitor to Soylent – topped the list backed by Switzerland-based Highland Europe. It was the only European company to make the Top 15 global Series A deal list, claiming the last spot. Another meal replacement company, Feed., came in fifth in Europe.

Two insect farming companies – France’s InnovaFeed and Spain’s BioflyTech – claimed the second and third Series A rounds in Europe.

France’s Phenix is a waste management platform for restaurants and retailers, and Lunchr, also from France, is a group ordering and payment app for corporate lunches.



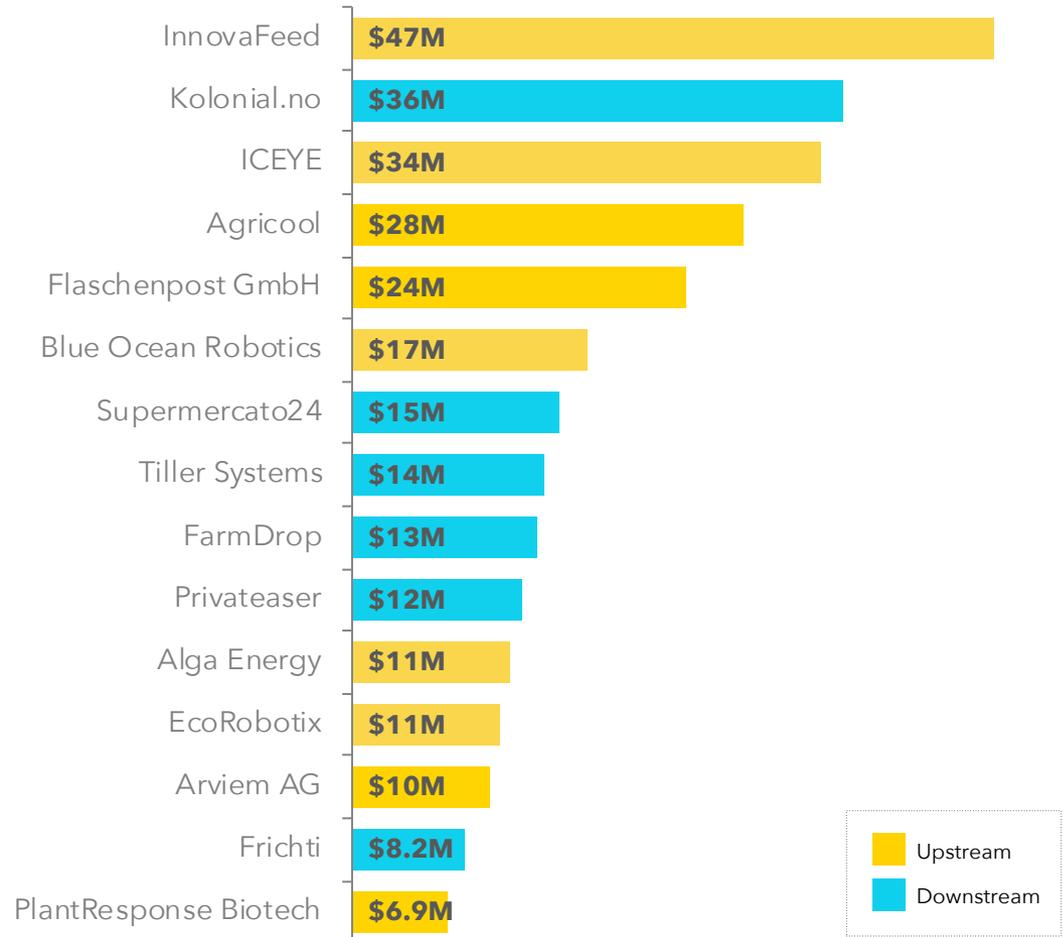
Top Series B Deals

There were only 21 Series B funding rounds reported in Europe in 2018. That said, among the top 15 rounds, there was a fairly even split between upstream and downstream companies in Europe than on the global stage, where upstream ventures dominated.

European ventures also made a solid showing in significant Series B rounds globally. Three ventures made the top 15 global list: Norway's online grocer Kolonial.no and Finland's satellite-based remote sensing startup ICEYE took #9 globally.

France's InnovaFeed closed its Series B in December after a \$19 million Series A in February. With improved deal data from Europe in the global report, InnovaFeed would have claimed the #8 spot on the global list and would also have knocked off another French company: indoor farming startup Agricool, currently at #15.

Flaschenpost is a German startup for the beverage industry supply chain.



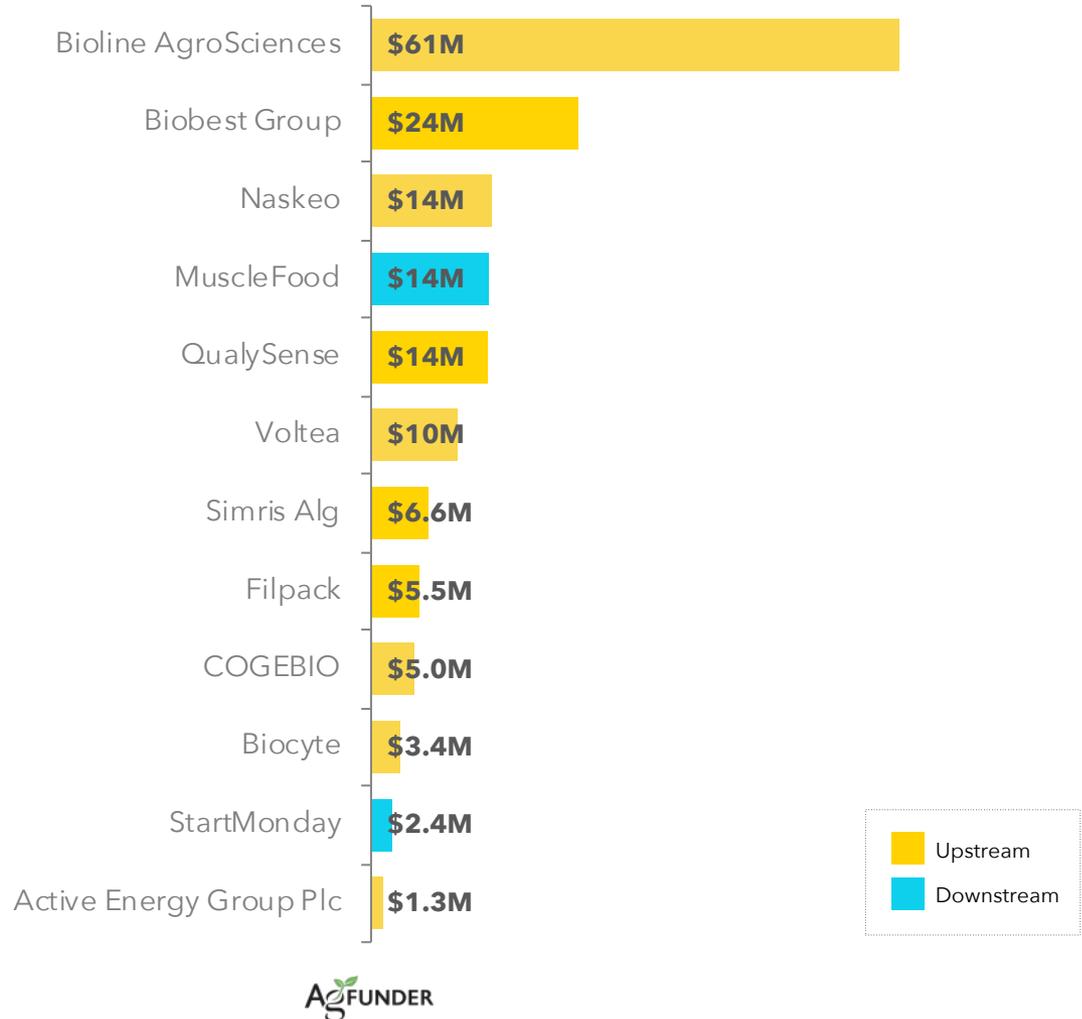
Top Late Deals

The 14 companies that secured late-stage funding in Europe comprised an almost negligible share of the global total: \$161 million out of \$5.7 billion globally, or less than 3% of dollars transacted.

