evogene
DECODING BIOLOGY

INVESTOR PRESENTATION

Ofer Haviv, President & CEO

March 2021

Forward Looking Statement

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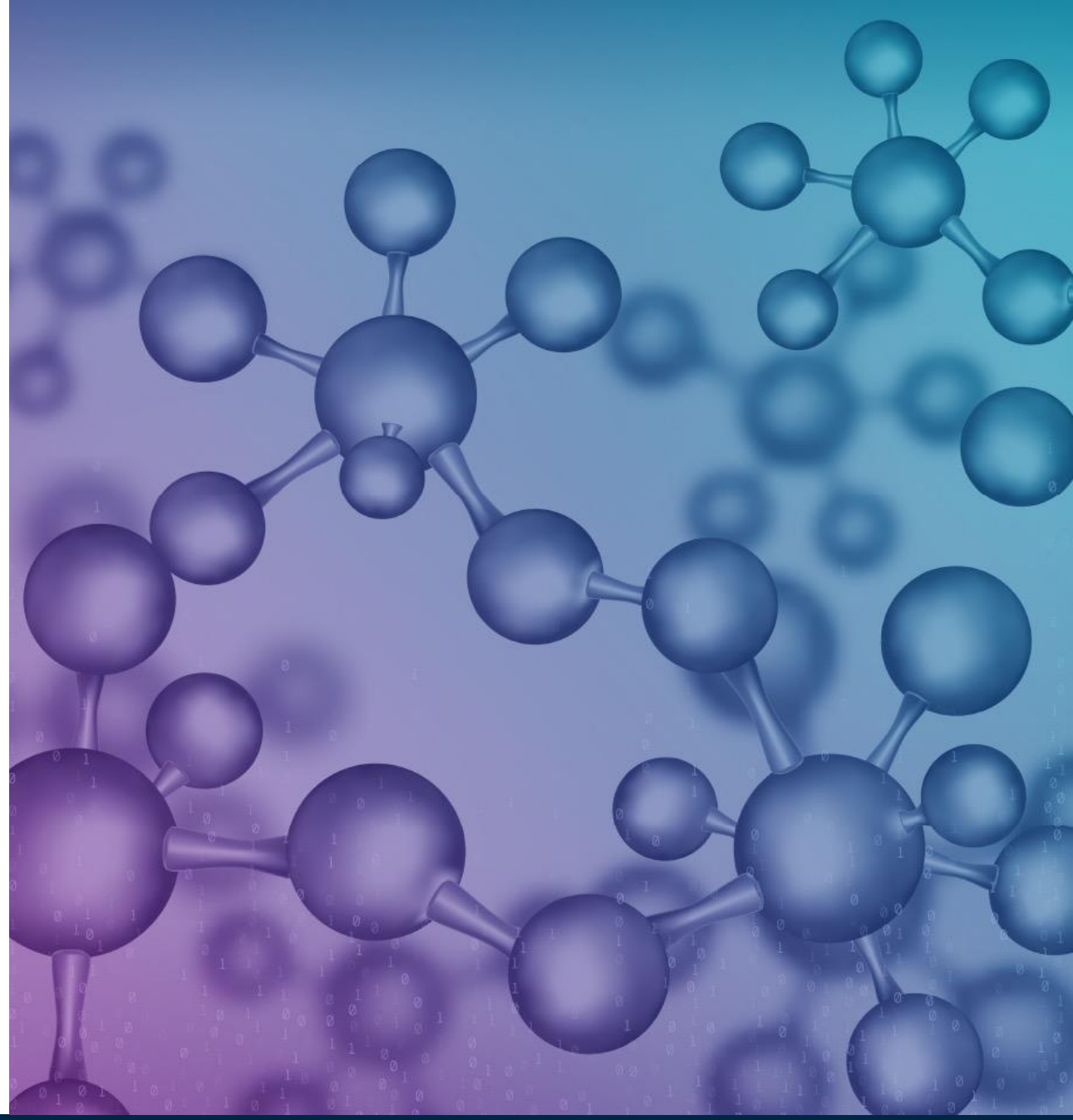
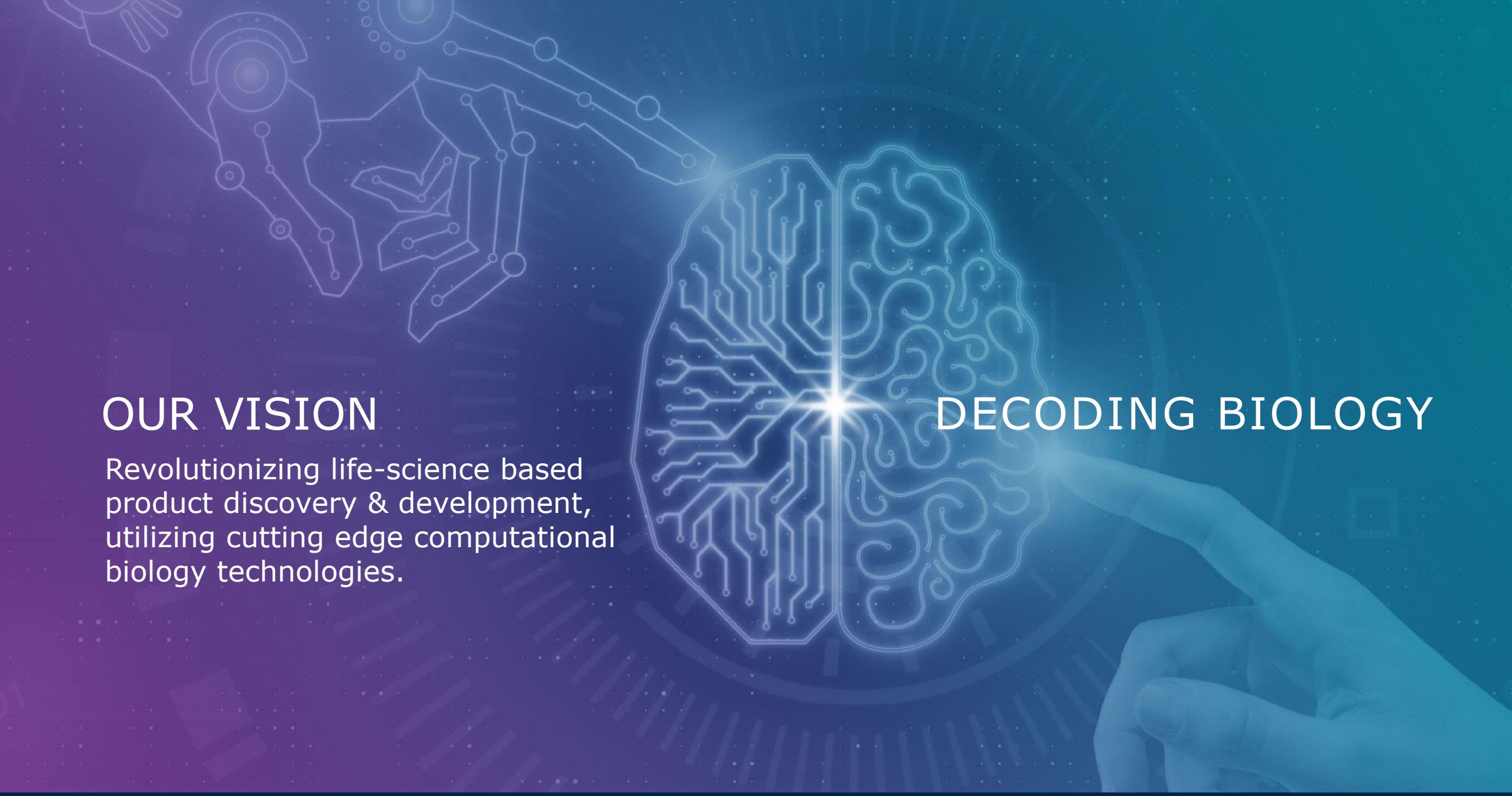
Agenda

- **Introduction**
- Fields of activity
- Main subsidiaries
- Summary

Annex I - Addressing the discovery and development challenges of life science-based product

Annex II - Financial Fundamentals





OUR VISION

Revolutionizing life-science based product discovery & development, utilizing cutting edge computational biology technologies.

