Agtech Report

VC trends and emerging opportunities

Q1 2022

REPORT PREVIEW
The full report is available through the PitchBook Platform.
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Institutional Research Group
Analysis
Alex Frederick Senior Analyst, Emerging Technology
alex.frederick@pitchbook.com
pbinstitutionalresearch@pitchbook.com
Data
Matthew Nacionales Data Analyst
Publishing
Report designed by Megan Woodard, Jenna O’Malley, and Julia Midkiff
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Q1 2022 timeline

January 13, 2022
Microbial biofertilizer provider Kula Bio raises a $50.0 million Series A round.

February 8, 2022
The US Department of Agriculture (USDA) announces Partnerships for Climate-Smart Commodities, which will commit $1.0 billion over next year into "climate-smart" farming practices that reduce GHGs or sequester carbon.

March 7, 2022
Carbon farming company CIBO Technologies partners with grain trading platform Bushel to assist farmers with joining CIBO’s Carbon Bridge program, which incentivizes farmers to transition to farming practices that sequester carbon.

January 24, 2022
Geospatial analytics provider Satellogic announces a $575.0 million special purpose acquisition company (SPAC) merger.

February 11, 2022
Indoor farming operator Bowery acquires Traptic, a farming robot company that uses artificial intelligence (AI) and computer vision to harvest strawberries and other delicate crops.

March 21, 2022
Two Africa-based agtech startups, Apollo Agriculture and ThriveAgric, raise a combined $96.4 million in debt and equity funding to support smallholder farmers.

Q1 VC activity
- 222 total deals
- 3.7% QoQ deal count growth
- $3.3B total VC raised
- 15.5% QoQ fundraising growth

TTM summary (Q4 2020 - Q1 2022)
- 854 total deals
- 11.8% YoY deal count growth
- $12.1B total VC raised
- 45.9% YoY fundraising growth
Agtech VC ecosystem market map

<table>
<thead>
<tr>
<th>Ag biotech</th>
<th>Indoor farming</th>
<th>Agrifinance and e-commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant data &amp; analysis</td>
<td>Components</td>
<td>Agribusiness marketplaces</td>
</tr>
<tr>
<td>Animal biotech</td>
<td>Systems</td>
<td>Finance &amp; insurance</td>
</tr>
<tr>
<td>Plant biotech</td>
<td>Growers</td>
<td></td>
</tr>
</tbody>
</table>
Agtech VC ecosystem market map

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

**Animal ag**
- Aquaculture
- Livestock & land animal tech
- Pollination tech
- Insect farming

**Precision ag**
- Farm management software
- Robotics & smart field equipment
- Field IoT
- Drones & imagery analytics
VC activity

Funding activity continued its upward trajectory in Q1 2022, as agtech companies globally logged $3.3 billion across 222 deals, with deal values up 15.5% QoQ. VC enthusiasm for agtech startups persisted in Q1 despite volatility in the public markets that has negatively affected major indexes as well as agtech stock prices.

The agrifinance & e-commerce segment garnered the majority of agtech’s VC funding in Q1, logging $921.8 million across 36 deals. Many of this segment’s companies are developing solutions for emerging markets. The majority of food production is often done by smallholder farms characterized by antiquated, inefficient infrastructure and nascent markets. Implementing agribusiness marketplaces and e-commerce tools can improve supply and demand in emerging markets and unlock the economic potential of the agricultural land.

