

nrgene

Capital Markets Presentation

AUGUST 2022



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Agenda

- About NRGene
- Global Trends Affecting the Company's Activities
- NRGene's Solution
- Activity Highlights During H1-2022 and to date
- Intellectual Property Development
- Financial Results Highlights



About NRGene

NRGene Technologies is an AgTech company engaged in the research and development and applying of its technology in the field of artificial intelligence, including software tools, in order to analyze genetic information based on Big Data, for the acceleration and improvement of natural breeding of crops and animals in the global agriculture and food industry.

2009

Company founded

2015

Product launch

2021

IPO on the Tel-Aviv Stock Exchange (TASE)

300

Number of projects completed between 2015 and 2022

30

Countries

\$44M*

Total bookings

* To date (from commencement of commercialization); An amount of \$4.4M is included in the backlog as of the reporting date.

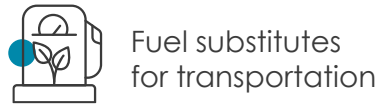


Global Trends Affecting the Company's Activities

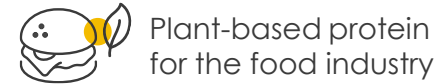
With an increasing global population and rising living standards, the demand for food has substantially increased. As a result, the company expects an increase in demand for its genomic solutions.



The global shortage of wheat due to the Russia's invasion to Ukraine



Significant increase in the use of fuel substitutes from soybean, corn, canola, and wheat as a result of increasing oil prices



Increasing use of plant protein in food, beverage, and meat/fish substitutes



Outbreaks of diseases and pests in various crops and animals



Expanding the demand for fruits and vegetables rich in flavor, color, antioxidants, vitamins, and minerals



Reduction in arable land and water resources for agriculture, combined with extreme climate changes will affect the production capacity of the world's agricultural produce

In 2022
276 million
people are experiencing severe food insecurity

<https://p.ynet.co.il/foodcrisis/c/883ff37c/?externalurl=true&cardId=883ff37c>

* An increase in demand for genomic solutions due to the expected trends in the field of agriculture and food may not occur or occur in a different way than expected, as a result of factors beyond the Company's control.

Global Food Crises and Price Increase



Reasons for Global Food Crisis

Russia and Ukraine - Global grain powerhouse disruption

Russia and Ukraine, are both large grain exporters; The Russian invasion dramatically disrupted supply chains and caused sharp increases in grain prices

Increase in prices of agricultural inputs

Prices of fuel, fertilizers, and chemicals have increased dramatically, resulting in a significant increase in food production costs. The FOA reports that food prices have risen by 21%* in the past year

Disruption of supply chains

Disruption of supply chains that are used for import and export of agricultural inputs and products is causing a shortage of raw materials for the food industry leading to price increases



Solutions for Global Food Crises

Molecular breeding

Rapid development and identification of high-yielding plant varieties that are suitable for local cultivation can help address the lack of local agricultural produce in different parts of the world

Alternative protein

Approximately 80% of all agricultural land is used for producing animal feed. The amount of agricultural produce that is used for human consumption is expected to increase significantly by 2030 as plant-based proteins, insects, and cultured meat will replace approximately 10% of meat production**

Alternative agricultural crops

Development of crops such as millet, hemp and quinoa, as well as development of vertical farming can substantially reduce the existing dependency on traditional crops such as wheat, rice and corn

Approximately 400 million people rely on food that originates in Ukraine, and 181 million of them are at risk for starvation

NRGene's Projects Contribute to Social and Environmental Value Creation



NRGene contributes to each step in the agricultural supply chain, while focusing on sustainable food production and reduction of the environmental footprint

NRGene's Artificial Intelligence (AI) Technology was Validated by Leading Companies Worldwide

A proven technology that has been successfully implemented in ~300 projects across various industries

Accelerated

Significantly reduced development time of new varieties

Reliable

Successful product implementation in the world's leading breeding companies

Unique

Unique technological approach that is based on big proprietary databases



SUNTORY



syngenta



BRIDGESTONE



CRONOS GROUP

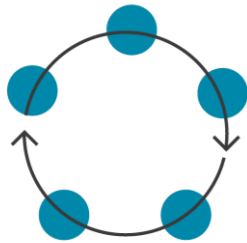


Activity Highlights During H1-2022 and to Date



IP development

Strategic collaboration with the Granot Group that includes financing in the amount of \$US 2M for the development of plant varieties that will be grown as seedlings using vertical farming to feed dairy cattle.



