



# emerald

HEALTH THERAPEUTICS

Enhancing health through  
cannabis science



# Disclaimer

The statements made in this presentation may include forward-looking statements regarding the future operations, opportunities or financial performance of emerald health therapeutics (the "company"). Forward looking statements include the estimated increase in the company's production square footage; increases in the company's production; the legalization of recreational cannabis; the size of the medical cannabis market and the recreational cannabis market; the company's expansion goals including scalability, increases in square footage, production and revenue; the company's position in the cannabis market in respect of demand and competition; the company becoming a leading brand in cannabis-based products; and the company's near to long term goals including increases in patient acquisition, facility expansion, clinical trials and product development as well as market capture, revenue and consolidation of the cannabis market.

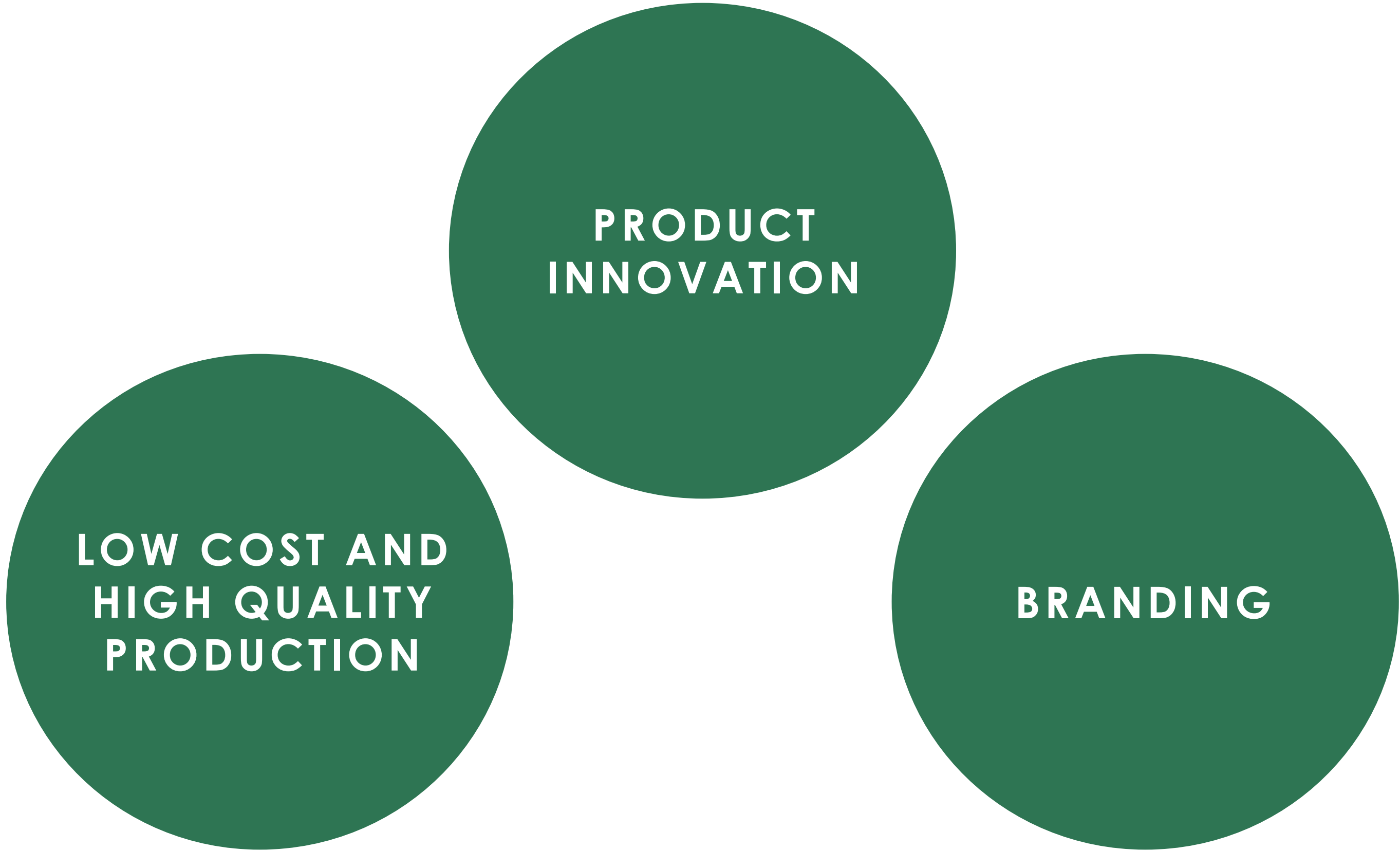
These forward-looking statements are only estimations based upon the information available to emerald health therapeutics, as of the date of this presentation. Except as required by law, we expressly disclaim any responsibility to publicly update or revise our forward-looking statements, whether as a result of new information, future events or otherwise. Thus, the forward-looking statements herein involve known and unknown risks and uncertainties such that actual future operations, opportunities or financial performance may differ materially from these forward-looking statements.

