

Doon Insights SOM Session

Is the Pharma/Biotech Model an Alternative Approach to Attracting and Allocating Investment in the AgTech sector?

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Interior Lines Advisory



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Presentations from the May 2024 Doon Insight conference highlighted the business model and financing and challenges of AgTech start-ups

- ***Financing the Scaling of Ag/Food Tech***
 - Dave Chen
 - Adam Bergman
 - Connie Bowen
- ***Will ROIS on Ag and Food tech Normalize?***
 - Valerie Christy
 - Brian Frank
 - Rob LeClerc
 - Sebastien Pascual

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Presentations from the May 2024 Doon Insight conference highlighted the financing and business model challenges of AgTech start-ups

- Some key challenges regarding AgTech sectors were highlighted:
 - *Ag is a physical sector, it is capital intensive*
 - *Start-ups need to consider other forms of financing*
 - *Founders and Advisors need to do a better job managing capital and their business models*
 - *Success is measured by how much money you raise, not how you deploy it*

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Thesis:

- Given the use of bioscience in many AgTech start-ups, can Biotech start-ups provide an alternative approach for **certain** AgTech (Crops) start-ups?
- Can AgTech (focus of discussion) start-ups become more like Bio Tech start-ups?

Answer:

- **Probably not! [But maybe someday?]**
- Big Pharma/Biotech relationship \neq Ag Majors/AgTech relationship
- Human health \neq Crop health
- Farmers \neq Doctors
-But there are some lessons worth considering

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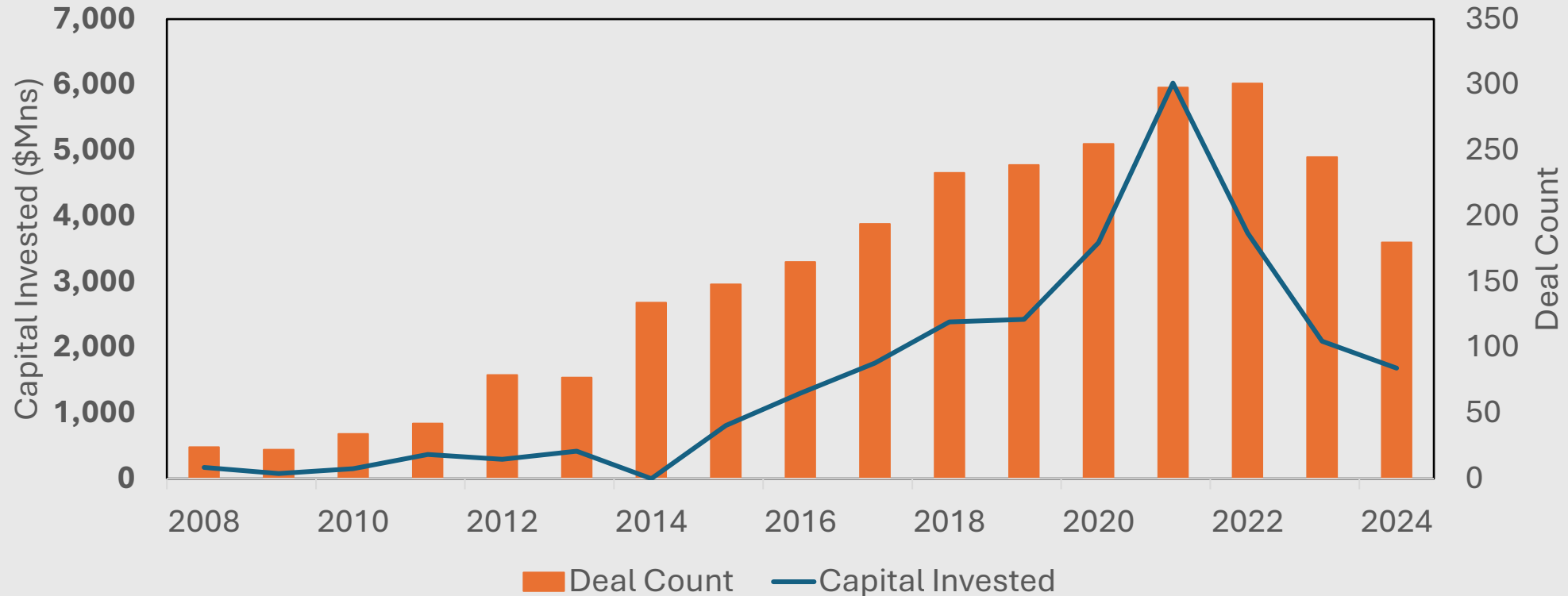
Testing the Thesis

