

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

For the month of $May\ 2023$

Commission File Number: 001-36187

EVOGENE LTD.

(Translation of Registrant 's Name into English)

13 Gad Feinstein Street, Park Rehovot, Rehovot P.O.B 4173, Ness Ziona, 7414002, Israel

(Address of principal executive offices)

| Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F. | | | | |
|---|------------------|-------------|--|--|
| | Form 20-F ⊠ | Form 40-F □ | | |
| Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): | | | | |
| Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S- | T Rule 101(b)(7) | : | | |

CONTENTS

Attached hereto and incorporated by reference herein is the following exhibit:

99.1 Evogene Investor Presentation.

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

EVOGENE LTD. (Registrant)

Date: May 18, 2023

By: <u>/s/ Yaron Eldad</u> Yaron Eldad

Chief Financial Officer



Forward Looking Statement

This presentation contains "forward-looking statements" relating to future events, and Evogene Ltd. (the "Company"), may from time to time make other statements, regarding our outlook or expectations for future financial or operating results and/or other matters regarding or affecting us that are considered "forward-looking statements" as defined in the U.S. Private Securities Litigation Reform Act of 1995 (the "PSLRA") and other securities laws, as amended. Statements that are not statements of historical fact may be deemed to be forward-looking statements. Such forward-looking statements may be identified by the use of such words as "believe", "expect", "anticipate", "should", "planned", "estimated", "intend" and "potential" or words of similar meaning. We are using forward-looking statements in this presentation when we discuss our value drivers, commercialization efforts and timing, product development and launches, estimated market sizes and milestones, pipeline, as well as our capabilities and technology.

Such statements are based on current expectations, estimates, projections and assumptions, describe opinions about future events, involve certain risks and uncertainties which are difficult to predict and are not guarantees of future performance. Readers are cautioned that certain important factors may affect the Company's actual results and could cause such results to differ materially from any forward-looking statements that may be made in this presentation. Therefore, actual future results, performance or achievements, and trends in the future may differ materially from what is expressed or implied by such forward-looking statements due to a variety of factors, many of which are beyond our control, including, without limitation, those described in greater detail in Evogene's Annual Report on Form 20-F and in other information Evogene files and furnishes with the Israel Securities Authority and the U.S. Securities and Exchange Commission, including those factors under the heading "Risk Factors".

Except as required by applicable securities laws, we disclaim any obligation or commitment to update any information contained in this presentation or to publicly release the results of any revisions to any statements that may be made to reflect future events or developments or changes in expectations, estimates, projections and assumptions.

The information contained herein does not constitute a prospectus or other offering document, nor does it constitute or form part of any invitation or offer to sell, or any solicitation of any invitation or offer to purchase or subscribe for, any securities of Evogene or the Company, nor shall the information or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any action, contract, commitment or relating thereto or to the securities of Evogene or the Company.

The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of our products or services.

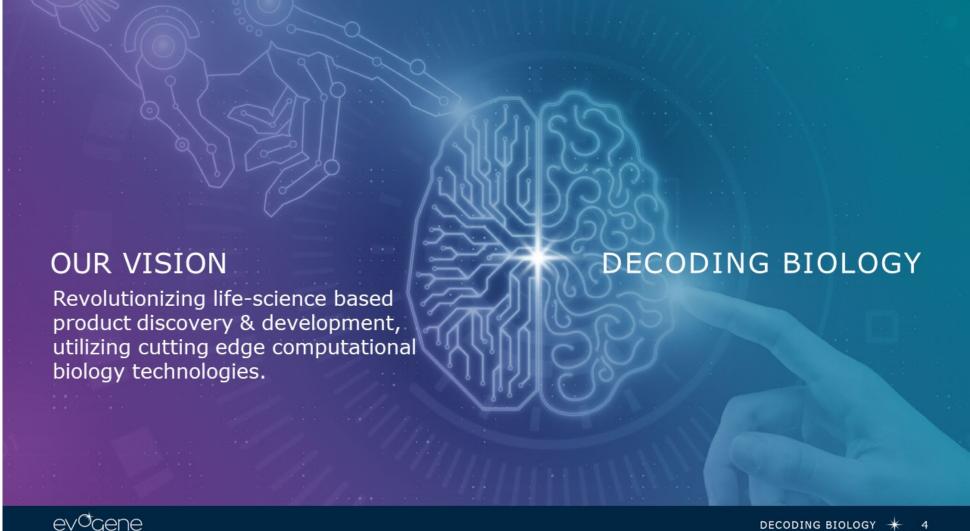
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Agenda

