

SCIENCE IN  
ALTERNATIVE  
PROTEINS

# Investor Presentation

February 2023



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This presentation includes “forward-looking statements.” Forward-looking statements may be identified by the use of words such as “forecast,” “intend,” “seek,” “target,” “anticipate,” “believe,” “expect,” “estimate,” “plan,” “outlook,” and “project” and other similar expressions that predict or indicate future events or trends or that are not statements of historical matters. For example, statements concerning the following include forward looking statements: the growth of Moolec’s business and its ability to realize expected results; the business model of Moolec relating to any partnerships, commercial contracts, regulatory approvals or patent filings; the viability of its growth and commercial strategy; financial projections; the success, cost and timing of its product development abilities; the advantages and potential of Moolec’s technology and products, including in comparison to competing technologies and products; trends and developments in the industry; the addressable market; the contemplated transaction among Moolec and LightJump; Moolec’s addressable market; and the potential effects of the business combination among Moolec and LightJump. Such forward-looking statements with respect to performance, prospects, revenues and other aspects of the business of Moolec or LightJump are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation, we caution you that these statements are based on a combination of facts and factors, about which we cannot be certain. These factors include, but are not limited to: (1) the inability to recognize the anticipated benefits of the proposed business combination, which may be affected by, among other things, competition, and the ability of the combined business to grow and manage growth profitably; (2) the inability to successfully retain or recruits officers, key employees, or directors following the proposed business combination; (3) the market’s reaction to the proposed business combination; (4) the lack of a market for these securities; (5) Moolec’s and LightJump’s financial performance following the proposed business combination; (6) costs related to the proposed business combination; (7) changes in applicable laws or regulations; (8) the possibility that LightJump or Moolec may be adversely affected by other economic, business, and/or competitive factors; (9) the risk that Moolec is unable to successfully develop and commercialize Moolec’s products or services or experience significant delays; (10) the risk of product liability or regulatory lawsuits relating to Moolec’s products and services; (11) the risk that Moolec is unable to secure or protect its intellectual property; (12) the ability to maintain the listing of LightJump’s securities on Nasdaq and (13) the ability for the Combined Company’s securities to maintain the listing. The foregoing list of factors is not complete or exhaustive. You should carefully consider the foregoing factors as well as other risks and uncertainties described in the “Risk Factors” section of LightJump’s Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and in the final prospectus of LightJump related to its initial public offering filed with the Securities and Exchange Commission (“SEC”). You should also carefully consider the other risks and uncertainties indicated from time to time in documents filed or to be filed with the SEC by LightJump and the Form F-4 and proxy statement filed with the SEC by the Combined Company and LightJump.

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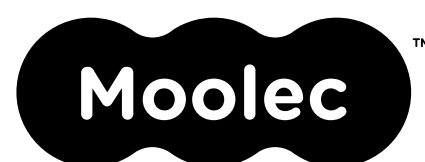
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## Important Information About the Business Combination and Where to Find It

In connection with the proposed transaction, the Combined Company, which became the holding company of LightJump and Moolec as of the closing of the proposed transaction, filed a registration statement on Form F-4 (the “Form F-4”) with the SEC that includes a proxy statement of LightJump that will also constitute a prospectus of the Combined Company. Moolec, the Combined Company and LightJump urge investors, stockholders and other interested persons to read, when available, the Form F-4, including the preliminary proxy statement/prospectus and amendments thereto and the definitive proxy statement/prospectus and documents incorporated by reference therein, as well as other documents filed with the SEC in connection with the proposed transaction, as these materials will contain important information about Moolec, the Combined Company, LightJump and the proposed transaction. After the registration statement is declared effective, the definitive proxy statement/prospectus to be included in the registration statement will be mailed to shareholders of LightJump as of a record date to be established for voting on the proposed business combination. Once available, shareholders will also be able to obtain a copy of the Form F-4, including the proxy statement/prospectus, and other documents filed with the SEC without charge, by directing a request to: 2735 Sand Hill Road, Suite 110, Menlo Park, CA 94025. The preliminary and definitive proxy statement/prospectus to be included in the registration statement, once available, can also be obtained, without charge, at the SEC’s website ([www.sec.gov](http://www.sec.gov)).

## Participants in the Solicitation

Moolec and LightJump and their respective directors and executive officers may be considered participants in solicitation of proxies with respect to the proposed business combination described in this presentation under the rules of the SEC. Information about the directors and executive officers of LightJump is set forth in LightJump’s final prospectus filed with the SEC pursuant to Rule 424(b) of the Securities Act of 1933, as amended (the “Securities Act”) on January 12, 2021, and is available free of charge at the SEC’s website at [www.sec.gov](http://www.sec.gov) or by directing a request to: 2735 Sand Hill Road, Suite 110, Menlo Park, CA 94025. Information regarding the persons who may, under the rules of the SEC, be deemed participants in the solicitation of the LightJump stockholders in connection with the proposed business combination will be set forth in the registration statement containing the proxy statement/prospectus for the proposed business combination when it is filed with the SEC. These documents can be obtained free of charge from the sources indicated above.





# Planting the **Future of Food**

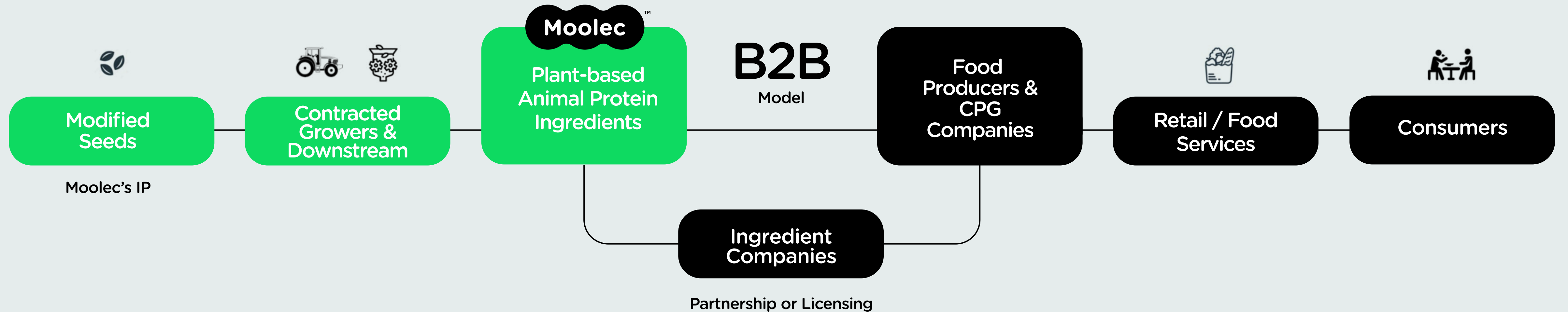
Moolec is a science-based food ingredient company focused on the use of Molecular Farming technology.

Our purpose is to upgrade taste, nutrition, and affordability of alternative protein products while building a more sustainable and equitable food system.



# Business Model

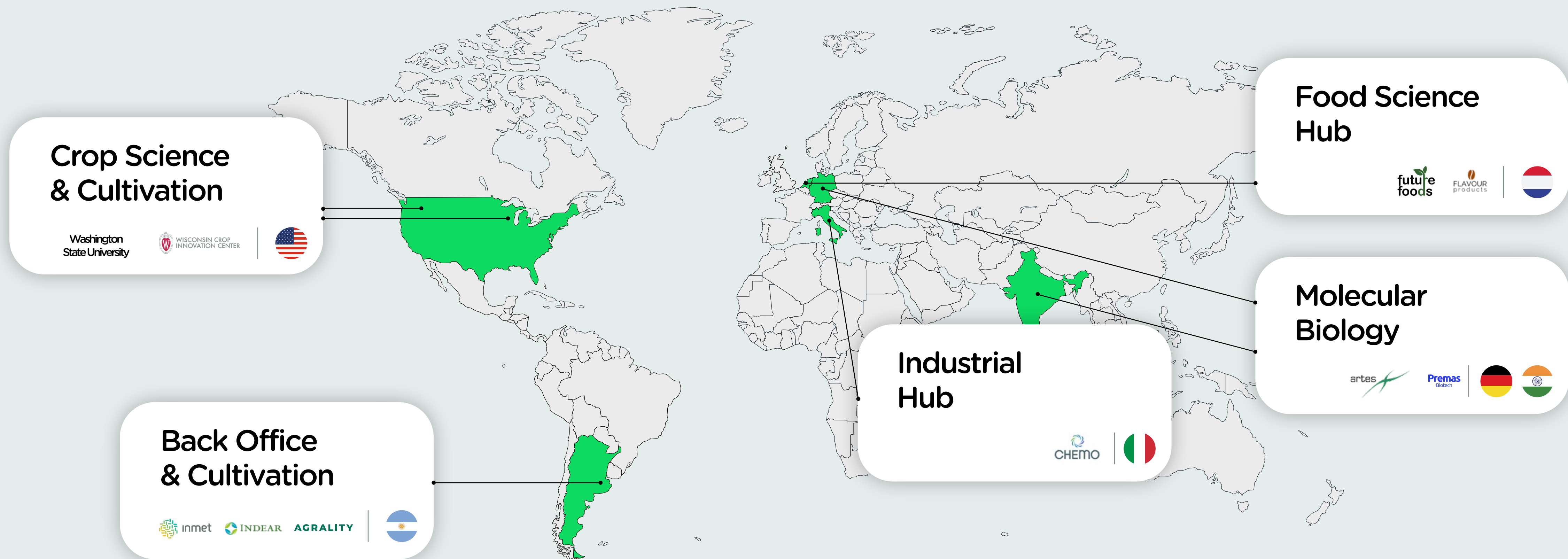
Moolec's innovation starts at the beginning of the food value chain.





# Moolec's Operations

We operate through hubs in established locations where cutting-edge R&D and science services are provided, and optimal natural conditions for crop development are present.





# World Class Management Team

Top Ph.Ds and recognized professionals that come from all over the world conform Moolec's team in line with our global ambitions and targeted footprint.



**Gastón Paladini, MBA**  
Chief Executive Officer

20+ years in marketing and the traditional food industry as a Director of Paladini Group, one of the largest meat production players in Argentina.



**Henk Hoogenkamp, Ph.D**  
Chief Product Officer

15 years in food and bio-materials applications with special focus on animal and plant-based proteins.



**Amit Dhingra, Ph.D**  
Chief Science Officer

20+ years in genomics and plant biotechnology. Prof. and Head, Department of Horticultural Sciences, Texas A&M University. 10+ years of corporate leadership.



**José López Lecube, MBA**  
Chief Financial Officer

15 years in strategic roles for multinational companies in agribusiness and tech with expertise in finance, strategy, and partnerships.



**Martín Salinas, Ph.D**  
Chief of Technology

15+ years in engineering and Ag-biotech space leading the world's first industrial production of animal protein in plants for the food industry.



**Catalina Jones, B.A.**  
Chief of Staff & Sustainability

10+ years in communications, accountability, and sustainability management for financial, agribusiness, packaging, and food industry.



**David Heron, Ph.D**  
Regulatory Affairs

30+ years in the biotechnology regulatory program of USDA-APHIS focused on policy development, training, public communication, and capacity building in agricultural biotechnology.



