



Lavie Bio

Introduction

June 2024



lavie bio
better by nature

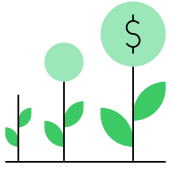
Our Vision

Ensure global agriculture sustainability & food supply through ag-biologicals*



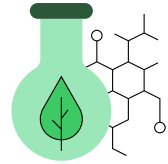
* Ag-biologicals are beneficial crop production and protection tools that are largely created from living organisms, derived from natural materials, contain them, or use naturally occurring processes

Lavie Bio – In a Nutshell



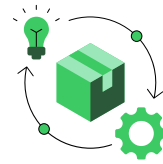
Ag-Biologicals Rapidly Growing Market

The ag-biologicals market is expected to grow at a double digit CAGR over the next decade



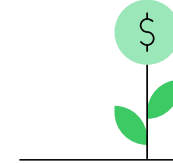
Unique AI Tech-Platform and Data Assets

Proprietary tech platform increases product development probability of success and reduces cost and time-to-market

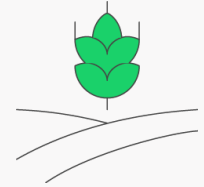


Broad & Diverse Pipeline

8 programs – new product launch expected every 1-2 years



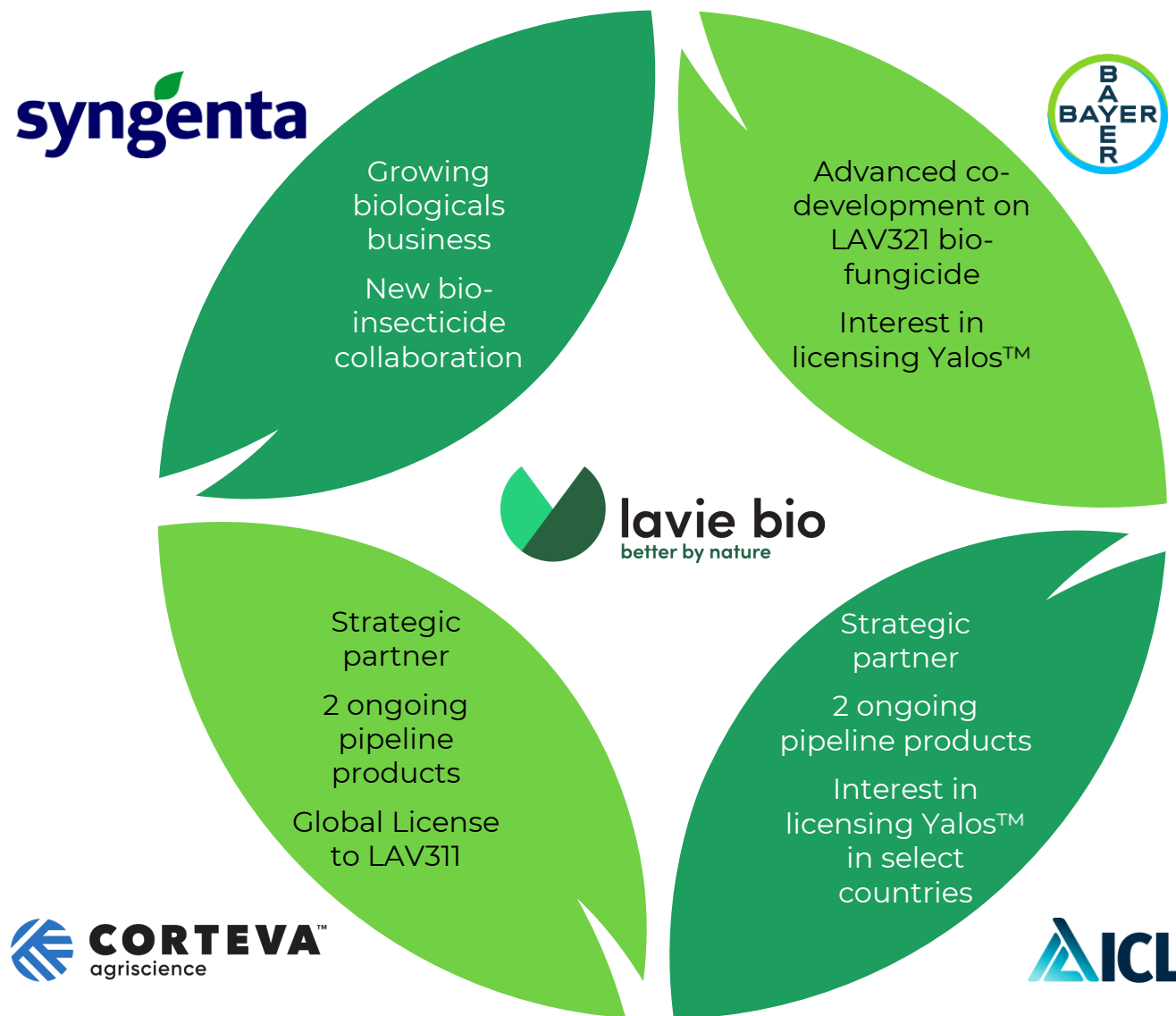
Investors



2 Revenue Generating Graduated Programs



Partner of Choice by the Ag-Industry



The Ag-Industry Challenge

Grow more food with less environmental impact



Efficiency

Climate Change

- Unstable weather patterns
- Drought & higher temperatures
- Increased extreme weather