- * About Evogene
- * Business model
- * Product-oriented subsidiaries
- * Summary

Annex I - Financial Fundamentals





Life-science product development

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

Pharma Industry



Cost of developing a single pharmaceutical drug

In the 1970's

\$180 million

In recent years

>\$2 billion

Ag-chemicals Industry



Years to develop a new crop protection product

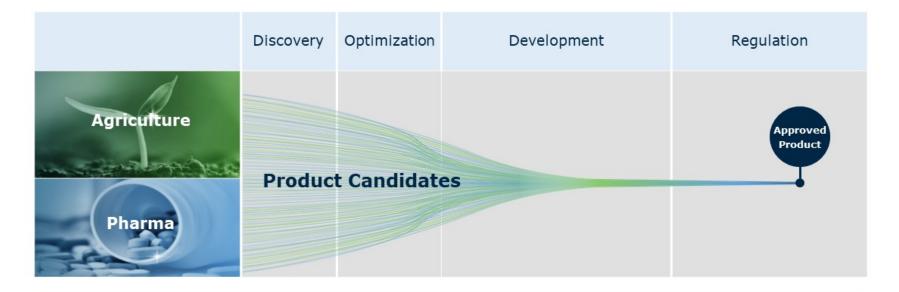
| 1995 | 2000 | 2005-8 | 2010-15 |
|------|------|--------|---------|
| 8 | 9 | 10 | 11+ |

*https://www.forbes.com/sites/matthewherper/2017/10/16/the-cost-of-developing-drugs-is-insane-a-paper-that-argued-otherwise-was-insanely-bad/?sh=7533aa82d459; Phillips McDougall, 2016



DECODING BIOLOGY *

Life-science product development The ultimate case of finding "the needle in the haystack"



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

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The opportunity

Utilizing an advanced computational biology platform

To identify the most promising candidates addressing multiple development challenges towards successful life-science products

- Increase probability of success
- · Reduce time and cost

Biology meets disruptive technologies



Incorporates deep scientific understanding together with big data and advanced AI technologies, to successfully discover & guide the development of novel life-science based products.

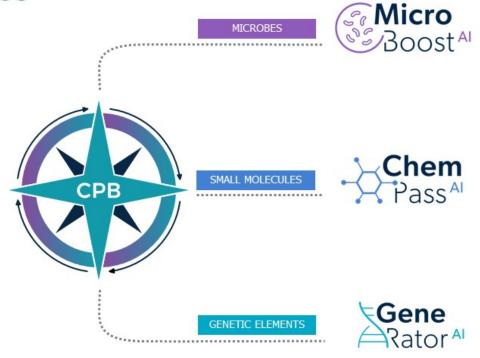




Tailor-made Tech Engines

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

- Microbes
- Small molecules
- Genetic elements



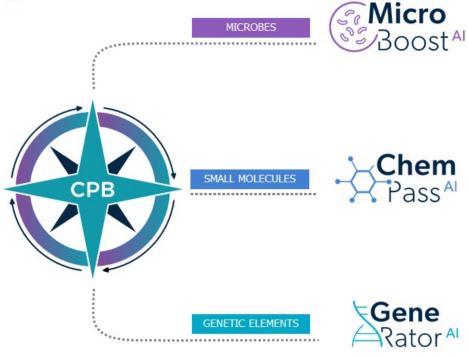
Tech Engines accelerating product discovery & development

+ Discovery

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

+ Development

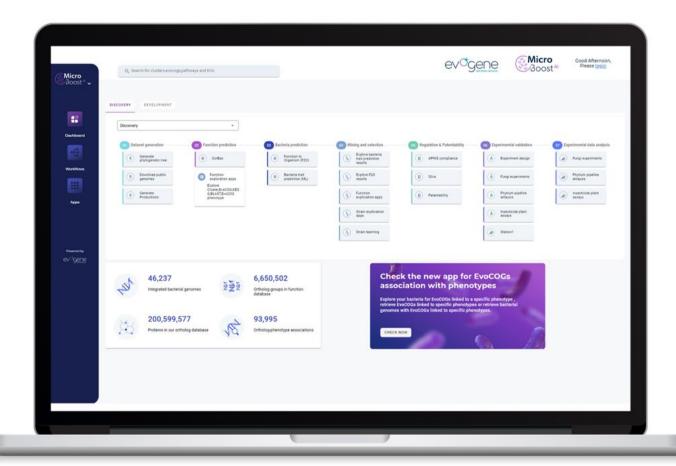
Computational driven solution addressing optimization development challenges for the selected candidates, without impairing their ability to address other product attributes, supporting the way to successful commercialization.