Upstream startups dominated as many downstream startups exited to the public markets.

UK-based biological pesticide company Bioline Agrosciences skewed the late-stage average deal size up, with \$61 million in funding, or 38% of all late-stage deal funding raised in Europe. The company originated 40 years ago and has previously been owned by Novartis and Syngenta before being acquired by InVivo in 2016.

Another biological pest management product company, Belgium's Biobest, raised the second largest late-stage round in Europe: \$24 million.





Deals by Country

AgriFood Tech Investment by Country

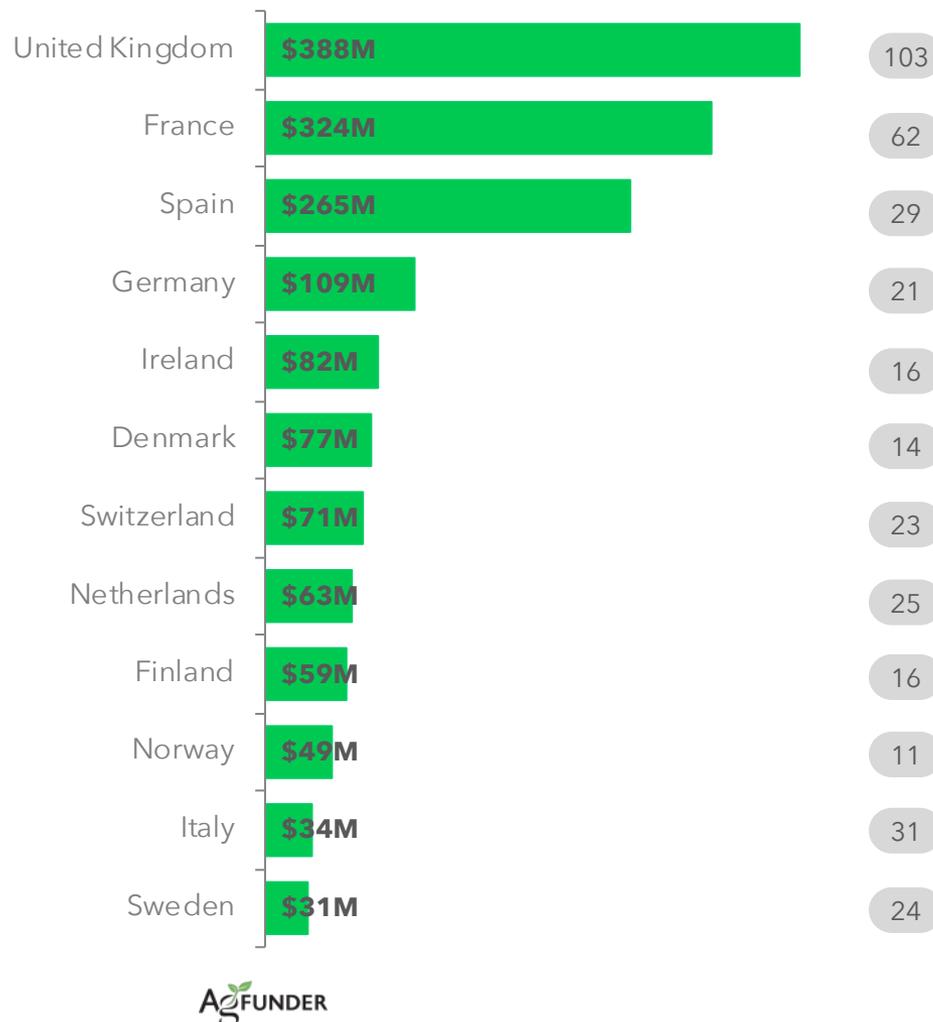
The UK and France contributed nearly half of total funding (45%) and 40% of deal flow in Europe's agrifood tech market in 2018.

Spain's total was bolstered by an outlier – delivery tech company Glovo, which raised a \$129 million Series C round – though it was still the fourth most active market for deals closed.

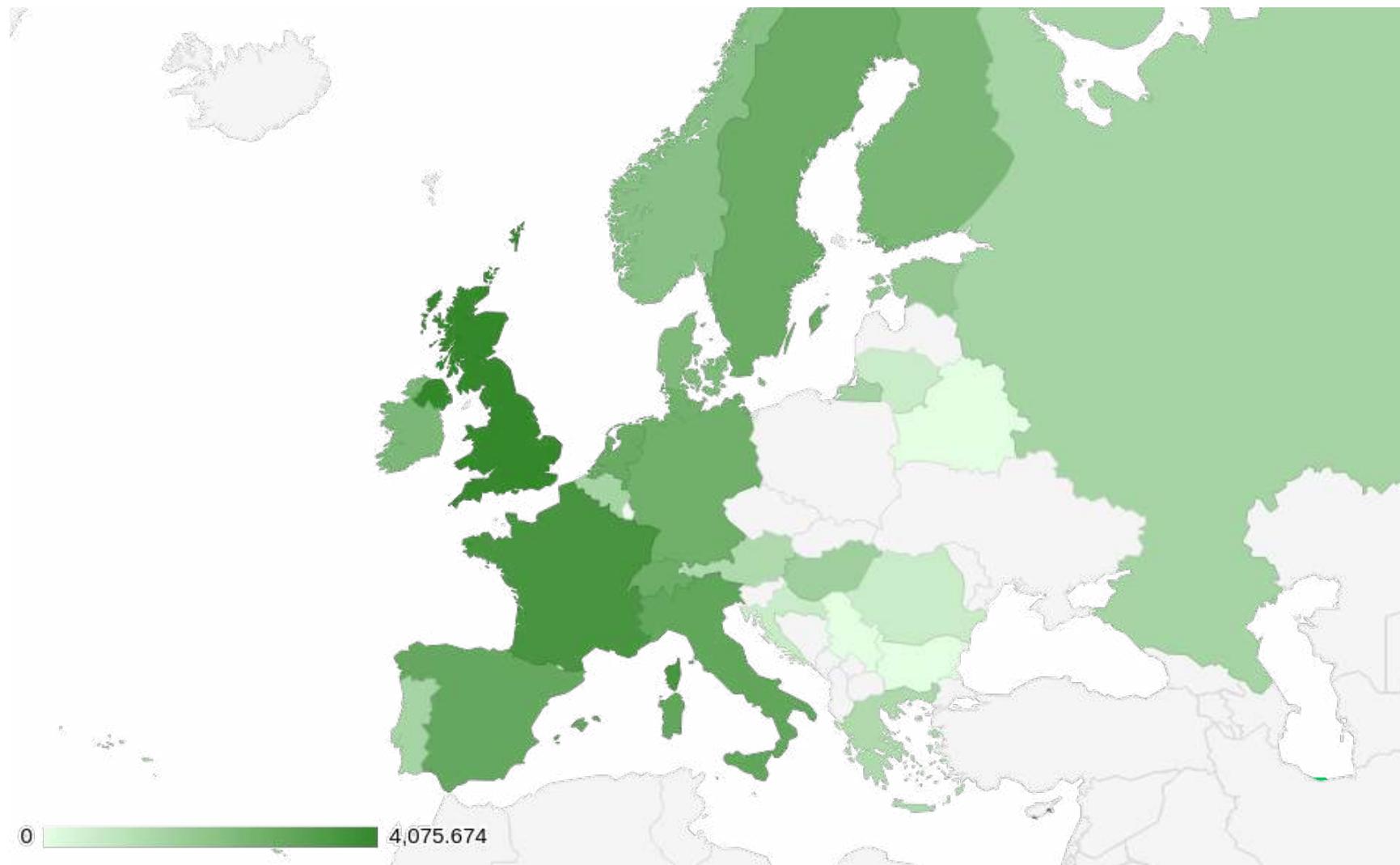
While low on the leader board for total funding, Italy contributed the third highest number of deals in 2018. Its median deal size was only \$400,000. Seed stage deals claimed 28 out of 31 total funding rounds, pointing to Italy's nascent agrifood tech industry.