**Martín Taraciuk, M.Fin**  
Investor Relations

8+ years in investor relations roles for public listed companies in real estate, agribusiness and energy, capital market transactions, finance, M&A, valuations, and corporate finance.



**Bruce Williamson, Ph.D**  
Sr. Plant Biologist

10+ years of research experience and a strong background in molecular plant sciences, plant breeding, and biotechnology.

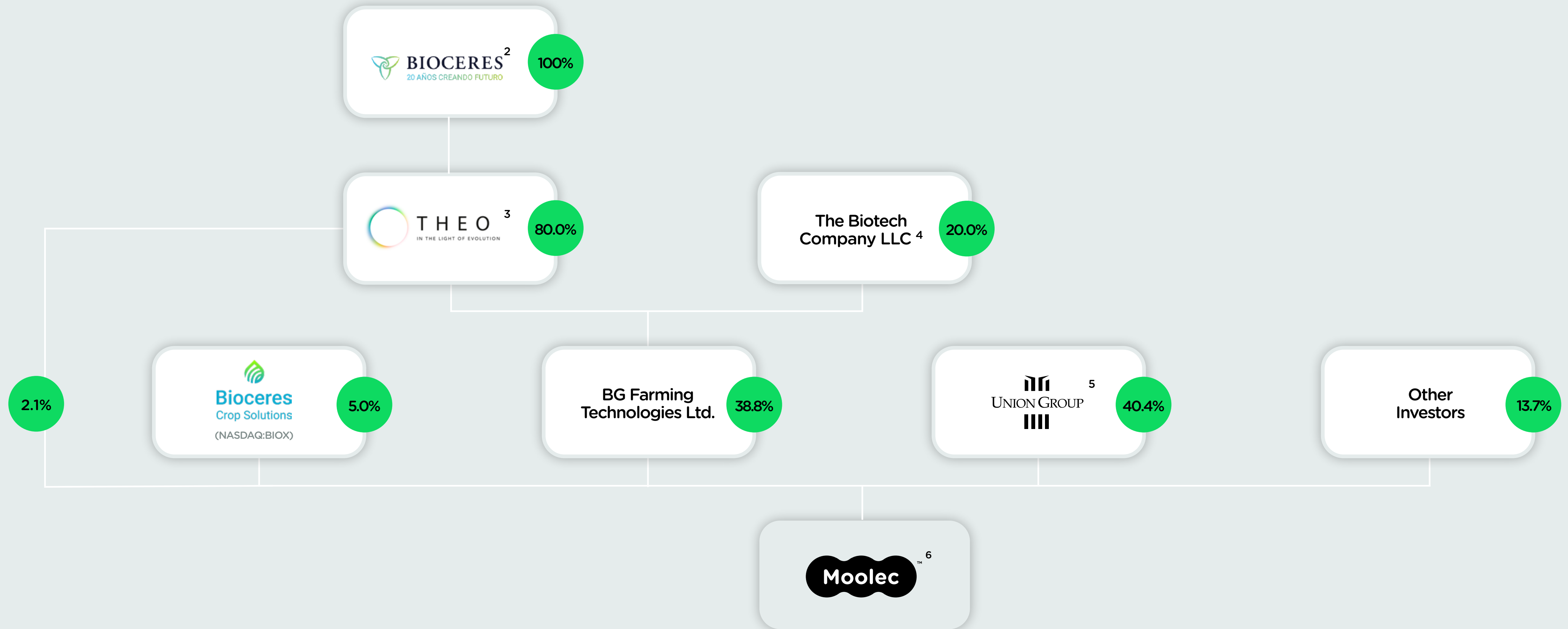


**Vivek Narisetty, Ph.D**  
Sr. Molecular Biologist

7+ years in process development for value-added chemicals, strain and media engineering, bioreactor scale-up and downstream processing.



# Corporate Structure<sup>1</sup>





# Moolec by the Numbers

The company is pioneering the future of alternative protein production with Molecular Farming technology.

**\$65B**

Total Addressable Market  
(2025E)<sup>1</sup>

**1st**

Team to achieve a bovine protein with plants for food<sup>2</sup>

**20+**

Global Patents & Patent Applications<sup>3</sup>

**60x**

Less GHG Emissions  
vs. Cattle Farming<sup>4</sup>

**35x**

Less Land Usage vs.  
Cattle Farming<sup>5</sup>

**100%**

Cruelty-Free

**10+**

Years of Proprietary  
Research & Development<sup>2</sup>

**4**

Key Alliances with crop science  
and pharmaceutical players

**8**

Signed Contracts, MOUs &  
MTAs with Food Producers



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<sup>1</sup> Moolec's internal analysis based on publicly disclosed information for the industry, primarily the GFI State of Industry Report 2021 (March 2022)

<sup>2</sup> This milestone was achieved by a Team within Bioceres Group, Moolec's predecessor company

<sup>3</sup> Both granted and pending

<sup>4</sup> <https://ourworldindata.org/food-choice-vs-eating-local>

<sup>5</sup> <https://ourworldindata.org/agricultural-land-by-global-diets>



# A spin-off from **Bioceres Group**

Bioceres transferred full ownership of patents and 10+ years experience in Molecular Farming technology to form a standalone, food-science-focused company.

Science for a  
sustainable agriculture

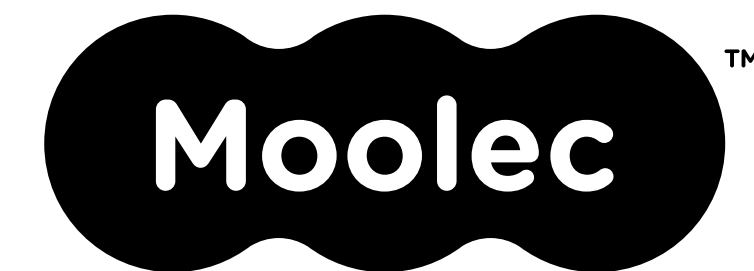


(Bioceres S.A.  
Private entity)

Scientific Team  
+ Intellectual Property



Science applied to  
alternative proteins



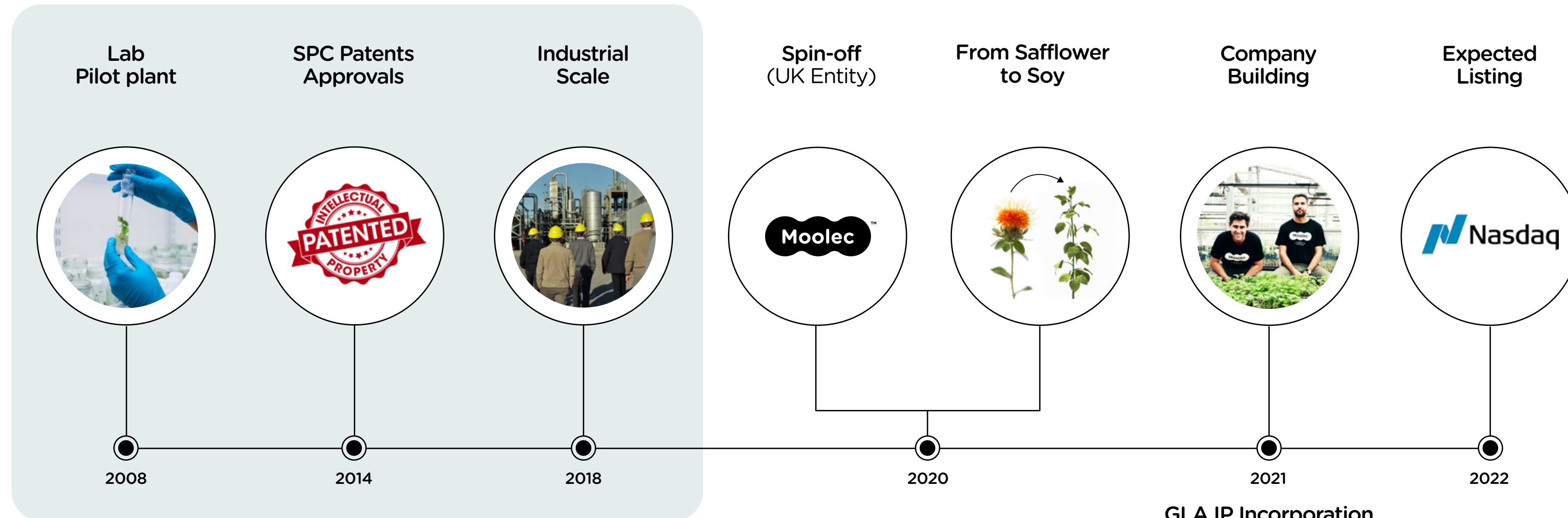
Newly formed management  
and scientific leadership



# Moolec's Pathway to Public Listing

10 years building our technology

Technology scale-up



Proof of Concept

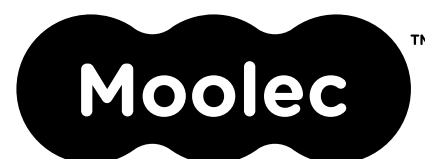


(Bioceres S.A. - Private entity)

GLA IP Incorporation



(NASDAQ: BIOX)



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# Backers & Partners

Moolec's shareholders and strategic partners bring key experience, advisory, scientific know-how, and access to facilities to strengthen the business.

## Science + Operations



Provider of ag-tech solutions enabling the transition towards carbon neutrality

- Facilities, Fields & Farmers
- IP + Legal Team
- Tech Services

## Finance



- Union Group is a privately owned investment and private equity management firm established in 2007. These cover the agricultural, energy, forestry, infrastructure, minerals, oil & gas and real estate sectors.

## Molecular Biology + Scale Up



Strategic Joint Venture

- Global presence
- Commitment in developing long-term, innovative, and sustainable projects.
- Business:
  - Life Sciences
  - Information & Culture
  - Agribusiness
  - Nature & Design



# Why Moolec?

# 01



**Category creators:** science-based & high-value added company pioneer of the 4th technological pillar within the alternative protein industry.

# 02



**Massive addressable market:** sizeable TAM<sup>1</sup> and industry trends support significant growth opportunities.

# 03



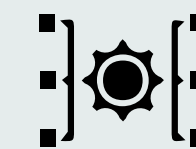
**Unmatched value proposition:** advantages include lower cost, higher scale, and better organoleptic experience.

# 04



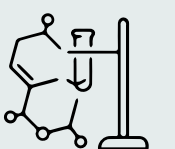
**Highly experienced team:** visionary leadership team with unparalleled expertise in the Molecular Farming category, ingredients, and food industry.

# 05



**ESG pure play:** Moolec works towards 10 out of the 17 SDGs within an industry that creates an environmentally positive impact.

# 06



**Long-standing backers:** endorsed by leading companies in biotech & life sciences, finance, and molecular biology.





The Industry

**Moolec**

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# Food Crisis: Ring of Fire

Weakness of global food supply chain is on the spotlight due to present context.

## Economic<sup>1</sup>



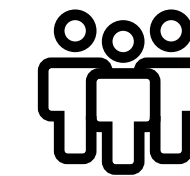
- War in Ukraine is amplifying global food crisis<sup>2</sup>.
- World Bank expects upward pressure on commodity and agriculture prices to continue.

