

INVEST
VANCOUVER

Agritech:

Findings and actions to strengthen the sector in the Metro Vancouver region

Report Summary

May 2022



Overview

1 Methodology

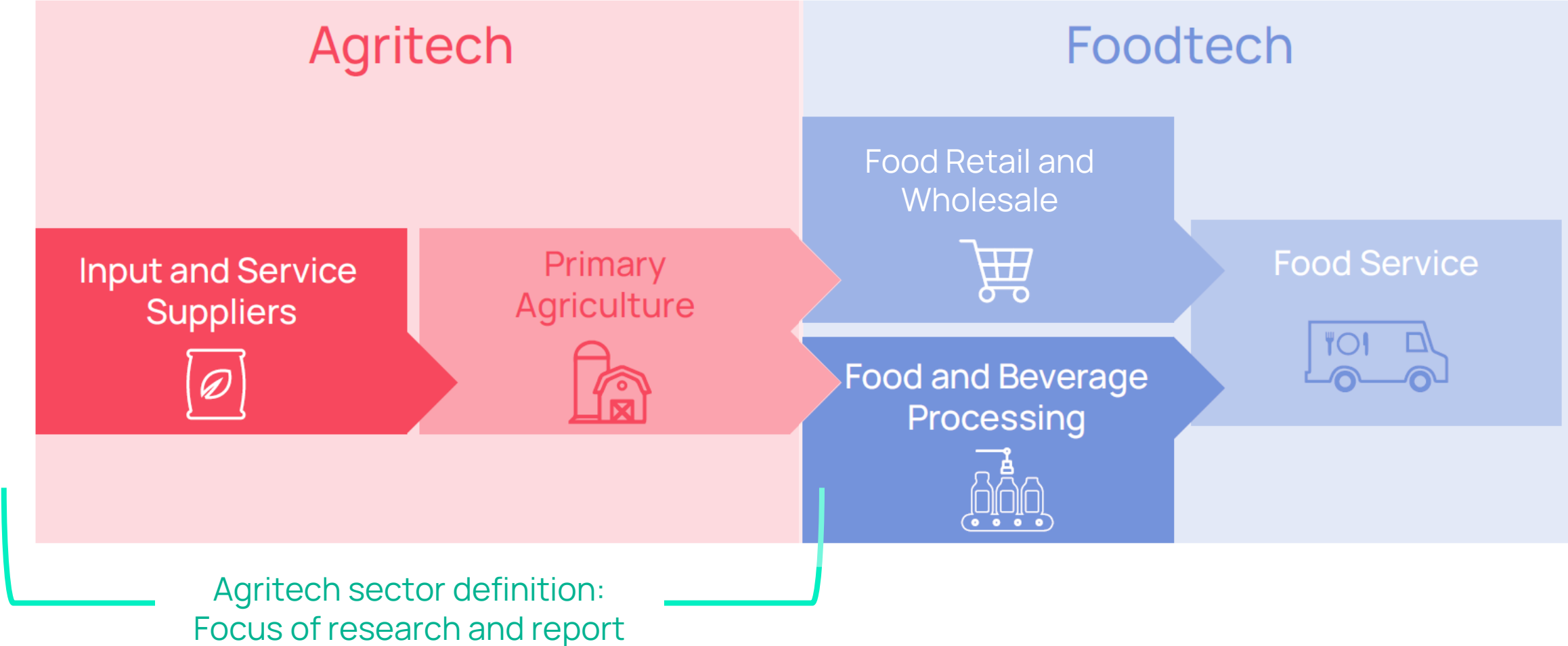
2 Agritech in Metro
Vancouver

3 Findings &
Recommendations



Terramera

Research scope: While agritech and foodtech are both vital for ensuring resiliency and food security, the scope of this report is agritech. It is defined as technology and technological innovation in the farm sector.



The report aims to understand the agritech value proposition: What actions can policy-makers take to build capacity in the agritech sector?



- 1 What competitive advantages (if any) do firms in the industry enjoy by locating here?
- 2 What challenges or barriers (if any) keep the region from being a more attractive place for agritech firms?