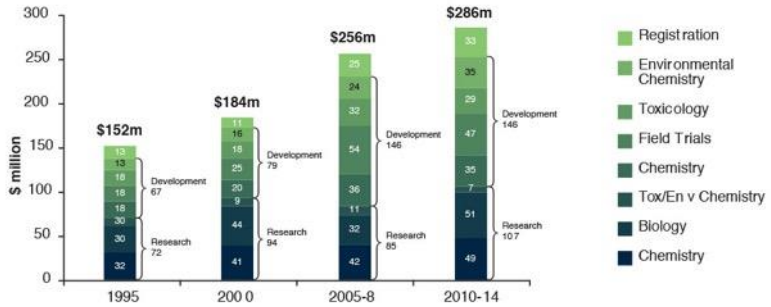
DECODING BIOLOGY

Life-science product discovery & development challenges

Low probability of success with high cost and long time-to-market

Ag-chemicals Industry

Discovery and development costs of a new crop protection product



Source: Phillips McDougall, 2016

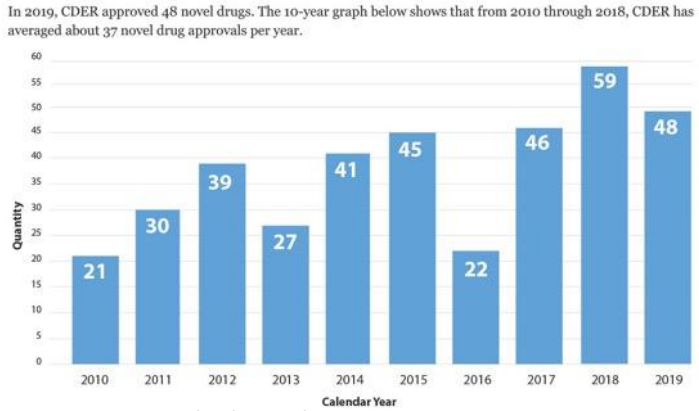
Time to develop a new crop protection product

	1995	2000	2005-8	2010-15
Number of years between the first synthesis and first sale of product	8.3	9.1	9.8	11.3

Source: Phillips McDougall, 2016

Pharmaceutical Industry

CDER'S* annual novel drug approvals: 2010-2019



Source: U.S. Food and Drug Administration

Worldwide total pharmaceutical R&D spend in 2010-2024

Source: Evaluate Pharma May 2019

*Center for Drug Evaluation and Research

The opportunity

Utilize comprehensive and integrated computational biology to substantially increase the probability of success, while reducing the time and cost of life-science product discovery & development.

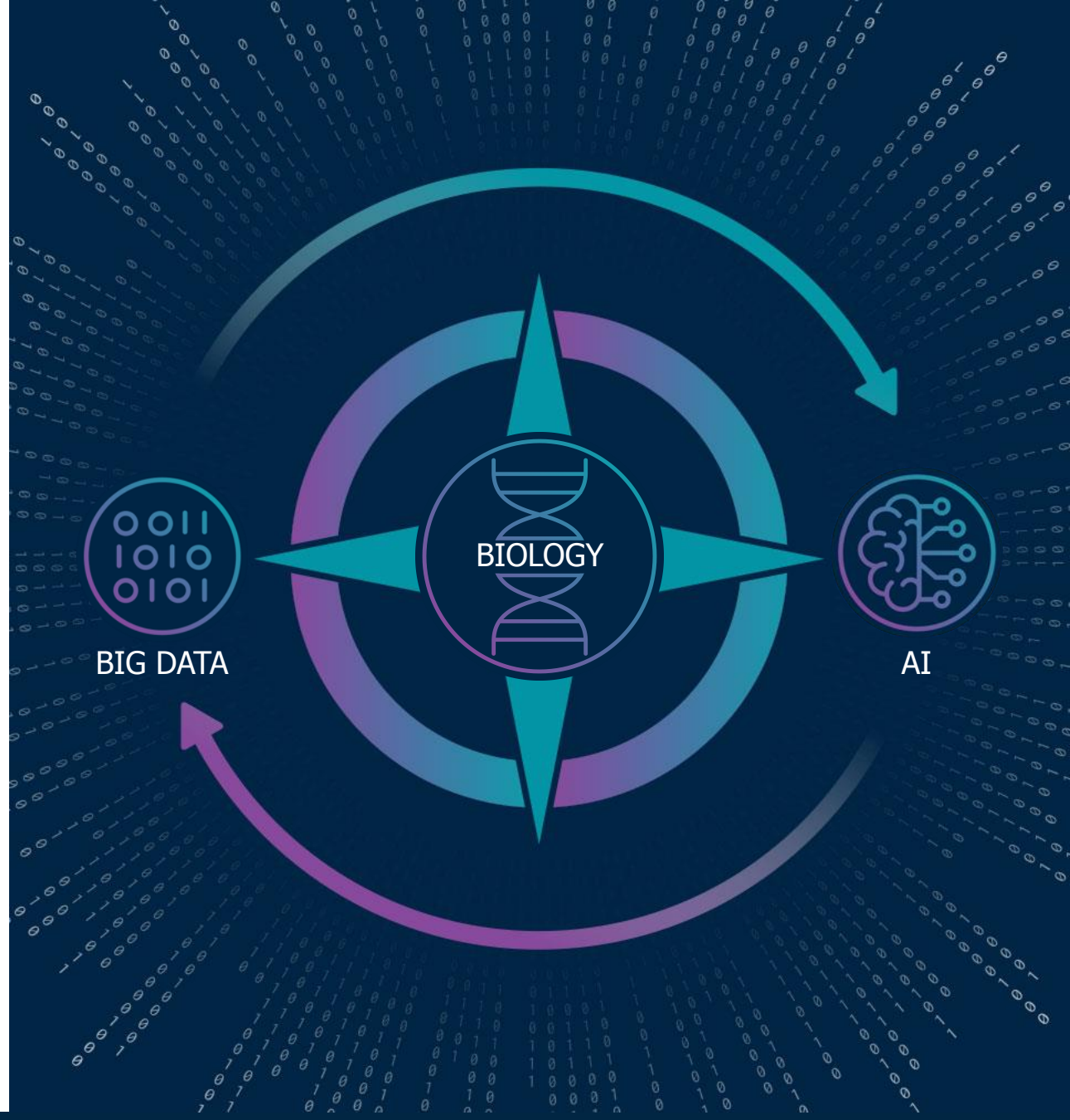
When biology meets disruptive technologies; introducing–

CPB platform

Incorporating deep scientific understandings together with big data and advanced artificial intelligence technologies (AI), to successfully discover & guide the development of novel life-science based products.

Developed over two decades at an investment of tens of millions of dollars and validated through collaborations with industrial leaders & internal results