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Example of Tech Engine User-enabled software dashboard





'Ecosystem' - Potential Markets for MicroBoost AI



Building an 'Ecosystem' around our tech engines

Computational Biology Peer Companies Company evogene GINKGO BIOWORKS **Exscientia** Schrödinger **Ticker EVGN** DNA **SDGR EXAI RLAY** (NASDAQ)

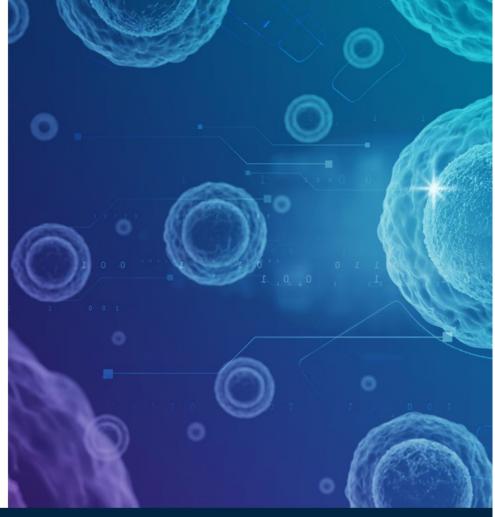
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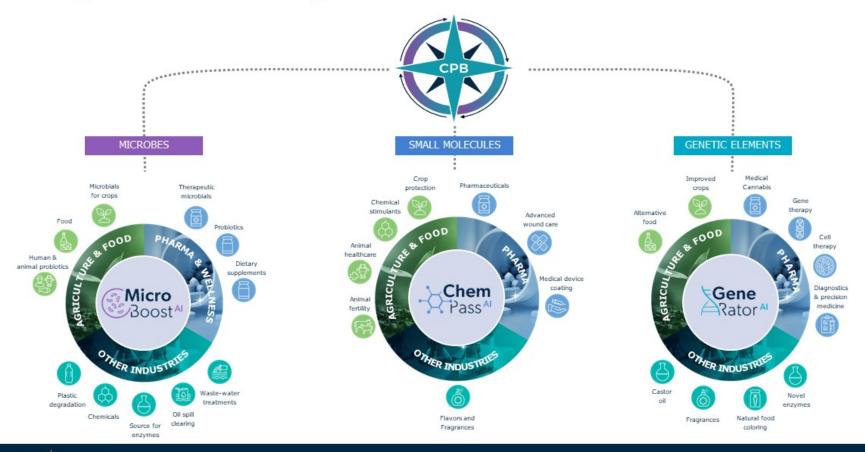
Agenda

- About Evogene
- **Business model**
- Product-oriented subsidiaries
- Summary

Annex I - Financial Fundamentals



Evogene's Tech Engines – Potential Addressable Markets



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Product-oriented subsidiaries

powered by Evogene's technology

Establish independent entities focusing on a defined commercial field with a license to use Evogene's unique solutions for product development

Subsidiaries:











Licensed to use Evogene's tech engines:







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Collaborations powered by Evogene's technology for the development of innovative products

Joint development with leading companies for defined products utilizing Evogene's unique solution. Typically, partner leads later-stage development and product commercialization.