These risks and uncertainties relate to, among other things, changes in laws, regulations and guidelines relating to medical cannabis and the possible legalization of cannabis by the federal government; changes in government; changes in governmental policy; the continued availability of capital financing and general economic, market or business conditions; reliance on management; the inability of the company to expand its current facility or obtain additional facility space; failure to obtain approval by health Canada for the company to increase production and production square footage; unfavorable publicity or consumer perception of the medical cannabis industry; the impact of any negative scientific studies on the effects of cannabis; the growth in the medical and recreational cannabis markets being less than anticipated; increased competition in the market place; the company's ability to meet its near and long-term goals; and the company's ability to retain a competitive advantage if cannabis is legalized as well as the risk factors set out in the company's annual information form and other publicly filed disclosure documents. Undue reliance should not be placed on forward looking statements, which speak only as of the date hereof.

All forward-looking statements contained herein are qualified in their entirety by the foregoing cautionary statements. Reliance should not be placed on forward looking statements, which speak only as of the date hereof.

# Building Pillars for Unique Positioning in Cannabis Industry

Strategy delivering competitive differentiation in conjunction with key legislative and market turning points in the Canadian cannabis industry



# Emerald Highlights

8<sup>th</sup> licensed Canadian producer – Produce & sell dry & extracted products

Expertise – Extensive experience in life sciences, agri-business, cannabis, marketing

Innovation – Decades of pharma/biotech product development for higher margins

Scale –JV 1.1M sf + 3.7M sf option; additional 575K sf in established/planned grow facilities

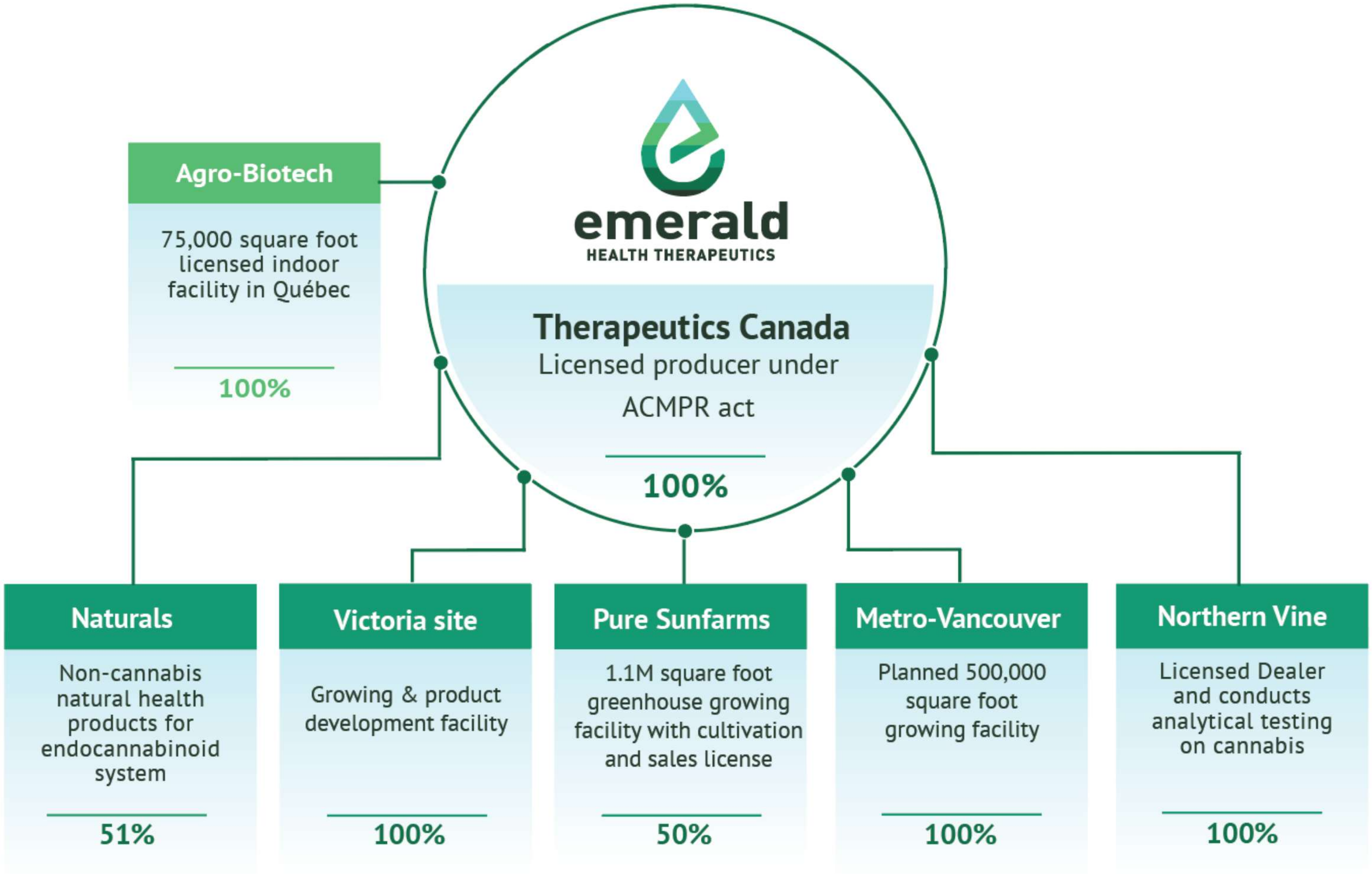
Cost leadership – Knowledge/infrastructure to be high volume, low cost producer