Strong agtech funding momentum has elevated median deal sizes and valuations across most stages. Most of the growth can be found at the early stage, wherein deal sizes climbed 59%, while pre-money valuations soared 67.0% YoY. In fact, median valuation step-ups—or the increase in value from pre-money to post-money—at the early stage were 2.7x, up 33.2% YoY. In other words, startups created a median of 33.2% more value at the early stage than the year prior. Despite investor enthusiasm at the early stage, we observed a softening of investor sentiment at the late stage. Median VC deal size growth plateaued at $10.5 million for late-stage VC after climbing 45.3% in 2021. Median pre-money valuations declined 32.0% to $37.3 million for late-stage VC, only $3.9 million above the median early-stage valuation. Historically, the late stage has been subject to valuation volatility, so it may yet be too early to determine if investors are exercising unusual caution.
### VC Activity

**Figure 16. Key agtech early-stage VC deals**

<table>
<thead>
<tr>
<th>Company</th>
<th>Close date (2022)</th>
<th>Subsegment</th>
<th>Stage</th>
<th>Deal size ($M)</th>
<th>Lead investor(s)</th>
<th>Post-money valuation ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reshamandi</td>
<td>February 9</td>
<td>Agribusiness marketplaces</td>
<td>Early-stage VC</td>
<td>$100.0</td>
<td>N/A</td>
<td>$700.0</td>
</tr>
<tr>
<td>Chari</td>
<td>January 20</td>
<td>Agribusiness marketplaces</td>
<td>Early-stage VC</td>
<td>$100.0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Colossal</td>
<td>March 9</td>
<td>Animal biotech</td>
<td>Early-stage VC</td>
<td>$75.0</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>AcreTrader</td>
<td>March 15</td>
<td>Finance &amp; insurance</td>
<td>Series B</td>
<td>$60.0</td>
<td>Anthemis Group</td>
<td>$300.0</td>
</tr>
<tr>
<td>Kula Bio</td>
<td>January 13</td>
<td>Plant biotech</td>
<td>Series A</td>
<td>$50.0</td>
<td>Lowercarbon Capital</td>
<td>$210.0</td>
</tr>
<tr>
<td>Retailo Technologies</td>
<td>February 8</td>
<td>Agribusiness marketplaces</td>
<td>Series A</td>
<td>$36.0</td>
<td>Graphene Ventures</td>
<td>N/A</td>
</tr>
<tr>
<td>Vertical Future</td>
<td>January 18</td>
<td>Indoor growers</td>
<td>Series A</td>
<td>$29.7</td>
<td>N/A</td>
<td>$111.3</td>
</tr>
<tr>
<td>Pixxel</td>
<td>March 28</td>
<td>Drones &amp; imagery analytics</td>
<td>Series A2</td>
<td>$25.2</td>
<td>Radical Ventures</td>
<td>$95.0</td>
</tr>
<tr>
<td>Inventa</td>
<td>January 24</td>
<td>Agribusiness marketplaces</td>
<td>Series A</td>
<td>$20.0</td>
<td>Andreessen Horowitz, Monashees</td>
<td>N/A</td>
</tr>
<tr>
<td>Bijak</td>
<td>January 20</td>
<td>Agribusiness marketplaces</td>
<td>Series B</td>
<td>$19.3</td>
<td>Bertelsmann India Investments</td>
<td>$163.5</td>
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</tbody>
</table>