Research Approach

Primary, qualitative research through interviews with CEOs, founders, senior executives of agritech firms in the region, supplemented by secondary research

Agritech firms develop technological solutions focused on the farm sector



Animal Ag

Includes aquaculture, pollination tech, livestock and land animal technology, and insect farming

Precision Ag

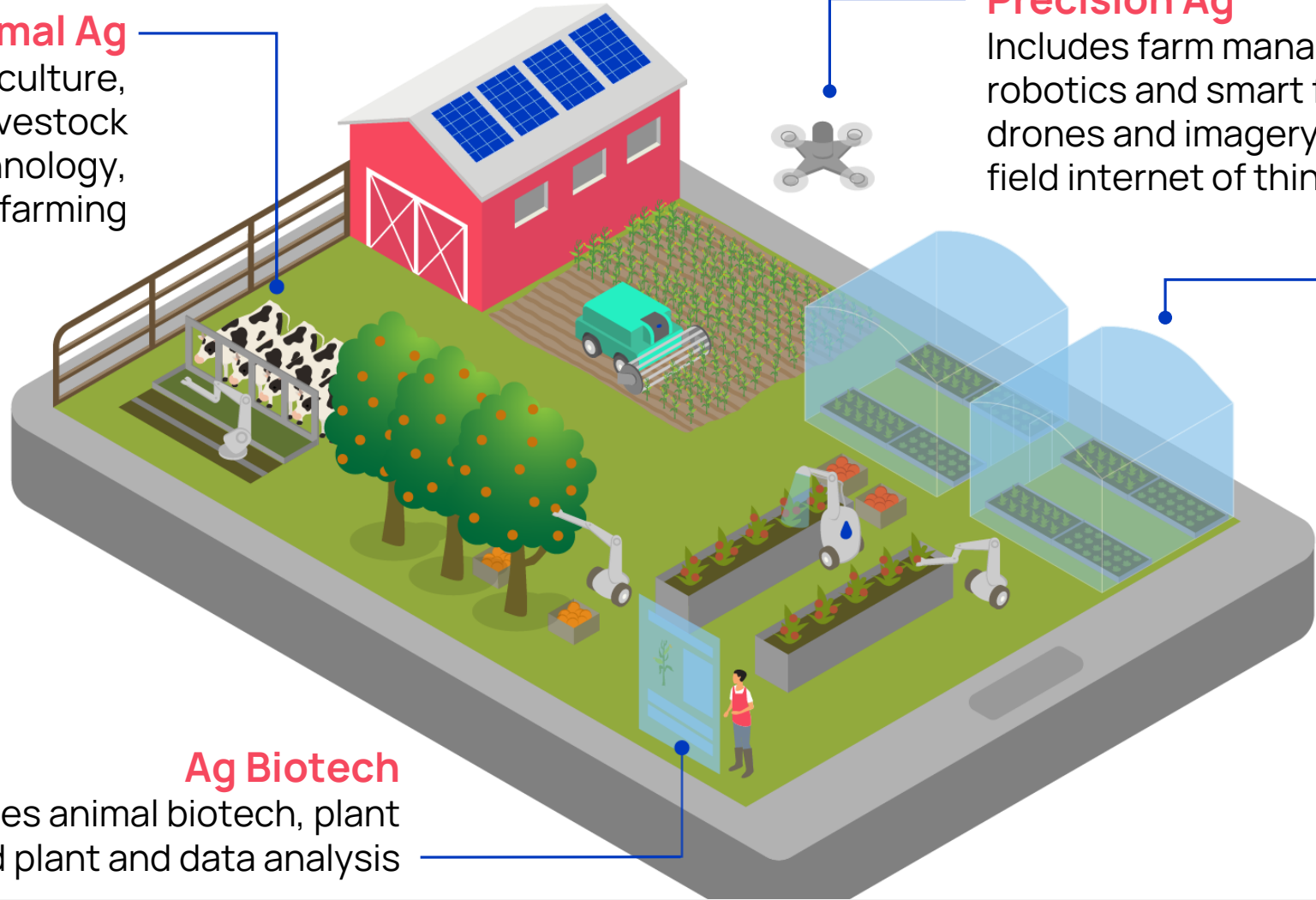
Includes farm management software, robotics and smart field equipment, drones and imagery analysis, and field internet of things (IoT)

Indoor Farming

Includes indoor farming components and systems, and indoor growing

Ag Biotech

Includes animal biotech, plant biotech, and plant and data analysis



Examples of Metro Vancouver agritech firms:



Animal Ag

Enterra

Precision Ag

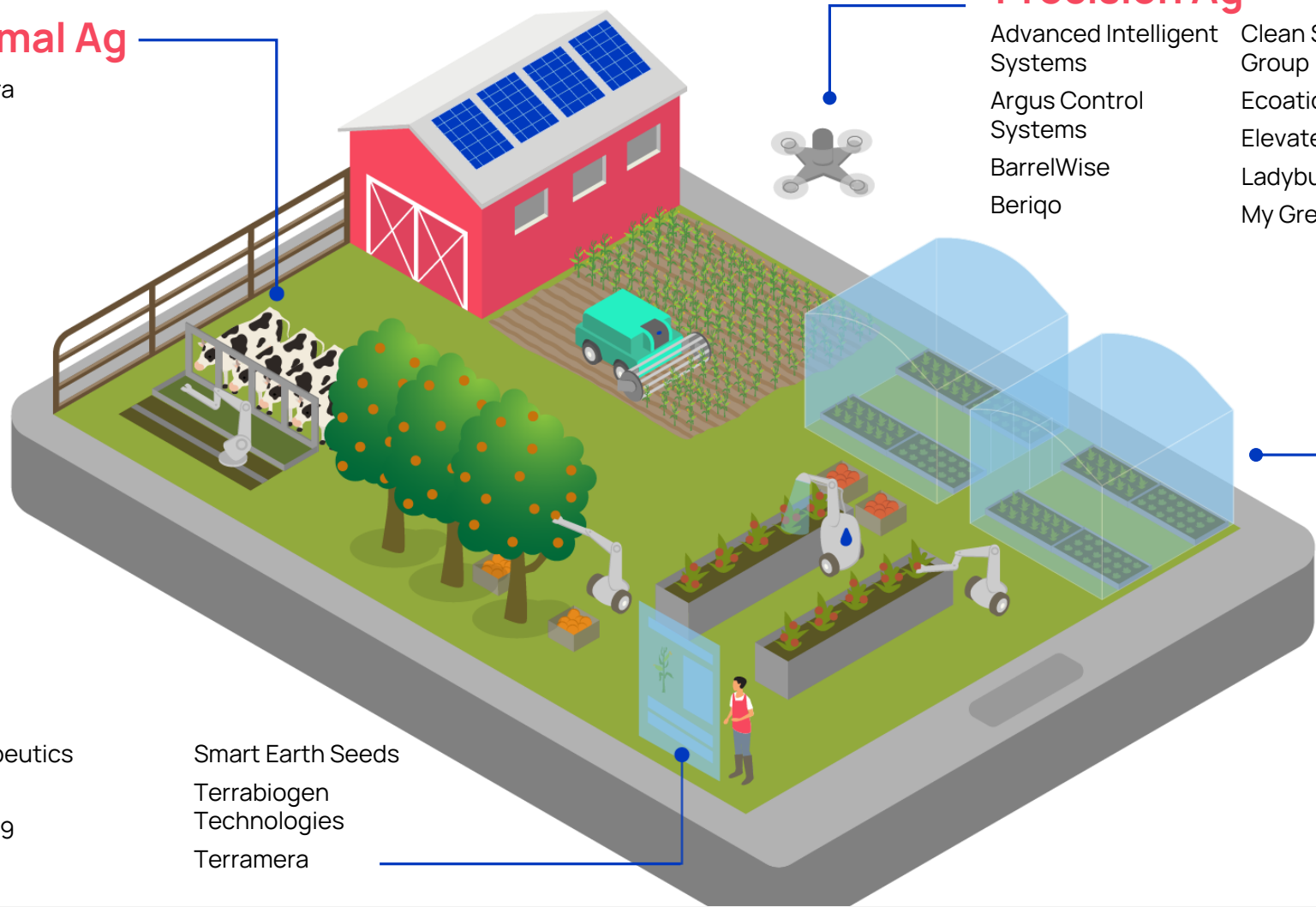
- Advanced Intelligent Systems
- Argus Control Systems
- BarrelWise
- Beriqo
- Clean Seed Capital Group
- Ecoation
- Elevated Signals
- Ladybug Robotics
- My Green Space
- NeuPeak
- Semios (unicorn)
- Skaha Remote Sensing
- This Fish
- Verdi Agriculture

Indoor Farming

- Aeroroot
- Affinor Growers
- AgriFORCE
- AVA Technologies
- CubicFarm Systems
- Pontus WaterLentils
- QuantoTech
- TT Vancouver Tek and Grow

Ag Biotech

- Anandia Lab
- Bioform Technologies
- Lucent Biosciences
- Novobind Livestock
- Therapeutics
- Ostara
- Pace 49
- Segra
- Smart Earth Seeds
- Terrabiogen Technologies
- Terramera