Interviewed:

- Investment Bankers
- Research Analysts
- Biotech Advisors and Investors

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Ag Tech VC Deal Count and Capital Invested (U.S.)

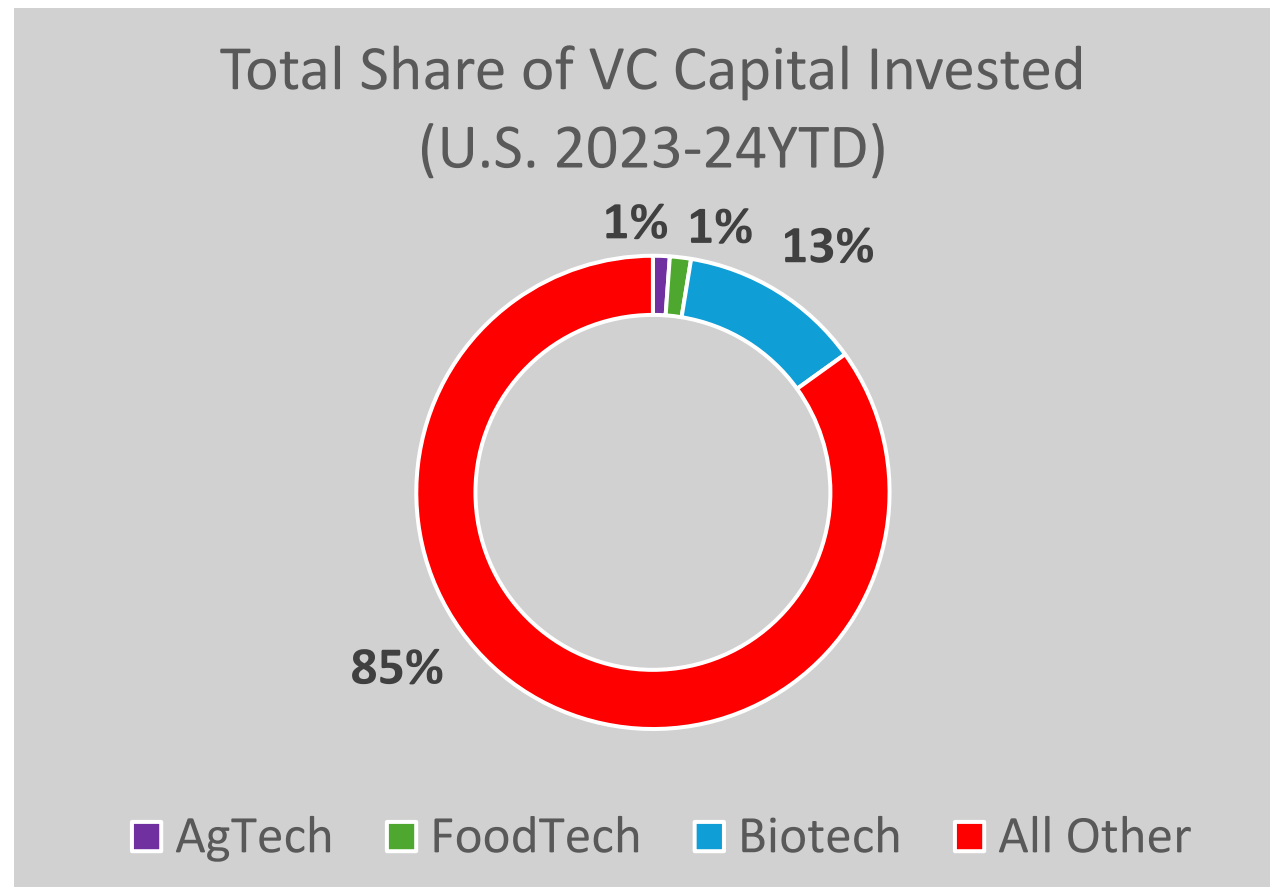


Capital Invested (\$Mns)	2021	2022	2023	2024*	Peak to Trough