Source: Pitchbook | Geography: Global | *As of March 31, 2022
### VC Activity

#### Figure 19. Key agtech incumbents

<table>
<thead>
<tr>
<th>Company</th>
<th>Subsegment</th>
<th>Key products</th>
<th>EV/NTM revenue*</th>
<th>EV/NTM EBITDA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deere</td>
<td>Robotics &amp; smart field equipment</td>
<td>Tractors, sprayers, planters</td>
<td>3.3x</td>
<td>14.9x</td>
</tr>
<tr>
<td>Yara International</td>
<td>Plant biotech</td>
<td>Fertilizer, fertigation, foliar</td>
<td>0.7x</td>
<td>3.8x</td>
</tr>
<tr>
<td>Corteva Agriscience</td>
<td>Plant biotech</td>
<td>Herbicide, fungicide, insecticide, disease control</td>
<td>2.7x</td>
<td>15.6x</td>
</tr>
<tr>
<td>Zoetis</td>
<td>Animal biotech</td>
<td>Vaccines, parasite control products and antibiotics</td>
<td>10.2x</td>
<td>23.5x</td>
</tr>
<tr>
<td>The Mosaic</td>
<td>Plant biotech</td>
<td>Fertilizer</td>
<td>1.2x</td>
<td>3.2x</td>
</tr>
<tr>
<td>New Hope Liuhe</td>
<td>Livestock &amp; land animal tech</td>
<td>Animal feed products</td>
<td>1.0x</td>
<td>89.5x</td>
</tr>
<tr>
<td>Kubota</td>
<td>Robotics &amp; smart field equipment</td>
<td>Tractors, balers, rakes, tedders</td>
<td>1.7x</td>
<td>11.3x</td>
</tr>
<tr>
<td>Merck Animal Health</td>
<td>Animal biotech</td>
<td>Vaccines, nutritional, reproductions, therapeutics</td>
<td>4.5x</td>
<td>10.8x</td>
</tr>
<tr>
<td>Archer Daniels Midland</td>
<td>Livestock &amp; land animal tech</td>
<td>Feed, feed additives, premix, macro-ingredients</td>
<td>0.7x</td>
<td>11.1x</td>
</tr>
<tr>
<td>Lindsay</td>
<td>Field IoT</td>
<td>Irrigation systems, management, scheduling</td>
<td>1.9x</td>
<td>14.9x</td>
</tr>
</tbody>
</table>

Source: PitchBook | Geography: Global | *As of March 31, 2022
Overview

Pivot Bio develops microbial biofertilizers as an alternative to synthetic chemical fertilizers. The company produces a liquid microbial nutrient product, which it sells directly to farmers. Biological inputs are made of living organisms, which tend to be less precise and effective when compared with synthetic inputs. However, biologicals can improve soil health and avoid environmental issues such as chemical runoff and GHG emissions commonly associated with synthetic inputs. The microbes in Pivot Bio’s biofertilizers can regulate the amount of nitrogen released to meet the requirements of the crops being treated. The company makes two biofertilizer products, which are applied in tandem with synthetic fertilizers. Pivot Bio has stated that its newest biofertilizer for corn crops is able to reduce synthetic fertilizer usage by 40 pounds per acre.

Leadership

CEO: Karsten Temme
Chief Technology Officer: Richard Broglie
Chief Information Officer: John Walls
Competitors

Recently, microbial fertilizers have garnered significant VC funding, in part due to increased focus on soil health and environmental implications of agriculture. Record-high fertilizer prices, partly due to the Russian insurgency into Ukraine, have created a new incentive to adopt biofertilizers. Key competitors include Kula Bio, Indigo Agriculture, and Boost Biomes. Kula Bio has raised $61.2 million in VC funding to develop a microbial biofertilizer that converts atmospheric nitrogen into a soil-stored crop nutrient. Indigo Agriculture produces a microbial seed coating that produces more resilient crops. Boost Biomes has a pipeline of microbial agricultural products in development that address crop diseases and boost resiliency.
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PitchBook Data, Inc.
John Gabbert Founder, CEO
Nizar Tarhuni Senior Director, Institutional Research & Editorial
Paul Condra Head of Emerging Technology Research

Additional research

Agtech
Alex Frederick
alex.frederick@pitchbook.com

Artificial Intelligence & Machine Learning
Brendan Burke
brendan.burke@pitchbook.com

Fintech
Robert Le
robert.le@pitchbook.com

Foodtech
Alex Frederick
alex.frederick@pitchbook.com

Information Security
Brendan Burke
brendan.burke@pitchbook.com

Insurtech
Robert Le
robert.le@pitchbook.com

Internet of Things (IoT)
Brendan Burke
brendan.burke@pitchbook.com

Mobility Tech
Jonathan Geurkink
jonathan.geurkink@pitchbook.com

Supply Chain
Jonathan Geurkink
jonathan.geurkink@pitchbook.com

Emerging Spaces and Vertical Snapshots
Ryan Vaswani
ryan.vaswani@pitchbook.com