Branding – World-class marketing expertise internally and externally

Capitalized – \$ 74 M in treasury (18/05/25)

Sales – Supply MOU with BCLDB for 13,000 kg / 1.5 years for Canadian recreational market

# Emerald Company Structure



# Experienced Management Team

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## Chris Wagner, BSc

CEO

25+ years: pharma product development and marketing; Eli Lilly; Aspreva, Contextual Genomics

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## Rob Hill, CPA, CA

CFO

20+ years: accounting & finance; Haywood Securities, KPMG

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## Paul Dillman, BSc, MSc

Executive VP Marketing, Sales and Operations

30+ years: global marketing & sales; Philip Morris International, Coca-Cola, Kraft Foods

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## Maheep Dhillon

VP Corporate Development

10 years: development management and accelerating corporate expansion

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## Frey Garabagi, PhD

VP R&D and QAP

10+ years: R&D in plant molecular genetics and medical technologies

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## Rebecca Wong, BSc

VP Quality Affairs

25+ years: quality assurance and quality control; Novelon Therapeutics

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## Michael Bierman

VP Operations

25 years: manufacturing management, product development, and marketing

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## Traviss Graham

VP Production

15+ years: cannabis production, processing, and product development

# Board Of Directors

Raised over \$1 billion; built multiple life science companies

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## **Jim Heppell, BSc, LLB**

Director and former CEO, Sophiris Bio Inc. (NASDAQ:SPHS) and previous president and director of BC Advantage Funds

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## **Avtar Dhillon, MD**

Executive Chairman and former CEO, Inovio Pharmaceuticals Inc. (NASDAQ:INO) and board member of several life science companies

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## **Chris Wagner, BSc**

Chairman and former CEO, Contextual Genomics Inc.; helped build Aspreva to take-out; launched Cialis<sup>®</sup> and Prozac<sup>®</sup> at Eli Lilly

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## **Bob Rai, BSc**

CEO and director, VANC Pharmaceuticals Inc. (TSX: NPH) and 20 years of pharmacy experience

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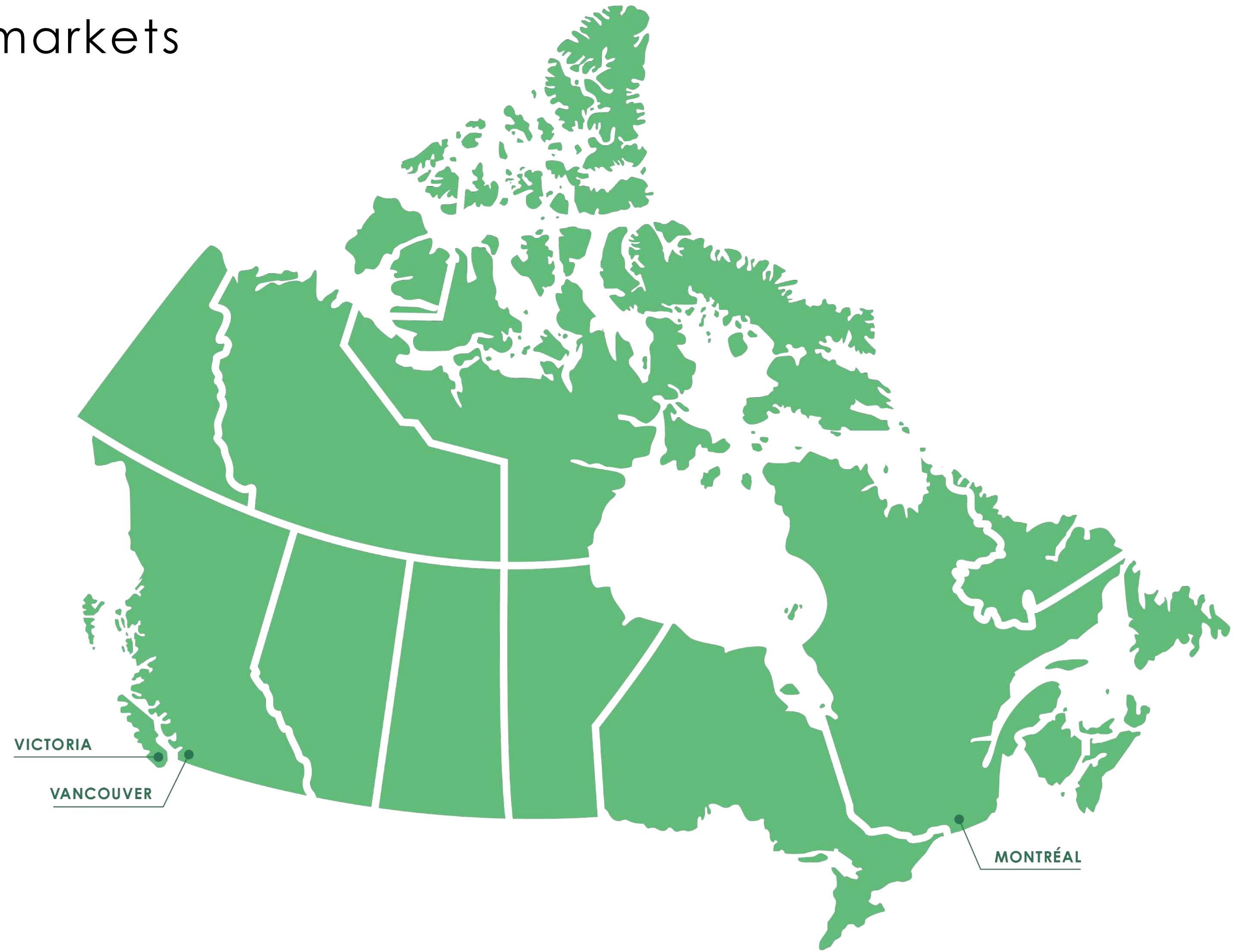
## **Punit Dhillon, BA**