All VC	351,971	239,139	161,669	169,066	-54%#
Ag Tech	6,026	3,741	2,094	1,682	-72%
Bio Tech	38,392	29,278	20,185	21,155	-47%#

Source: Pitchbook, *YTD# Trough in '23

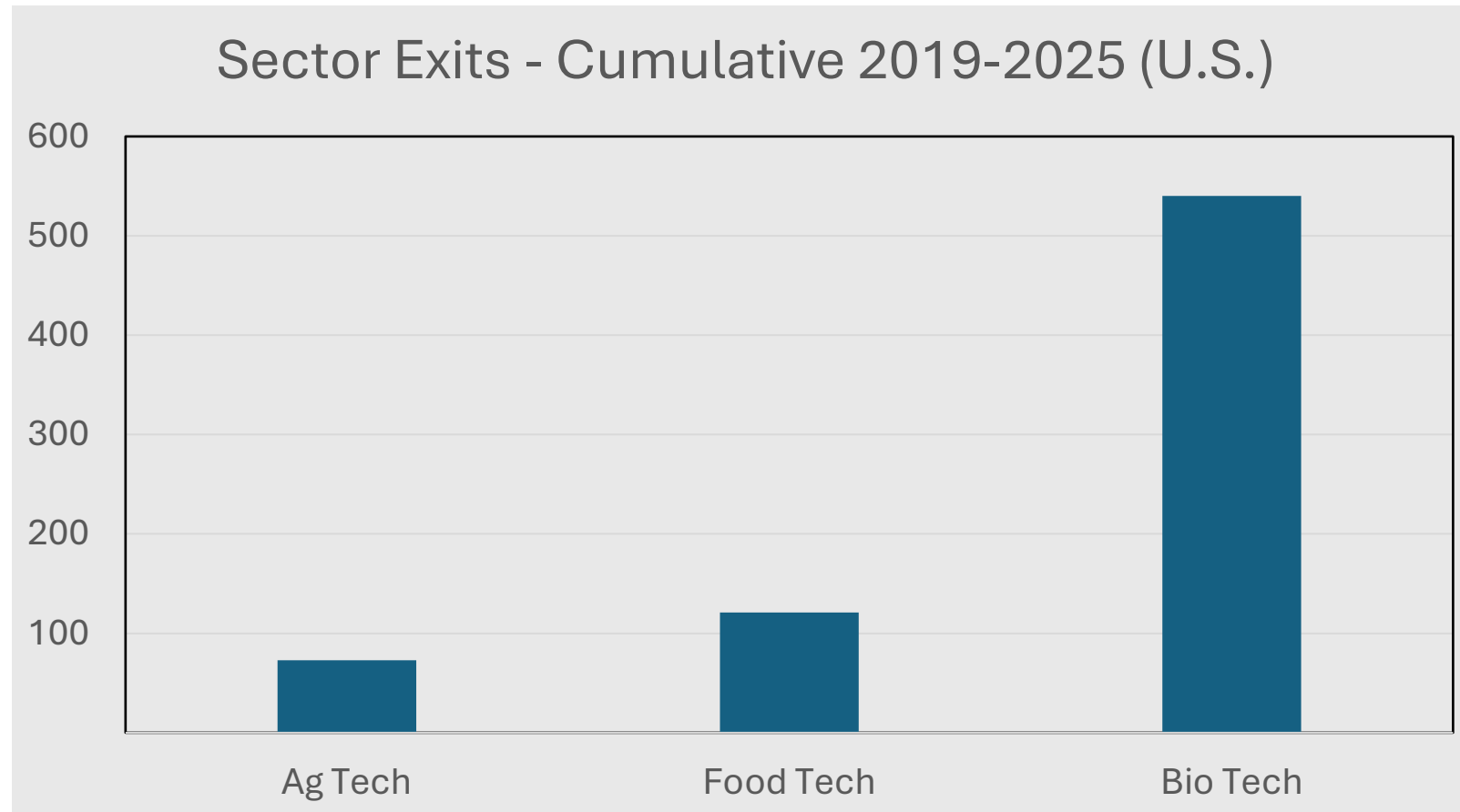
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AgTech Just 1.0% of VC Capital Invested