Pest & Disease Outbreaks

- Deregulation of existing pesticides
- Resistance development to chemicals
- Fewer new product introductions

Sustainability

Regulatory Restrictions

- Limiting the use of chemicals
- Enforcing regenerative practices
- Regulating food imports

Consumer Demands

- Healthier food
- Higher quality
- Sustainable production

Ag-biologicals is relatively a newcomer to the huge **\$200B** ag-inputs market

\$10B
Ag-Biologicals

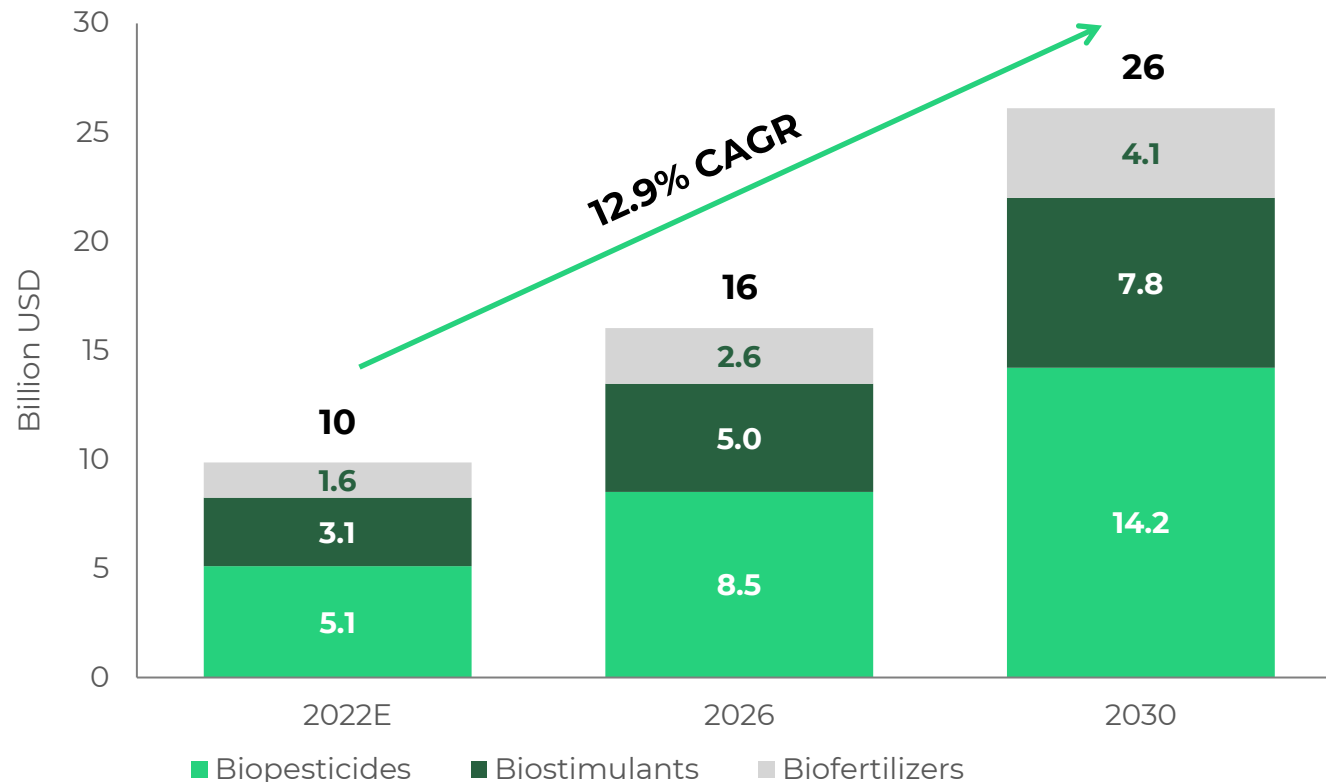
\$60B
Crop Protection Chemicals

\$130B
Chemical Fertilizers

* The amounts described herein are based on Markets and Markets, Research and Markets, Vantage Market Research and company's analysis

Ag-Biologicals Could be the Solution

Driving healthier crops, while preserving the soil



Consumer Health

- Less residues
- Less applicator exposure

Regenerative Agriculture

- Improving soil fertility
- Integrated pest management

Sustainability

- Renewable resources
- Increased uptake of fertilizers



However, Ag-Biologicals are Struggling Still not efficient as 'traditional' solutions



	Chemical Crop Protection & Fertilizers	Ag-Biologicals Today
Sustainability	+	+++
Efficiency • Efficacy	+++	++
• Consistency	+++	+
• Commercial viability	+++	+

Next
Generation?