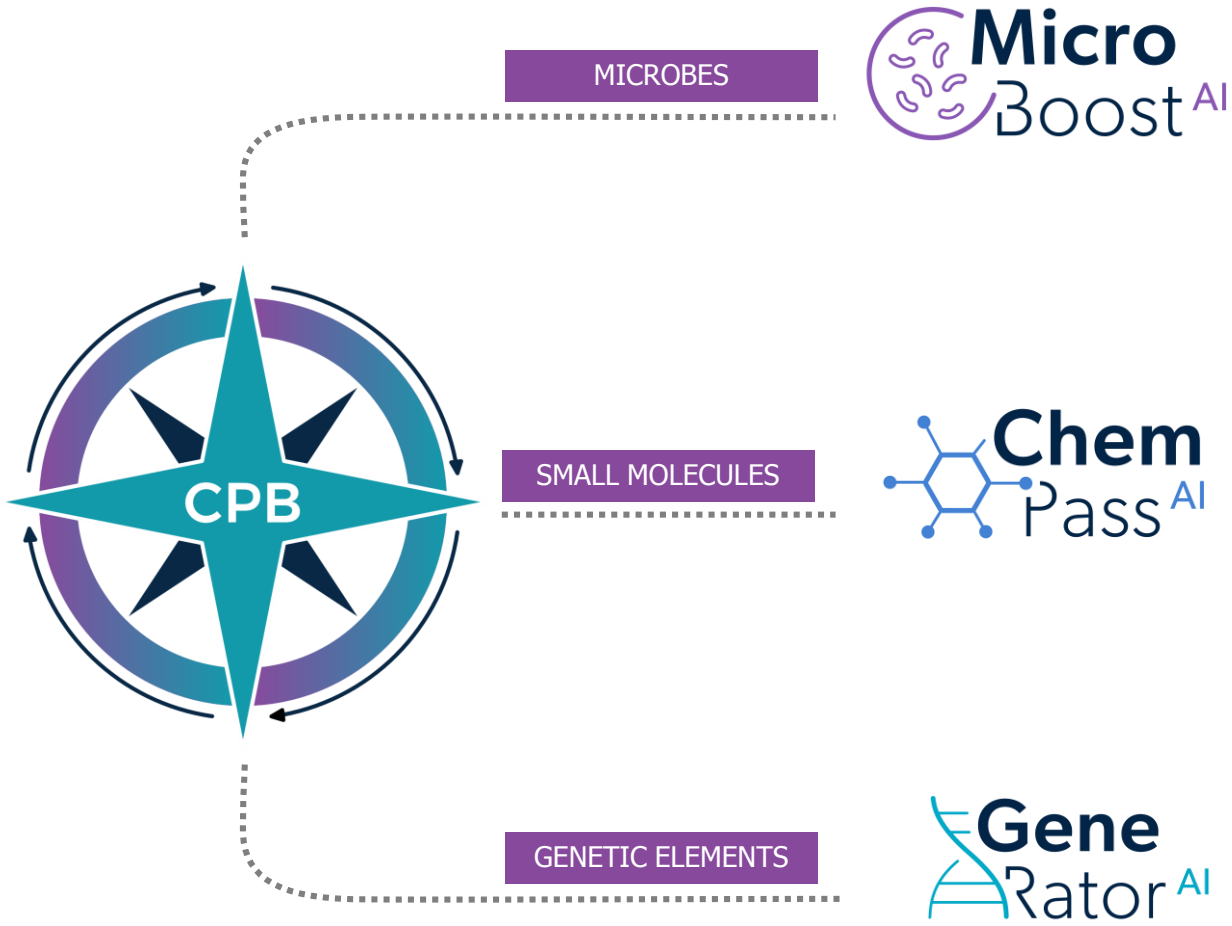
CPB – Computational Predictive Biology



Tailor-made **Engines** for product discovery & development

The CPB platform enhances product discovery and development through dedicated **Engines** for products based on three core components:

- Microbes
- Small molecules
- Genetic elements



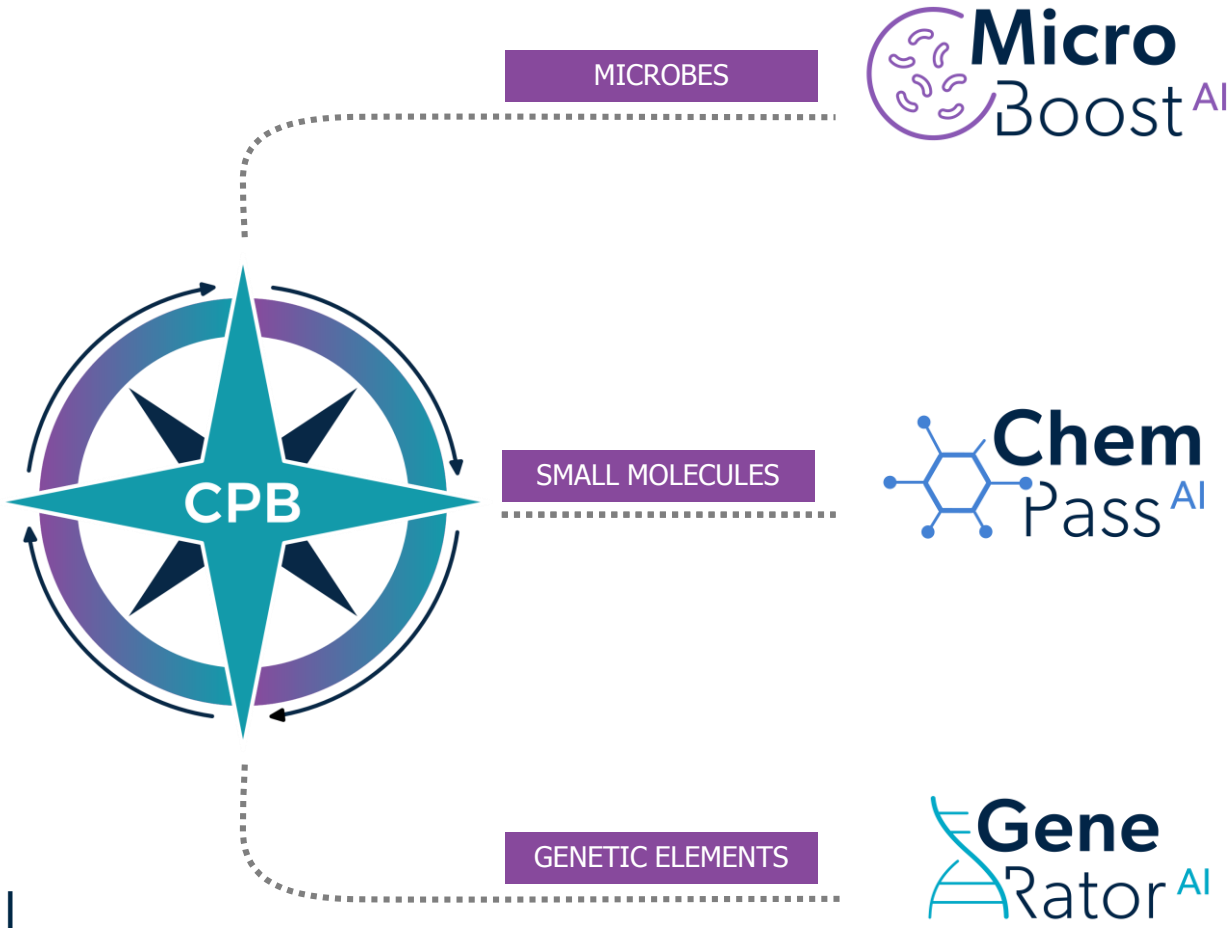
Tailor-made **Engines** for product development

Discovery

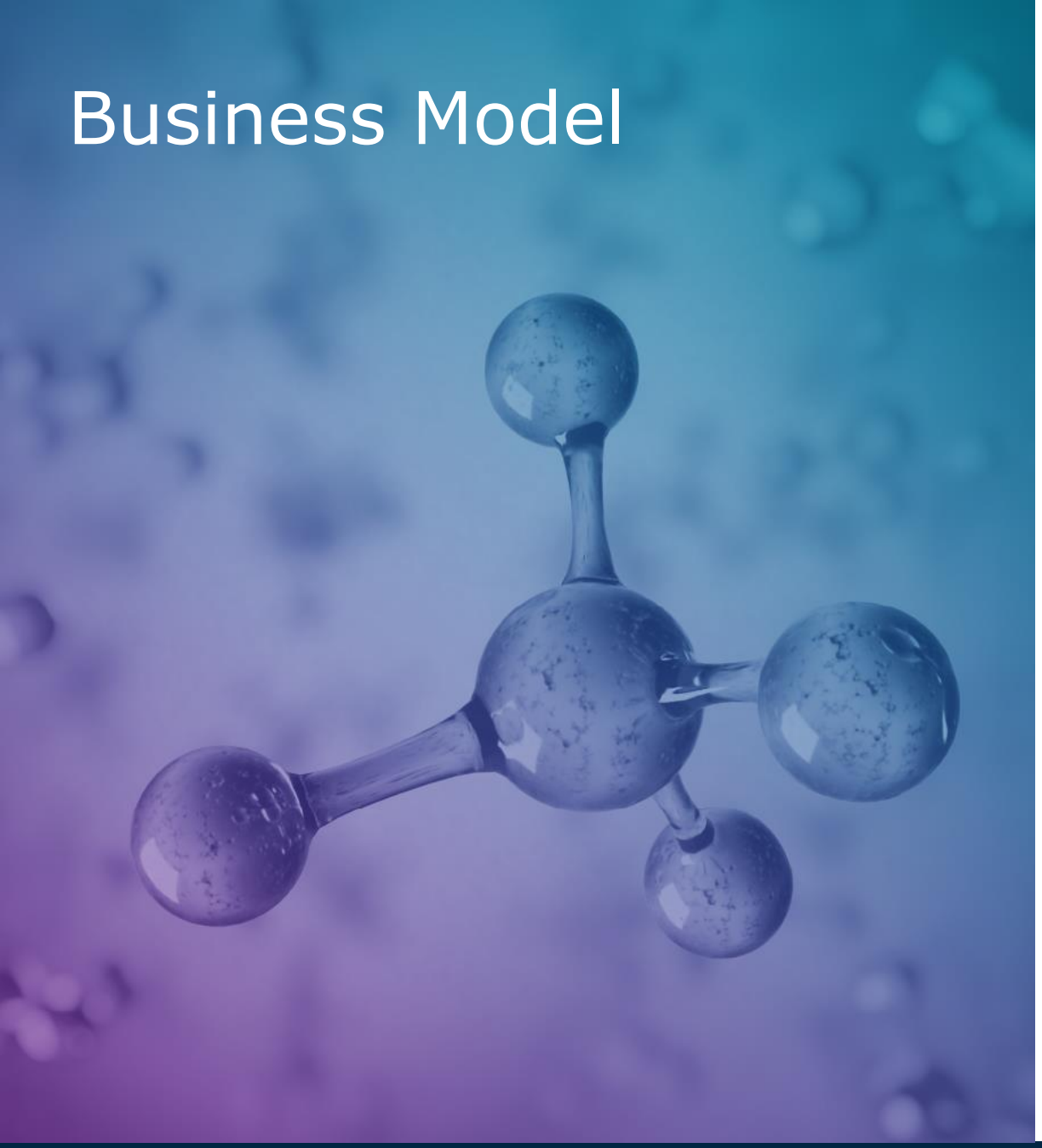
Computational selection of the most promising candidates to initiate the product development process.