Powered by Evogene's tech engines:



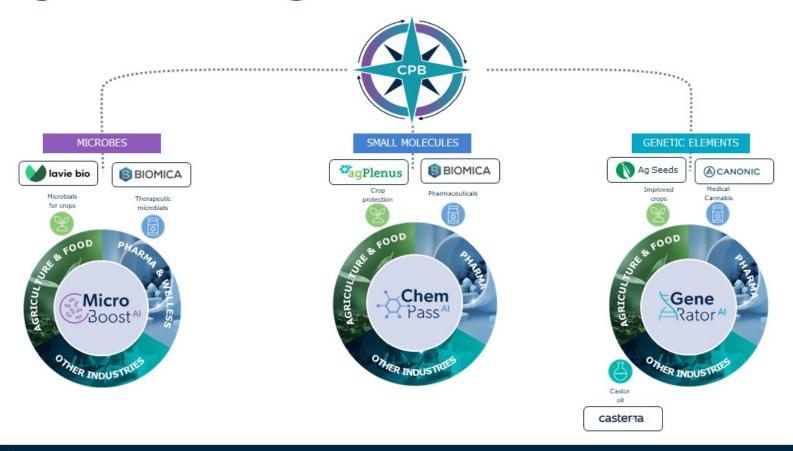




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Evogene's Tech Engines - Current Utilization



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Product-oriented subsidiaries









76%*

Microbiome-based Therapeutics

- · Immuno-oncology
- · GI- related disorders



\$20M investment led by SHC (Apr. 2023)



lavie bio

70%*

Ag Biologicals

- · Bio-stimulants
- · Bio-pesticides





▲ICL \$10M SAFE investment (Aug 2022)





98%*

Ag Chemicals

- · Herbicides
- Fungicides
- · Insecticides





100%*

Medical Cannabis

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

casterna

100%*

Castor Cultivation End-to-End Solution

- · Elite castor varieties
- · Cultivation protocols
- Harvesting and dehulling machinery customized to Casterra's varieties

^{*}Evogene holdings **Includes \$10M cash investment along with transfer of assets



Mission:

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

Products & Pipeline



Immuno-oncology program

- · Combination therapy for cancer with checkpoint inhibitors
- · Phase 1 clinical stage
- Addressable market of \$309.7B (by 2030*)



GI related disorders

- Inflammatory Bowel Disorder (IBD) pre-clinical stage
- Irritable Bowel Syndrome (IBS) discovery stage
- Addressable market: IBD \$27B; IBS \$3.3B (by 2026**)



Antimicrobial resistance (AMR)

- · Clostridium Difficile Infection (CDI) discovery stage
- Methicillin-resistant Staphylococcus aureus (MRSA) discovery stage
- Addressable market: CDI \$1.7B (***); MRSA \$1.3B (by 2026****)

Expected upcoming value drivers

Immuno-oncology

Readout & completion of POC from first in-human study; Pre-IND meeting with FDA

IBD

 Clinical batch production of drug candidate for IBD as preparation for Phase 1 clinical trials in USA.

IBS

· Advancement of pre-clinical studies

^{****} https://www.biospace.com/article/releases/global-methicillin-resistant-staphylococcus-aureus-mrsa-drugs-market-to-surpass-us-1-3-billion-by-2026/



^{*}https://www.alliedmarketresearch.com/cancer-immunotherapy-market

^{**}https://www.grandviewresearch.com/press-release/global-inflammatory-bowel-disease-ibd-treatment-market?utm_source=blog.goo.ne.jp&utm_medium=referral&utm_campaign=Vrushali_7Aug_hc_InflammatoryBowelDiseaseTreatmentWarket_pr&utm_content=Content;
https://www.grandviewresearch.com/industry-analysis/inflammatory-bowel-disease-ibd-treatment-market#:~text=Report%200verview,4.4%25%20from%202018%20to%202026, https://www.bloomberg.com/press-releases/2019-07-23/ibs-treatment-market-size-worth-3-3-billion-by-2026-cagr-10-1-grand-view-research-inc

^{***} https://www.globaldata.com/media/press-release/global-clostridium-difficile-infections-market-approach-1-7-billion-2026/



Example Results:

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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 First Patient Dosed in its Phase I Study of its Microbiome-Based Immuno-Oncology Drug

JULY 26, 2022

Biomica Announces Closing of \$20 Million Financing Round led by Shanghai Healthcare Capital

APRIL 27, 2023





Mission:

Improve food quality, sustainability & agriculture productivity through microbiome based ag-biologicals technology & products

Products & pipeline (examples)

Bio-stimulants



- Thrivus[™] primarily spring wheat: commercial stage; addressable USA & Canada markets ~25M acres*
- Bio-stimulants #2 primarily soy: pre-development stage; addressable market ~90M acres*