Next Generation Ag-Biologicals by Lavie Bio

Efficient & sustainable products



	Chemical Crop Protection & Fertilizers	Ag-Biologicals Today	 lavie bio Ag-Biologicals
Sustainability	+	+++	+++
Efficiency Efficacy	+++	++	+++
Consistency	+++	+	+++
Commercial viability	+++	+	+++



Our Mission



lavie bio

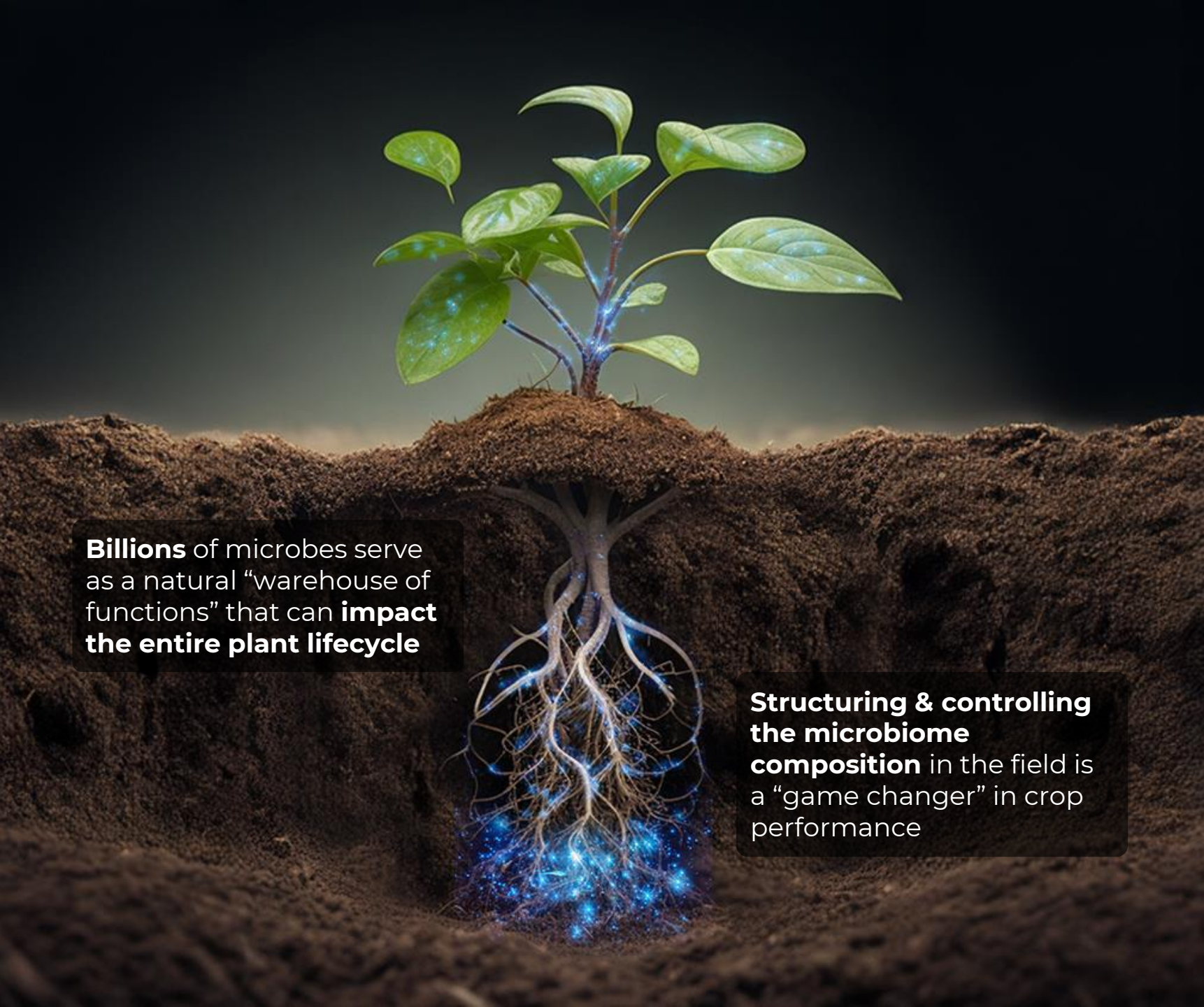
Improve food quality, sustainability
and agriculture productivity
through **microbiome*** based,
AI-driven, ag-biological products



*Plant microbiome is the community of bacteria naturally existing in the plant's environment