DNA tests

New agreements with customers (bookings), in a cumulative amount of \$US 1.1M*

* Compared to \$1.2m in FY21



Genetic analysis and production services

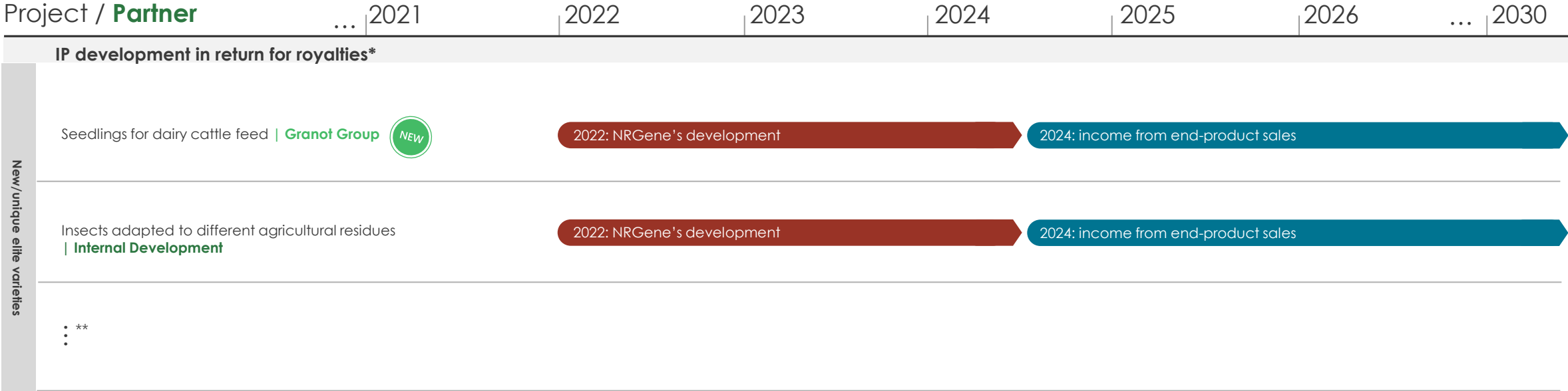
Continued support of key existing customers in order to nurture strategic collaborations