Two midstream tech deals over \$30 million pushed Ireland's totals up, while Nordic countries contributed more deals, mostly being at the seed stage.

Eastern Europe has yet to make strides in agrifood tech, though there are some leading farmtech startups, such as Agrivi out of Estonia.



Europe Investment Deal Activity Map



AgriFood Tech in France

How would you characterize the food tech and agtech ecosystem in France?

Diverse and dense with hundreds startups all along the value chain and so far a limited number of companies in e-grocery and food delivery. The maturity of the environment is growing rapidly with record number of Series A and later stage deals (29) and 27 (reported) seed rounds at an average \$1.7 million. So far, 2019 is confirming this pace with as much funds raised over the three first months as in all of 2018. It's also noteworthy that there are increasing numbers of varied investment funds investing in the space.

Which deals in 2018 really stood out to you and why?

I would say more than one deal, the total number of deals and the variety of projects and business segments, showing how France is consolidating its lead in Europe in terms of entrepreneurship. I also want to stress the outstanding number of investments on the restaurant tech segment.

What are opportunities and challenges exist for entrepreneurs innovating in food in France?

France is a large market with strong consumer demand for innovation, a deep culture for food preparation, seasoned agri know-how, and one of the most diverse corporate and retail ecosystems, from farm to shelf, including global leaders. FrenchTech and the French bank for investment in innovation – BPIFrance – are consolidating what I would claim as the most exquisite list of ingredients to succeed. Even if France is a large country, it's still is too small: entrepreneurs need to think more globally from the beginning and learn how to manage with a set of multiple local regulations that make a European development challenging.

“From day one, look beyond your sole local market to Europe as a whole.” – Kevin Camphius



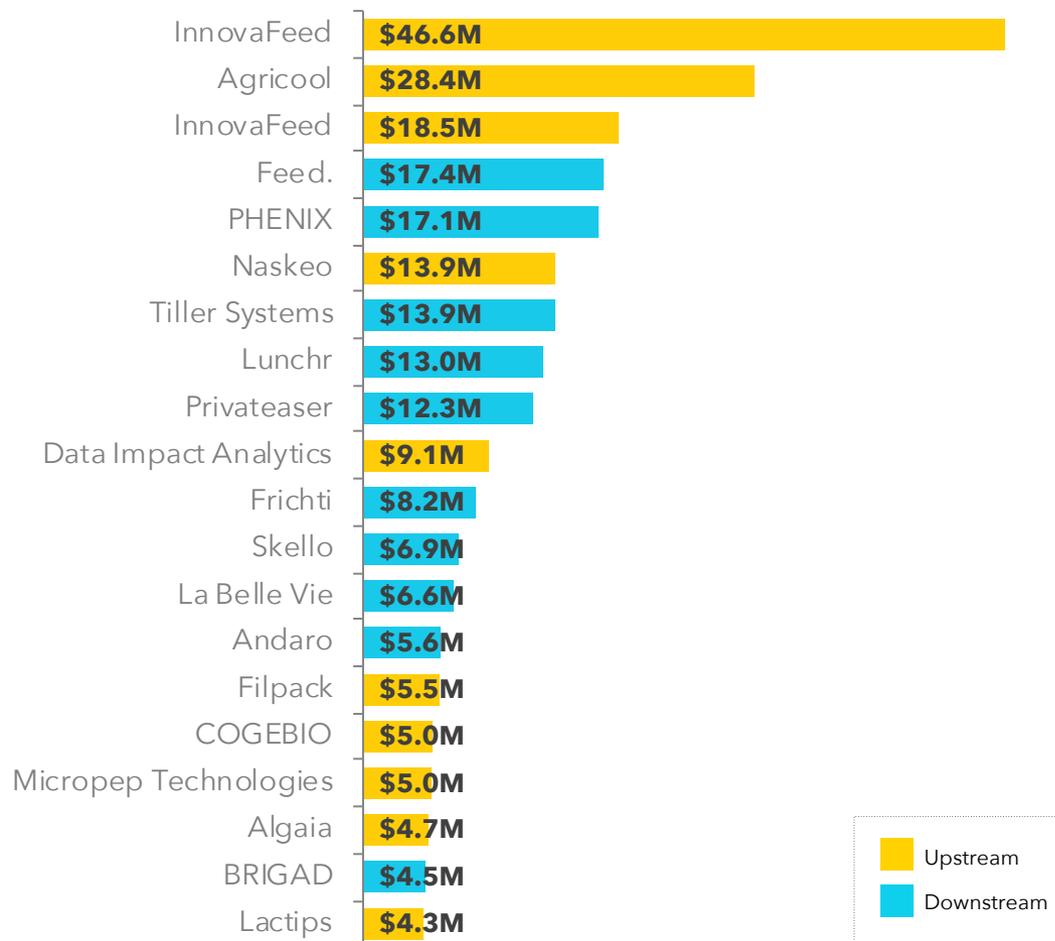
Top France Deals

France's agrifood tech industry is one of the most mature on the continent. The average deal size was \$5.4 million and the median just under \$3 million. A third of deals closed at the Series A stage and half were seed stage.

France has a strong insect farming and indoor agriculture sector, with InnovaFeed closing two rounds in 2018 - an A round at the start of the year and a B round at the end.

Agricool raised one of the largest indoor ag deals on record for Europe with a Series B round for its container farming business. It plans to hire 200 people in the Paris area.