The Power of Microbes

Transforming the crops and soils they interact with



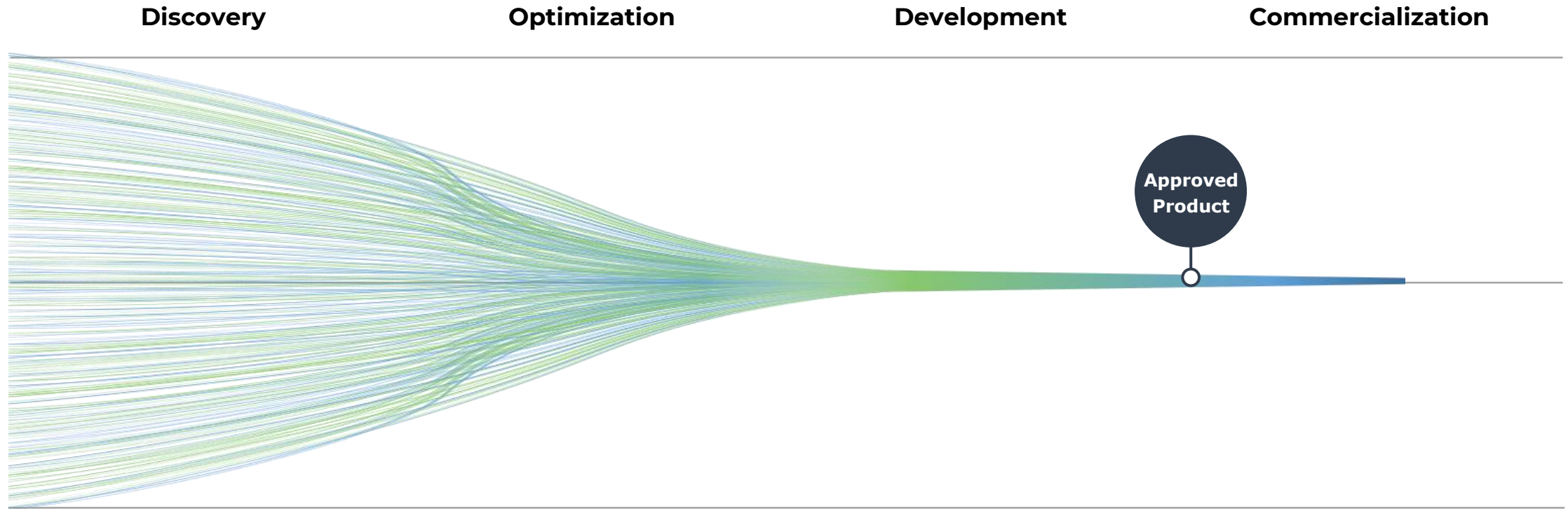
Billions of microbes serve as a natural “warehouse of functions” that can **impact the entire plant lifecycle**

Structuring & controlling the microbiome composition in the field is a “game changer” in crop performance



The Ag-Biological Product Development Challenge

The ultimate case of finding the “Needle in the Haystack”



The challenge: finding the winning candidates out of a **vast number of possible microbes** that address **a complex myriad of criteria**, to reach successful products



Lavie Bio's Tech Platform:

Discovery and optimization of microbes for agriculture



Lavie Bio's proprietary BDD platform incorporates **big data, advanced AI capabilities & a proprietary microbial collection** leveraged by **deep scientific understanding**, to successfully discover & guide the development of novel ag-biological products



Big data & AI

Science

Microbial collection



Decoding the natural diversity of genetic functionality

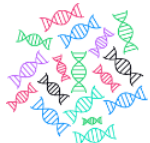
Function-based product discovery & optimization

Proprietary Assets

World leading
microbial bank +
Metadata*



Gene Pool of
Microbiomes



*Proprietary
Decoder*



Agri-Functions
Catalog



Product specific

Product Requirements



Required Functions



Lead
Candidates



Discovery

Min. Microbes
Max. Functions

Optimized
Candidates

*Functions for
Optimization*



Optimization

Function-based
Product

Product



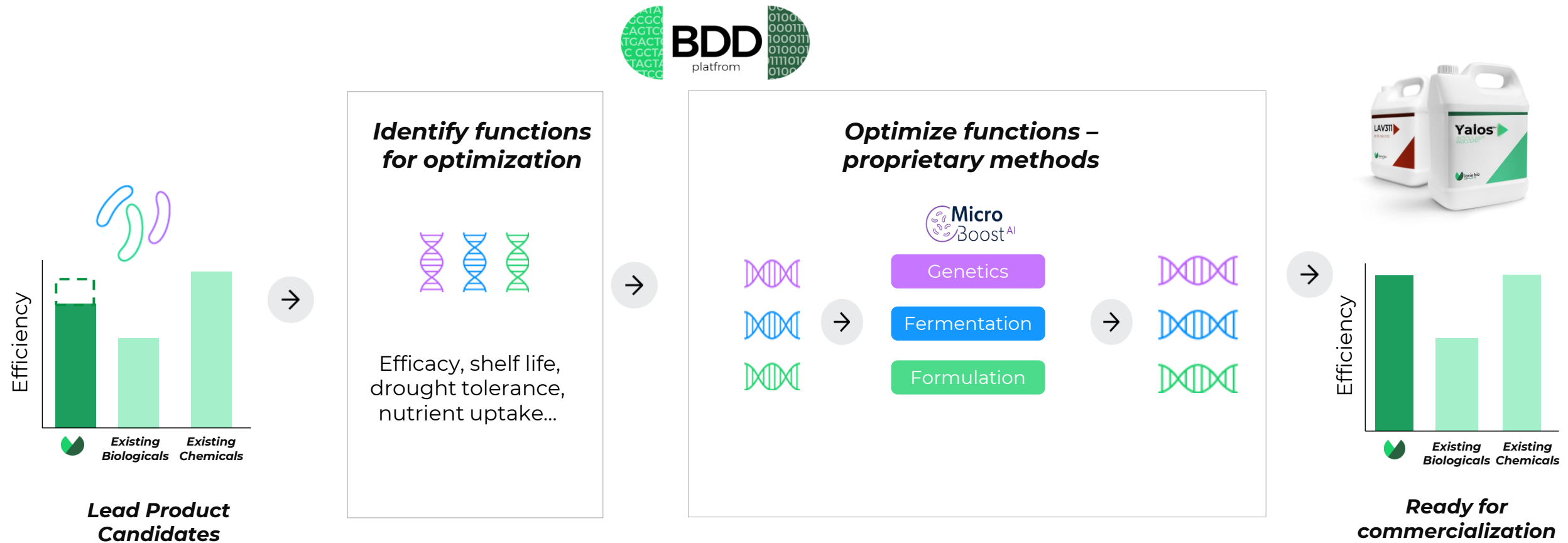
Commercialization

Sales revenue

*metadata refers to all the data that describes the strains in our bank (origin, growth properties, interaction with plants,...)