Bio-pesticides



- Fruit rots primarily grapes: pre-commercial; addressable market >\$1B**
- Downy Mildew fruits and vegetables; development stage 1; addressable market >\$500M**
- Seedling disease corn and soy: pre-development; addressable market >\$500M**

Expected upcoming value drivers

Bio-stimulants

 Thrivus[™] – distribution licensing agreements and sales expansion in USA & Canada. Expansion to additional crops and an additional territory by 2025

Bio-pesticides:

- Licensing agreement for Lavie Bio's bio-fungicide candidate for fruit rots (LAV311) – to be finalized during 2023
- Submission for Lavie Bio's bio-fungicide candidate for downy mildew (LAV321) to the US EPA for regulatory approval – expected by 2024
- Co-development and licensing agreement for an additional bio-pesticide program with a large multinational company – expected by 2024

*https://www.fao.org/faostat/en/#home; https://www.nass.usda.gov/Charts_and_Maps/Crops_County/; https://data.oecd.org/agroutput/crop-production.htm
**Company estimation







Example Results:

- Thrivus™ inoculant for spring wheat
- LAV 311 bio-fungicide candidates for fruit rot



Lavie Bio's wheat field in the USA during harvest -

Sales initiated in 2022



Example of treatment against Botrytis Cinerea vs untreated control in vines

Lavie Bio Announces Commercial Launch of its First Microbiome-Based Product for Yield Improvement -

Thrivus >

NOVEMBER 3, 2021



Lavie Bio Reports Successful Results for its Bio-Fungicides Programs

FEBRUARY 28, 2023

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Mission:

Design next-generation, effective, and sustainable crop protection products by leveraging predictive chemistry and biology

Products & Pipeline



Herbicides

· Novel Mode-of-Action selective herbicide

aqPlenus | Ag-Chemicals

Herbicides addressable market – \$48.9B (2027)*



Fungicides

- · Novel Mode-of-Action wheat blotch fungicide
- Fungicides addressable market \$25.81B**



Insecticides

- Novel Site-of-Action resistance breaking piercing/sucking insecticide
- Insecticides addressable market \$22B (2030)***



^{***} https://straitsresearch.com/report/insecticides-market

Expected near-term value drivers

Herbicides

- Milestone achievement of the ongoing collaboration with Corteva
- · Engage in a new additional strategic collaboration

Fungicides

- Nominate new Mode-of-Action protein targets
- Initial greenhouse readouts of designed compounds on the defined fungi targets

Platform

- Verification of computational tool for selection of novel Mode-of-Action protein targets
- POC for the computational tool for novel molecule design







Example Results:

New MoA Herbicide - APH1



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



Greenhouse testing of APH1 – Conferring resistance by modifying tobacco

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

DECEMBER 15, 2020

AgPlenus Announces Positive Results for a Herbicide Resistance Trait to its Leading Herbicide Product Candidate
JULY 6, 2021







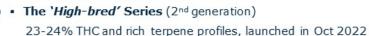
Mission:

Provide tailored medical cannabis products to optimize consumer wellbeing.

Products & Pipeline

High Cannabinoid and metabolite content





Total cannabis market size expected by 2027 – \$82.3B*



The 'Precise' Series focus on medical indications

- · Pain management
- Reduced Inflammation

Expected near-term value drivers

Direct Sales

- Increased revenues from the 2nd generation products during 2023
- Launch of 3rd generation products with high THC levels, specific terpene profiles and unique characteristics, towards end of 2023

New revenue streams

- Commence joint production of Canonic's varieties with a 3rd party based on cost and revenue sharing
- · Royalties from licensing of Canonic's varieties

*https://www.marketsandmarkets.com/Market-Reports/cannabis-market-201768301.html#:~:text=The%20global%20cannabis%20market%20in,of%20whirl%20of%20legalization%20globally.