Co-founder/director, OncoSec Medical (NASDAQ: ONCS); past VP Finance/Operations, Inovio Pharmaceuticals Inc.

# Low cost and High-Quality Cultivation Facilities

Serving eastern and western markets

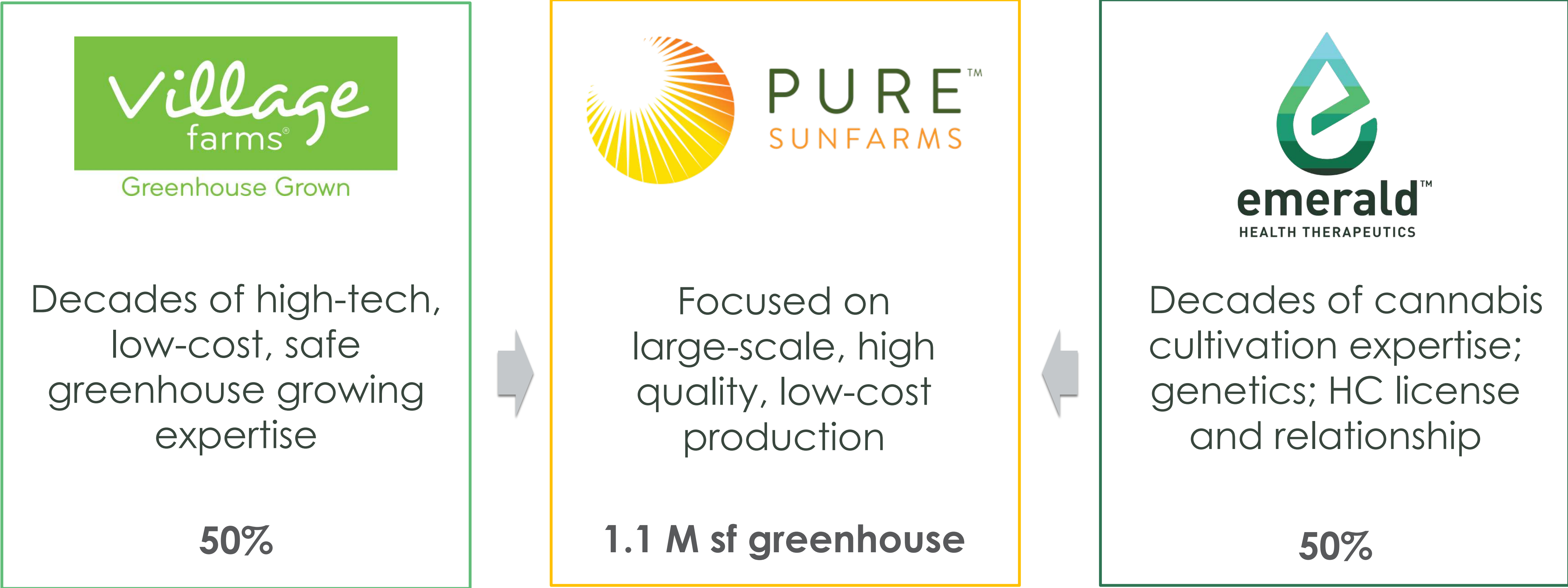
- **VANCOUVER**  
Top-tier licensed JV greenhouse operation with 1.1M sf in commercial cultivation and sales with 3.7M sf expansion potential; expansion project with planned 500K greenhouse
- **VICTORIA**  
First Emerald operation, 8<sup>th</sup> LP under ACMPR, small indoor facility
- **MONTRÉAL**  
75,000 sf licensed indoor growing facility





# British Columbia: Pure Sunfarms Joint Venture, Delta

- Combines industry-leading cannabis and greenhouse growing expertise
- Existing infrastructure plus sophisticated greenhouse processes & new systems
- Rapid scaling with reduced execution risk