France also has strength innovating downstream, especially in retail technologies. Privateeasr enables online booking for restaurants; Skello is a management software for restaurants; Tiller Systems is a point-of-service technology; and Brigad is a on-demand staffing platform for the hospitality industry.



AgriFood Tech in the Netherlands

What makes the Dutch ecosystem unique?

We have a lot of diversity across the value chain. Many technologies have some relation to Wageningen University. Although few spin-offs have been produced, this will increase, yielding more early tech-driven startups.

Things do not always move quickly, but we seem to be at a tipping point now where many startups are taking off. This is helped by growth in venture capital and strong improvement in the entrepreneurial spirit towards commercialization in recent years.

Why does startup investment seem relatively low in The Netherlands?

We see many good ideas, have seen relatively few startups with true ambition to scale. This is improving quickly, luckily, with help from parties like StartLife and ScaleUpNation. Also, the infrastructure to turn ideas into global companies needs to grow. Large-scale infrastructure projects like FoodValley2030 will also play a pivotal role.

We also do not have a strong angel network in The Netherlands and relatively little activity from corporates when it comes to corporate venture capital. Corporates are not as advanced yet when it comes to working with and investing in startups.

What key message or advice would you offer to Europe's food and ag startups?

My first question is "Is it scalable?" True scalability is difficult. In Europe there's no large, homogenous market. Are you heavily inspired, motivated and able to scale?

Also, money is not the biggest problem; talent to build your business is necessary. The availability of tech talent has been quite poor but is becoming better.

"Food and ag in The Netherlands is not yet as sexy as it is abroad." – Jeroen Leffelaar



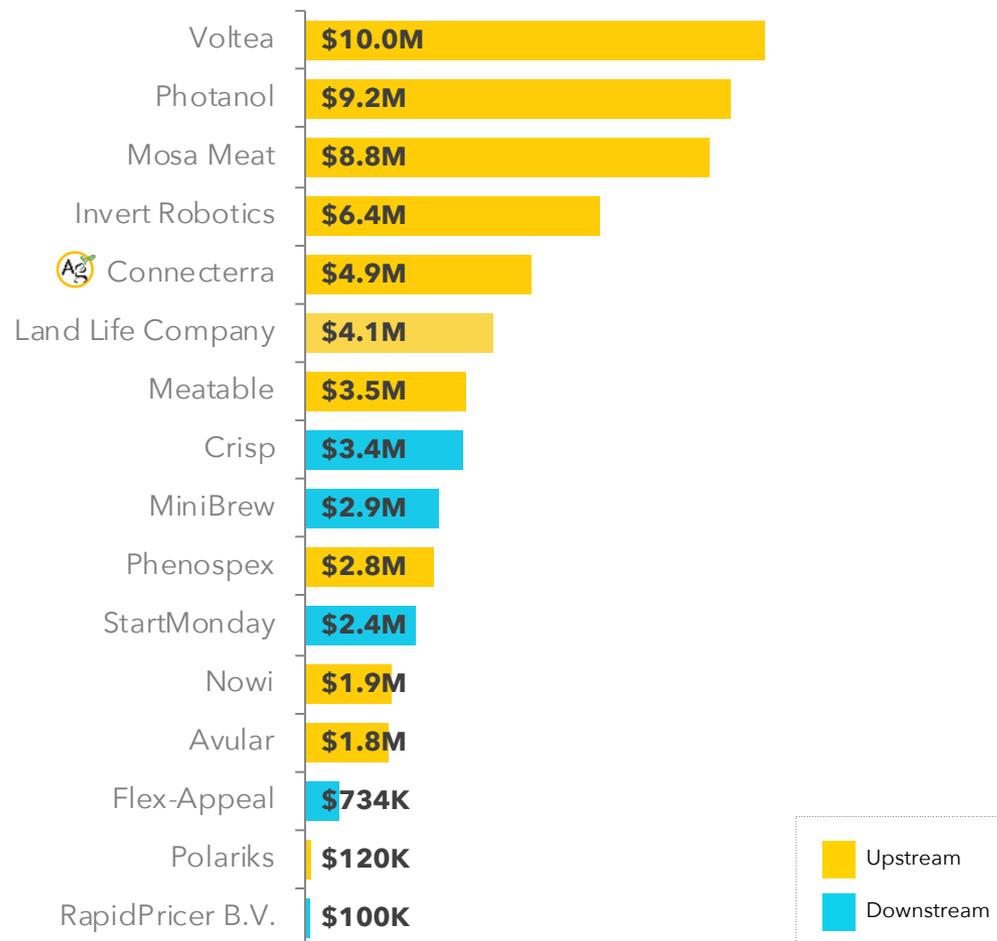
Top Netherlands Deals

The Netherlands is the second largest exporter of food in the world, much of which is produced in high-tech greenhouses. It is therefore already a leader in indoor agtech. This also naturally lends itself to strength in upstream innovation overall.

The top five deals of 2018 include water tech (Voltea), renewable chemicals (Photanol), digital livestock tech (Connecterra), the first cell cultured meat startup (Mosa Meat), and robotics for the supply chain (Invert Robotics).

Land Life Company has developed technology to reverse land degradation and enable trees to grow in water-challenged environments using special tree-planting hardware and big data.

Downstream, MiniBrew is a home brewing device. StartMonday is a recruiting tool for restaurants. Flex-Appeal helps retailers to reach, train and engage employees.



AgriFood Tech in the UK

What are you witnessing across the UK agrifood tech ecosystem?

The diverse UK AgriFoodtech ecosystem is growing and expanding at a rapid pace and investment has grown particularly in ag biotech, eGrocery and online restaurants and mealkits.

We are proud to be cultivating a varied and diverse agrifood tech industry, united in the aim of improving the quality and sustainability of food and food production throughout the value chain. In addition, we are seeing government-back initiatives such as Innovate UK delivering millions of pounds of funding and resources to support PhDs and agrifood tech entrepreneurs kickstart their ventures.

Who is winning in agrifood tech Investment?

Ag biotech was the most notable sector for investment in the last year, generating deals of over \$83 million, with gene synthesis (Evonetix), biological control organisms for crop management (Bioline AgroSciences) and commercial varieties of tropical crops (Tropic Biosciences) being the front runners.

The first UK-based clean meat company, Higher Steaks was also founded in 2018.

What are the key food technologies emerging in UK?

Plant-based startups are witnessing significant growth thanks to the escalating demand for mainstream vegan alternatives. Companies like AllPlants (plant-based ready-meals) are leading this in the UK, so I would say this is a huge opportunity for growth.

eGrocers have also seen considerable levels of investment with niche players MuscleFood (lean meat eGrocery) and Farmdrop (independent, fairtrade, local produce) seeing sizable investments. This demonstrates the power that tech has on food in making niche needs accessible to the masses and meeting increased consumer demand for personalized products that meet their ever-evolving needs at the click of a button.