Development

Computational driven solution addressing optimization development challenges for the selected candidates, without impairing their ability to address other product attributes, supporting the way to successful commercialization.



Business Model



1

Product development through collaborations

Joint development with leading companies for defined products utilizing Evogene's unique solution. Later-stage development and commercialization of the product will likely be done by the partner.

Potential revenue for Evogene

- Licensing and research payments
- Milestone payments
- Revenue sharing

Main Business Model Until 2014:

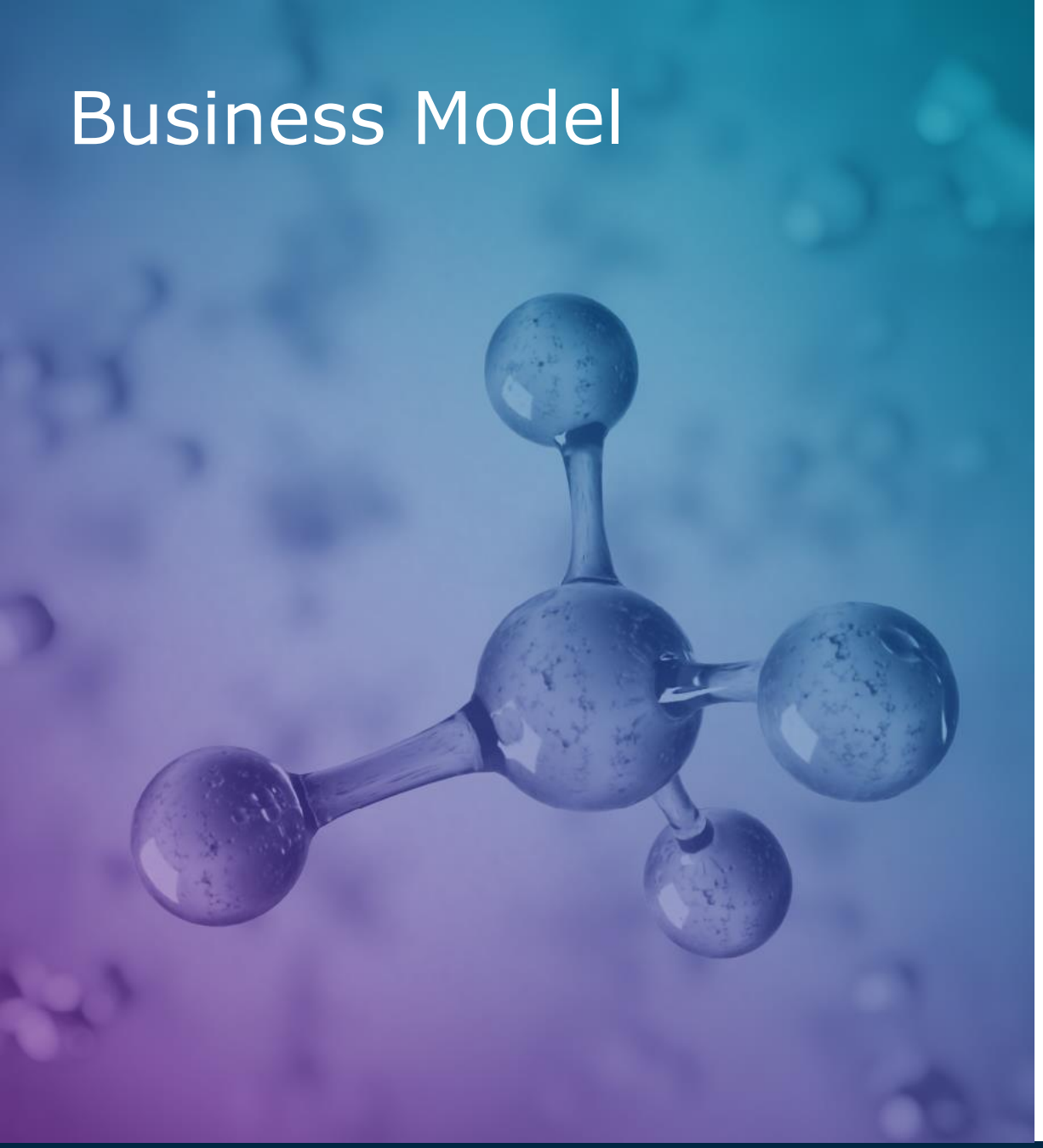
- GMO seed traits for yield and abiotic stress for wheat

- GMO seed traits for yield and abiotic stress for corn
- GMO seed traits for ASR resistance for soybean

- GMO seed traits for yield and abiotic stress for corn and soybean
- GMO (2013) and genome editing (2019) seed traits for fusarium resistance

- GMO seed traits for nematode resistance

Business Model



2

Product development through subsidiaries

Establish independent entities focusing on a defined commercial field with an exclusive license to use Evogene's unique solutions for product development. The subsidiary may develop and commercialize products independently or through strategic collaborations.

Potential revenue for Evogene

- Licensing and research payments
- Consolidated revenues
- Dividends (subject to profits generated by subsidiary)

Main Business Model from 2015:

agPlenus
Ag-chemicals

BIOMICA
Microbiome based therapeutics

CANONIC
Medical cannabis

casterra
Ag-solutions for castor

lavie bio
Ag-biologicals

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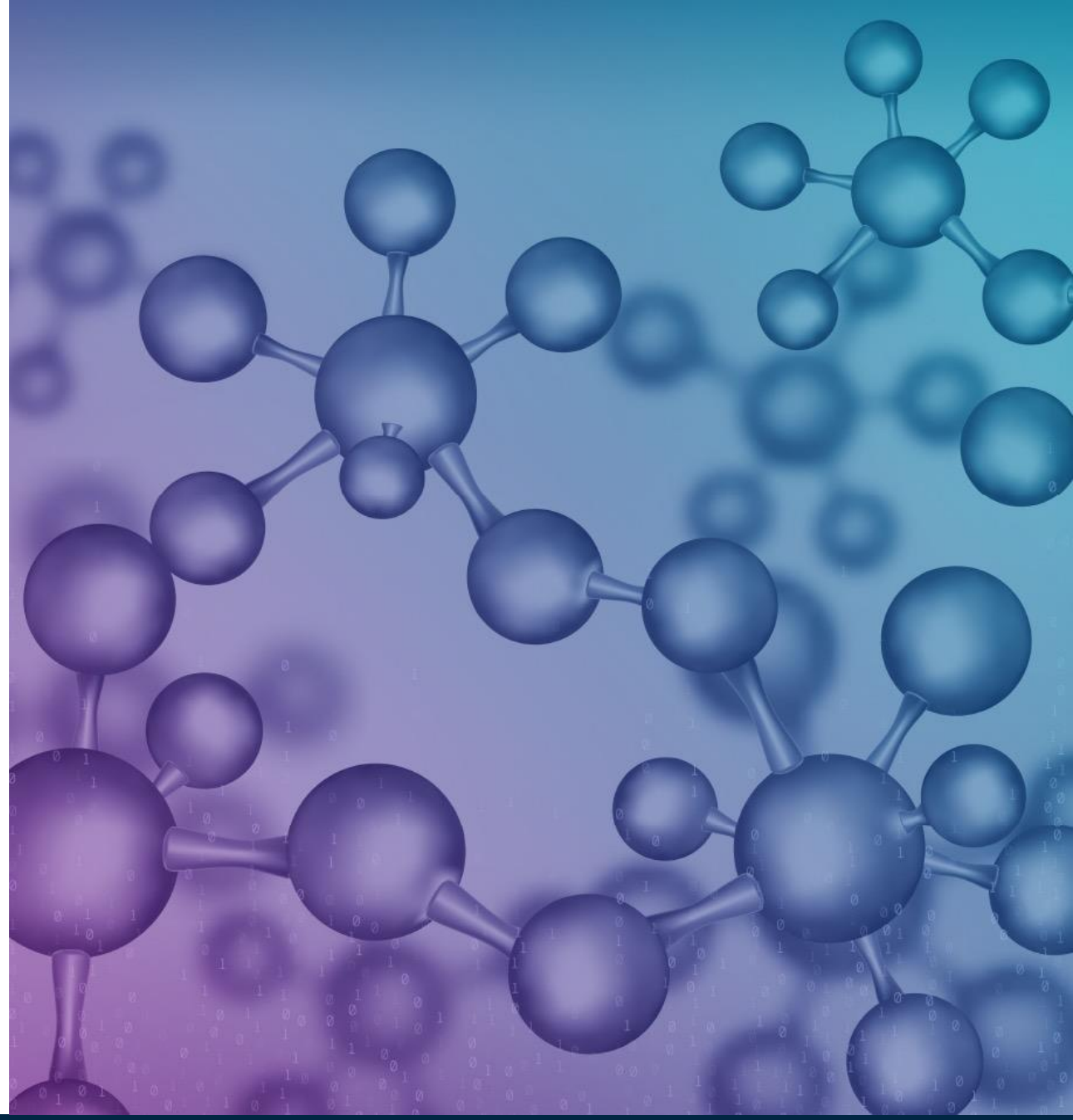