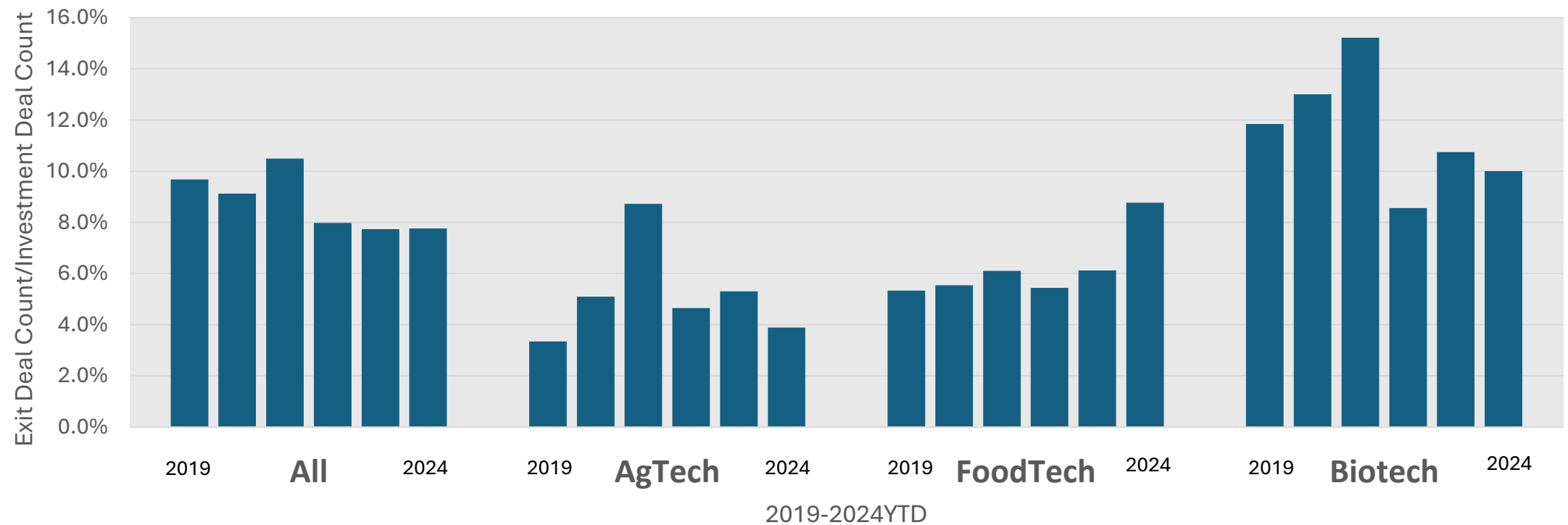
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Exits




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Exit Velocity by Tech Sector
(U.S. VC Exit Deals/VC Investment Deals)



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What Could AgTech Be Doing Wrong?

Typical VC proof points don't necessarily work for AgTech startups 

- Farmers are slow to trust and adopt new technologies
- Ag Majors protect legacy products and positions w/ farmers
- AgTech technology development measured in seasons, not weeks or months

Typical Playbook Advice

1 Pre-Seed Funding

Definition

Initial fund used to start business + operations.

Fund Usage

market research, product dev, building a prototype.