Intellectual Property Development

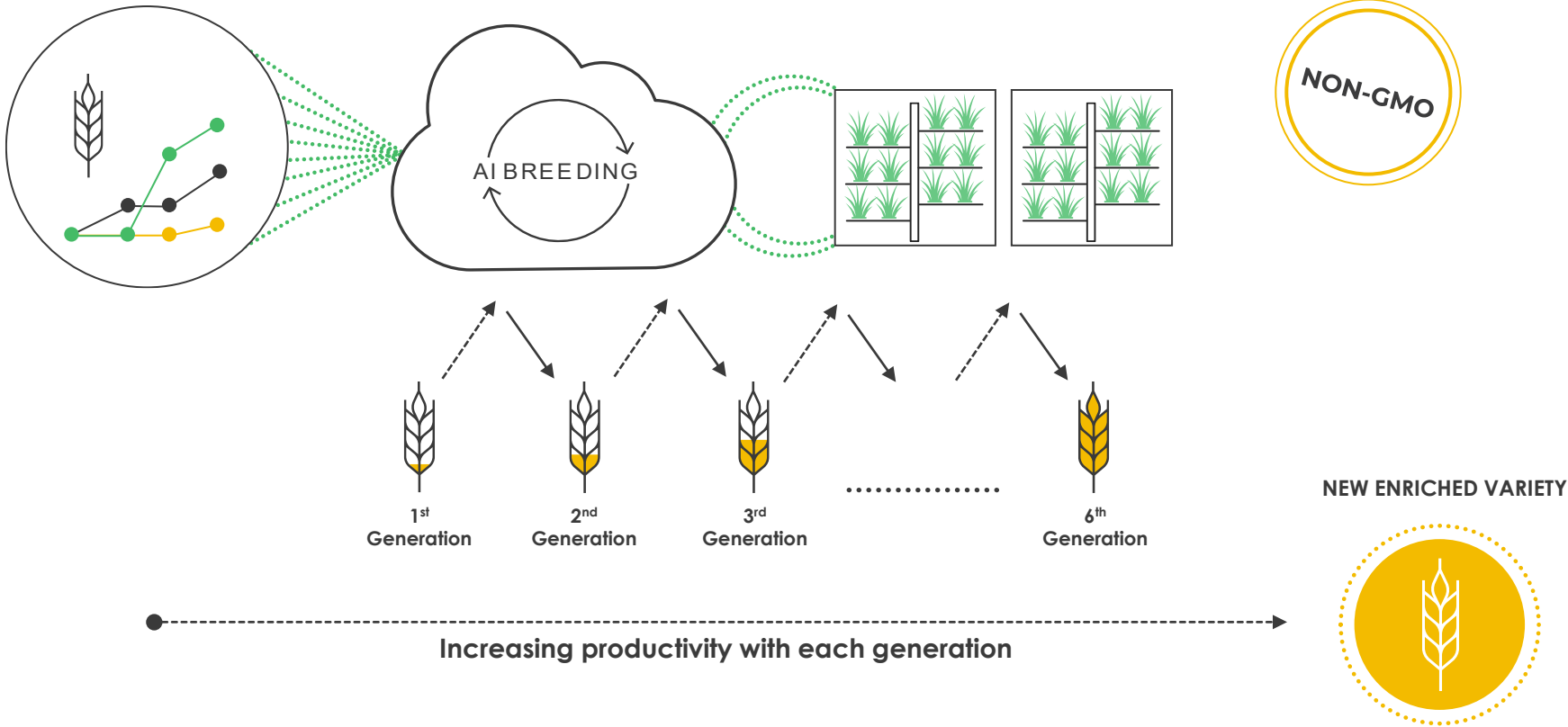
Expansion of IP Development Business Model to Derive Revenues from End-product Sales



* Revenues from end-product sales are subject to successful completion of a project's development, collaboration with partners, implementation, market conditions, and customers' demands.

** The Company is evaluating additional projects and partners in this business model, which may not occur, due to factors beyond the Company's control.

Applying NRGene's AI Technology for Developing Elite Varieties of Seedlings for Dairy Cattle Feed



- ✓ The project is based on 7 years of research and development in the field of wheat genetics conducted by the company
- ✓ The Company is evaluating thousands of potential varieties, and will select the best varieties to be commercialized as seedlings
- ✓ Development and commercialization within a short period of one to two years

The company anticipates that the development of first elite varieties will be completed by 2024*

Vertical Farming – Agriculture of the Future

Strategic collaboration with the Granot Group for the development of elite plant varieties that will be grown in vertical farming facilities

The advantages of using vertical farming will allow high quality produce at competitive prices*:



Fresh produce throughout the year



Climate-controlled conditions that enable growing in all weather conditions



Facilities are situated close to the consumer



Grown in stacked layers thus reduces the use of arable land



Reduction of environmental footprint (transportation and fuel costs) are diminished, in parallel with less air pollution



Significant reductions in water consumption

Today, most varieties grown in vertical farming around the world have not yet been adapted to the unique growth conditions of such facilities.

The company predicts that with the development of elite varieties for vertical farming, the produce quality will improve, yields will increase, and food prices will decrease.