# One of Single Largest and Most Sophisticated Cannabis Growing Facilities



## Facility Capability

Conservative target of <\$1.00/gram

## Transformational Opportunity

Reduced construction and operating risk  
Scaling production to increase capacity

*Supply agreement: Emerald will purchase 40% of Pure Sunfarms' production in 2018 and 2019 at pre-determined price per gram*

# Converted First Quarter of 1.1M SF Greenhouse Facility; Commercial Cultivation Launched

- Meticulous attention to growing environment and systems, processing areas and production ramp up
- Automated growing system proven in different crops to provide optimal efficiencies
- Leading HVAC system; extensive climate management experience & advanced data systems
- High-tech light deprivation/supplementation systems, with individual control of 17 grow rooms
- Mandesh Dosanjh has been appointed President and Chief Executive Officer; Former Senior Vice President, Supply Chain and Wholesale, at the Liquor Control Board of Ontario (LCBO)



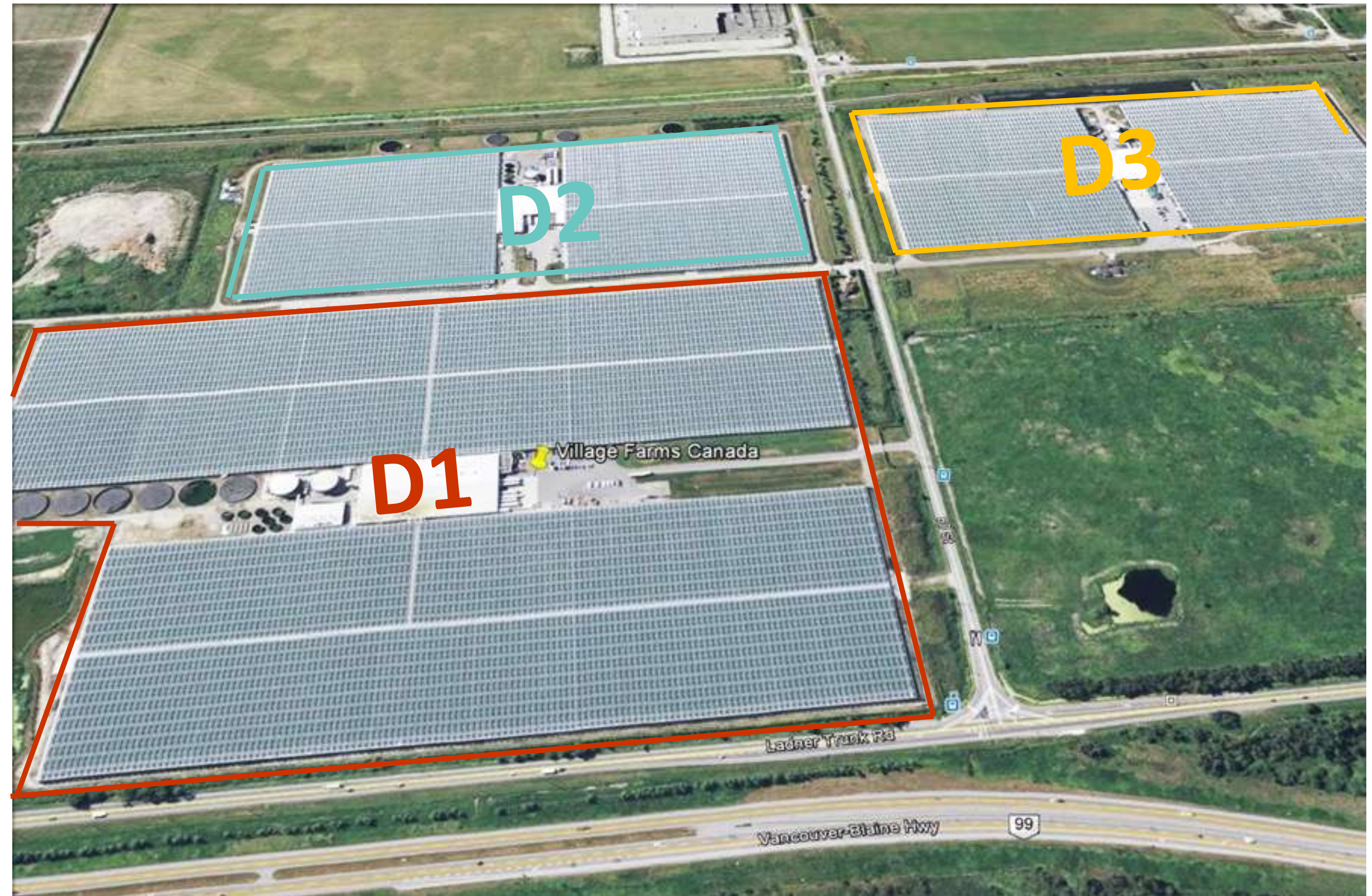
# Massive Potential Grow Capacity with Options on Additional Facilities

## Delta 3 (D3)

- 1.1 M sq ft
- Site granted cultivation license by Health Canada (18/3/02)
- Site granted sales license by Health Canada (18/7/30)
- Site receives amendment to expand operational production area by 195K sf to ~ 420K sf (18/8/23)