Potential fields of activity

	HUMAN HEALTH	AGRICULTURE	OTHER INDUSTRIES
MICROBES			
SMALL MOLECULES			
GENETIC ELEMENTS			

MicroBoost AI

ChemPass AI

GeneRator AI

Current life-science based products under development



		HUMAN HEALTH	AGRICULTURE	OTHER INDUSTRIES
MicroBoost AI	MICROBES	Microbiome based Therapeutics	Ag-Biologicals	
ChemPass AI	SMALL MOLECULES	Drugs based on small molecules	Ag-Chemicals	
GeneRator AI	GENETIC ELEMENTS	Medical Cannabis	Seed Traits	Ag-solutions for castor oil production

Development & commercialization through subsidiaries and collaborations



	HUMAN HEALTH	AGRICULTURE	OTHER INDUSTRIES
MICROBES — MicroBoost AI	BIOMICA	lavie bio	
SMALL MOLECULES — ChemPass AI	BIOMICA*	agPlenus	
GENETIC ELEMENTS — GeneRator AI	CANONIC	Seed Traits [division]	casterra

CPB

* non-exclusive license

Evogene Group – More to Come

New activity

We are now evaluating the initiation of discovery and development of new life-science based products in various new fields of activity.



	HUMAN HEALTH	AGRICULTURE	OTHER INDUSTRIES
MICROBES (MicroBoost AI)		Microbe for aquaculture*	
SMALL MOLECULES (ChemPass AI)	Drug optimization*		
GENETIC ELEMENTS (GeneRator AI)		High quality food by genome editing*	

CPB

* under evaluation

Evogene Group

Human Health

BIOMICA

90%*

Microbiome based Therapeutics

- Immuno-oncology
- GI- gastrointestinal-related disorders
- MDRO – multi-drug resistant organisms

CANONIC

100%*

Medical Cannabis

- High yield & consumer traits
- Therapeutic traits – currently inflammation & pain

Agriculture

agPlenus

98%*

Ag Chemicals

- Herbicides
- Insecticides
- Fungicides

lavie bio

72%*

Ag Biologicals

- Bio-Stimulants
- Bio-Pesticides

Internal division of Evogene

Seed Traits

- Yield improvement and drought tolerance
- Plant disease
- Insect control

Other Industries

casterra

100%*

Castor Oil Production

- Castor seeds & growth protocol

*Evogene holdings

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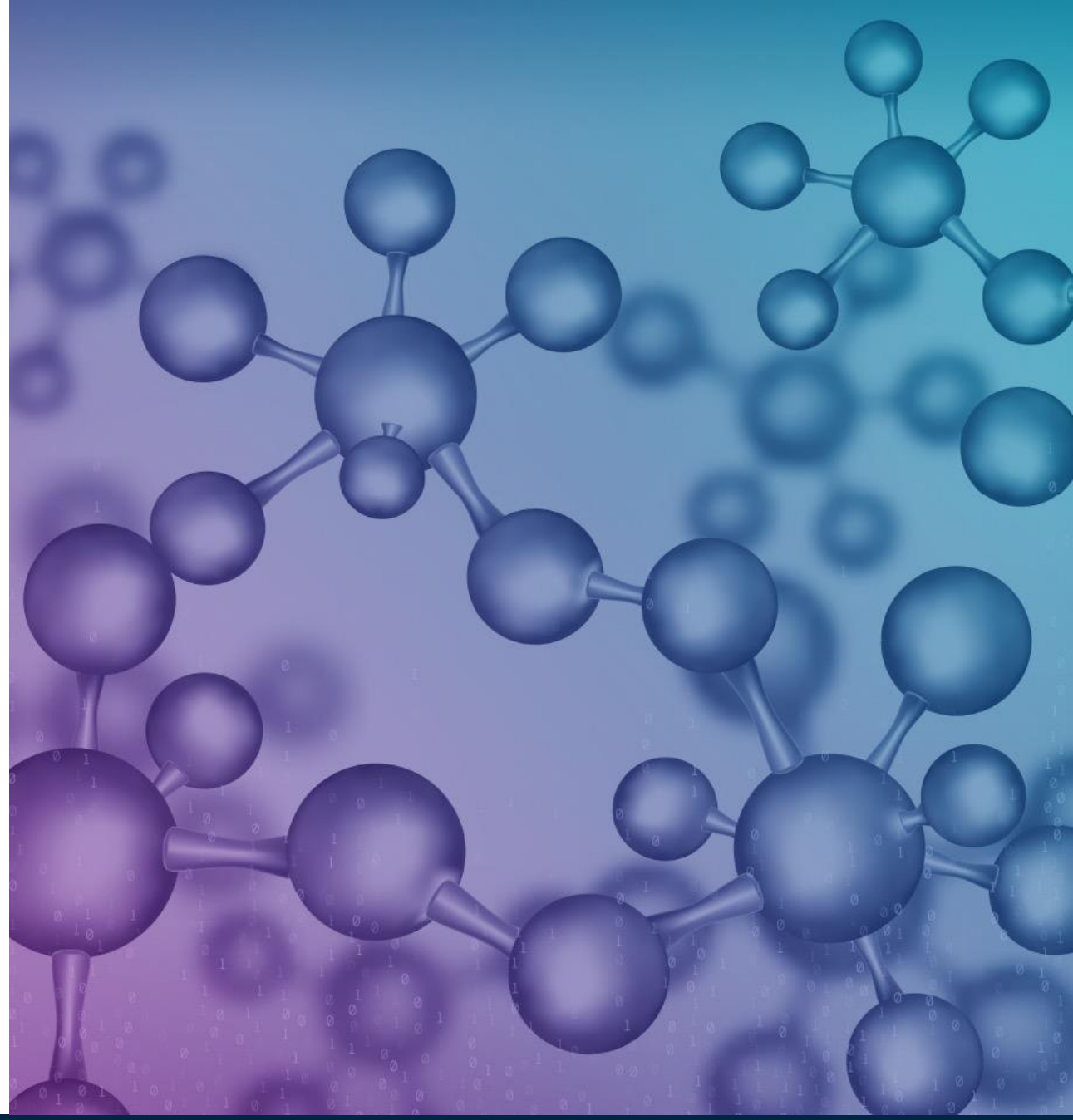


Mission:

Discovery and development of novel therapies for microbiome-related human disorders using computational biology.

