



Digital Agriculture and Supply Chains 2023

Innovation for Farm to Fork ⁺

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Digital Agriculture as a Disruptive Technology

- Digitizing the Farm; data and technology to drive smart decisions, reduce costs, increase profit and support a sound ecological footprint
- Empowering the intermediaries of farm to fork; warehouse, logistics, processors and bulk buyers with data
- Retailers; improving turns, reducing waste and creating efficiencies
- Consumer; food safety and traceability along the supply chain and, waste reduction



Sample Products in the Digital Agriculture Global Ecology

Subscription-as-a-Service or Software

- Farm to Fork traceability
- Field and Farm smart data/overview
- Field treatment recording/monitoring
- Subscription virtual agronomy services
- Seedstock geneology
- Bulk seller and retailer marketing and product sales optimization software
- Animal health medical records and geneology
- Virtual livestock diagnosis
- Farmed product profit analysis and optimization
- Farm and warehouse machinery logs and optimization
- AI for Digital Agriculture

Internet of Things

- Field specific weather stations
- Smart health tags for livestock
- IOT greenhouses
- Smart irrigation
- Smart farm machinery
- Fish farm automation
- Warehouse automation

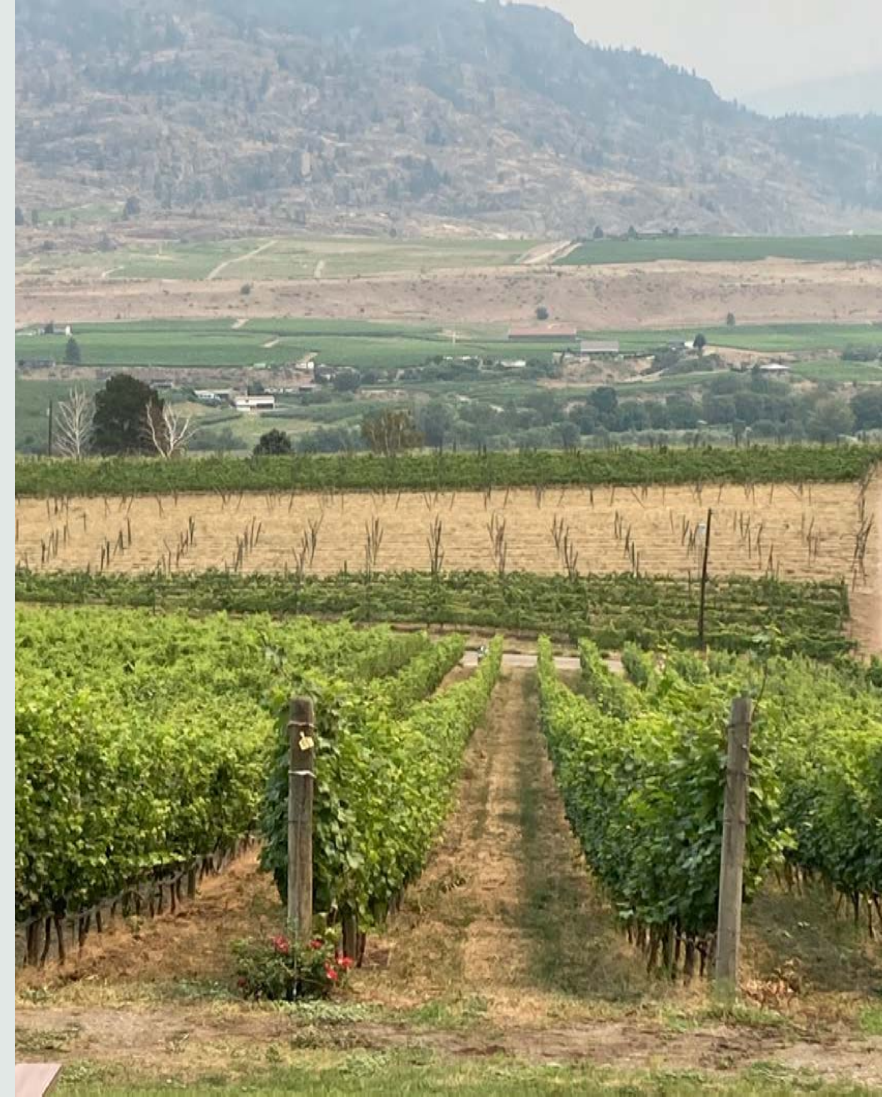
Strengths/Opportunities in Digital Agriculture

- Disrupter technology – replacing historically manual tools, methods and processes
- Profit increase
- Expense decrease
- Sustainability
- Safety increase
- Better data driving better decisions