## D2 + D1

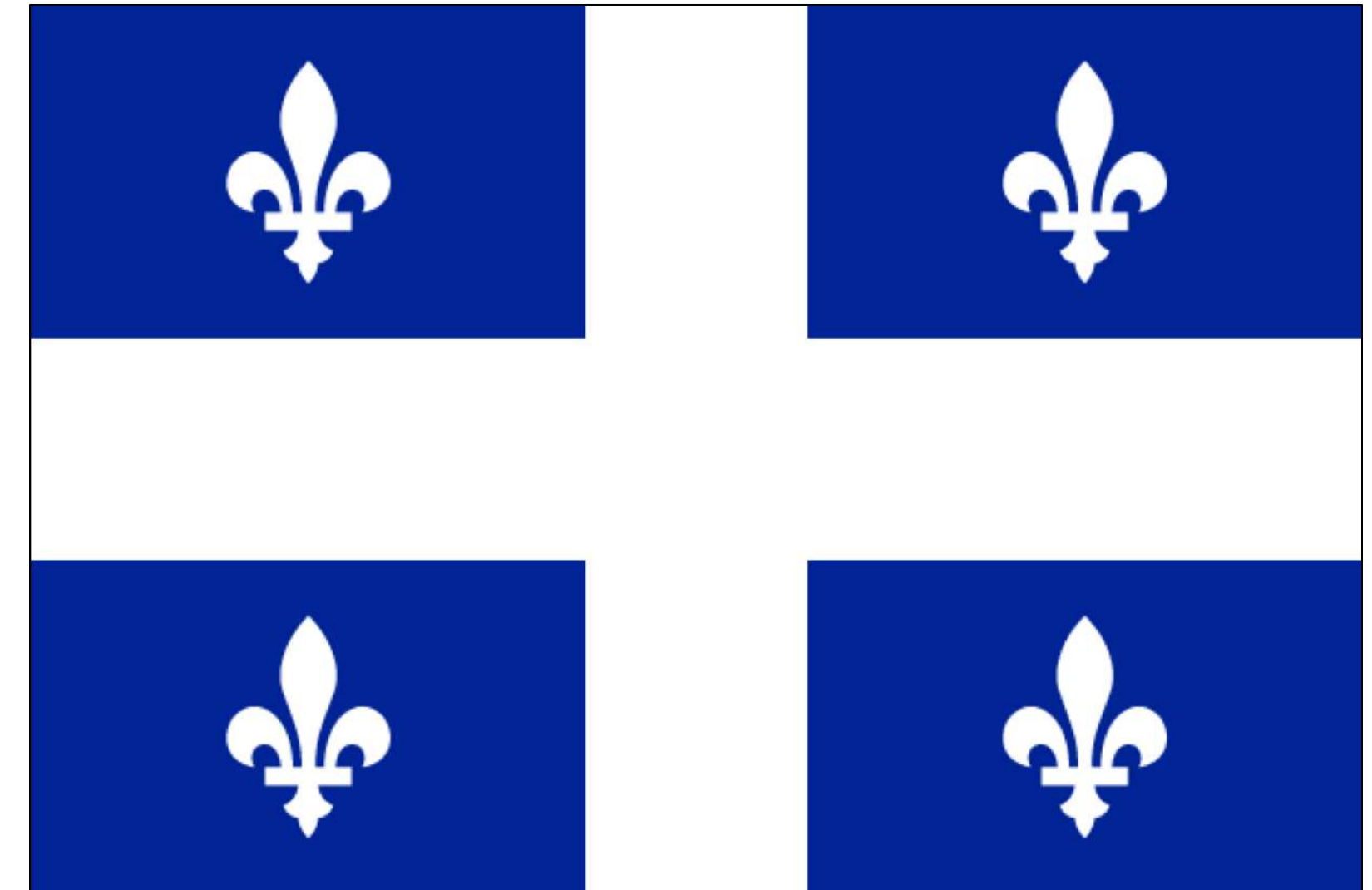
- 3.7 M sq ft optional expansion



# Québec: Agro-Biotech

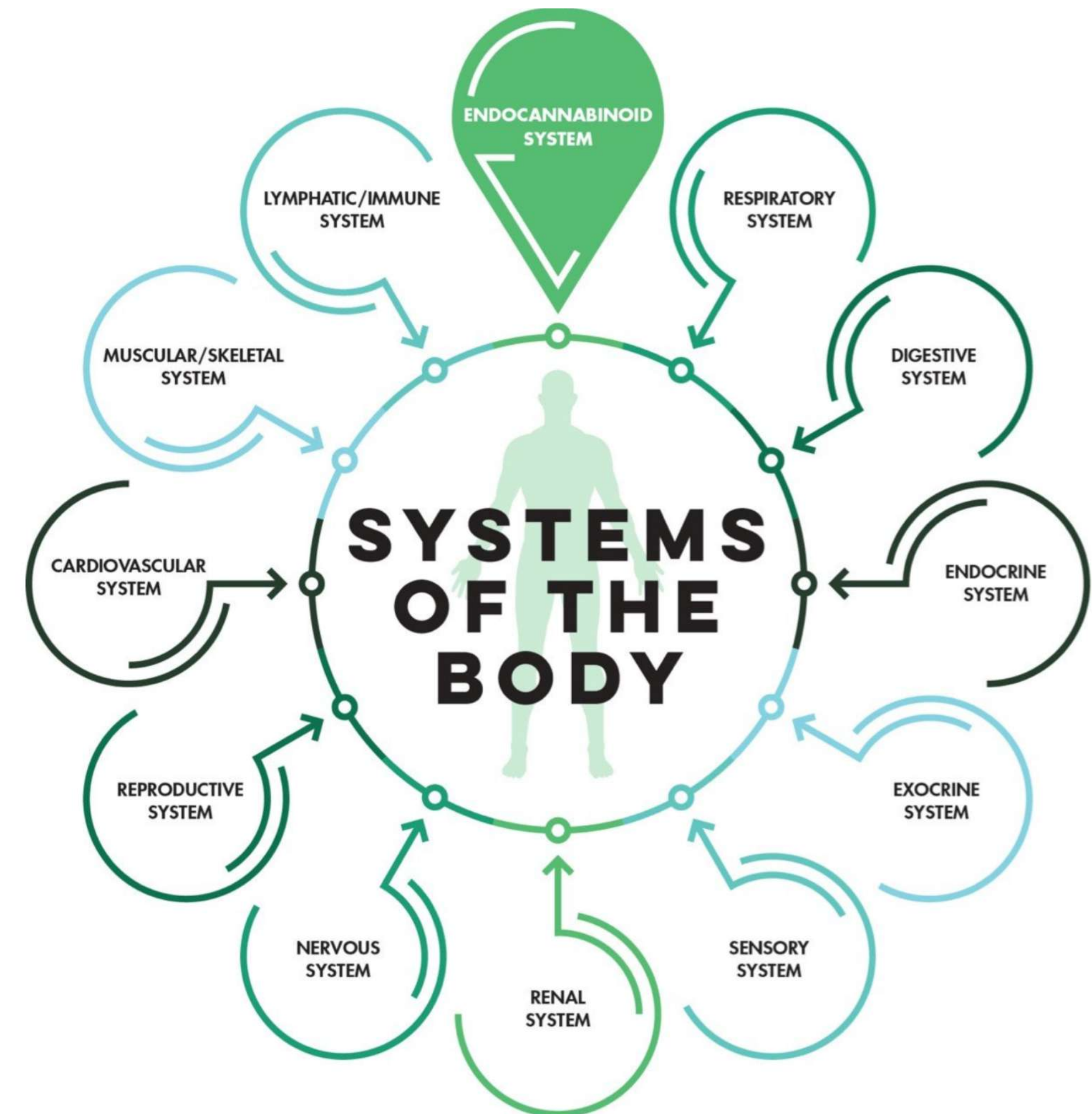
Production/distribution in 2<sup>nd</sup> largest province and Eastern Canada

- Licensed Producer in Saint-Eustache, Québec, near Montréal
- 75,000 sf facility with planned 50,000 sf indoor growing area
- Growing first batches
- Cultivation of range of high quality strains
- Low-cost energy and water for efficient production



# The Endocannabinoid System

- System of receptors that interacts with tissues, organs and the immune system
- Composed of endocannabinoids and cannabinoid receptors
- Helps modulate mood, appetite, inflammation and many other functions that promote health and homeostasis
- Cannabis compounds interact with the endocannabinoid system and may have therapeutic effects



# Potential Health Effects of Cannabinoids

|  | THC | THC-A | THC-V | CBN | CBD | CBD-A | CBC | CBC-A | CBG | CBG-A |                           |
|--|-----|-------|-------|-----|-----|-------|-----|-------|-----|-------|---------------------------|
| Pain relief                              |     |       |       |     |     |       |     |       |     |       | Analgesis                 |
| Reduces inflammation                     |     |       |       |     |     |       |     |       |     |       | Anti-inflammatory         |
| Supresses appetite                       |     |       |       |     |     |       |     |       |     |       | Anoretic                  |
| Stimulates appetite                      |     |       |       |     |     |       |     |       |     |       | Appetite stimulant        |
| Reduces vomiting and nausea              |     |       |       |     |     |       |     |       |     |       | Antimetic                 |
| Reduces contractions of small intestine  |     |       |       |     |     |       |     |       |     |       | Intestinal antiprokinetic |