MicroBoost AI ChemPass AI

Product Pipeline:

Immuno-oncology program:

- Combination therapy for cancer with checkpoint inhibitors
- Pre-clinical stage
- Addressable market size expected by 2026* – $243B

GI related disorders:

- Inflammatory Bowel Disorder (IBD) – pre-clinical stage
- Irritable Bowel Syndrome (IBS) – discovery stage
- Addressable market size expected by 2026: Inflammatory Bowel Disorder $22.4B, Irritable Bowel Syndrome** $3.3B

MDRO:

- Multi Drug Resistant Organisms (antimicrobial resistance)
- Clostridium Difficile Infection (CDI) – discovery stage
- Methicillin-resistant Staphylococcus aureus (MRSA)– discovery stage
- Addressable market size expected by 2026: CDI*** $1.7B, MRSA**** $3.9B

Expected main near-term value drivers:

2021

- **Inflammatory Bowel Disease (IBD)** - extend pre-clinical study
- **Immuno-oncology** - initiate proof of concept, first in man study

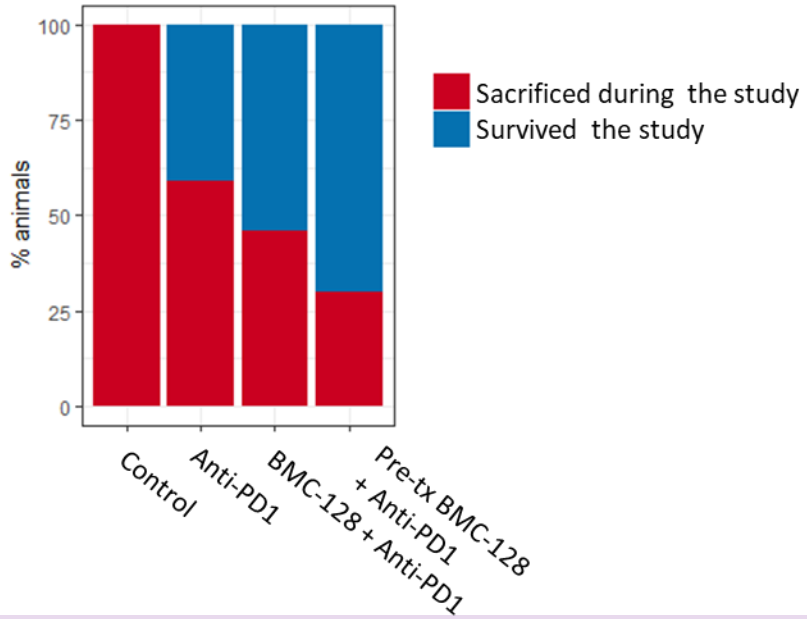
2022

- **IBD** - initiate first GMP production of drug candidates for IBD
- **Immuno-oncology** - readout from proof of concept, first in man study

*www.globenewswire.com/news-release/2019/07/17/1884118/0/en/Cancer-Immunotherapy-Market-To-Reach-USD-242-86-Billion-By-2026-Reports-And-Data.html
**www.grandviewresearch.com/industry-analysis/irritable-bowel-syndrome-ibs-treatment-market
***www.globaldata.com/global-clostridium-difficile-infections-market-approach-1-7-billion-2026/
****www.prnewswire.com/news-releases/global-methicillin-resistant-staphylococcus-aureus-mrsa-drugs-market-to-reach-over-us-39-billion-by-2025-upsurge-in-the-consumption-of-antibiotics-across-the-globe-to-fuel-market-growth-observes-transparency-market-research-676949593.html

Example Results:

Immuno-Oncology program – BMC128 potentiate the effect of anti-PD-1 therapy (immunotherapy) in-vivo



Improved antitumor activity in mice following the administration of BMC128, compared to treatment with immunotherapy alone

Biomica Announces Positive Pre-Clinical Results in its Immuno-Oncology Program

Biomica's, a subsidiary of Evogene Ltd., live biotherapeutic drug candidate BMC128 administered in combination with Immune Checkpoint Inhibitors (ICI) significantly improved anti-tumor activity. Proof-of-concept first-in-man studies expected next year

Rehovot, Israel – September 8, 2020 – Biomica Ltd., an emerging biopharmaceutical company developing innovative microbiome-based therapeutics, and a subsidiary of Evogene Ltd. (NASDAQ: EVGN, TASE: EVGN), today announced positive pre-clinical in-vivo results in its immuno-oncology program for a follow-on combination of bacterial strains. In these studies, Biomica tested BMC128, which consists of four live bacterial strains derived from Biomica's drug candidates BMC121 and BMC127. Treatment with BMC128, both prior to and in combination with ICI, significantly improved anti-tumor activity in mice.

CANONIC | Medical Cannabis

Mission:
Commercialize precise & stable medical cannabis products for better therapeutic effects using computational biology.

GeneRator AI

Product Pipeline:

MetaYield Products:

- Stable enhancement of total plant compounds:
  - Increased compounds per plant
  - Increased compounds per area
- Total Cannabis market size expected by 2024 – $42.7B*

Precise Products:

- Stable enhancement of specific active compounds for pain and inflammation:
  - Medical indication focus
  - Compound profile focus
- Medical Cannabis market size expected by 2024 – $25.6B*

*Source: Arcview Market research/BDS Analytics 2020

Expected main near-term value drivers:

2021

- **MetaYield** - reach 1st commercial variety; sign distribution agreements in anticipation for commercialization in 2022
- **Precise** - identify specific lines that exhibit distinct effect in model systems for reducing pain or inflammation

2022

- **MetaYield** - commercial launch and initial sales of first product in Israel
- **Precise** - reach 1st commercial variety for reducing pain or inflammation as preparation for commercial launch in 2023

Example Results:

MetaYield products under development – increased compounds per area, addressing the T20/C4 (THC 16%-24% and CBD 0%-7%) market segment, which currently consists of 70% of the Israeli medical cannabis market

Medical Cannabis aiming at high THC, high yield, big inflorescence and dense trichomes

Cannbit, subsidiary of Tikun Olam-Cannbit, and Canonic of Evogene group announce collaboration for the development of novel medical cannabis products

Collaboration to combine the cannabis expertise of both parties, including extensive clinical and related data of Cannbit and leading computational predictive biology capabilities and genomic data of Canonic

Tel-Aviv and Rehovot, Israel – February 24th, 2021 – Cannbit Ltd., a subsidiary of Tikun Olam-Cannbit Ltd. (TASE: TKUN), a leading medical cannabis company, and Canonic Ltd., a subsidiary of Evogene Ltd. (NASDAQ: EVGN) (TASE: EVGN), focused on the development of medical cannabis products, today announced that they have entered into a collaboration agreement for the development of novel medical cannabis products.

agPlenus | Ag-Chemicals

Mission:
Design of next-generation effective, sustainable and safer crop protection products by leveraging computational biology and chemistry.

ChemPass AI

Product Pipeline:

Herbicides:

- Novel MoA (Mode-of-Action) selective/non-selective herbicides
- Relevant target crops – Cereals, Rice, Corn, Soybean, Cotton, Canola, Sugar beet, Other TBD
- Addressable market size expected by 2022*: $34B
- Lead stage

Insecticides:

- Novel SoA (Site-of-Action)
- Addressable market size expected by 2022*: $17B
- Hit-to-Lead stage

*https://www.prnewswire.com/news-releases/global-3410-billion-herbicide-market-2022---research-and-markets-300458389.html

Expected main near-term value drivers:

2021

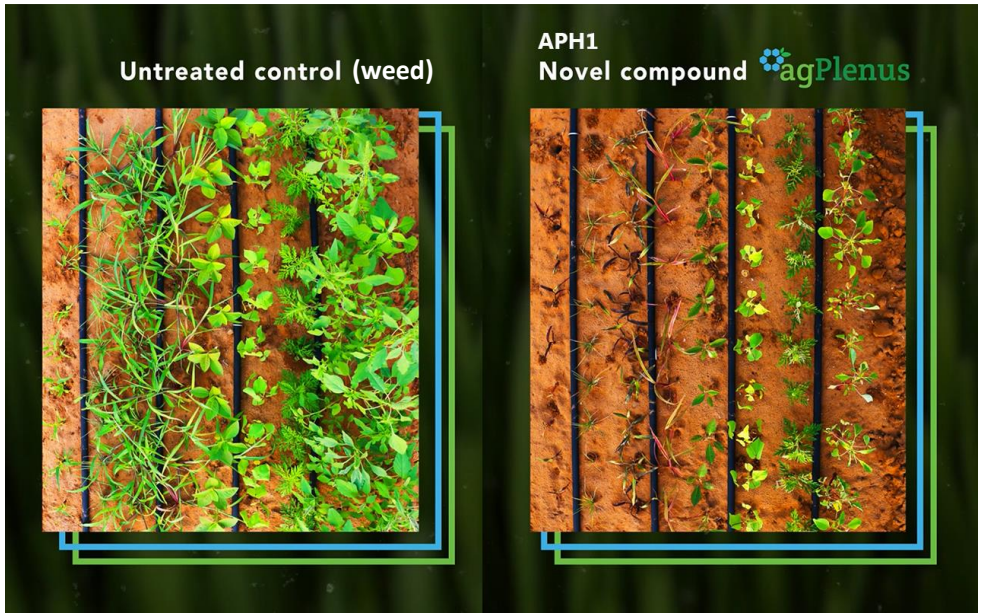
- **New MoA Herbicide** - reach a herbicide tolerance trait POC for a 'Lead' herbicide under development
- **New MoA Herbicide/SoA Insecticide -** sign a licensing agreement for a leading candidate