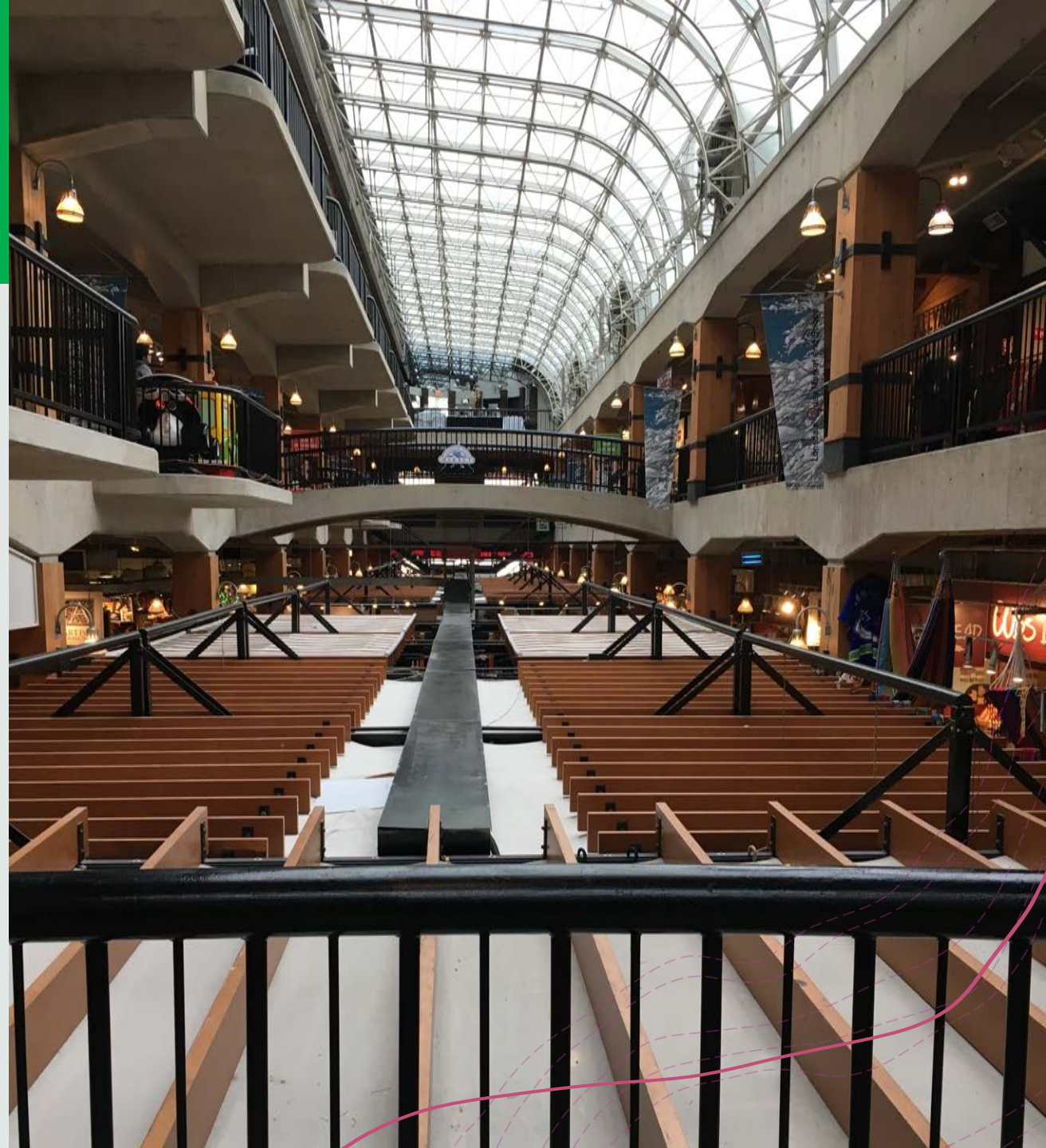
Weaknesses / Threats in Digital Agriculture

- Change management – traditional methods to new
- Requires investment by a person/company – output of monies
- Susceptibility to external forces: physical environment, regulations, taxability of SAAS, import/export controls, data privacy and cybersecurity
- Competitors in select markets for select lines of products and non-traditional products pivoted to serve digital agriculture
- Unknowns of another disrupter technology and ethical challenges it brings: AI



Digital Agriculture Supply Chain Challenges 2023

- Price of software, SAAS and servers – global prices up 6%-50% YoY 2022
- Processor chip availability – backlog continues
- Available capital, borrowing costs and inflationary environment
- Sanctions and export compliance including re-export challenges
- Specialized talent acquisition or investment and time required to train





**Digital Agriculture- a new
industry positioned for growth**

Questions?