“The UK ecosystem is one of the most mature in Europe with potential to become a major player globally,” – Alessio Dantino

FORWARD
FOODING



Top UK Deals

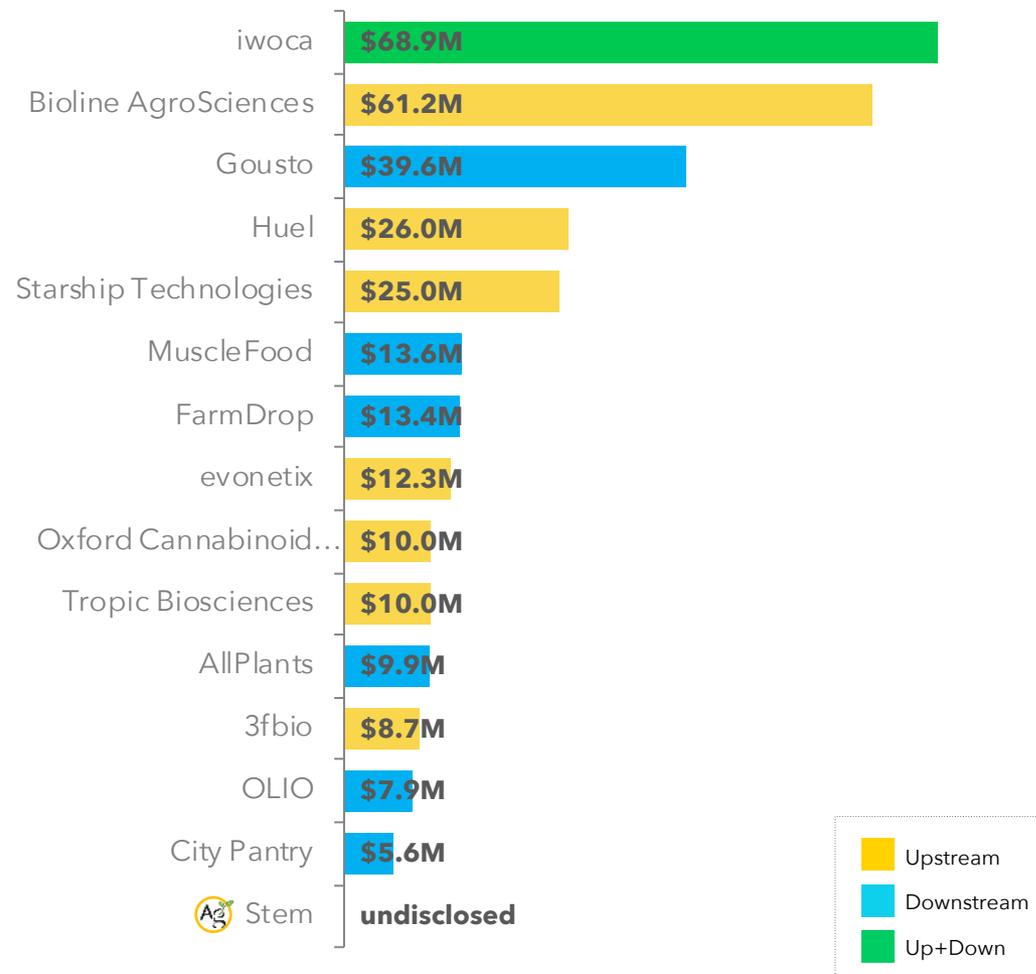
The UK agrifood tech sector is varied but with particular strength in biotech, largely due to its strength and history in agricultural sciences.

Bioline Agrosiences supplies biological control products, containing natural beneficial insects and mites. Tropic Biosciences uses gene editing to improve the performance of tropical crops such as the banana.

Iwoca is a fintech startup offering loans to small and medium-sized businesses with a particular footprint in the restaurant industry. It raised a debt round in 2018.

The UK is also home to entrepreneurs innovating for developing markets. InspiraFarms' cold chain technology is being deployed in South America and East Africa.

Downstream, OLIO is a food waste app, City Pantry is an eGrocer, and AllPlants is a vegan food delivery service.



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AgriFood Tech in the Nordics

What characterizes the ecosystem in the Nordics?

Booming and dynamic. Entrepreneurs are starting to blossom, and large corporations have become more invested in the ecosystem as they realize the potential for startups and from their urge to become more sustainable. They are also collaborating with startups. Policy makers are also becoming more informed on the importance of food tech. Everyone is getting involved.

Why is the growth in Europe overall relatively slow?

Europe overall is very geared towards 'old food'. The continent is relatively conservative. Big companies thrive and are slower to adopt to new solutions. Change is not happening as fast as elsewhere.

What are some specific focus areas and opportunities for innovation in the Nordics?

Health and sustainability, more than agtech. This is a very health-conscious and progressive region. This is not an ag country, except for fisheries. The fish farming sector is large. Other than that, it's about healthy food. Another area is forestry and sustainable packaging.

What recent investments stand out in the region?

In 2019, the established Swedish digital consumer brands investor Kinnevik invested nearly €1 billion in Swedish eGrocer MatHem just months after it invested in Norwegian eGrocer Kolonial. SolarFoods in Finland, a microbial protein company, raised \$2.5 million in 2018 and is very interesting and on-trend.

What is your key advice to European startups?

Understand that data is everything. Data-driven business models get you on the map with venture capitalists, more than product companies. Also, personalizing food and anything in food and sustainability, too.

“A focus on healthy and sustainability drives innovation in the Nordics.” – Johan Jorgensen