Key characteristics of agritech firms in the Metro Vancouver region:



Young and growing



Benefitting from early-stage support



Directly drawing upon the innovation ecosystem



Accessing diverse small-scale demonstration opportunities



Looking to the US and elsewhere overseas for export opportunities



Semios



Our research found three areas to focus on; we can advance the regional value proposition in agritech by strengthening:



Agritech as an industry



BC agriculture through technology



Early-stage manufacturing

AVA Technologies



KEY AREA OF FOCUS #1:

Strengthening Agritech as an Industry

What we found

- Ecosystem of players is disconnected
- Exporting to and accessing new markets is challenging
- Information on starting tech-based businesses not meeting the needs of start-ups

Recommendations

- Establish necessary relational infrastructure
- Create supports for early-stage firms to access new markets
- Improve resources for start-ups



KEY AREA OF FOCUS #2:

Strengthening BC Agriculture through Technology



What we found

- Farmers often lack the capital to invest in new technologies

Recommendation

Fund an easy-to-access government grant program that enables farmers to adopt made-in-BC agritech products and services



KEY AREA OF FOCUS #3:

Strengthening Early-stage Manufacturing



What we found

- Manufacturing and fast-prototyping gaps in the region act as a barrier to firms scaling up

Recommendation

Create fast-prototyping and small-scale manufacturing capacity in the region

Challenges and opportunities to advance the agritech sector are organized around 7 economic development-related themes.

- ✓ Ecosystem building
- ✓ Technology adoption
- ✓ Manufacturing and prototyping support
- ✓ Start-up and scale-up technical assistance
- ✓ Export assistance and readiness
- ✓ New market access
- ✓ Talent pipeline and occupational analysis

See “Recommendations Summary” on page 9 of the full report



Recommendations Summary

Invest Vancouver conducted primary and secondary research to understand the strengths of the agritech sector in the Metro Vancouver region and to learn about the challenges faced by the sector's entrepreneurs and firms. The following recommendations aim to address identified gaps, to strengthen competitive advantages, and to bolster the value proposition of the agritech sector in the region.

Theme	Identified Challenge	Recommendation
Ecosystem Building	The BC ecosystem of agritech players is disconnected, without an industry-wide support system or networking organization, leaving limited opportunity for firms to connect with one another, with farmers, with investors, with new markets and with potential customers.	Establish the necessary relational infrastructure, such as an agritech industry association or support mechanism focused on strengthening the sector, possibly as part of the Agritech Centre of Excellence.
Technology Adoption	Farmers often lack the capital to invest in new technologies, which slows the technological adoption rate and negatively impacts demand for BC agritech solutions.	Fund an easy-to-access government grant program that enables farmers to adopt made-in-BC agritech products and services.
Manufacturing and Prototyping Support	A manufacturing gap exists between the early-stage development of proof-of-concept designs and the design-for-manufacturing-stage, where production ramps up by several orders of magnitude; this gap lengthens product development times and acts as a barrier to firms scaling up.	Create fast-prototyping and small-scale manufacturing capacity, including shared facilities, for use by entrepreneurs, inventors, and start-up, early- and development-stage firms looking to scale up in the region.
Start-up and Scale-up Technical Assistance	Information on starting a business is difficult to find and existing information is not targeted to the needs of agritech start-ups.	Improve the content and accessibility of information on starting and scaling tech-based businesses by consulting with start-ups to ensure available information addresses their needs.
Export Assistance and Readiness	Navigating exports and other cross-border issues is challenging (and/or expensive), especially for early-stage agritech firms that do not qualify for existing programs but depend on the US and other markets for export opportunities and their customer bases.	Develop a "how-to-export" guide for small early-stage firms.
New Market Access	Connecting with larger (potential) customers is vital for firms looking to scale-up, but opportunities for early- and development-stage firms to find these customers can be difficult, time-consuming, and costly.	Introduce an initiative to provide business-to-business matchmaking services for BC-based agritech firms. Lead BC agritech business missions to key markets and showcase BC agritech solutions providers at international trade events.
Talent Pipeline and Occupational Analysis	The transferability of in-demand skills between several high-growth sectors in the region's economy means that agritech firms are competing for and losing talent to "technology giants" and other high-growth sectors in the region.	Investigate the future talent and skill requirements for the BC agritech sector, in conjunction with the requirements of other high-opportunity, high-growth sectors.

Read the full report:

investvancouver.ca



Agritech Today, Building for Tomorrow

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Metro Vancouver region

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