You NEED to Show

Demonstratable **CONCEPT**

SOLID founding team

Initial customer **VALIDATION**

2 Seed Funding

Definition

Fund used to further validate +begin to grow biz.

Fund Usage

product dev, initial MKTG, attracting first customers.

You NEED to Show

Initial **PRODUCT MARKET FIT**

Model **SCALABILITY** 

Initial **CUSTOMER BASE**

3 Series A

Definition

Scale product & ops after market validation.

Fund Usage

Expanding ops, enhancing features, increasing market.

You NEED to Show

Solid **REVENUE GROWTH** 

Path to **PROFITABILITY**

Significant **USER BASE** 

4 Series B

Definition

Extensive scaling of established business.

Fund Usage

Broadening reach, hiring execs, increasing capacity.

You NEED to Show

Growing **MARKET SHARE** 

SOLID Financials + profits

Effective, **SCALABLE OPS** 

5 Series C & Beyond

Definition

Prepare for public offering or major acquisition.

Fund Usage

Diversifying, acquiring companies, new markets.

You NEED to Show

Market **LEADERSHIP** 

Sustainable **REVENUE**

Clear **EXIT STRATEGY**

6 Special Cases

Bridge Rounds

Interim funds raised to get the company to the next major round.

Debt Financing

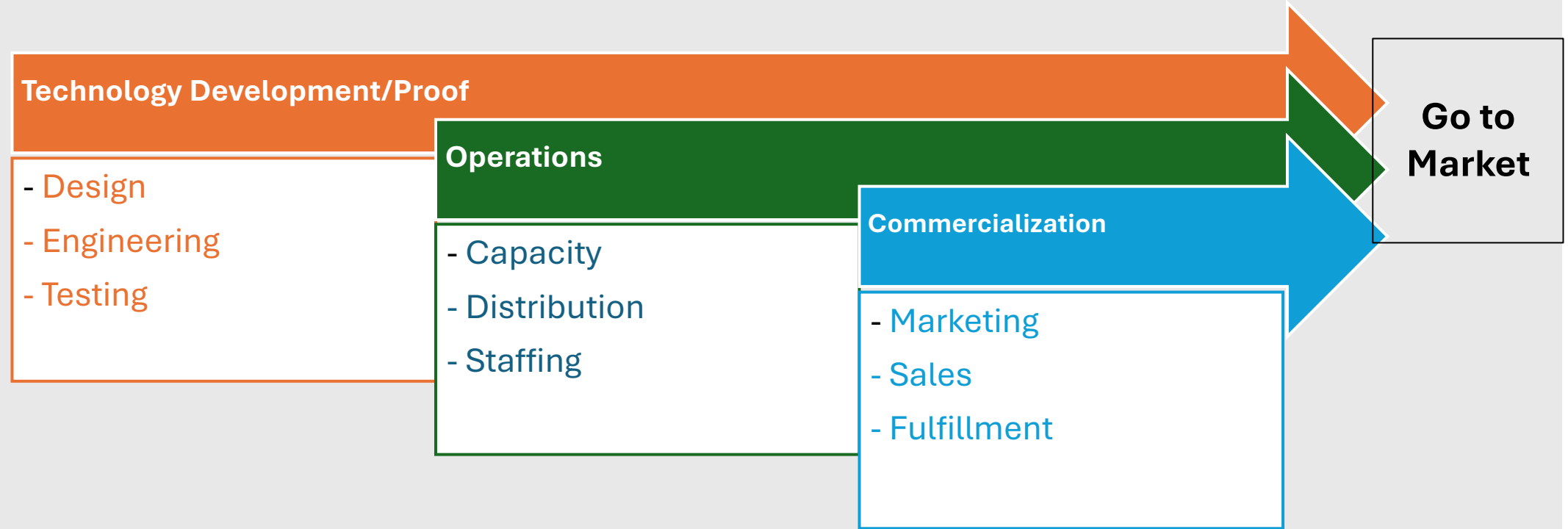
Involves loans that must be repaid but do not dilute ownership.