* The estimations are based on the Company's experience and market data as of the reporting date, and may occur in a different way than expected, or not occur due to factors beyond the Company's control.

First Collaboration Project with Granot Group: Development of Seedlings for Dairy Cattle Feed

Main project objectives/terms:

- ✓ NRGene* develops new wheat varieties that will be grown as seedlings for use in vertical farming facilities.
- ✓ Granot will contribute USD 2 million** to the financing of the project and will provide its significant experience and knowledge in the production of feed for dairy cattle. NRGene Canada shall be responsible for the additional funding, as required.
- ✓ Upon the completion of development, NRGene Canada and Granot will establish an equally owned (50%-50%) company to focus on wheat grains production and their commercialization to be grown as seedlings to vertical farming facilities worldwide.
- ✓ The project will focus on the European and North American markets, which together comprise 30 million dairy cows. The Company estimates that a 1% market share consisting of approximately 300,000 cows would generate USD 110 million in annual revenues***.
- ✓ The Company and Granot agreed to examine additional plants (e.g., barley, corn and legume) suitable for vertical farming to feed other farm animals and/or other uses.

* By the Company's subsidiary in Canada.

** This backlog as of the reporting date excludes, at this stage, the payments that the Company is expected to receive under the scope of the collaboration.

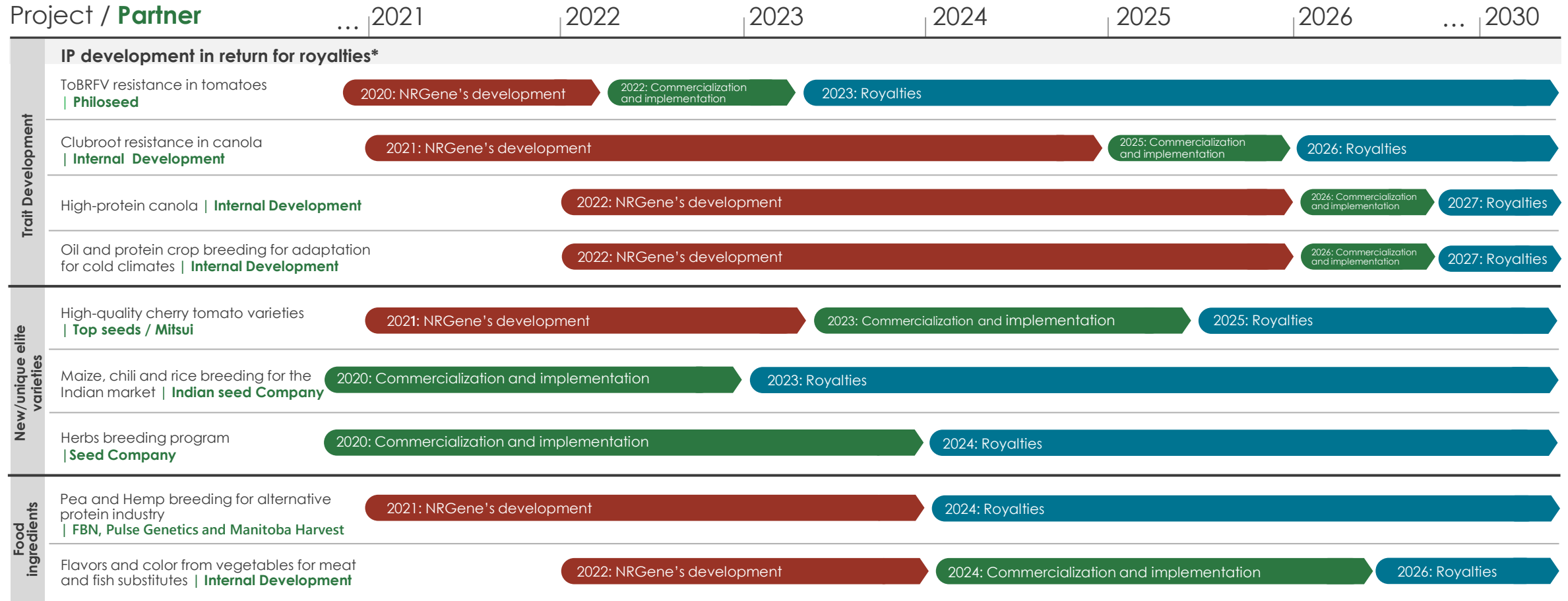
*** Based on the value of grains for seedlings per cow (USD 1/day).