SWEDEN
FOODTECH



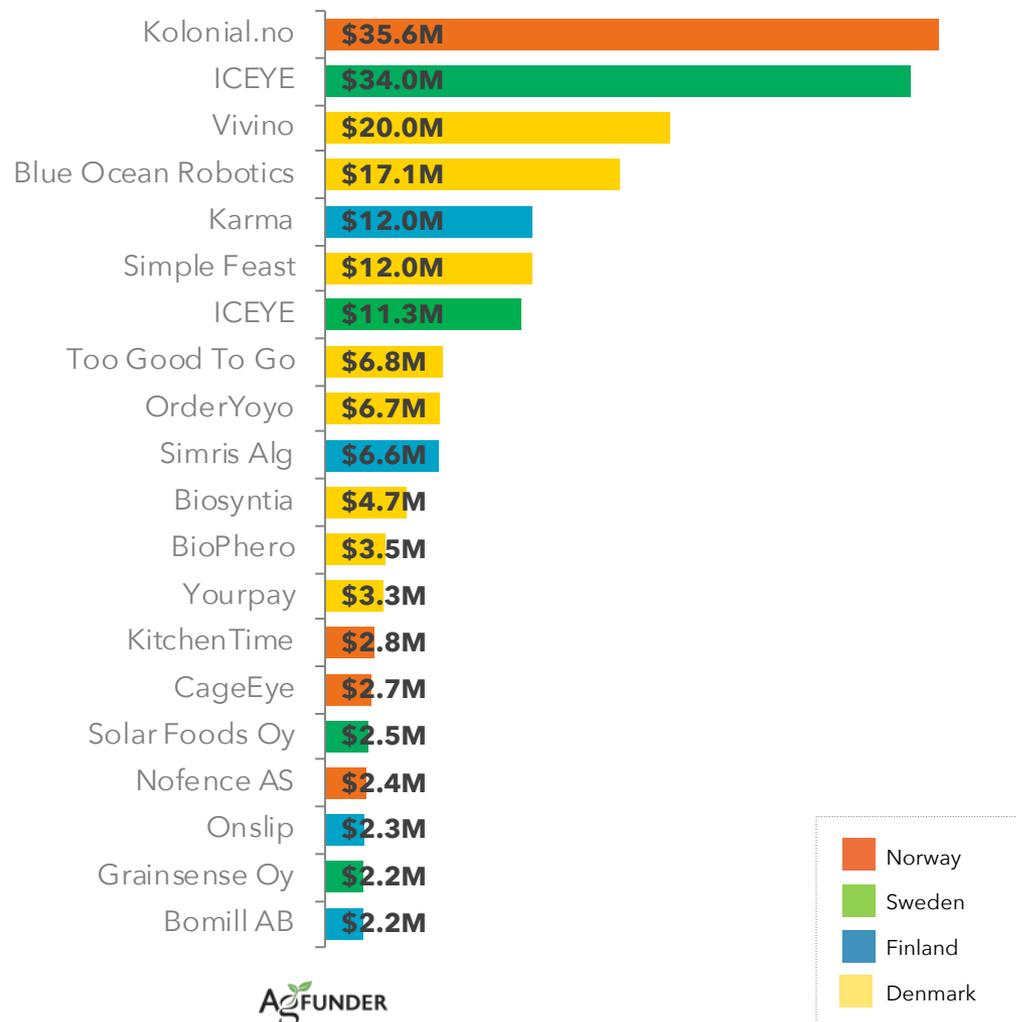
Top Nordic Deals

While the vast majority of startups in the Nordic countries are still early stage, a few have matured to later stages, with Norway's largest eGrocer closing a Series B round, and Finland's satellite imagery company ICEYE raising a Series B and a debt round during 2018.

The region contributed eight out of Europe's 26 Novel Farming Systems deals, with strength in home growing systems for consumers and aquaculture.

The region also closed 13 Farm Management Software & IoT deals out of 56 in Europe overall. These technologies are suitable for animal agriculture and aquaculture (CageEye, Nofense) as well as the grain industry (Grainsense, Vltus, FieldSense.)

Sweden was the most active country from the Nordics closing 19 out of 57 deals, followed by Denmark with 14. Both leaders were particularly strong in downstream technologies including Denmark's Vivino and Sweden's digital shopping platform Karma that enables users to find and share deals.



Top Germany Deals

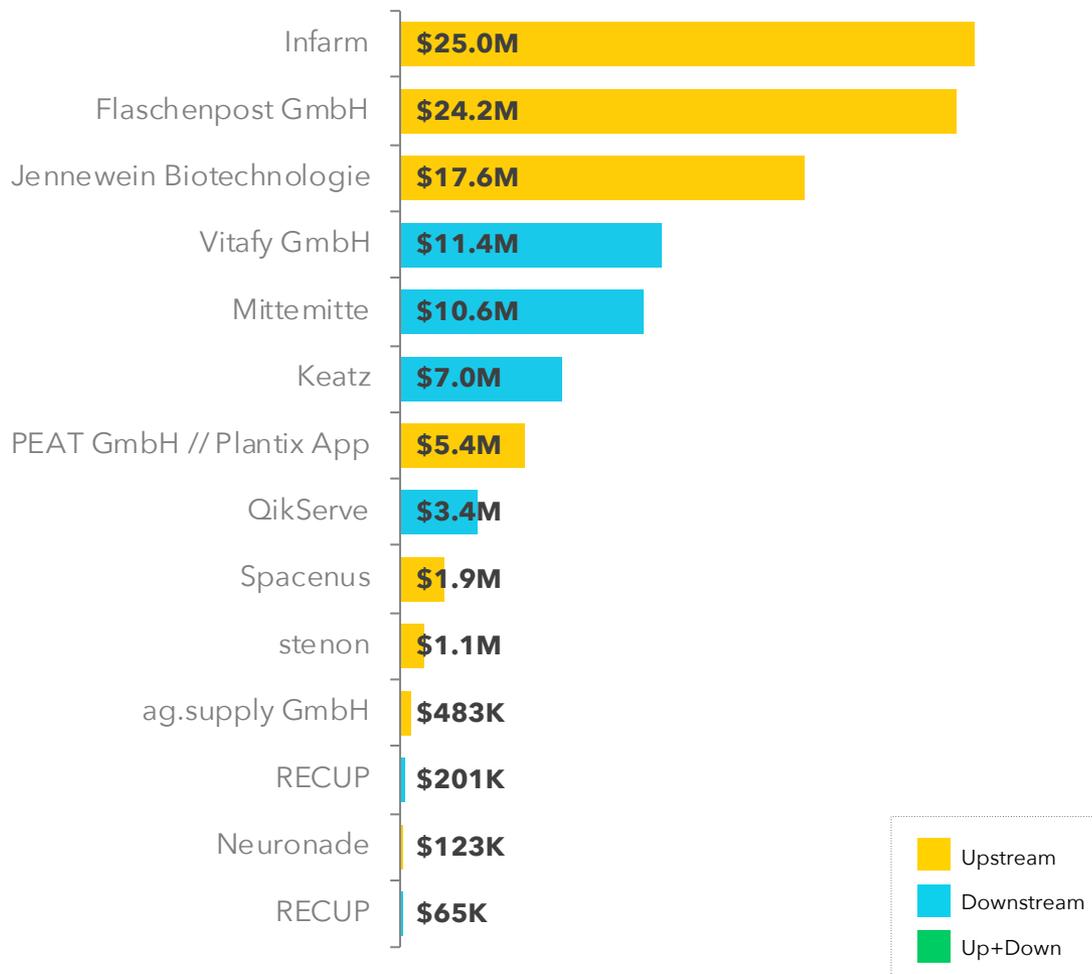
German agrifood tech startups closed \$108 million in investment during 2018 across 22 deals.

The majority of these deals were for upstream technologies (12) ranging from Farm Software and Robotics to Midstream Tech and Ag Biotech.

The largest deal was for indoor farming group Infarm in its Series A round of funding. And the only Novel Farming Systems deal during the year.

Ag.supply was also the only Agribusiness Marketplace that closed funding during the year for its "one-stop shop" for farm supplies including machinery, seed, chemicals and livestock farming tools. It raised seed funding to launch in May 2018 with more than 3 million products.

Flaschenpost is a logistics platform for the beverage industry and closed a Series B.