## Environmental<sup>3</sup>



- Rising average global climate temperature and extreme weather patterns are expected to continue.
- 70% of all freshwater is already dedicated to traditional agriculture<sup>4</sup>.

## Nutrition<sup>5</sup>



- 25.9% of the global population experiences hunger or does not have regular access to nutritious and sufficient food<sup>6</sup>.
- \$1.7tn in annual economic cost of diet-related illness in US.

## Pests & Diseases<sup>7</sup>



- The \$100B toll of a pig epidemic in China. African Swine Fever in China is shaking up world trade flows<sup>8</sup>.
- WHO says that overuse of antibiotics in farming contributes to higher levels of its resistance in some human infections<sup>9</sup>.



# Food System Overview<sup>1</sup>



## Plants



**Soybean:**  
most consumed  
meat analogue  
with the highest  
protein content



**USA & Argentina**  
among the top 3  
countries of soybean  
producers worldwide

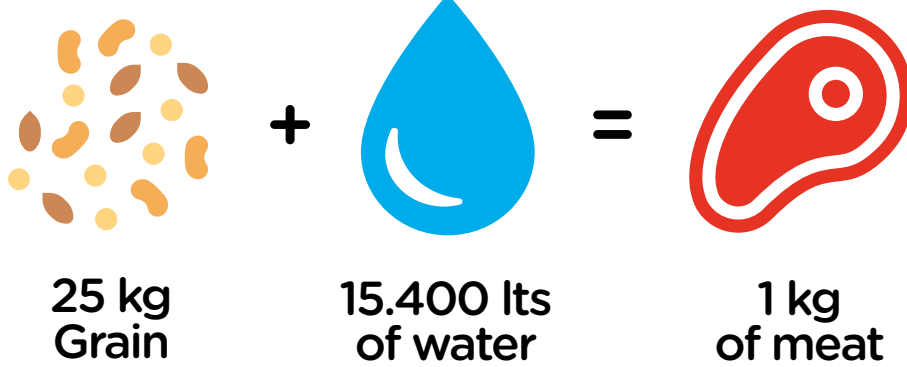
**77%** of soybean  
production ends  
as feed for livestock  
for meat and dairy  
production



## Animals

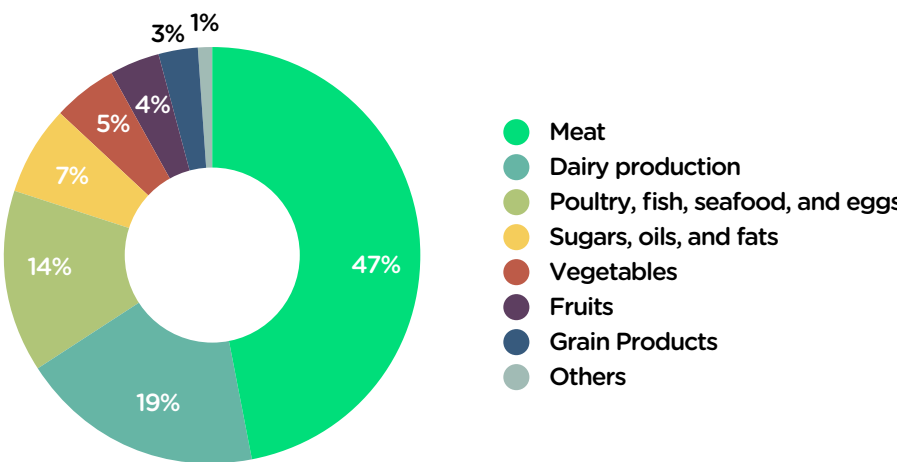
**Global Meat  
Products Market:**  
\$1 trillion

**Animal welfare** claimed  
to be the one of the  
most important factors  
for consumers

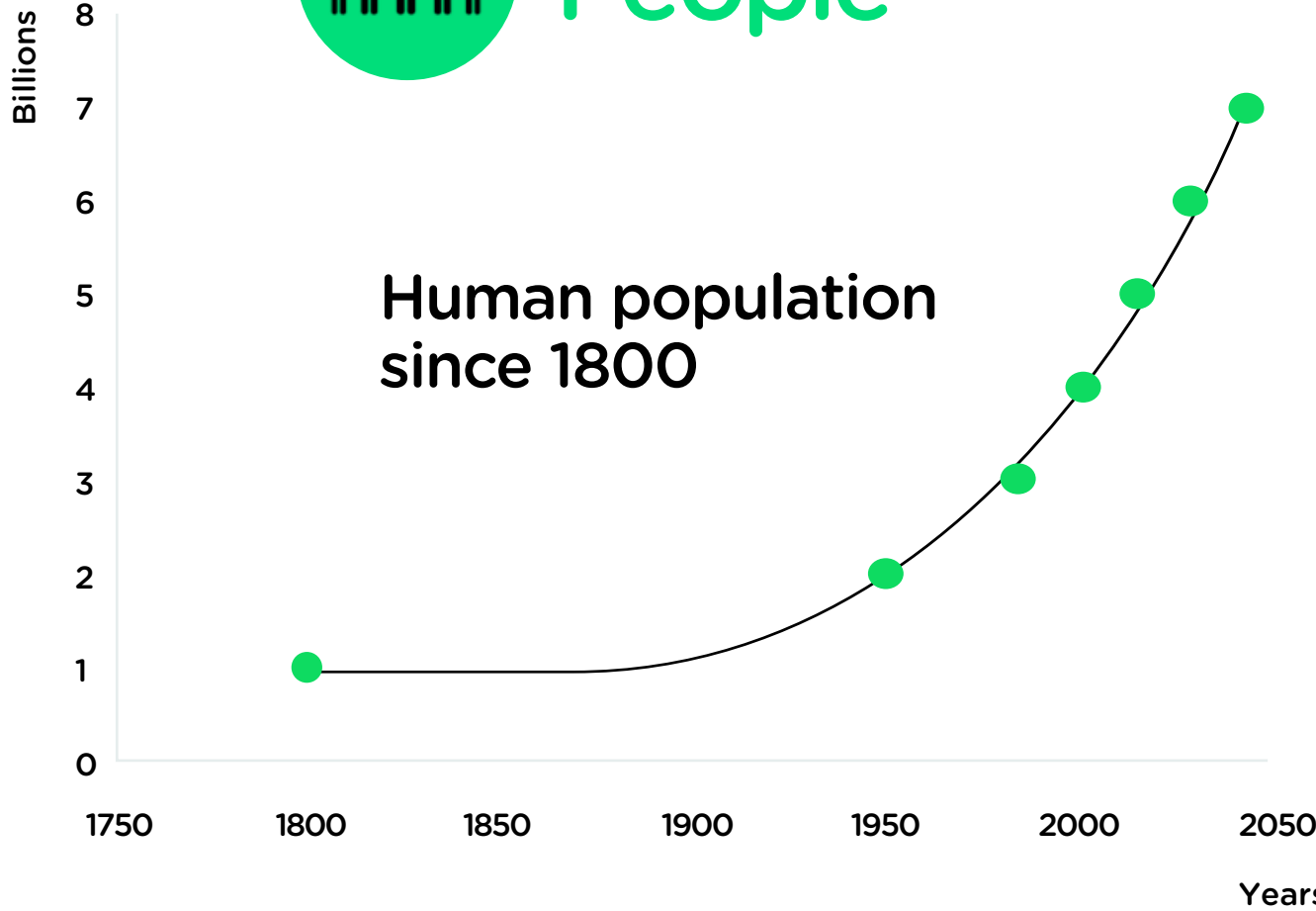


**Feed to food  
conversion  
inefficiency**

**Greenhouse  
Gas Emissions (GHG)**  
from average  
food consumption



## People

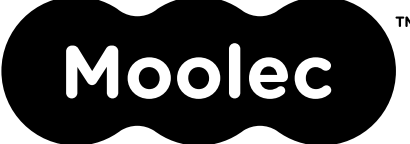


**Highest population growth** expected  
in developing countries with low GDP per capita

Healthy diets are **5 times more expensive**  
than diets that meet minimum energy levels



**Today 22%**  
Consumers are **vegetarian, vegan or flexitarians** and growing



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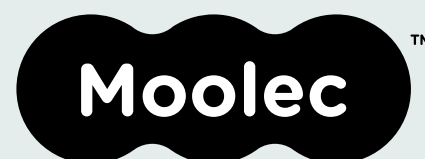
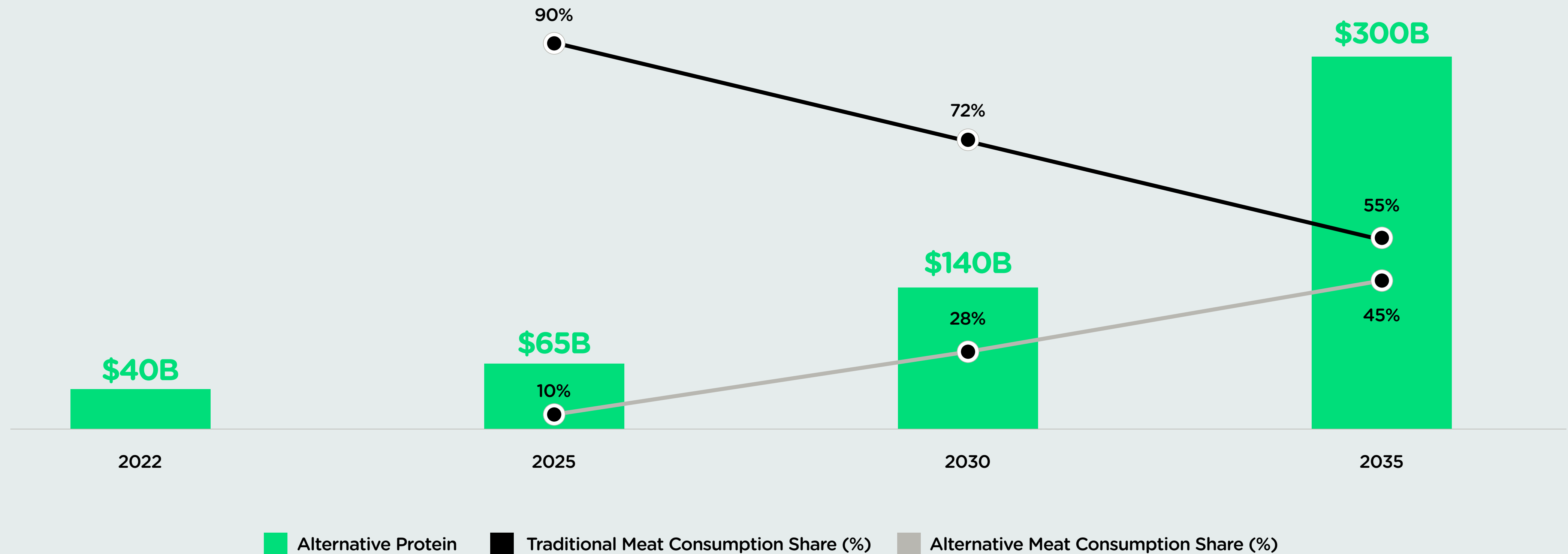
<sup>1</sup>Sources:

- <https://www.fao.org/in-action/sustainable-and-circular-bioeconomy/resources/news/details/en/c/1459357>
- <https://ahcb.org.uk/news/consumer-insight-understanding-consumers-attitudes-to-animal-welfare>
- <https://ask.usda.gov/s/article/What-is-the-most-consumed-meat-in-the-world>
- <https://ourworldindata.org/meat-production>
- <https://ourworldindata.org/meat-production#global-meat-production>
- <https://population.un.org/wpp/>
- <https://sniglobal.org/>

- <https://www.foodnavigator.com/News/Promotional-Features/Taste-texture-and-nutritional-attributes-of-alternative-protein-products>
- <https://www.un.org/en/academic-impact/97-billion-earth-2050-growth-rate-slows-new-un-population-report>
- <https://www.usda.gov/oce/commodity/wasde/wasde0922.pdf>
- <https://www.who.int/docs/default-source/nutritionlibrary/publications/state-food-security-nutrition-2020-inbrief-en.pdf>
- RethinkX. Rethinking Food and Agriculture 2020-2030. The Second Domestication of Plants and Animals, the Disruption of the Cow, and the Collapse of Industrial Livestock Farming
- WWF & SustainAbility. Sustainable Food Systems and Diets: This review of multi-stakeholder initiatives (October 2018)
- [https://www.researchandmarkets.com/reports/5633454/meat-products-global-market-opportunities-and-utm\\_source=GNOM&utm\\_medium=PressRelease&utm\\_code=hfbkjw&utm\\_campaign=1739586+-+Global+Meat+Products+Market+Analysis%2c+Opportunities%2c+Forecasts%2c+and+Strategies+2016-2021%2c+2021-2026%2c+%26+2026-2031&utm\\_exec=chdo54prd](https://www.researchandmarkets.com/reports/5633454/meat-products-global-market-opportunities-and-utm_source=GNOM&utm_medium=PressRelease&utm_code=hfbkjw&utm_campaign=1739586+-+Global+Meat+Products+Market+Analysis%2c+Opportunities%2c+Forecasts%2c+and+Strategies+2016-2021%2c+2021-2026%2c+%26+2026-2031&utm_exec=chdo54prd)

# Total Addressable Market<sup>1</sup>

Massive opportunity to play in a double-digit growing industry (17% CAGR).



<sup>1</sup>Sources:

- Moolec's internal analysis based on publicly disclosed information for the industry primarily the GF1 State of Industry Report 2021 (March 2022)
- United Nations, World Bank, Expert Interviews, A.T. Kearney Analysis



# Alternative Proteins Industry

Emerging industry where companies use different technologies and ingredients based on plants, cells, and microbes to address the main food challenges.



## Plant-Based<sup>1</sup>

Products made from plants that are alternatives to animal-based products. This includes plant-based meat, seafood, eggs, and dairy.



## Fermentation<sup>2</sup>

Use of intact live microorganisms to modulate and process plant-derived ingredient; the leverage of the fast growth and high protein content of microorganisms for efficient production.



## Cultured Meat<sup>3</sup>

Genuine animal meat produced by cultivating animal cells directly. Made of the same cell types arranged in the same or similar structure as animal tissues, thus replicating sensory and nutritional profiles of conventional meat.

<sup>1</sup> <https://gfi.org/science/the-science-of-plant-based-meat/>

<sup>2</sup> <https://gfi.org/science/the-science-of-fermentation/>

<sup>3</sup> <https://gfi.org/science/the-science-of-cultivated-meat/>



# The challenge: Reach parity with animal-based food



Taste and texture




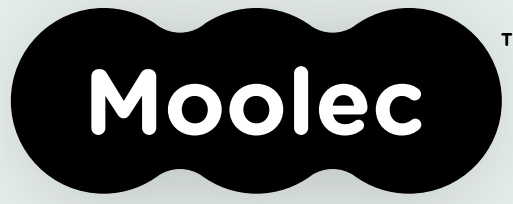
Nutritional values

Scalability and low costs



# The solution: Moolec as a **Category Creator**<sup>1</sup>

Molecular Farming has the potential to overcome the main obstacles faced by other technologies in the alternative protein landscape.

	 Plant-based	 Fermentation	 Cultured meat	 Molecular Farming
Taste and texture	✗	✓	✓	✓
Nutritional values	✗	✓	✓	✓
Scalability and low costs	✓	✗	✗	✓
	Plants		Science	Plants + Science

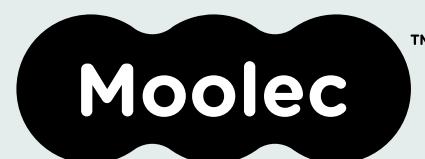
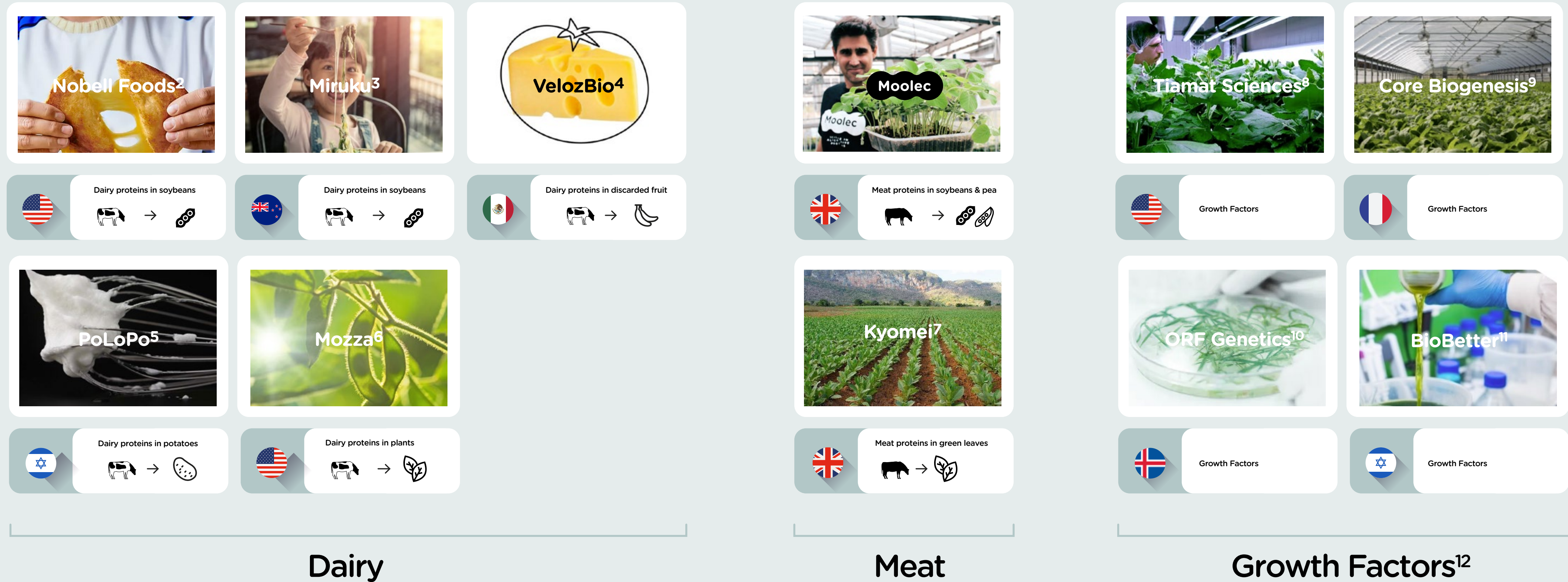
<sup>1</sup>Sources:

- <https://www.studyfinds.org/taste-plant-based-diet/>
- <https://www.foodnavigator-asia.com/Article/2021/08/17/Plant-based-nutritional-pitfalls-Why-novel-products-don-t-necessarily-improve-diet-quality-Study>
- [https://www.morningstarfarms.com/content/dam/NorthAmerica/morningstarfarms/pdf/MSFPlantBasedLCAReport\\_2016-04-10\\_Final.pdf](https://www.morningstarfarms.com/content/dam/NorthAmerica/morningstarfarms/pdf/MSFPlantBasedLCAReport_2016-04-10_Final.pdf)
- <https://link.springer.com/article/10.1007/s11367-015-0931-6>
- <https://thecounter.org/lab-grown-cultivated-meat-cost-at-scale>
- <https://gfi.org/wp-content/uploads/2021/03/cultured-meat-LCA-TEA-policy.pdf>



# Molecular Farming Ecosystem<sup>1</sup>

The industry is growing with stronger recognition of the advantages of Molecular Farming. Moolec is the only player focused on growing meat proteins in both soy and pea seeds.



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<sup>1</sup> Moolec's internal analysis based on publicly disclosed information for the industry and management estimates

<sup>2</sup> <https://www.nobellfoods.com/>

<sup>3</sup> <https://miruku.com/>

<sup>4</sup> <https://velozbio.com>

<sup>5</sup> <https://www.linkedin.com/company/polopo/about/>

<sup>6</sup> <https://www.mozzafoods.com/>

<sup>7</sup> <https://kyomei.co.uk/>

<sup>8</sup> <https://www.tiamat-sciences.com/>

<sup>9</sup> <https://corebiogenesis.com/>

<sup>10</sup> <https://www.orfgenetics.com/>

<sup>11</sup> <https://biobetter.bio/>

<sup>12</sup> Substance which is required from Cultured Meat Technology for the stimulation of growth in living cells





# The **Technology**



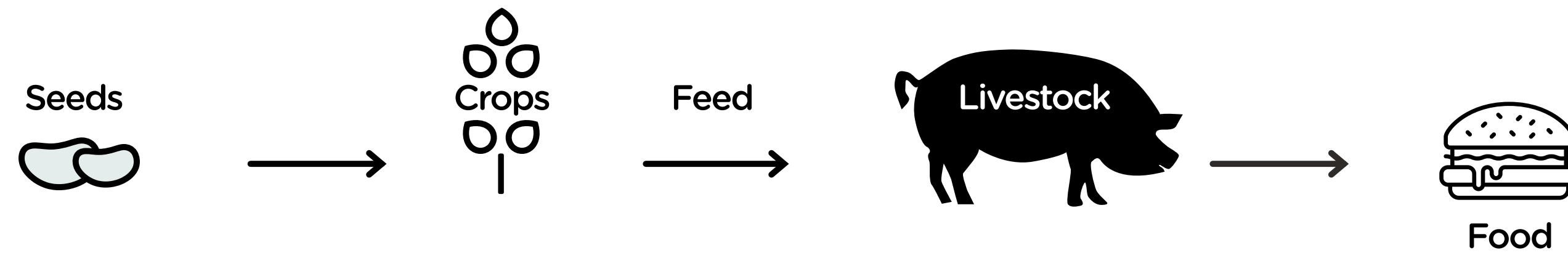
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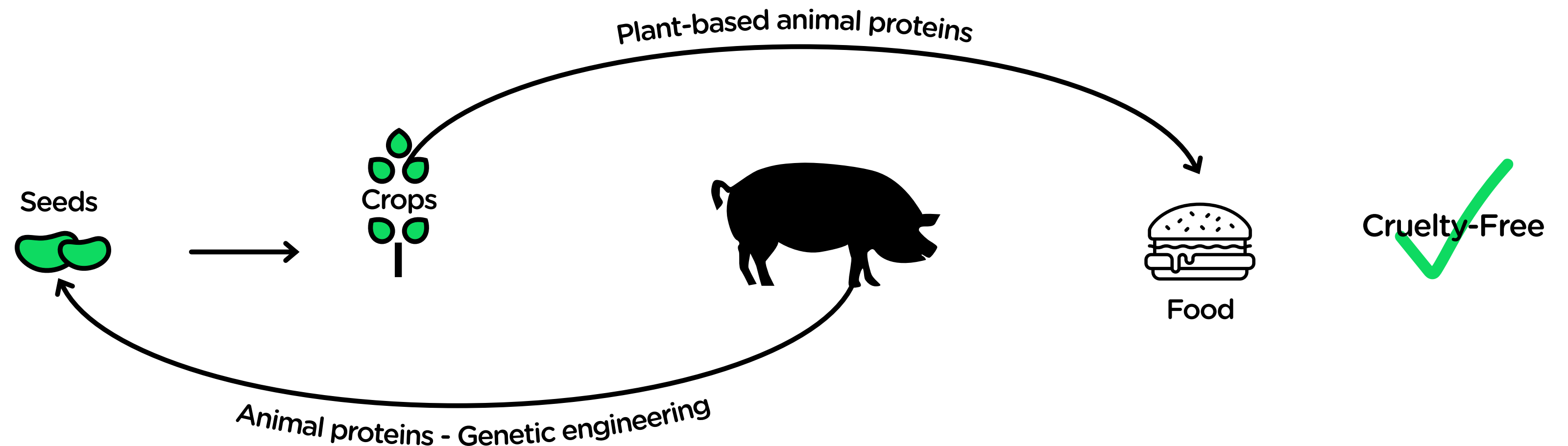
# Animal Proteins in Plants