**** The successful development of the elite varieties, the establishment of the equally owned company, the success of the project, the Company's entitlement for revenues from end-product sales, the expected financing and the potential market size and the revenues from the products' commercialization, are based on the Company's estimations and forecasts, based on market research and assumptions of the market size and market penetration rate, and may occur in a different way than expected, or not occur, due to factors beyond the Company's control.

Project Goals:

- ✓ Significantly reduce the cost of seedlings for livestock feed
- ✓ To improve cow health and diet
- ✓ Reduce environmental footprint

IP Development Business Model in Return for Royalties



* Revenues from royalties are subject to successful completion of a project's development, the Company's partners, implementation, market conditions, and customers' demands.

IP Development Projects in Return for Royalties

The revenue potential in key projects:

Project	Expected development period	Commercialization status*	Expected year of initial royalties	Potential annual market size (seeds/varieties)	Expected royalties (Life Time Value of 10 years)**
ToBRFV resistance in tomatoes	2020-2022	In commercialization (10 signed agreements)	2023	\$US 500M <	\$US 100M
Alternative protein from Pea and Hemp	2021-2023	Has not begun yet (part of consortia agreement in Canada)	2024	\$US 100M <	\$US 50M
Clubroot resistance in canola	2021-2025	Has not begun yet	2025	\$US 300M <	\$US 75M
High-quality cherry tomato varieties	2021-2023	Has not begun yet (the partner is responsible for commercialization)	2025	\$US 25M <	\$US 10M

* Based on the Company's estimation of market size, market penetration rate, market share potential and average royalties' rate.

** Company's estimation is that the project's lifetime is at least 10 years from the commencement of commercialization.

Financial Results Highlights* (US Dollars in Thousands)

Financial data	H1 - 2022	H1 - 2021	FY - 2021	Comments
Revenues	1,486	2,148	4,463	Focus on long-term and recurring projects (DNA tests and IP development), gradually replacing one-time genomic analysis services and ending of the licensing agreement with Bayer (December 2021)
Adjusted Gross Margin	57%	63%	60%	Decrease in the company's revenues from providing access to software (Bayer) given the mixture of activities in the reporting period.
Adjusted EBITDA	(2,807)	(3,809)	(7,143)	Focus on building infrastructure for medium/long-term growth mainly via IP development business model and reducing sales and marketing expenses accordingly.
Total Backlog**	3,602	6,063	4,662	Decrease in new one-time projects, countered by an increasing focus on IP development and DNA tests.
Cash and Deposits	15,801	26,857	22,872	Decrease in cash balance mainly due to investment in building infrastructure for growth via IP development and DNA tests, and repayment of financial obligations and loans to the banking institution (credit line and periodic principal payments).
Short-term and long-term loans ***	691	3,551	2,285	Decrease is due to the repayment of financial obligations, repayment of the credit line and periodic principal payments to a banking institution.

* The complete financial results (reviewed) are included in the consolidated financial statements as of June 30, 2022. For additional information, also see the Company's Board of Directors Report.

** The total backlog as of the reporting date is approximately \$4.4 million dollars. This backlog excludes the payments that the Company is expected to receive under the scope of the collaboration agreement with Granot Group. For further details, see section 3 in chapter A of the Company's Board of Directors Report as of June 30, 2022.

*** The balance as of June 30, 2022 consists of a loan for the establishment of the genotyping lab in Canada, which will be repaid on August 16, 2022 in accordance with the resolution of the Company's Board of Directors.

Questions?



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Thank you!