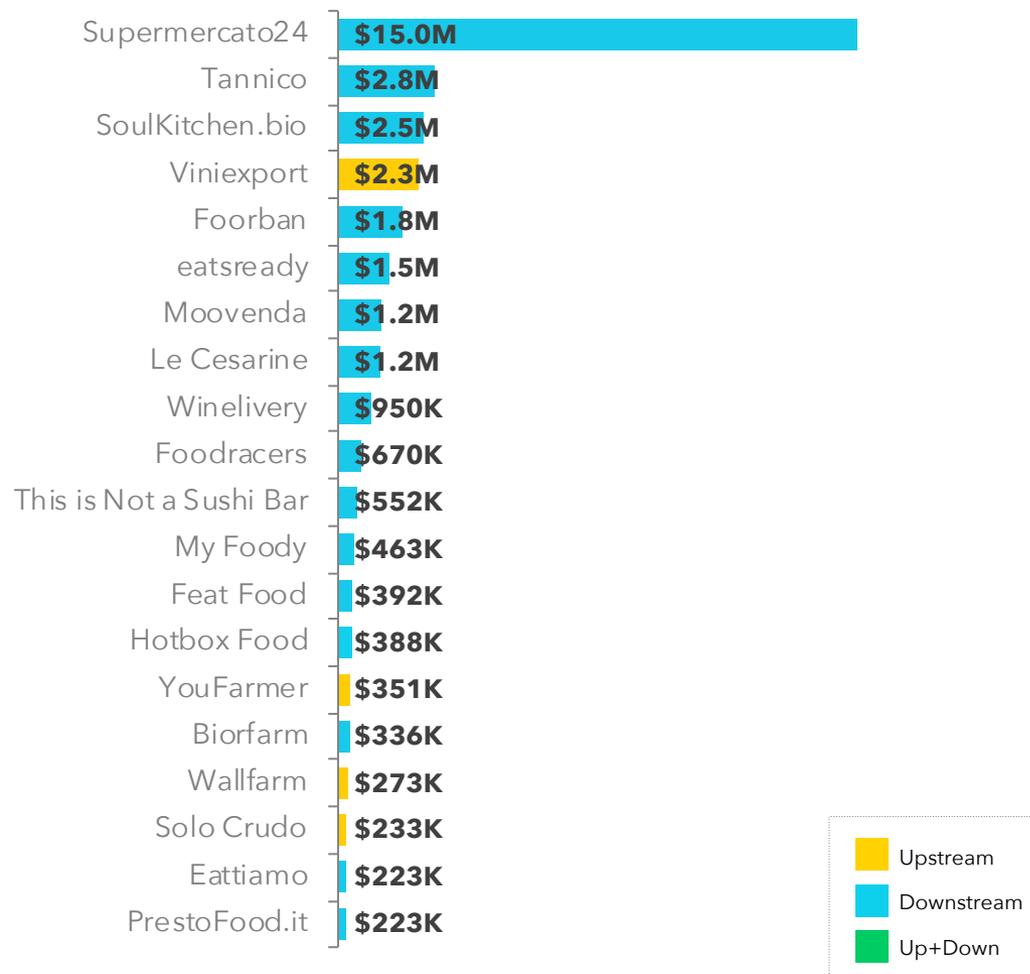
Top Italy Deals

While dominated by early stage deals resulting in just \$34 million of funding during the year, Italy was the third most active foodtech ecosystem closing 31 deals.

The country's strengths are in downstream innovation and food delivery with Supermercato one the region's most mature, private eGrocers.

Upstream technologies include YouFarmer, a co-farming platform, Viniexport, a marketplace for vineyards, and WallFarm, an indoor farming tech company.

A novel retail technology on the list is Hotbox Food, which has developed a box on the back of a delivery motorbike that keeps food hot by using heat from the bike's exhaust or electric supply.



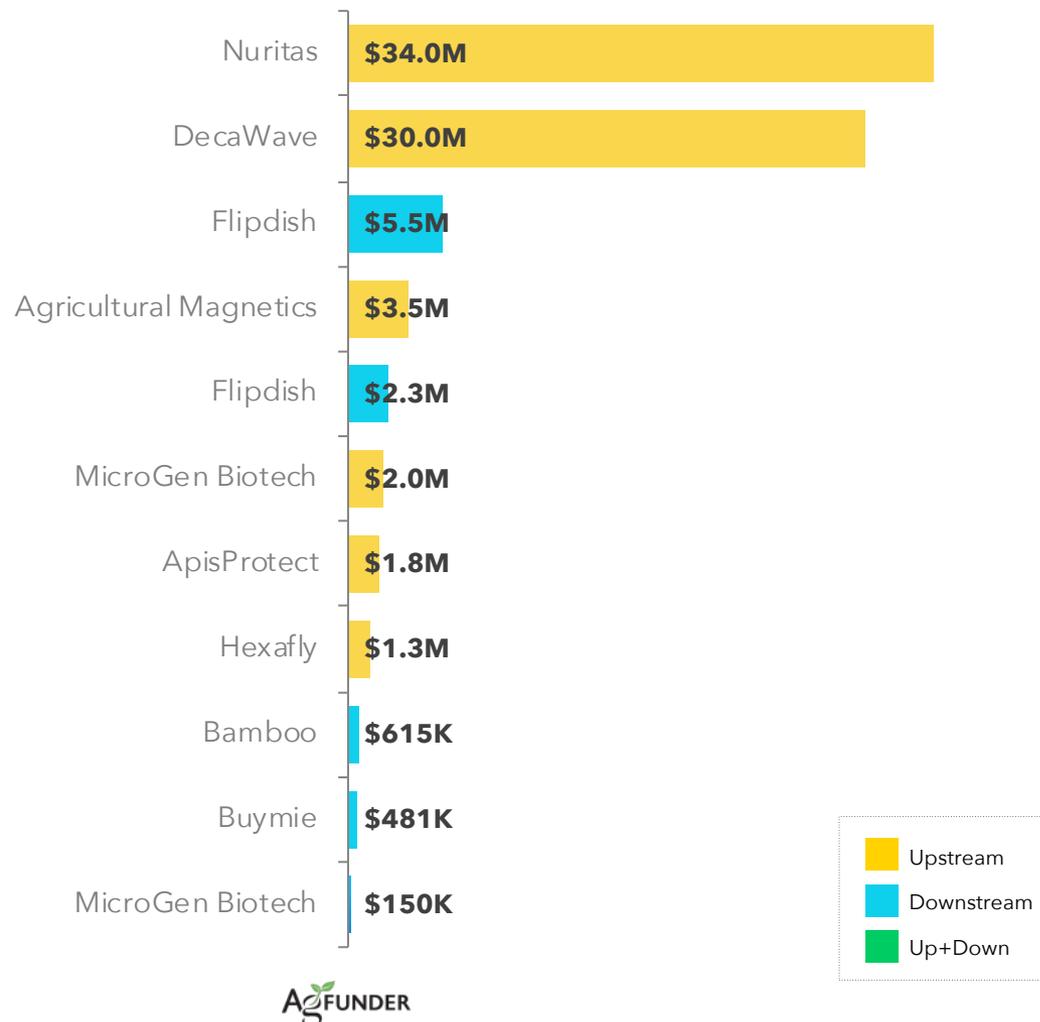
Top Ireland Deals

Ireland's strengths in agrifood tech lie mainly upstream.

Nuritas is one of agrifood tech's most mature and successful startups for the midstream of the supply chain; the company discovers healthy peptides for food products.

In farmtech, Agricultural Magnetics, better known as MagGrow, has an innovative sprayer technology, while MicroGen Biotech develops crop input alternatives and ApisProtect is a bee-focused software program.

Hexafly is the country's leading insect farm.