| Relieves anxiety                         |     |       |       |     |     |       |     |       |     |       | Anxiolytic                |
| Tranquilizing / psychosis management     |     |       |       |     |     |       |     |       |     |       | Antipsychotic             |
| Reduces seizures and convulsions         |     |       |       |     |     |       |     |       |     |       | Antiepileptic             |
| Suppresses muscle spasms                 |     |       |       |     |     |       |     |       |     |       | Antispasmodic             |
| Aides sleep                              |     |       |       |     |     |       |     |       |     |       | Anti-insomnia             |
| Reduces efficacy of immune system        |     |       |       |     |     |       |     |       |     |       | Immunosuppressive         |
| Reduces blood sugar levels               |     |       |       |     |     |       |     |       |     |       | Anti-diabetic             |
| Prevents nervous system degeneration     |     |       |       |     |     |       |     |       |     |       | Neuroprotective           |
| Treats psoriasis                         |     |       |       |     |     |       |     |       |     |       | Antipsioratic             |
| Reduces risk of artery blockage          |     |       |       |     |     |       |     |       |     |       | Anti-ischemic             |
| Kills or slows bacteria growth           |     |       |       |     |     |       |     |       |     |       | Anti-bacterial            |
| Treats fungal infection                  |     |       |       |     |     |       |     |       |     |       | Anti-fungal               |
| Inhibits cell growth in tumours / cancer |     |       |       |     |     |       |     |       |     |       | Anti-proliferative        |
| Promotes bone growth                     |     |       |       |     |     |       |     |       |     |       | Bone-stimulant            |