The 'high-bred' series 2nd generation products, examples

A CANONIC | Medical Cannabis

Synergy inflorescence

T20/C4 Sativa

Top Characteristics

- . 24% THC
- · High Level of b-Myrcene
- · Genetic Similarity to the 'Super Lemon Haze' variety



Mash Kush inflorescence

T20/C4 Indica

Top Characteristics

- 24.4% THC
- · High Level of Terpinolene
- · Genetic Similarity to the 'Headband' variety



Canonic Successfully Launched Six Second-Generation Cannabis Products with Higher THC and Rich Terpene Profiles

FEBRUARY 21, 2023

Plantis Licenses Two of Canonic's Proprietary Cannabis Varieties to Expand its Offerings in the Israeli Market

MAY 2, 2023





Mission:

Leading the castor oil market with an integrated solution for industrialized cultivation of castor in support of the biobased materials industry

Product & Pipeline

Elite castor seed varieties

 'EVF' series - castor seed suitable for various environmental and climatic conditions



- Estimated addressable castor oil market \$1.21B (2021) and is expected to expand at CAGR of 5.8% from 2022 to 2030*
- Main target markets:
 - . Bio-polymers driven by the need for quality and consistent inputs
 - . Bio-fuel driven by environmental & regulatory trends in EU



Agro-technical support

· Cultivation protocols to maximize the results of the elite seeds

Dedicated machinery



- Best-in-class harvesting header, developed with Fantini Srl., Italy
- Casterra proprietary patented dehulling machine

Expected near-term value drivers

Seeds development

- Production extending production outreach in the target markets: Africa (Zambia), Latin America (Brazil) with few hundred tons a year as of 2024
- R&D development of new seed traits matching industry needs (e.g., Ricin free, low viscosity) using advanced technologies: CRISPR, genetic markers

Territorial expansion

- Africa engaging with bio-fuel strategic industry leaders to increase our sales and sector footprint
- Latin America addressing the bio-polymer industry's interest in broad, consistent and high-quality castor oil supply in Latin America

Strategic alliance

 A strategic alliance with a leading global biofuel company, leveraging Casterra's holistic industrial solution



^{*} https://www.grandviewresearch.com/industry-analysis/castor-oil-derivatives-industry







High yield & oil castor seeds

Elite castor seed varieties - The 'EVF' series







EVF701

EVF712

EVF716

Dedicated machinery







Castor growth protocol

Mechanical Harvest

Proprietary dehulling machine

Casterra Signs Royalty Agreement with Titan for Castor Oil Sales in South-Eastern Africa

NOVEMBER 15, 2022

Casterra Announces Agreement with World Leading Energy Company to Cultivate its Castor Varieties at Commercial Scale

JANUARY 19, 2023



In The News



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134
Employees

The Evogene Group



27 % PhDs

Computational systems biology
Computational chemistry
Bioinformatics Molecular biology
Microbiology Genetics Biochemistry



51% Women

Incl. chairperson of the board

As of April 30, 2023



Summary

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

Strong computational predictive biology (CPB) platform leveraging synergies between a deep understanding of biology, Big Data and AI

Three dedicated **Technology Engines** for discovery & development:

- · MicroBoost AI for products based on microbes
- · ChemPass AI for products based on small-molecules
- GeneRator AI for products based on genetic elements

Dual based business model via subsidiaries and collaborations

Market-orientated subsidiaries generating value

- Biomica Human-microbiome based therapeutics
- Lavie Bio Ag-biologicals
- AgPlenus Ag-chemicals
- · Casterra Castor growth end-to-end solution
- Canonic Medical cannabis

A vote of confidence in Evogene's subsidiaries through equity investment by strategic and financial investors:

Lavie Bio - Corteva & ICL

Biomica - SHC

Significant catalysts expected in the coming quarters





Annex I: Financial Fundamentals

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Key Financials: Balance Sheet

Key Points:

- Consolidated cash position: ~\$29 million as of 31.03.2023
- · This Consolidated cash position does not include the \$10M Biomica received from the SHC investment in April 2023
- · No bank debt
- · Listed on TASE (2007) and NASDAQ (2016)

| Thousands of US \$ | 31.03.2023 | 31.12.2022 |
|--|------------|------------|
| Current Assets | 31,409 | 37,751 |
| Long-Term Assets | 18,066 | 18,375 |
| Total Assets | 49,475 | 56,126 |
| Current Liabilities | 5,356 | 5,625 |
| Long-Term Liabilities (inc. \$10m convertible SAFE at Lavie Bio) | 15,624 | 15,711 |
| Equity attributable to equity holders of the Company | 22,089 | 27,930 |
| Non-controlling interest | 6,406 | 6,860 |
| Total Liabilities & Shareholders Equity | 49,475 | 56,126 |