

AG TECH INVESTING: THE TIME IS NOW

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Ag Tech, historically speaking, is the new kid in town. While agriculture has been around since the beginning of time, evolving into what is now a multi-trillion-dollar industry, agriculture and agri-food technology as an investment category is a relatively new phenomenon. Yes, there has always been innovation in agriculture –

the cotton gin, the mechanical reaper, the steel plow, and the like. But the world has never seen the likes of what has happened in just the last ten years. And it seems we're just getting started.

Due to explosive population growth, the effects of climate change, changing consumer demands and numerous

consumer health concerns, the need for ag innovation and the entrepreneurial response to that need has never been greater. Fortunately, in recent years, university and corporate researchers, start-up companies, accelerators and incubators have come together to develop technological solutions that solve some of our most pressing agricultural

problems. And the venture capital industry has certainly taken note. In fact, venture investment in Ag Tech has grown 75% since 2014 and looks keen to keep growing as the sector offers opportunities across types of investors (Szkutak, 2020). Notably, PitchBook reports that IRR for the category from 2012 to 2017 was a healthy 16.3%.

The Serra Ventures team has been deeply involved in the Ag Tech category for some time, making its first investments in the space in 2010. The steady increase in quantity and quality of Ag Tech deals in our evaluation pipeline, along with some notable exits of our portfolio companies in the space (640 Labs and Agrible), convinced our team to create a standalone fund the singular focus of which is agriculture and agri-food technology. The launch of the Serra Capital Ag Tech Fund is based explicitly on these four foundations:

1. There has been a proliferation of Seed Stage Ag Tech deals that have received funding in just the last few years. As those companies progress and ultimately seek additional rounds of funding, there will be an exceptional number of high quality Seed Plus Stage and Series A Stage deals available for investment.
2. There are numerous "platform technologies" now stabilized and mature enough to enable unique solutions to pervasive problems in the food supply chain.
3. There are significant millennial-consumer-driven food trends that are creating problems and opportunities up and down the supply chain that will need to be addressed by Ag Tech startups.
4. Covid-19 is uniquely accelerating the above trends. It has become a forcing function for the industry to develop digital solutions for a number of problems that previously existed but which have come to the forefront.



1. PROLIFERATION OF SEED STAGE AG TECH DEALS CREATES INVESTMENT OPPORTUNITY

In Ag Funder's mid-year 2020 report, it was noted that 1,568 Seed Stage deals with \$1.2 billion in funding were completed in the 18-month period from January 1, 2019 to June 30, 2020. During that same period of time, 497 Series A Stage deals with \$4.2 billion in funding were consummated. As the Seed Stage deals from that time frame progress, they collectively represent what should be a very robust set from which to select the very best Seed Plus and Series A deals in the next one to three years. The trend of increasing venture capital focus over the most recent couple of years signals the overall maturation of the Ag Tech category, enabling sophisticated and discerning investors to capitalize on the best opportunities.

2. STABILIZED AND MATURE "PLATFORM TECHNOLOGIES" ENABLE UNIQUE SOLUTIONS TO PERVASIVE PROBLEMS

The outdated and entrenched methods of agriculture have put it behind the curve relative to other industries in the last three decades. But that is changing, as the Ag industry embraces technological solutions to its most pressing problems. Concurrently, a number of platform technologies have matured to the point of stability, enabling their broader deployment. Examples of these platform technologies include sensors/IoT, drones, robotics, AI, satellite imagery and gene editing. Whereas ten years ago, many of these technologies were in a nascent state and therefore not commercially viable, it is a different story today. These technologies, often in combination with one another, are enabling robust and stable solutions to the most challenging problems in Ag.

One of Serra's newest investments is in iUNU, which is revolutionizing the greenhouse segment of Ag, making the growing and harvesting processes an order of magnitude more efficient. The company's Luna software uses AI technology in combination with sensors and camera vision in greenhouse control systems, recording multiple data points, relieving overwhelmed individuals of their error-prone tasks. In short, no clipboards, no charts, no walking up and down endless aisles. The Luna technology finds the problems, identifies solutions and enables greenhouse curators to produce a more viable crop in a more efficient manner.