2022

- **New MoA Herbicide** - sign a strategic agreement for the development of an 'Optimized Lead' compound
- **New MoA Herbicide** - reach an 'Optimized Lead' phase in the herbicide program

Example Results:

Leading novel MoA herbicide candidate – displaying efficacy in eradicating multiple important weed species in field tests



Field test of APH1 against a panel of grass and broadleaf weeds – untreated control vs APH1

AgPlenus Announces Reaching a 'Lead' Stage in its Novel Mode-of-Action Herbicide Program

This significant development milestone was achieved following positive results for product candidate APH1 in field tests with commercial level application rates on a broad panel of weeds

Rehovot, Israel – December 15, 2020 – AgPlenus Ltd., an innovative company designing effective, sustainable crop protection products by leveraging computational biology and chemistry, and a subsidiary of Evogene Ltd. (NASDAQ: EVGN), (TASE: EVGN), announced today that it has reached the 'Lead' stage in its novel Mode-of-Action (MoA) herbicide program. The achievement of this milestone follows the conclusion of field tests that demonstrated that product candidate APH1, at commercial dose rates, effectively controlled a broad panel of weeds, including weeds that are known to have resistance to existing herbicides. These results were confirmed in independent field tests conducted by SynTech Research, an agricultural R&D contract research organization located in California.

lavie bio | Ag-Biologicals

Mission:

Improve food quality, sustainability and agricultural productivity through the introduction of microbiome based ag-biological products using computational biology.

MicroBoost AI

Product Pipeline:

Bio-stimulants (live microbials for yield improvement):

- Spring wheat – seed treatment/soil application – development stage 2
- Corn – seed treatment – pre-development stage
- Addressable market size*: corn – 120M acres, spring wheat – 25M acres

Bio-pesticides (live microbials for pest protection):

- Mildew, fruit rot for fruit and vegetables (initial focus on grapes) – foliar application – development stage 1
- Seedling disease for corn, soy – seed treatment for disease protection – pre-development stage
- Bio-insecticides – initial focus corn (seed treatment), soy (foliar) – pre-development stage
- Addressable market size*: mildew, fruit rot – $550M, seedling diseases – $500M, bio-insecticides – $1.5B.

*Company estimation

Expected main near-term value drivers:

2021

- **Bunch rot bio-fungicide** - complete LAV311/312 development towards regulation
- **Bio-stimulant** - conduct pre-commercial trials for LAV211 in spring wheat

2022

- **Bio-stimulant** - initial product sales of LAV211 for spring wheat
- **Bunch rot bio-fungicide** - file for regulatory approval for leading product candidate LAV311/LAV312

Example of treatment with LAV312 against Botrytis Cinerea in vines – untreated control vs treated vines

Lavie Bio's wheat field in the USA during harvest

Lavie Bio Announces Positive Results for LAV311 and LAV312 in its Bio-Fungicide Program

Positive results were achieved in a series of vineyard trials for *bunch rot* diseases conducted in Europe and the United States

Rehovot, Israel – October 29, 2020 – Lavie Bio Ltd. (Lavie Bio), a leading ag-biologicals company focusing on improving food quality, sustainability and agriculture productivity through the introduction of microbiome based products, and a subsidiary of Evogene Ltd. (NASDAQ: EVGN) (TASE: EVGN), announced today positive trial results for two of its leading bio-fungicide product candidates. The successful results for LAV311 and LAV312, targeting *bunch rot* diseases, mark the advancement of these candidates to "Development Stage 2" **[1]** These vineyard trials, conducted in target locations in Europe and the U.S., resulted in significantly better efficacy and consistency than existing comparable commercial biological benchmarks, and competitive to commercial chemical benchmarks, both tested as part of these trials. The positive results will support Lavie Bio's current plan to launch its first bio-fungicide product for controlling *bunch rots* for use in fruit and vegetables in 2024.

Lavie Bio Provides Product Pipeline Update for 2020

LAV211 bio-stimulant advancing towards anticipated 2022 commercial launch in spring wheat; Product advancement achieved in multiple programs

Rehovot, Israel – December 29, 2020 – Lavie Bio Ltd. (Lavie Bio), a leading ag-biologicals company focusing on improving food quality, sustainability and agriculture productivity through the introduction of microbiome-based products, and a subsidiary of Evogene Ltd. (NASDAQ: EVGN) (TASE: EVGN), has announced an update on certain advancements achieved in its pipeline in 2020, including phase advancement of bio-stimulant LAV211, towards an anticipated commercial launch in 2022.

Subsidiaries - expected main near-term value drivers

	2021		2022	
BIOMICA	**Inflammatory Bowel Disease (IBD) -** extend pre-clinical study	**Immuno-oncology -** initiate proof of concept, first in man study	**IBD -** initiate first GMP production of drug candidates for IBD	**Immuno-oncology -** readout from proof of concept, first in man study
CANONIC	**MetaYield -** reach 1st commercial variety; sign distribution agreements in anticipation for commercialization in 2022	**Precise -** identify specific lines that exhibit distinct effect in model systems for reducing pain or inflammation	**MetaYield -** commercial launch and initial sales of first product in Israel	**Precise -** reach 1st commercial variety for reducing pain or inflammation as preparation for commercial launch in 2023
agPlenus	**New MoA Herbicide -** reach a herbicide tolerance trait POC for a 'Lead' herbicide under development	**New MoA Herbicide/SoA Insecticide -** sign a licensing agreement for a leading candidate	**New MoA Herbicide -** sign a strategic agreement for the development of an 'Optimized Lead' compound	**New MoA Herbicide -** reach an 'Optimized Lead' phase in the herbicide program
lavie bio	**Bunch rot bio - fungicide -** complete LAV311/312 development towards regulation	**Bio-stimulant -** conduct pre-commercial trials for LAV211 in spring wheat	**Bio-stimulant -** initial product sales of LAV211 for spring wheat	**Bunch rot bio-fungicide -** file for regulatory approval for leading product candidate LAV311/LAV312

Pipeline Regulation Collaboration Product Launch

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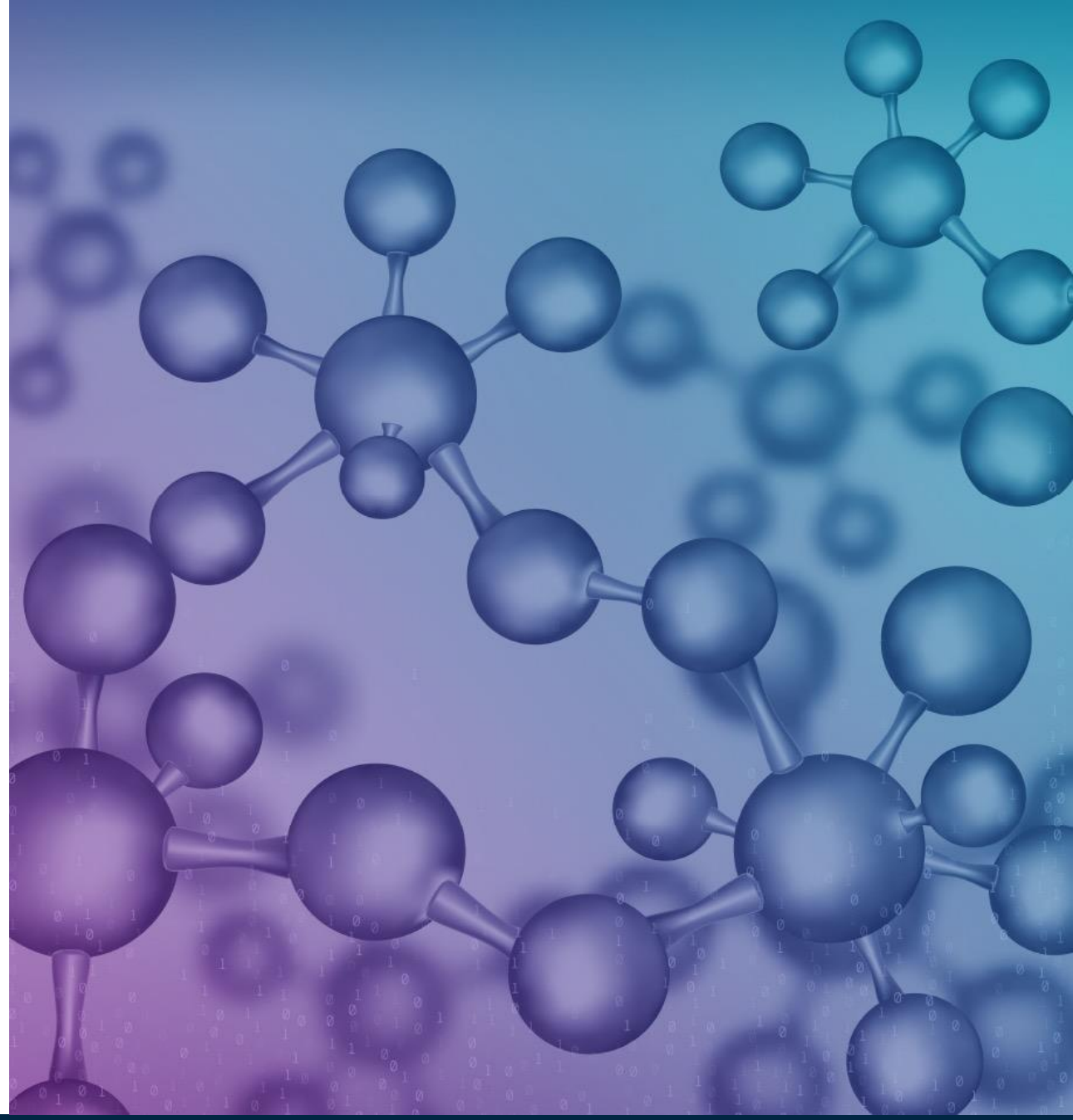