Can occur b/n many of the rounds mentioned above

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Typical VC-backed Start-up

What Could AgTech Be Doing Wrong?

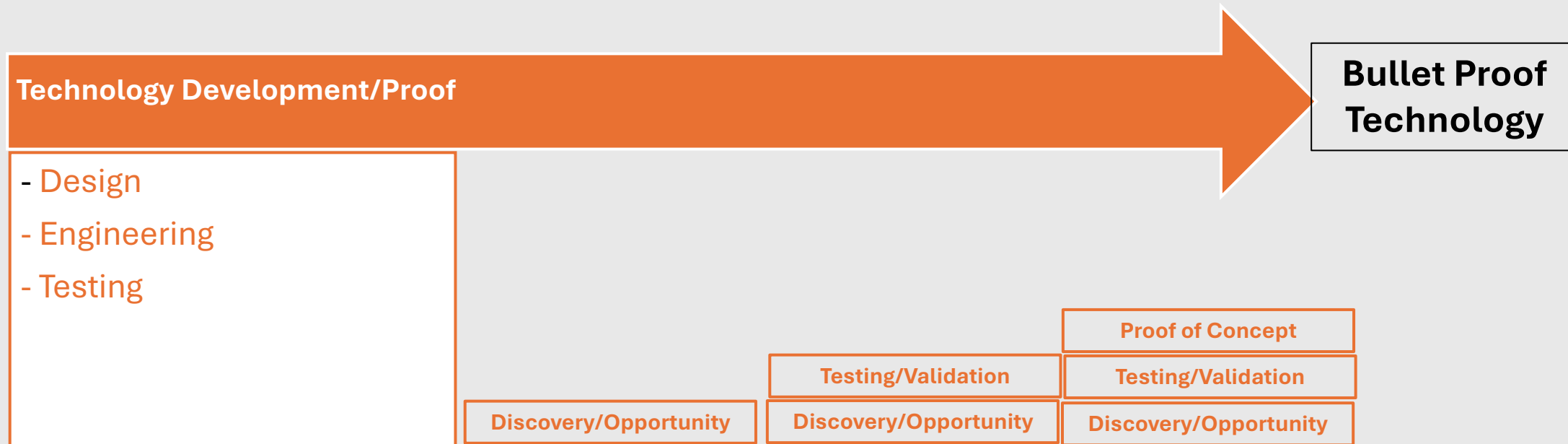


Approach: Raise and deploy capital to scale business – build for fastest path to market share, revenue, cash flow

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Typical Biotech Start-up

What Can AgTech Learn from Biotech?



Approach: Raise and deploy capital to develop to Proof of Technology

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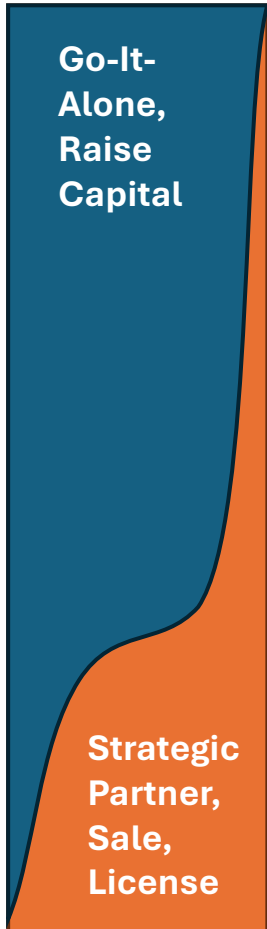
Biotech Model Summary – It Is All About the Technology

Tech Transfer	Decisions	Financing
Life Sciences Discoveries <ul style="list-style-type: none"> Academia/Scientists spin outs Alignment with Big Pharma's innovation priorities 	8-10 uses focused on 1-2 w/ large TAM	Angel Seed <ul style="list-style-type: none"> Breakthrough potential
Pre-Clinical to completion of Phase 3 Trials <ul style="list-style-type: none"> Greater costs and complexity at later phases 	Clinical success influences decision to file Investigational New Drug (IND) with FDA	Series A <ul style="list-style-type: none"> Promising efficacy FDA-ready for human trials
Successful Phase 3 Trial leads to New Drug Application (NDA) with FDA	Rigorous assessment of options: <ol style="list-style-type: none"> Raise more VC capital Raise public capital → IPO (unique to biotech) Strategic partnership Sell – likely to strategic 	Series B+ <ul style="list-style-type: none"> Promising human trial results Strategic and financing options?