Investor Activity

Key insights – Investor Activity

- If there's one takeaway from the roster of investors closing food and agtech deals in Europe, it's that few are wholly dedicated to the sector (at least geographically.)
- Out of 603 active investors in 2018, 498, or 83%, made only one investment in Europe's food and agtech sector. Thirteen percent (13%) made two investments, while only 5% made three or more.
- Generalist investors topped the list of most active investors in Europe's food and ag sector.
- The most active investor by deal number in Europe's food and ag sector was UK-based crowdfunding platform Crowdcube, which backed more than 180 companies across a range of sectors in 2018, 13 of which were in agrifood tech. Funding rounds ranged from a couple hundred thousand dollars to several million.
- Bpifrance, a France-based entrepreneur-focused bank and Kima Ventures, the global angel investor network, were also among the most active in Europe's food and ag tech space, closing six or more deals in 2018.
- Seraphim Capital was a notable exception to the generalist-funder trend. The UK-based space tech-focused investment firm invested in six companies involved in the food and ag sector via remote sensing technologies. For example, Finland's satellite imagery company ICEYE is one of Seraphim's portfolio companies.

Number of Deals by Investors & Accelerators





Exits

Key Exit Insights

The European Ecosystem is at different stages of maturation across the value chain

We have seen significant successes downstream in business-to-consumer (B2C) startups, where food delivery returned more than 3.5x invested capital from 2012 to 2017 (\$3.0 billion invested versus \$10.6 billion exited).

Today, we see talented entrepreneurs shifting to other parts of the value chain and focusing on B2B tech.

Upstream activity has historically been in the field of biotechnology, but activity in that category has not continued as strongly in recent years. The EU remains important in ag biotech R&D, but the commercial environment is becoming more challenging with the European Union's current stance on gene editing, which regulates all instances of the technology as GMO. Although this is limiting the landscape of opportunities for genetics-focused businesses, certain categories including biologicals, will continue to thrive.

On the digital side, activity was unimpressive until 2018, when we saw the biggest agtech exit globally, as Merck

acquired livestock software group Antelliq for \$2.4 billion from private equity firm BC Partners. This will fuel investor interest for animal tech and the sector as whole, as Monsanto's \$1 billion acquisition of The Climate Corp did for precision agriculture. More importantly, it shows Europe's capability of creating unicorns in agtech.

The big-name generalist VCs have yet to place significant bets in the upstream portion of the agriculture value chain. There is still a lack of larger, growth-stage investment rounds that will drive big exits (with only eight C+ rounds this year) but the early stage funnel (278 seed-, 81 A-, 21 B-rounds) shows promise for the future.

A final note: We have found a lot of the data on acquisitions is undisclosed. The sector could benefit from more transparency in this regard.

– **Yoran Meijers and Maartens Goossens, Anterra Capital**



European AgriFood Tech Exits | 2018

Target	Type	Country	Acquiror	Amount	Sector	Short description
Antelliq	M&A	France	Merck	\$2,400m	Upstream	Animal tracking and identification solutions
Tails.com	M&A	United Kingdom	Nestlé	\$190m	Downstream	Online dog food delivery
Marley Spoon	IPO	Germany		\$148m	Downstream	Recipe and related grocery delivery
De Vegetarische Slager	M&A	Netherlands	Unilever	\$100m (est.)	Upstream	Manufacturer of meat substitute
Ojah	M&A	Netherlands	Kerry Group	\$25m	Upstream	Manufacturer of meat and fish substitute
Geosys	M&A	France	UrtheCast	\$20m	Upstream	Software platform for precision agriculture
Trecker	M&A	Germany	Yara		Upstream	Tracking software for farm operations
Porphyrio	M&A	Belgium	Evonik		Upstream	Business intelligence solution for poultry farmers
Smartbow	M&A	Austria	Zoetis		Upstream	Integrated solution for real-time livestock monitoring
Farmwizard	M&A	United Kingdom	AgriWebb		Upstream	Cloud based herd management software
TraitGenetics	M&A	Germany	SGS		Upstream	Molecular biomarker analysis for agriculture
Kitchen Stories	M&A	Germany	BSH Hausgeräte		Downstream	Developer of a video-based cooking application
GoCater	M&A	France	ezCater		Downstream	Online marketplace providing catering service
FoodChéri	M&A	France	Sodexo		Downstream	Parisian dinner home delivery service
Quitoque	M&A	France	Carrefour		Downstream	Online platform for ordering recipe kits

Notable European Exits | Pre-2018

Target	Type	Country	Acquiror	Sector	Amount	Short description
Delivery Hero	IPO	Germany		Downstream	\$4,920m	Restaurant marketplace
Just Eat	IPO	UK		Downstream	\$2,460m	Restaurant marketplace
HelloFresh	IPO	Germany		Downstream	\$1,950m	Meal recipe kit subscription service
Ocado	IPO	UK		Downstream	\$1,700m	Online grocery
Takeaway.com	IPO	Netherlands		Downstream	\$1,110m	Restaurant marketplace
Quorn	M&A	UK	Monde Nissin	Upstream	\$885m	Manufacturer of meat substitute
PharmaQ	M&A	Norway	Zoetis	Upstream	\$765m	Vaccines for aquaculture industry
Vitaflo	M&A	UK	Nestlé	Upstream	\$600m	Develops clinical nutrition products
Yemek Sepeti	M&A	Turkey	Delivery Hero	Downstream	\$589m	Restaurant marketplace
deVGen	M&A	Belgium	Syngenta	Upstream	\$554m	Hybrid seeds and nematicides
Evogene	IPO	Israel		Upstream	\$340m	Biotech firm improving plant traits
Perten Instruments	M&A	Sweden	Perkin Elmer	Upstream	\$266m	Content analysis of agriculture produce
Bevyz	M&A	Israel	Keurig	Downstream	\$258m	Single-portion multi-drink system
SCR Dairy	M&A	Israel	Allflex	Upstream	\$250m	Dairy cow monitoring solutions
Hungryhouse.co.uk	M&A	UK	Just Eat	Downstream	\$245m	Restaurant marketplace
Quandoo	M&A	France	Recruit Holdings	Downstream	\$221m	Restaurant marketplace
Oxitec	M&A	UK	Intrexon	Upstream	\$160m	Genetically-modified insects
La Fourchette	M&A	France	Tripadvisor	Downstream	\$140m	Online restaurant reservation platform
Beeologics	M&A	Israel	Monsanto	Upstream	\$113m	RNA products for bee health
Delivery Club	M&A	Russia	Mail.Ru	Downstream	\$100m	Marketplace for food delivery
Cropdesign	M&A	Netherlands	BASF	Upstream	\$100m	Crop traits development
NexVet	M&A	Ireland	Zoetis	Upstream	\$85m	Animal biopharma company
Datamars	M&A	Italy	Columna Capital	Upstream	\$83m	Identification and monitoring of livestock
Octopus Robotics	IPO	France		Upstream	\$32m	Farm robotics
VitalFields	M&A	Estonia	Climate	Upstream	n/a	Farm management software
ZIM Plant	M&A	Israel	Yara	Upstream	n/a	Farm management software & hardware
TraceOne	M&A	France	HgCapital	Upstream	n/a	Supply chain tech
Inge watertechnologies	M&A	Germany	BASF	Upstream	n/a	Technology developer in water treatment
Bookatable	M&A	France	Michelin	Downstream	n/a	Booking platform for restaurants



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



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