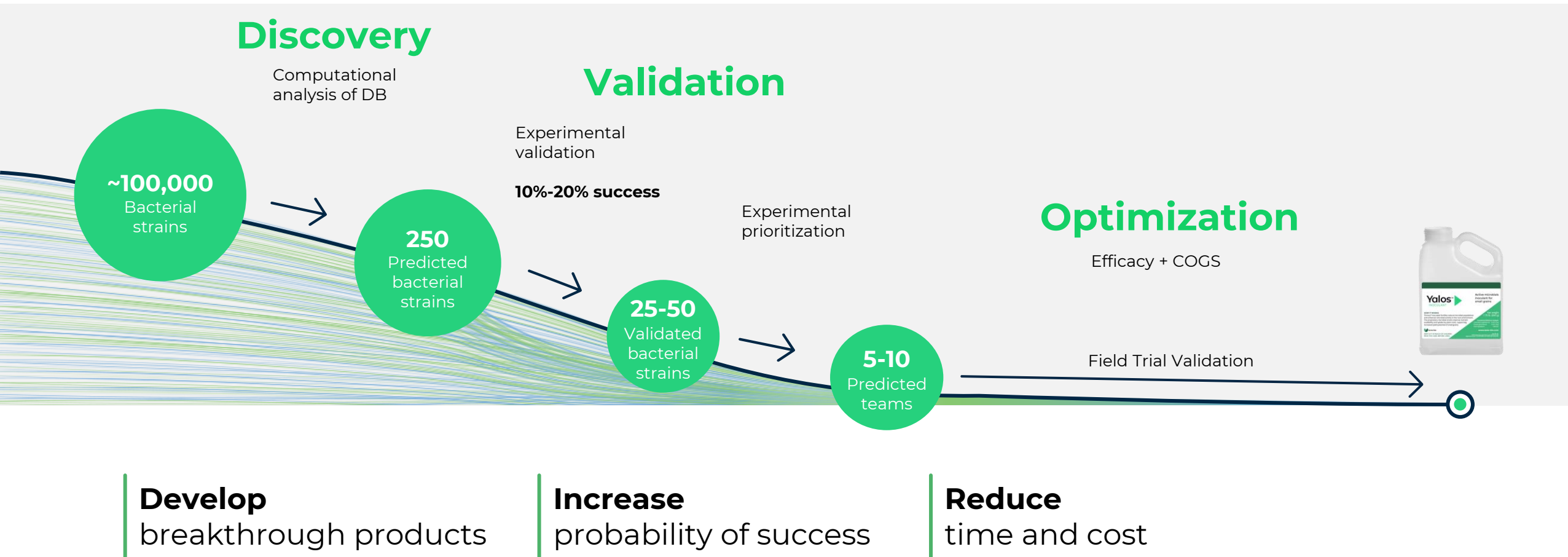
Optimization - Function-Based Product Improvement

Maximizing performance of leading microbes



The **BDD platform** increases microbe efficiency by ~20%
enabling competitive performance to chemical solutions

Typical Product Discovery & Optimization Process



Lavie Bio's Unique Competitive Positioning



Focus on new microbial diversities and technologies*

Diversity-Driven Efficacy
(Discovery)

New diversity
New phylogenies
New MOAs

Symbiotic, low CFU



Non-spore, high CFU
Metabolite, advanced F&F



In use diversity
Typical "agri"-microbials

Spore, high CFU
Non-spore, low CFU
Metabolite



GMO, low CFU



In use technologies
Typical "agri" fermentations and formulations

New technologies
New fermentations and formulations

Technology-Driven Efficacy
(optimization)

* Not including *Bradyrhizobium* and other legume rhizobia symbionts

Single Product Market Potential

From focused
development to large
market potential



Our Product Pipeline

An engine for new product launch every 1-2 years

Product program	Product focus	Target market*	Potential expansion**	2022	2023	2024	2025	2026	2027	2028
 Bio-Stimulants										
Yalos™ INOCULANT 	Seed treatment, Spring wheat North America		25M ACRES wheat North America	500M ACRES						
LAV228 Bio-stimulants 2	Seed treatment Soy N.A, Europe		85M ACRES soy US	180M ACRES						
Bio-stimulants 3	Foliar treatment Soy Brazil, US & LATAM		100M ACRES soy Brazil	140M ACRES						
Bio-stimulants 4	Foliar treatment Cotton Brazil, US, India		40M ACRES cotton Brazil, US, & India	90M ACRES						
 Bio-Pesticides										
LAV311 BIOFUNGICIDE 	Foliar treatment Fruits & Veg Europe. N.A	 	>\$200M grapes chemicals usage	+\$800M Additional Fruits & Veg						
LAV321 Downey mildew	Foliar treatment Fruits & Veg Europe. N.A	 	>\$350M grapes chemicals usage	+\$150M Additional Fruits & Veg						
LAV332 Seedling disease (Pythium)	Seed treatment, Corn, soy, F&V Europe, N.A	 	>\$500M	<\$200M						
LAV441, LAV442 Bio-Insecticides	Seed treatment, Corn, soy Europe, N.A	 	>\$1.5B existing traits and chemicals market	<\$500M						