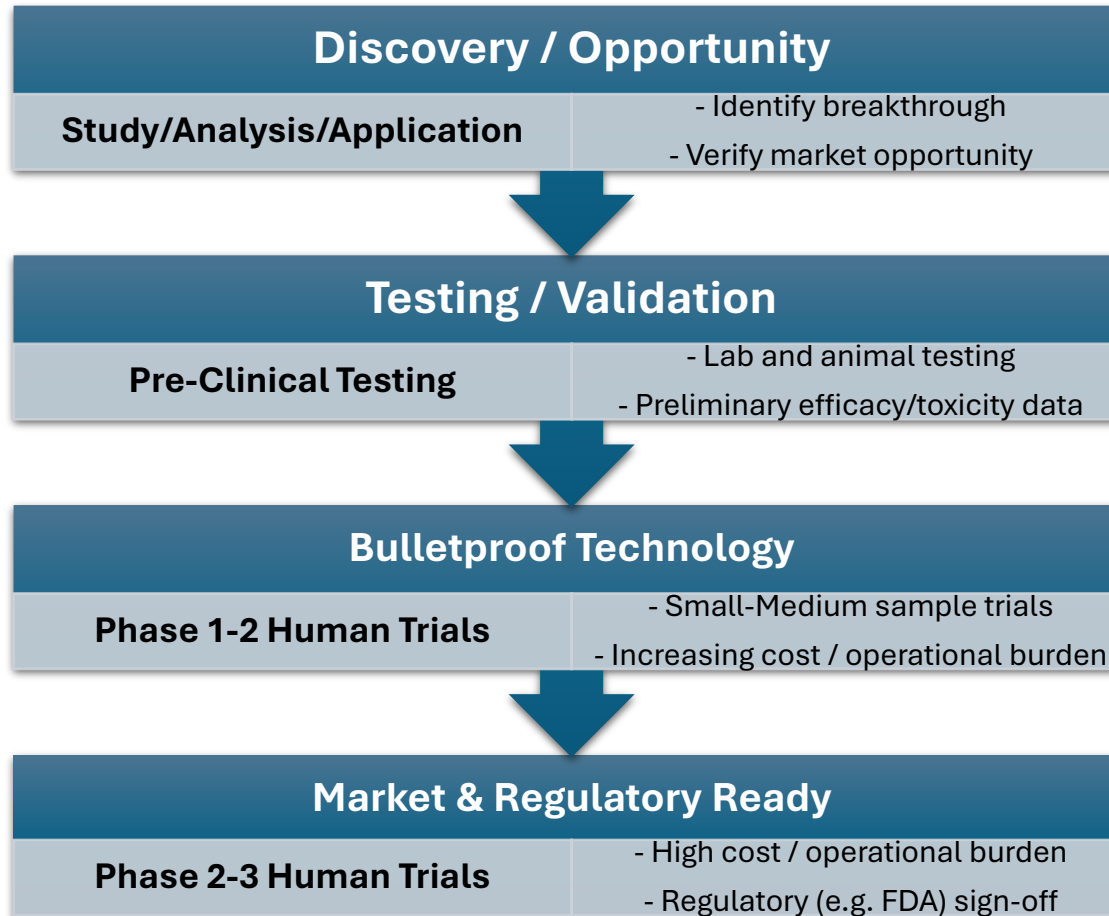
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Is a Comparable Approach in AgTech Possible?