Moolec introduces real animal genes in the plant's genome to give real taste and nutrition to food.

Traditional



Molecular Farming





# Molecular Farming: a cost-effective way to produce alternative proteins<sup>1</sup>



## Plants as Bioreactors

We use plants as small factories, without extra energy cost using biology.



## No extra purification cost

We mix animal and plant proteins saving the extra purification cost.



## Economy of scale

We use the hectares of farming to achieve volume, productivity and low costs.



# Moolec vs. Animal-based Production System

Molecular Farming is more friendly to the environment when compared to traditional protein productive systems.

35X less<sup>1</sup>



Land Usage

8X less<sup>2</sup>



Water Footprint

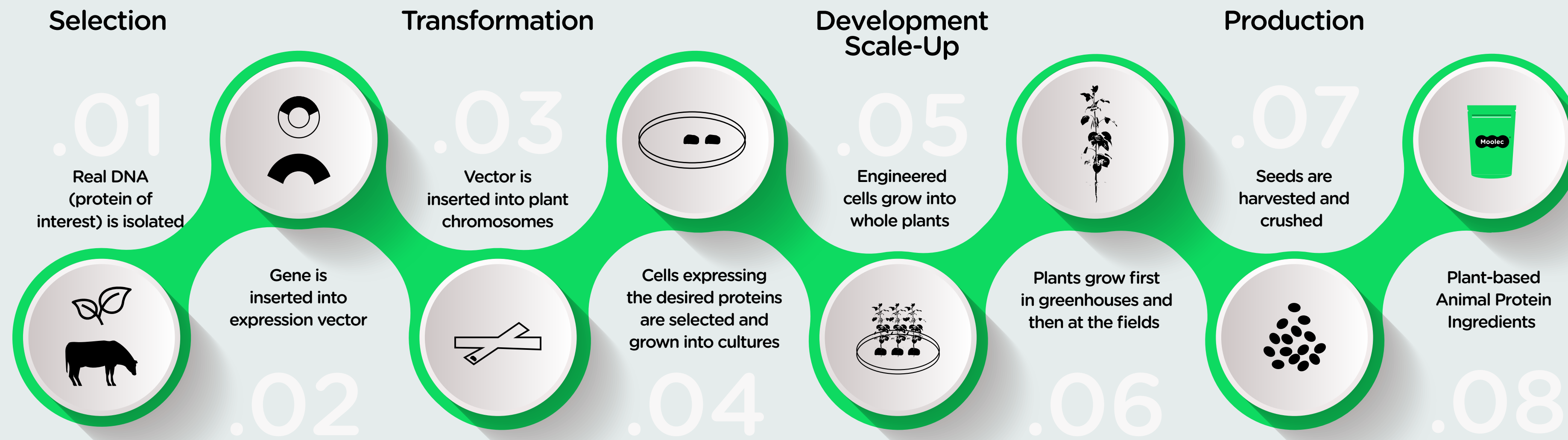
60X less<sup>3</sup>



CO<sub>2</sub> Emissions



# Molecular Farming in a Nutshell





# Proof of Concept: Why Chymosin?

Chymosin is a validation molecule in biotechnology by being the first protein for food been approved by the FDA with precision fermentation

90's

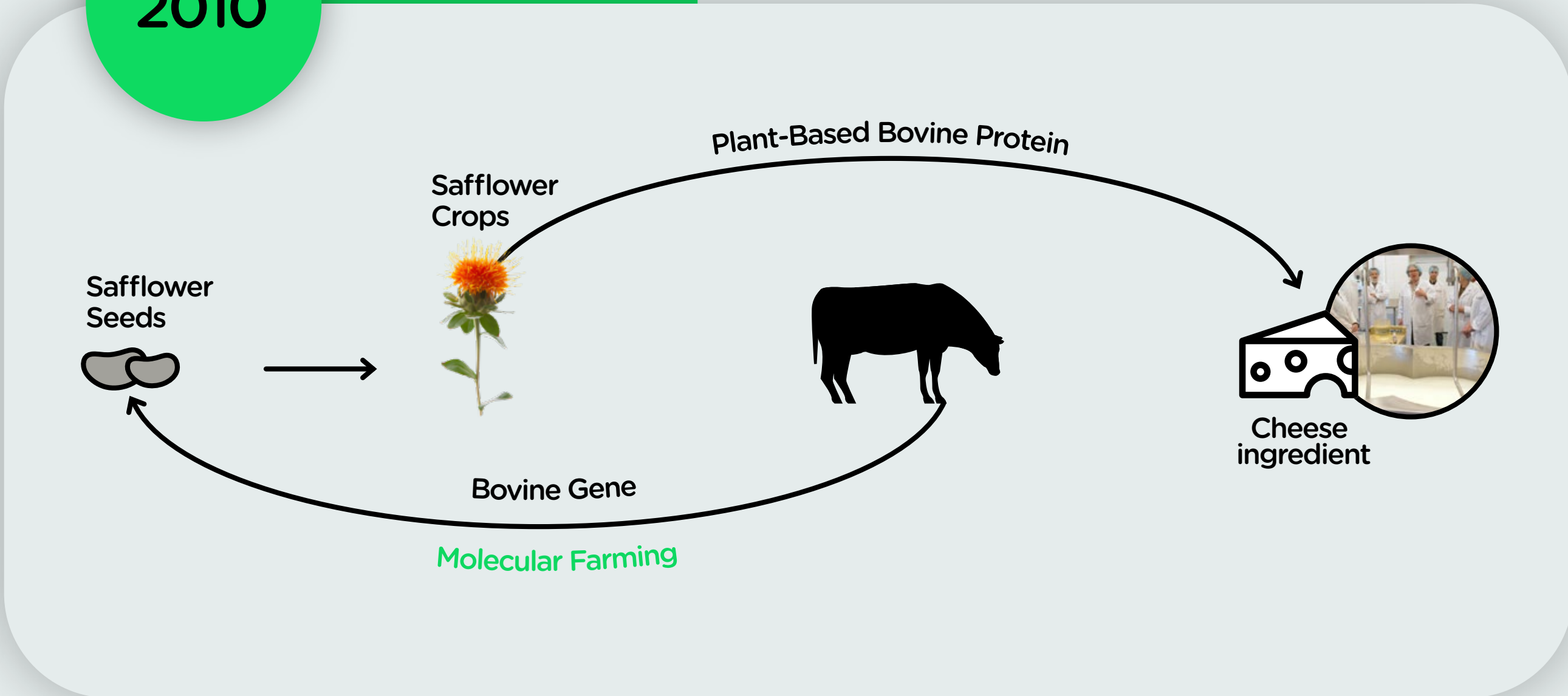
Fermentation



“Groundbreaking Moment for Biotechnology”

2010

Molecular Farming



Moolec's team achieved the same with plants<sup>1</sup>

<sup>1</sup> This milestone was achieved by a Team within Bioceres Group, Moolec's predecessor company



# Transferrable & scalable technology

Based on our Proof of Concept we were able to extend our technology to new hosts with enhanced features.

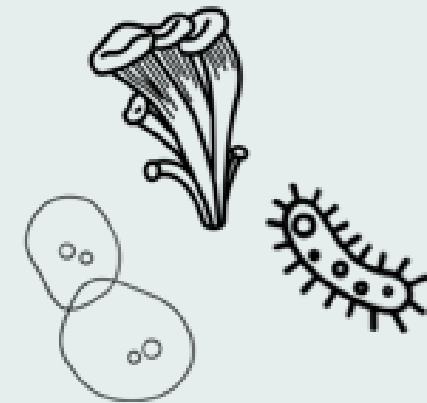
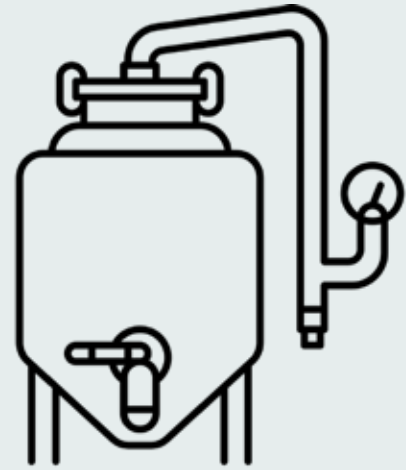


Protein content	20%	40%
Scalability	120K has	50M has
Yield	1 ton/ha	5 ton/ha
Market	350M Chymosin	1.5B Meat Replacement



# Fermentation: Our Validation Platform

Precision fermentation complements Molecular Farming technology as validation stage and faster go-to-market pathway.