* Company estimations for the target market of initial crops and disease based on FAO, OECD & USDA data
 ** Company estimations for total addressable market including potential geographies & crop expansions



product launch year



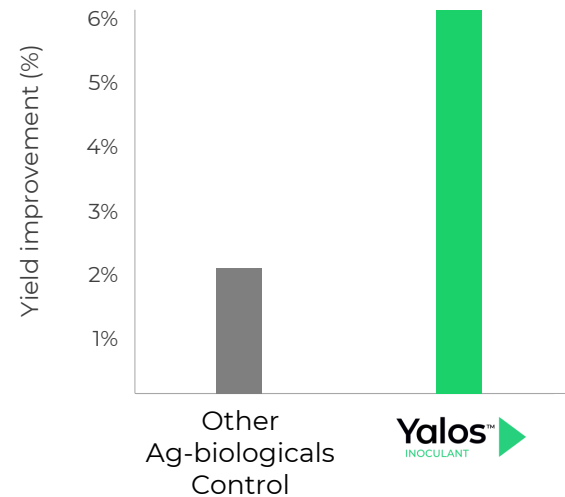
Expected product launch year

Yalos™* - Bio-inoculant for cereal grains**

Sold in USA & Canada
& expanding globally



Superior performance
vs. alternatives



Consistent performance providing
farmers 4:1 ROI



* Yalos is a combination of 2 synergistic bacteria strains which improve nutrient availability & uptake, improving plant health

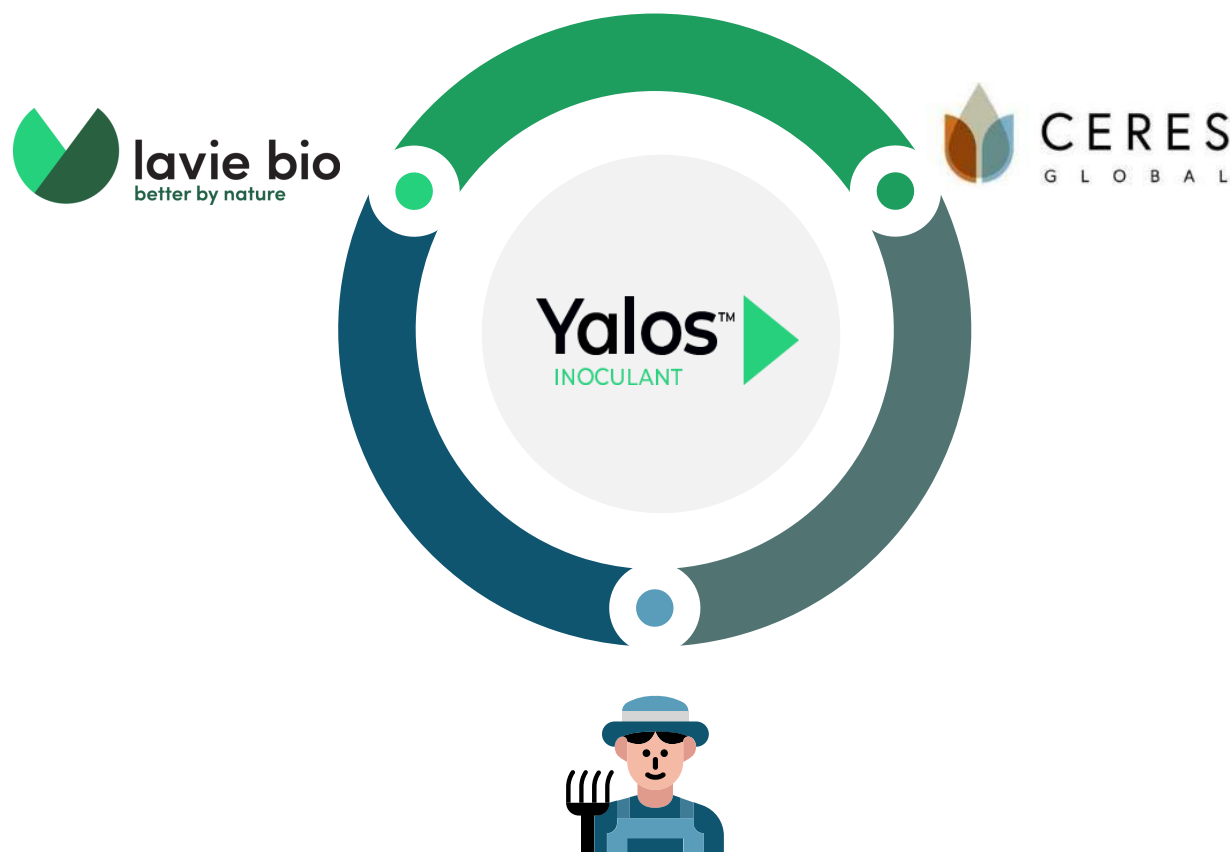
** Yalos has regulatory approval in the US & Canada for all small grains including wheat, Barley, Durum, Oats, soybeans, canola, and others.