# Current Product Line

Generating value: unique strains, product innovation & diversity



Emerald has developed distinctive whole plant extracts from its unique strains, including a spectrum of THC to CBD content, and one of the few THCA products.





# Intellectual Property & Product Innovation: High Margin Focus

Science and innovation to drive value

Demonstrate clinical utility

Genetics, characteristics, dosage, delivery and diversity

Low cost cultivation

SCIENCE DRIVEN

VALUE ADDED, UNIQUE

HIGHLY COMPETITIVE

↑  
VALUE  
↓



# Advancing Cannabis Science


## Emerald studying THCA in Canada

- THCA, a non-psychoactive cannabinoid, shows potential in animals to treat neurodegenerative, neuroinflammatory diseases, metabolic disorders and other ailments
- EHT product line includes THCA
- Animal study now underway at UBC
- First human study of cannabinoids in 2018

**BJP** British Journal  
of Pharmacology

RESEARCH PAPER

**Tetrahydrocannabinolic acid is a potent PPAR $\gamma$  agonist with neuroprotective activity.**

Xavier Nadal, Carmen del Río, Salvatore Casano, Belén Palomares, Carlos Ferreiro-Vera, Carmen Navarrete, Carolina Sánchez-Carnerero, Irene Cantarero, M Luz Bellido, Stefan Meyer, Gaetano Morello, Giovanni Appendino, Eduardo Muñoz 

Accepted manuscript online: 29 August 2017 [Full publication history](#)



FACULTY OF MEDICINE

# Emerald Testing and Innovation Laboratory

Health Canada Licensed Dealer



## Emerald owns Northern Vine Laboratories

- Cannabis analytical/testing services for LPs
- Import/export cannabis oils
- Permitted research and development activities beyond producer license

# Proactive Branding & Distribution

## Retained top marketing/branding agency

- Appointed DDB, one of the top marketing/branding agencies in Canada, as agency of record
- Investing heavily in branding/marketing/sales of Emerald branded cannabis product

## Established supply MOU with British Columbia Liquor Distribution Board for recreational market

- 13,000 kg / 1.5 years

# DDB<sup>o</sup>



**PEPSICO**

SunRype

CRISPY  
minis

**Tostitos**



*Saputo*

FONDÉ  EN 1743  
**MOËT & CHANDON**  
CHAMPAGNE

**Kraft**

FUGGLES & WARLOCK  
CRAFTWORKS

*Campbell's*<sup>®</sup>

# Innovative Channel Branding Strategy

## Innovative channel branding strategy

- Leverage Canadian natural health product, grocery, and pharmacy stores for Emerald brand
- Introduce and brand award-winning US nutraceutical product line through JV, called Emerald Health Naturals, with Emerald Health Bioceuticals
- Non-cannabis, non-psychoactive, plant based products that support endocannabinoid system for health and well-being



6 of 10 cannabis users  
also purchase natural  
health products

# Emerald Health Naturals' Product Line

Proprietary non-cannabis health products to expose brand in unique channels



## EDITOR'S CHOICE BEST NEW SUPPLEMENT



*Formulated to support endocannabinoid system*



# Strategic Growth Initiatives in 2018

Significantly increased production 2H 2018

Large scale sophisticated extraction

Animal and clinical studies

IP and product development

Branded new product launches

Distribution agreements/partnerships

# Capitalization

|                      | All Shareholders       | Largest Shareholder:<br>Emerald Health Sciences |
|----------------------|------------------------|---|
| Common Shares o/s    | 135.4 M <sup>1</sup>   | 43.2 M (32%) <sup>1</sup>                       |
| Options and Warrants | 22.4 M                 | 4.4 M (20%)                                     |
| Fully Diluted        | 157.8 M                | 47.6 M (30%)                                    |
| Market Cap           | \$582.5 M <sup>2</sup> |   |

**1.09 M <sup>3</sup>**  
*three month average daily volume*

**\$74 M <sup>1</sup> cash**



<sup>1</sup>18/5/30 <sup>2</sup>18/8/22 <sup>3</sup>TSX.V + OTCQX





# Thank you!

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