- ✓ Fast application testing
- ✓ Quick regulatory footprint
- ✓ IP discovery
- ✓ Partnerships and commercial opportunities
- ✓ Product development

## Technological Strategy

Validation Stage / Low Scale

**Stage 1: Fermentation** - Strategic Joint Venture ✦ grupoin sud

Expansion Stage / High Scale

**Stage 2: Molecular Farming**





# Pipeline & Products

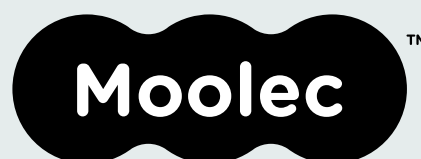


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# Pipeline Status

PROGRAM	HOST	PROJECT	PHASE <sup>1</sup>	R&D				OPERATIONS		PLANNED COMMERCIAL LAUNCH	REGULATION	SAM <sup>2</sup> 2025
				DISCOVERY	PROOF OF CONCEPT	EARLY DEVELOPMENT	ADVANCED DEVELOPMENT	PRE-LAUNCH	PRODUCT LAUNCH		STATUS	
Dairy ingredient and Nutritional oil (Chymosin & GLA)	Safflower	SPC2	-	[Progress bar]						2025	[Status icon]	350M <sup>3</sup>
		GLASO	-	[Progress bar]						2025	[Status icon]	1.5B <sup>4</sup>
Meat Replacement (POORK+ & BEEF+)	Yeast	YEEA1	1	[Progress bar]						2025	[Status icon]	1.5B <sup>5</sup>
		YEEA2	1	[Progress bar]						2025	[Status icon]	
		YEEA3	2	[Progress bar]						2026	[Status icon]	
	Soybean	SOOY1	3	[Progress bar]						2027	[Status icon]	
		SOOY2	3	[Progress bar]						2029	[Status icon]	
		SOOY3	3	[Progress bar]						2029	[Status icon]	
		SOOY4	4	[Progress bar]						TBD	[Status icon]	
Pea	PEEA1	3	[Progress bar]						2028	[Status icon]		



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<sup>1</sup> Refers to different phases of meat replacing process

<sup>2</sup> Serviceable Available Market

<sup>3</sup> Moolec internal analysis based on Global Rennet Market 2022-2027 - Mordor Intelligence

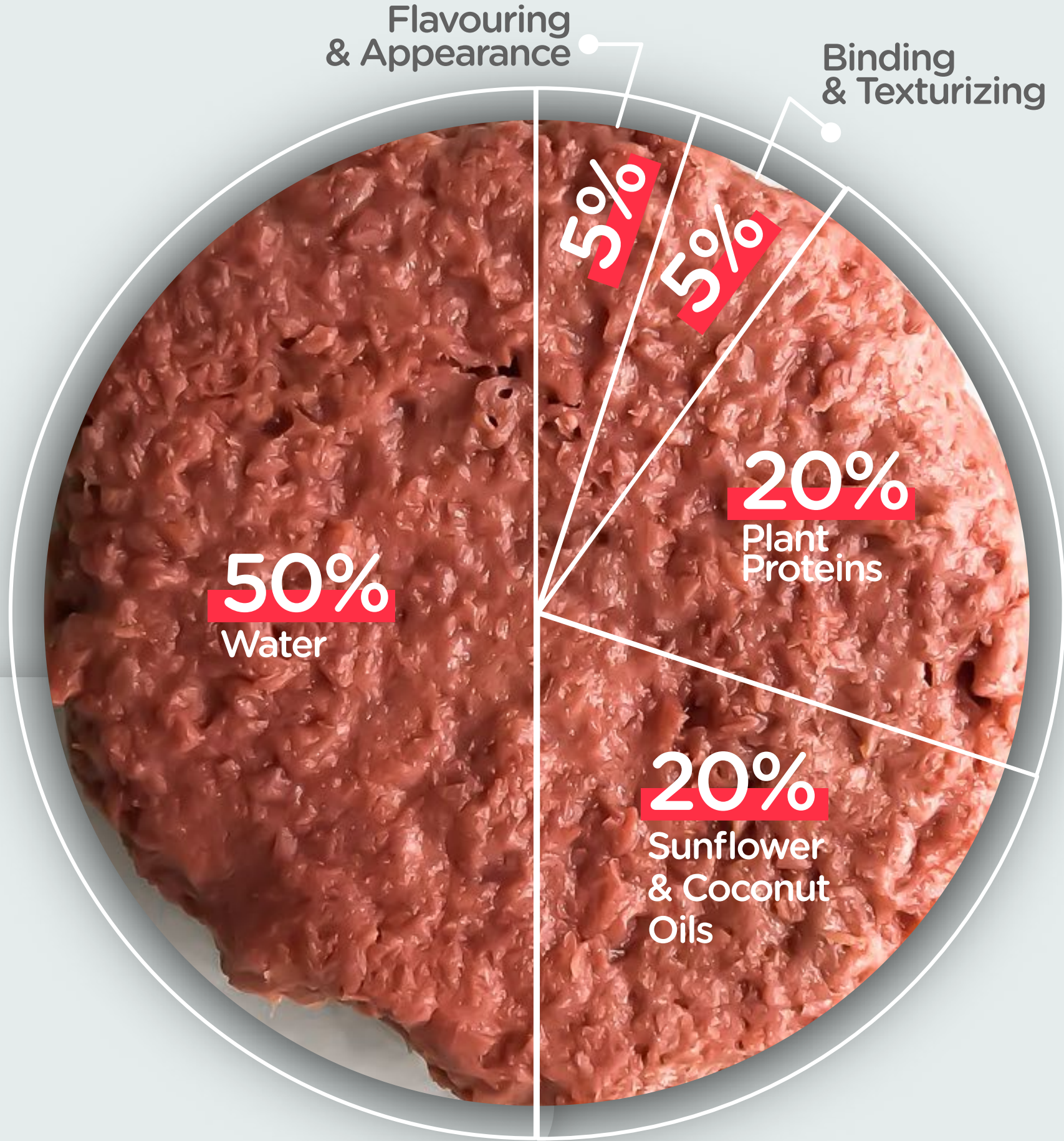
<sup>4</sup> Moolec internal analysis based on Global Gamma Linolenic Acid market. Market size, status and forecast to 2028 - Verified Market Research

<sup>5</sup> Moolec internal analysis based on Plant-based Ingredients Market 2021 - MarketsAndMarkets



# Plant-Based Meat Ingredients by Weight<sup>1</sup>

Alternative meat industry still uses traditional ingredients, limiting it from overcoming major challenges and meeting consumer expectations.



### Current industry challenges

- ✗ Not clean label. 20+ different components
- ✗ Not fully natural. Synthetic and chemical additives
- ✗ Not the same nutritional values to animal-based

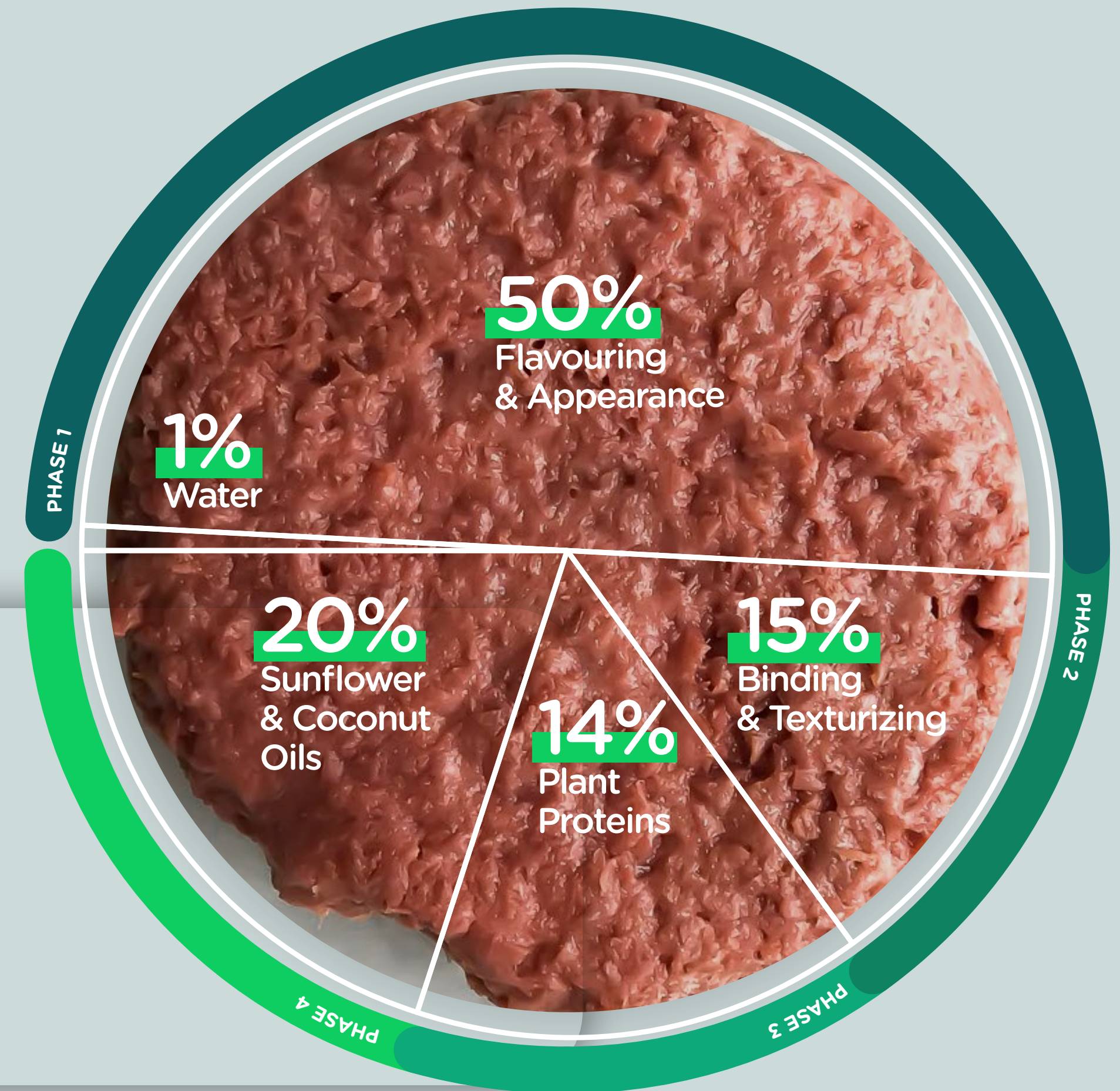
<sup>1</sup>Sources:  
• Bakhsh, A.; Lee, S. - J.; Lee, E. - Y.; Hwang, Y. - H.; Joo, S. - T. Characteristics of Beef Patties Substituted by Different Levels of Textured Vegetable Protein and Taste Traits Assessed by Electronic Tongue System. Foods 2021, 10, 2811. <https://doi.org/10.3390/foods10112811>  
• Annotated with internal analysis of nutritional data of market available products (NL).



# Moolec's Substitute Process by Cost<sup>1</sup>



50% Flavouring & Appearance + 15% Binding & Texturizing + 14% Plant Proteins + 20% Sunflower & Coconut Oils = 99% of the cost



## Current industry challenges

- ✗ Not clean label. 20+ different components
- ✗ Not fully natural. Synthetic and chemical additives
- ✗ Not the same nutritional values to animal-based

## With Moolec's Technology

- ✓ Clean label approach
- ✓ Real animal protein genes
- ✓ Healthier nutritional values



# Product Portfolio

Enhanced plant-based ingredients with real animal proteins inside<sup>1</sup>.



Chymosin SPC

## Dairy Ingredient

Plant-based chymosin, a key ingredient for cheese production compulsory for the clotting step.

Texture



Safflower



GLA SONOVA®

## Nutritional Oil

Plant-based GLA oil destined for enriching food, nutraceutical products, and pet food<sup>2</sup>.

Nutrition<sup>3</sup>



Soy



## Meat Replacement

Plant-based real porcine proteins embedded within the matrix of native soy proteins to enhance alternative meat products.