Data was gathered in large side-by-side field trials in the US – over 225 field trials to date

Sustainability – Growers are Financially Rewarded for using Yalos

Yalos is included in the Ceres Global Sustainability program where growers:

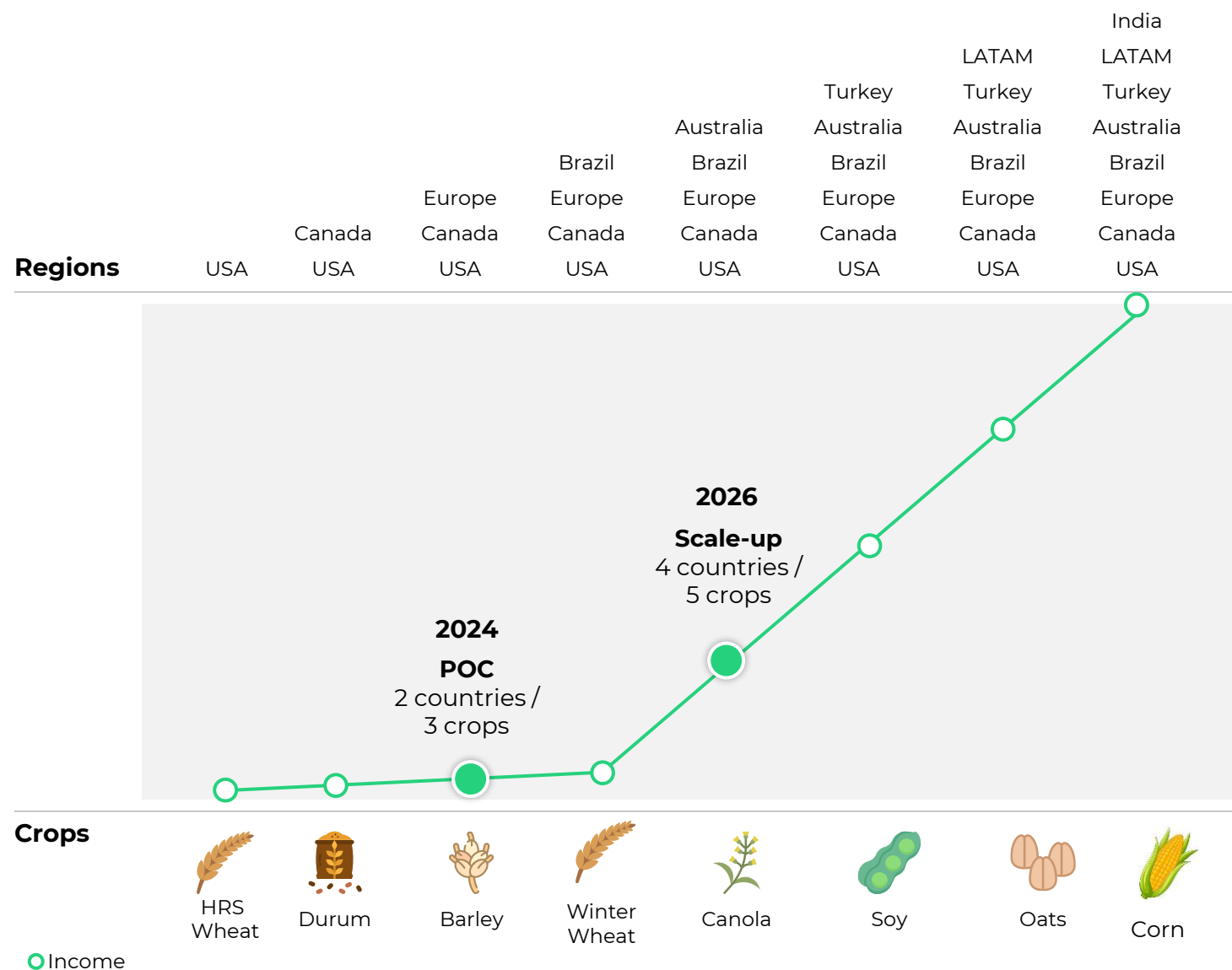
- ✓ Use Yalos bioinoculant for \$8/acre
- ✓ Realize yield improvement of ± 4 bushels per acre on average from Yalos
- ✓ Enroll in the Ceres Global sustainability program
- ✓ As part of the Ceres program, paid upon delivery a \$3.00/acre premium for advancing sustainability (subsidized by food companies)