Another unique solution to an age-old problem has come to the market through Serra-backed company, Tillable. Founded by Corbett Kull, one of the key drivers behind 640 Labs' successful exit, Tillable represents the first online marketplace for farmland rental. It's a simple and elegant solution to a problem that's existed literally for centuries. Farmers can find farmland to rent, and landowners can find tenants to farm their land, ultimately optimizing the marketplace. By simplifying lease management for landowners, and connecting farmers with more land, they are ensuring that land is farmed sustainably.

3. SIGNIFICANT MILLENNIAL-CONSUMER-DRIVEN FOOD TRENDS CREATING PROBLEMS AND OPPORTUNITIES

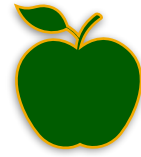
Millennials represent a major demographic population shift. At 75 million strong, they are now the largest generation. Unsurprisingly, the millennials have new tastes and food demands. The entire food system - literally every aspect of the agriculture domain - will need to embrace these significant changes and respond accordingly. The Serra team has observed four key trends which we believe, in particular, will significantly alter the agriculture landscape in the next five to ten years.



SUSTAINABILITY

HEALTH &
WELLNESS

CONVENIENCE



FOOD SAFETY

With millennials surpassing the baby-boomers as the largest group of consumers, the demands of the newer generation as evidenced in the four above trends are forcing food and beverage companies to respond accordingly. But the changes aren't only impacting food retailers and manufacturers. These changes are flowing backward through every aspect of the agriculture domain, impacting farmers, input suppliers, transportation companies, and every entity that touches Ag.

The new generation of consumers is "more experimental in their food and beverage choices, more health conscious, seeking fewer processed foods, and they also appear to be willing to spend a greater share of their income on food." "Clean eating" and "transparent" are buzz words heard more often when talking about what is and isn't in our food. Consumers' tastes are collectively shifting toward foods that are not only less processed, but which are more natural, have fewer ingredients and which are organically farmed. Also trending is the consumer desire for more vegetables and less meats, while expressing a concern over decreasing the carbon footprint due to large consumption of animal products.

Broadly speaking, Ag Tech and Agri-food tech startups will need to solve a multitude of challenges including food waste, handling of CO2 emissions, food safety and traceability, farm efficiency and profitability, and unsustainable meat consumption. An example of the type of company solving these problems and which the Serra Capital Ag Tech Fund will focus on is a current Serra portfolio company, Label Insight. Their proprietary software platform provides unparalleled consumer product transparency, helping people make more informed decisions about the ingredients in food products and what foods they desire to consume.



4. COVID-19 IS UNIQUELY ACCELERATING THE ABOVE TRENDS

While each of the above trends is powerful in its own right, Covid-19 has thrown gasoline on the fire, so to speak. For example, eGrocery was the biggest agri-food tech investment sector in 2019 and already was steady going into 2020, but Covid has pushed that category even further. Covid has compelled much of the workforce to stay home and work remotely which has led to astronomical demand for novel delivery food solutions, both grocery and restaurant alike. Consumers want contactless interactions with vendors, and they desire healthier and more abundant choices. They also want their choices more accessible and transparent. Layer into the equation consumers with food-related diseases, and the need for completely new food preparation and delivery solutions becomes even more acute.

"Investors predict this may continue to grow as the covid-19 crisis has only further shown the need for innovation and advancement in agriculture and as many GPs are looking to deploy capital in sustainable areas." (Szkutak, 2020).

The above four foundations will profoundly shape the Ag Tech sector for well into the next decade. The Serra team believes that this unique combination of factors makes the present time one of the most compelling for investment in the sector. The time for Ag Tech investing is now.

Sources:

- <https://www.agriinvestor.com/agtech-offers-room-for-a-multitude-of-investors-to-take-root/>. Szkutak. 2020.
- AgFunder AgriFoodTech Midyear Investment Review. Ag Funder. 2020.