Summary

Our vision - Revolutionizing life-science based product discovery & development, utilizing cutting edge computational biology technologies.

CPB platform - a unique technology platform stemming from the incorporation of deep scientific understandings of biology together with big-data and artificial intelligence technologies

The CPB's three unique engines target to improve the development of products based on the following core components:

1. MicroBoost AI – for products based on microbes
2. ChemPass AI – for products based on small molecules
3. GeneRator AI – for products based on genetic elements

Dual based business model - utilizing Evogene's solutions for:

1. Product development & commercialization through collaborations
2. Product development & commercialization through subsidiaries

Four main market-oriented subsidiaries, each with a clear milestone roadmap:

1. Biomica – human-microbiome based therapeutics
2. Canonic – medical cannabis
3. AgPlenus – ag-chemicals
4. Lavie Bio – ag-biologicals

Significant catalysts expected in the next 12 months towards 2022 product commercialization & strategic collaborations


THANK YOU!
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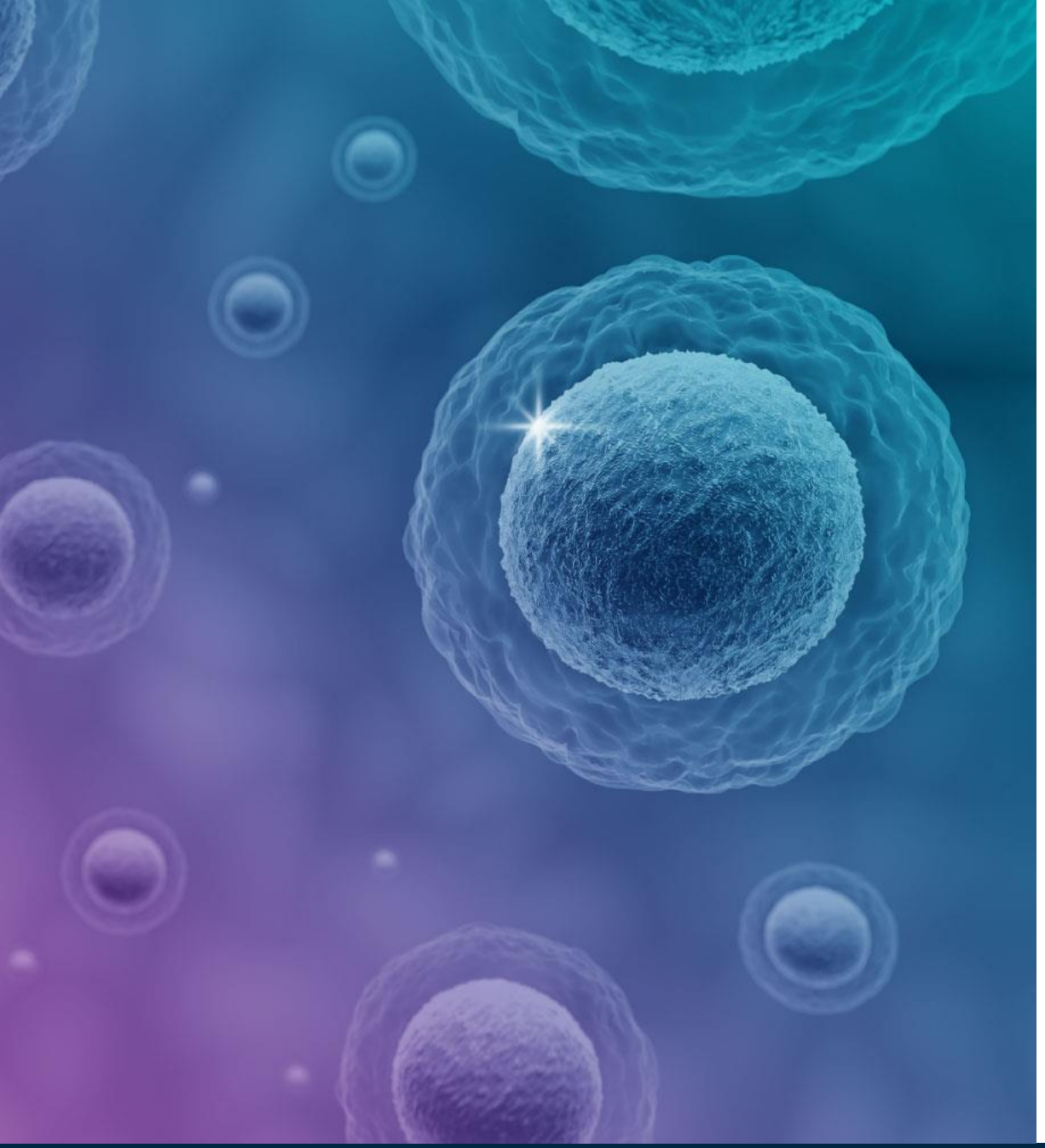

Annex I:
Addressing the discovery and development challenges of life science-based product

The **challenge** in creating life-science based products

The **challenge** in creating life-science based products

Common practice

Discovery – selection of product candidates mainly addressing efficacy

Product Definition → **Candidate Selection** | Efficacy | Safety | Selectivity | Shelf-life | Other | **Product Launch**

The **challenge** in creating life-science based products

Common practice

Discovery – selection of product candidates mainly addressing efficacy

Development – inefficient optimization & difficulty in addressing a single challenge without impairing others

X Low probability of success

X Long time to market

X High development costs

Evogene's AI-based solution: Discovery

A multi-attribute computational selection of product candidates, addressing relevant challenges using dedicated training data sets and AI.

Product Definition → **Candidate Selection** | Efficacy | Safety | Selectivity | Shelf-life | Other | **Product Launch**

Evogene's AI-based solution: Development

A multi-attribute computational analysis, addressing a specific development challenge of the selected candidate, without impairing its ability to address other product attributes.

Evogene's AI engines provide tailor-made solutions

Discovery

Computational prediction of candidates, to serve as the **product's core-component**, addressing multiple key product attributes.

Development

Computational driven solution for guiding and assessing the optimization process of the **selected core component**, without impairing other key product attributes.

MicroBoost AI

ChemPass AI

GeneRator AI

Annex II:
Financial Fundamentals

Key Financials: Balance Sheet

Thousands of US $	31.12.2020	31.12.2019
Current Assets	51,823	49,027
Long-Term Assets	20,092	22,337
Total Assets	**71,915**	**71,364**
Current Liabilities	9,676	5,746
Long-Term Liabilities	5,357	5,401
Equity attributable to equity holders of the Company	46,045	50,144
Non-controlling interest	10,837	10,073
Total Liabilities & Shareholders Equity	**71,915**	**71,364**

Key Points:

- Consolidated cash position: ~$48.2 million as of 31.12.2020, ~$13 million appropriated to Lavie Bio
- No bank debt
- Estimated net cash usage for 2021, excluding Lavie Bio: $20-$22 million
- Listed on TASE (2007) and NASDAQ (2013)