Yalos™ INOCULANT

Market Potential

From focused launch
to crop and global
expansion



LAV311 - Bio-pesticide for Fruit rots & Powdery mildew

Licensing agreement with

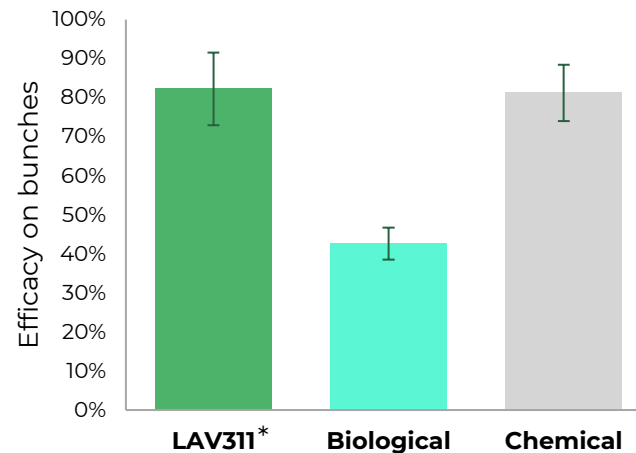


- \$5M upfront payment
- Future milestone payments
- **Royalties from future sales**



Superior performance

compared to competing biological control products, similar results to chemicals



Consistent performance

in preventative application over 3 years (validated by Corteva)



Chemical

LAV311
BIOFUNGICIDE

Untreated

Integrated spray programs showed a potential reduction of 3-5 chemical applications* per season



* Program included alternating applications between chemical and LAV311 across the season.

LAV321 - Bio-pesticide for Vineyards & Vegetables (Downey Mildew & Late Blight)

- Field proven against Downy Mildew (grapes) & Late Blight (potato & tomato)
- 2 years testing by 4 multinationals with consistent performance & strong results



- Limited solutions in the market due to pest resistance and regulatory constraints
- Potential annual product sales **>\$100m***

Control



LAV321 
BIOFUNGICIDE



Control



LAV321 
BIOFUNGICIDE



Business Model



Direct model

Lavie Bio product

- End-to-end product development
- Production by contractor
- Commercialization via direct channels
- Revenues from sales



Licensing model

Lavie Bio 'tech-inside' product

- End-to-end product development
- Licensing by industry leader
- Commercialization & production by partner
- Revenues from upfront payment, milestones & royalties





Direct Model

G2M Step 1

Bottom-up demand generation and sales through regional distribution partners

G2M Step 2

Scale-up through national partners

Current Thrivus US distribution partners



Potential US national partners





Licensing Model

Corteva to license Lavie Bio's bio-fungicide LAV311 & LAV312 for fruit rot

- Global exclusive license upon reaching diligence milestones
- Deal terms:

\$5M upfront
payment

Future
milestone
payments

Royalties
from future
sales

- Deal includes LAV311 as main strain and LAV312 as a back-up

Strategic Investors



*Global leader in
computational biology*

- **Strategic Investor:**
Evogene holdings – ~60%*
- **Strategic partner:**
Exclusive long-term license for
MicroBoost AI technology for agriculture



*Global leader in seeds and
ag-chemical products*

- **Strategic Investor:**
Corteva holdings – ~24.5%*
\$27M investment (Aug 2019)**
- **Strategic partner:**
2 joint bio-pesticide development
programs

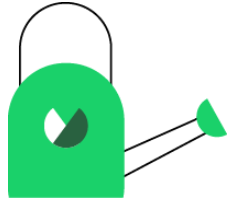


*Global leader in fertilizers
and specialty minerals*

- **Strategic Investor:**
\$10M SAFE investment (Aug 2022)
- **Strategic partner:**
2 joint bio-stimulant development
programs



* Estimation after taking into account ICL's SAFE conversion
**Includes \$10M cash investment along with transfer of assets



We've got
the right
team to
nurture it

Management Team



Amit Noam
| CEO

An extensive experience in the agriculture and healthcare sectors, leading teams in the development and execution of commercialization strategies, driving long-term growth and value-creation for businesses



Michael Ionesco
| VP Research

Innovative research leader with deep biotechnology, big data and informatics expertise



Dor Kestecher
| VP Business Development

15+ years of broad experience leading in agriculture product management, strategy, and development



Russel Putland
| EVP Commercial and US General Manager

30+ years of ag commercial leadership roles with 'ground up' experience in large multi-national organizations



Amir Bercovitz
| VP Development

Extensive development and product expertise in the ag-biologicals field for 30+ years – led introductions of 5 commercial products



Yaron Eldad
CFO

Over 25 years of experience in various CFO positions in public and private technology and biotechnology companies,

Board of Directors



Ofer Haviv

Chairman of the board
Evogene's President and CEO



Frederic C. Beudot

Global Portfolio Leader for
Biologicals at Corteva Agriscience



Elad Aharonson

President, Growing
Solutions at ICL



Sassi Masliah

Vice President Corporate
Development at Evogene



Trevor Thiessen

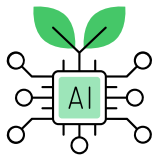
Senior agriculture executive,
experienced in marketing,
sales, and go-to-market



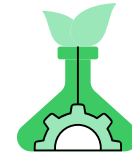
Summary



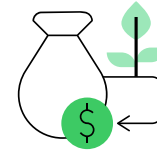
Attractive ag-biological market with expected double digit YoY growth



Unique tech platform, proven to discover and develop innovative biological products with superior performance to current commercial biological products



Strong pipeline of 8 products in advanced stages of development



2 products already generating revenues through both direct product sales and licensing agreements



Ongoing Collaborations with the leading ag-players in the market





lavie bio
better by nature



Thank you!