Sensory<sup>4</sup>/Nutrition<sup>3</sup>



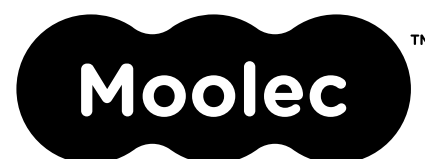
Pea



## Meat Replacement

Plant-based real bovine proteins embedded within the matrix of native pea proteins to enhance alternative meat products.

Sensory<sup>4</sup>/Nutrition<sup>3</sup>



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<sup>1</sup> Applies to plant-based Chymosin, POORK+ and BEEF+ products. GLA is a plant-based nutritional oil

<sup>2</sup> The FDA has approved the GLA-containing safflower seed oil as a new ingredient in dietary supplements, nutritional beverages, and medicinal foods for humans. The FDA has also approved the use of the seed oil as an ingredient in dog and cat food and the use of the seed meal in cattle and poultry feeds. Moolec is conducting pre-submission consultation with the FDA with respect to additional uses in food products for humans and animals

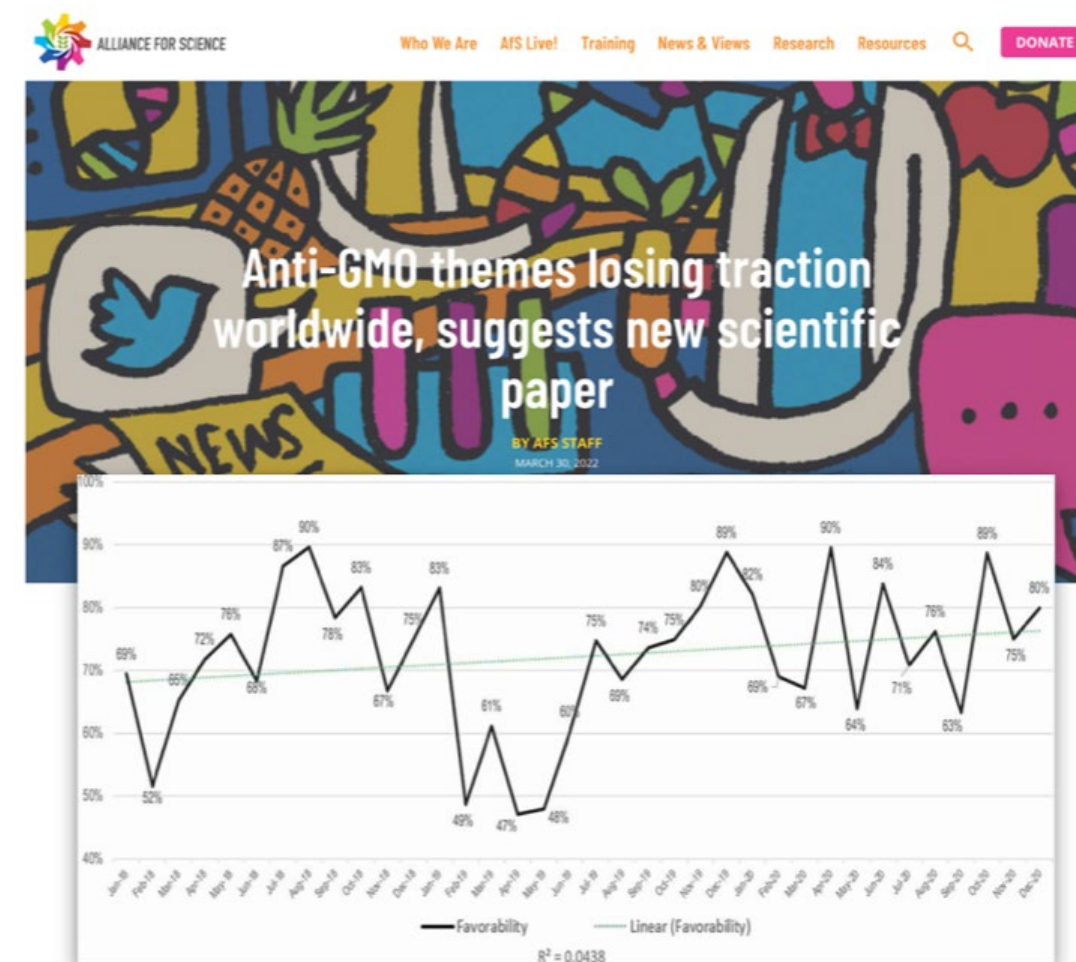
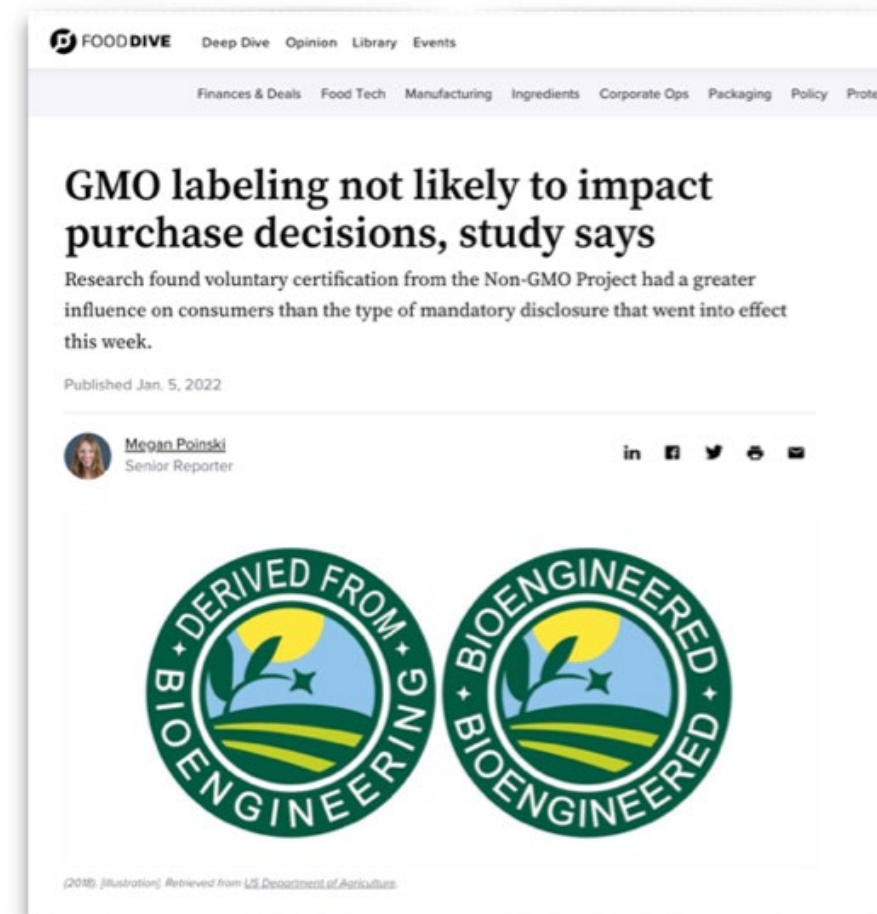
<sup>3</sup> Nutrition can refer to a superior digestibility of the expressed protein or any improved micronutrient content and subsequent bioavailability

<sup>4</sup> Sensory implies an improved perception after inclusion into the formulation of a specific food product such as meat replacers



# Today most consumers accept **GMO Food**

98% of all soybeans grown in the USA are GMO, and Impossible Burger's successful rollout confirmed that GMO is no longer a material issue in the US consumer's minds<sup>1,2</sup>.



**Transparency and the cause's purpose are key**

Discussion gravitates around science, hunger and climate change.

Moolec promotes a new scientific movement<sup>3</sup>:



<sup>1</sup> <https://www.fooddive.com/news/gmo-labeling-not-likely-to-impact-purchase-decisions-study-says/616452/>

<sup>2</sup> <https://allianceforscience.cornell.edu/blog/2022/03/anti-gmo-themes-losing-traction-worldwide-suggests-new-scientific-paper/>

<sup>3</sup> <https://gm4good.org/>



# Regulatory Pathway

Moolec is subject to the laws and regulations governing biotechnology and food companies in the jurisdictions in which we operate.

## Regulation of Plant Biotechnology Products



## Regulation of Food and Ingredient Products



## Other Regulatory Requirements

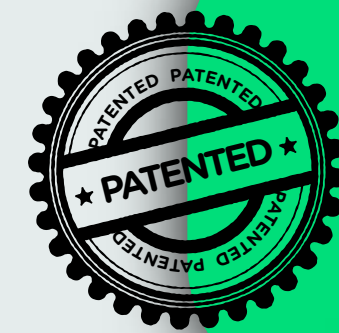
Subject regulations and requirements related to:

- Safe working conditions
- Laboratory and distribution practices
- Transportation
- Disposal of hazardous or potentially hazardous substances
- Cross-border transit of finished goods and raw materials



# Patent Portfolio

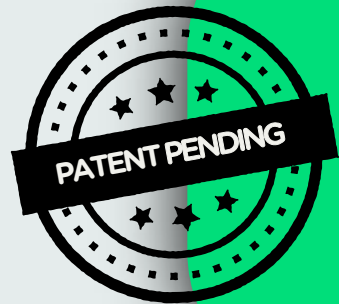
Moolec stands on a strong and growing IP strategy with great understanding of the biotech landscape offering a competitive advantage on its execution.



GLA

17 Patents

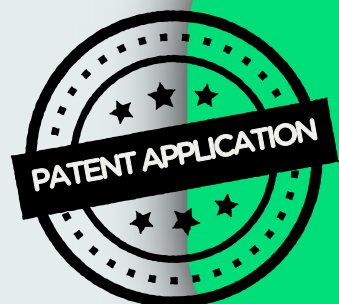
Australia	United States	Mexico	Japan
Canada	Brasil	Argentina	New Zealand
Italy	Germany	Spain	China
France	UK	Hong Kong	Malaysia



Chymosin  
SPC

3 Patents

Australia	United States	Mexico
Canada	Brasil	Argentina
Italy	Germany	
France	UK	



New  
Filings

2 Patents

United States
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# Latest Milestones

## Soybean

T1 seed harvested. Next phase for achieving T2 & T3 seeds started August 2022



Sample of seed protein extract expressing protein of interest



## Pea

Ongoing transformation and regeneration stage



## Chymosin SPC

Planted in Córdoba, Argentina June 2022



## GLA

Planted in Idaho Falls, USA, harvested October 2022



## SPC x GLA

Back Crossing 1 finished. Back Crossing 2 started June 2022



## Fermentation platform

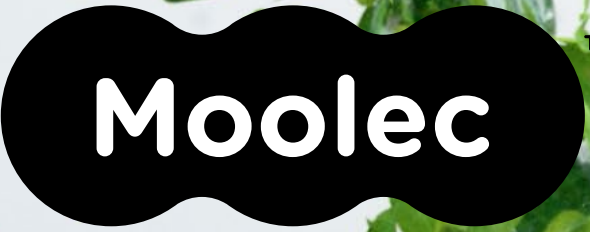
1st yeast-based prototype for meaty flavor