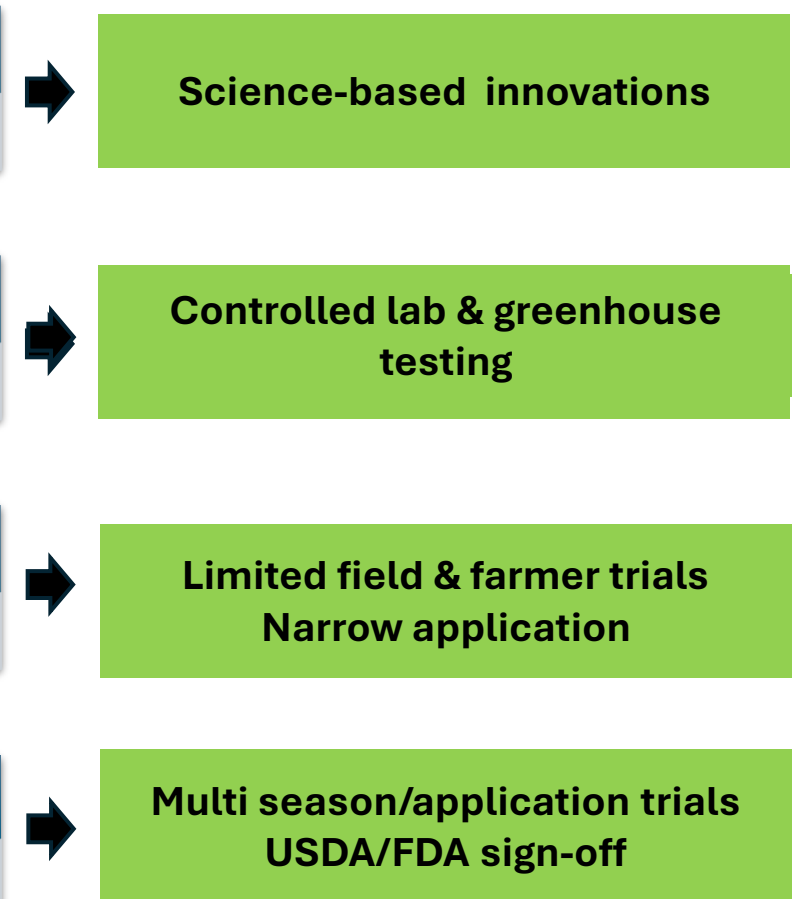
Start-up
Orientation



Typical Biotech Approach



Equivalent AgTech Approach?



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Differences Are Likely Too Significant (at least right now)

Area of Similarity/Difference	Biotech	AgTech
Technology Development/ Proof Process	<ul style="list-style-type: none">• Established, Standardized• Faster results, Controlled conditions• Outsourcing available	<ul style="list-style-type: none">• Variable• Slow seasonal results, Hard to control• Requires in-house resources
Big Pharma vs. Ag Majors	<ul style="list-style-type: none">• New products are high priority• Start-up relationship established	<ul style="list-style-type: none">• Defending legacy products• Early stages of embracing start-ups
Human vs. Crop Health	<ul style="list-style-type: none">• Doctors as adopters• Insurers, MDs seek breakthroughs• High industry profits/returns	<ul style="list-style-type: none">• Farmers as adopters• Breakthrough skeptics• Modest industry profits/returns

Most successful participants long-term are likely to work towards narrowing the gap

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Wrap-Up

What can the Bio Tech start-up model teach AgTech start-ups?

- Founders/Advisors can orient the start-up business model toward **Proof of Technology** versus full **Business Scaling**
 - Avoid typical VC playbook - Identify TAM, Raise capital, Scale business, Raise capital, Scale business- Rinse, Repeat
- An earlier exit based on **Proof of Technology**, pays investors, avoids misallocation of capital and reduces the constant Capital chase
 - R&D over T&E
- Relationship between Biotech and Big Pharma evolved to be symbiotic, not threatening
 - Big Pharma relies on start-ups for R&D and innovation
 - Ag Tech should stay closer to Major Ag for innovation ideas and feedback on technology
 - Ag Tech becomes outsourced R&D for Ag Majors like Biotech/Big Pharma – maybe someday?