**Environmental, social  
and governance (ESG)**

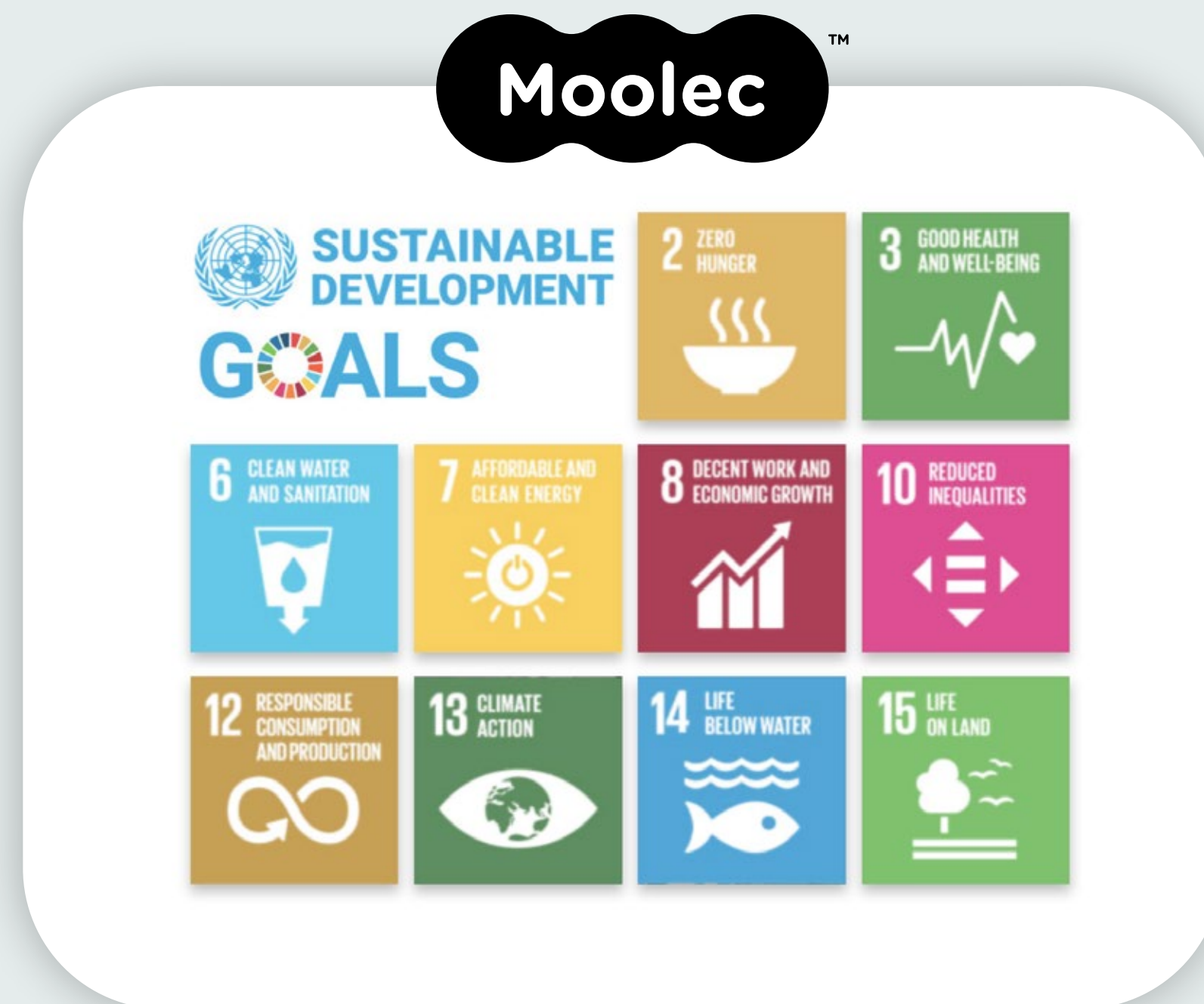


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# Moolec addresses directly 10 of the 17 SDGs

We use SDGs and 2030 Agenda as guidelines to strategically align our business in the search of the building of a more equitable, resilient and sustainable food system<sup>1,2</sup>.



From ending poverty, hunger to responding to climate change, food and agriculture lie at the very heart of the 2030 Agenda for Sustainable Development.

<sup>1</sup> <https://sdgcompass.org/>

<sup>2</sup> <http://www.fao.org/documents/card/en/c/09a43cf2-c53a-40fe-bf4aa7f87236b2ce/>

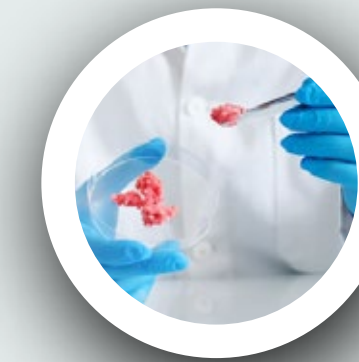


# Enviromental & Social Impact<sup>1</sup>

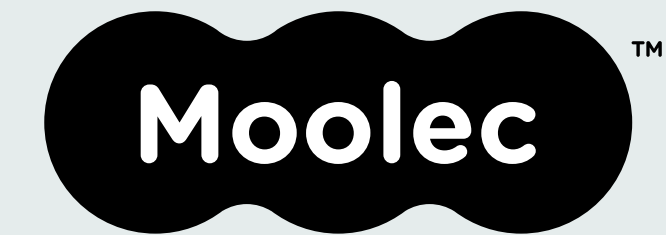
Moolec's technology is much more friendly to the environment and promotes an inclusive global value chain, bringing farmers back to the equation.



Fermentation



Cultured meat



Molecular Farming

Main Concept

Main Concept	Fermentation	Cultured meat	Molecular Farming
Water usage	— Medium High	— Medium	✓ Low
Energy efficiency	✗ Low	✗ Low	✓ High
GHG Emisions	✗ High	✗ High	✓ Low
Carbon capture	✗ Negative	✗ Negative	✓ Positive
Workforce inclusion	— Medium	✗ Low	✓ High

<sup>1</sup>Sources:

- <https://www.studyfinds.org/taste-plant-based-diet/>
- <https://www.foodnavigator-asia.com/Article/2021/08/17/Plant-based-nutritional-pitfalls-Why-novel-products-don-t-necessarily-improve-diet-quality-Study>
- [https://www.morningstarfarms.com/content/dam/NorthAmerica/morningstarfarms/pdf/MSFPlantBasedLCARepor\\_2016-04-10\\_Final.pdf](https://www.morningstarfarms.com/content/dam/NorthAmerica/morningstarfarms/pdf/MSFPlantBasedLCARepor_2016-04-10_Final.pdf)
- <https://link.springer.com/article/10.1007/s11367-015-0931-6>
- <https://thecounter.org/lab-grown-cultivated-meat-cost-at-scale>
- <https://gfi.org/wp-content/uploads/2021/03/cultured-meat-LCA-TEA-policy.pdf>

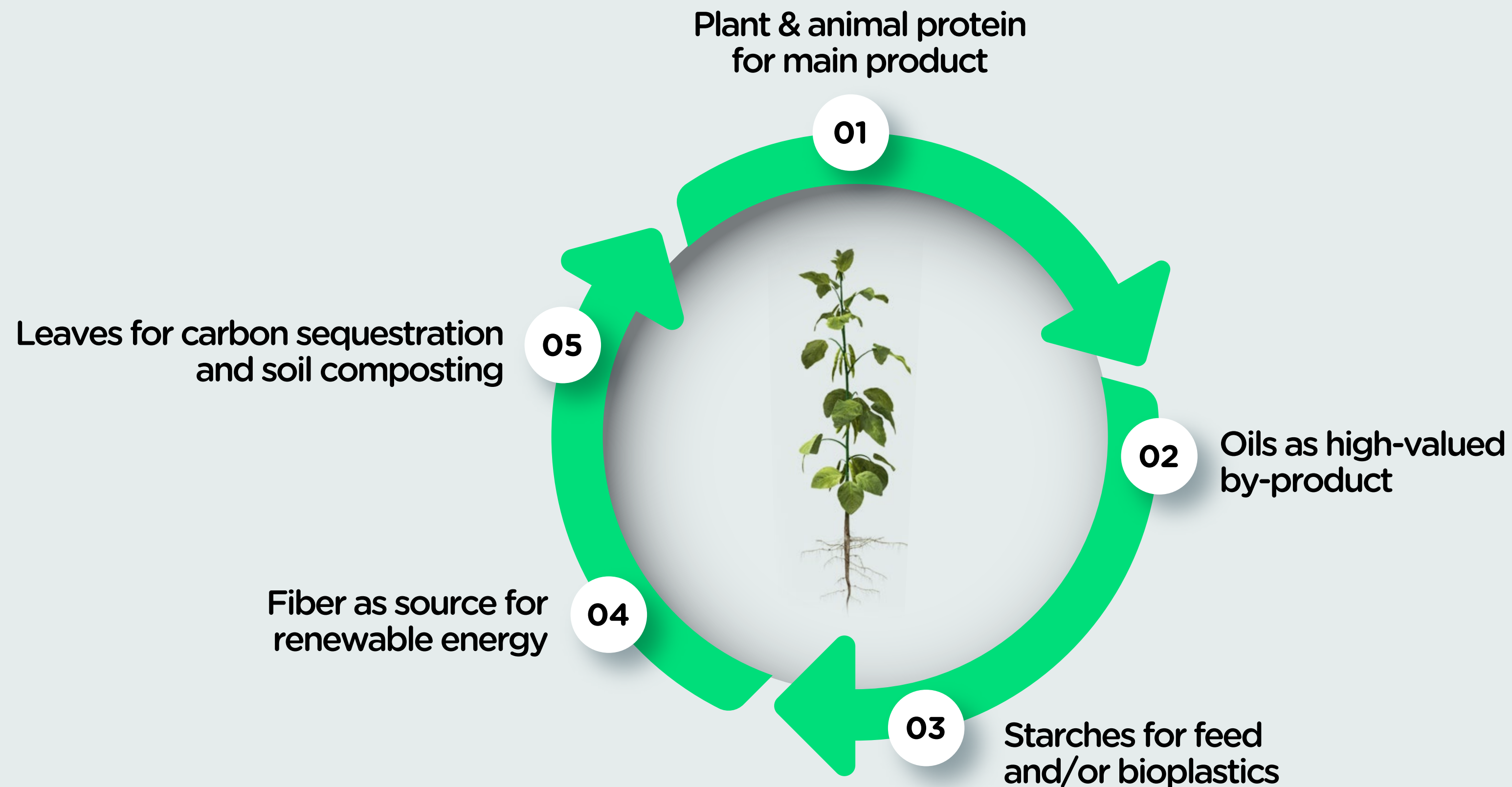


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# Focused on using all parts of the plants<sup>1</sup>

We create sustainable products and by-products following circular supplies and resource recovery strategies<sup>2</sup>.



<sup>1</sup> Information displayed in this chart is an example on what potential uses of the different parts of the plant can be destined for.

<sup>2</sup> [https://www.accenture.com/t20150523t053139\\_\\_w\\_/us-en/\\_acnmedia/accelture/conversion-assets/dotcom/documents/global/pdf/strategy\\_6/accelture-circular-advantage-innovative-business-models-technologies-value-growth.pdf](https://www.accenture.com/t20150523t053139__w_/us-en/_acnmedia/accenture/conversion-assets/dotcom/documents/global/pdf/strategy_6/accelture-circular-advantage-innovative-business-models-technologies-value-growth.pdf)



We are food hackers.

Let's empower science in food for the **good of the planet**



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