Israel State of Alternative Protein Innovation Report 2021

April 2021

gfi Israel

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Section 1
Introduction

Words from the Editor

Aviv Oren
Business Engagement,
GFI Israel

We want to live in a world where alternative proteins are no longer alternative. For that we need to modernize the way we produce meat, eggs, and dairy. New protein sources are crucial to fighting climate change, biodiversity loss, hunger, antibiotic resistance, and animal suffering—and, in turn, making this small, blue planet healthier and more secure. In order to succeed, we must accomplish this without losing the tasty food that we love. With the advancement of science and technology, we now have the power and knowledge to fix our food system, and luckily, fixing it is also a great business opportunity with returns on investment that have yet to be seen in the foodtech sector. Israel, for reasons that you will read about in this report, is a great place to start this journey. The biblical land of milk and honey nowadays relies on science and technology for most of its economic growth. Startups in Israel are no longer in a rush for an exit, and although their target market is in most cases overseas, they have learned to scale effectively and build global brands. Israel of 2021 is packed with unicorns that bring tier 1 investments, and we expect the same from the alternative protein sector as it gains momentum. These companies will revolutionize the world for the better, and they will be the top brands of tomorrow. We call on brilliant researchers, entrepreneurs, businesspeople, and investors to accelerate world progress for a better food system. We hope that this report inspires you to increase your involvement to this end, and if you wish to do the most good possible, to develop great products, create good jobs, or invest smartly. We welcome you to contact us and join us in our mission. Aviv Oren at avivo@gfi.org

Strategic Remarks by GFI Israel Managing Director

Nir Goldstein
Managing Director,
GFI Israel

The Good Food Institute is an international nonprofit reimagining meat production. With more than 100 team members across our U.S. team and five affiliate offices, we're building a world where alternative proteins are the default choice, making the global food system better for the planet, people, and animals. GFI identifies the most effective solutions, mobilizes resources and talent, and empowers partners across the food system to make alternative proteins accessible, affordable, and delicious.

In mid-2021, the alternative protein sector is accelerating rapidly in Israel and around the world. In this relatively new technological field, the Israeli research and innovation ecosystem has managed to build a name for itself as a global alternative protein hub. Israel leads in our field for many reasons. Some are more obvious, like our diverse and advanced research centers and our positioning as the "Startup Nation." We have explored other reasons in the past few years, such as the high level of acceptance for the alternative protein theory of change among decision-makers in Israel's policy, business, and academic sectors; the relatively large plant-based population; and TeL Aviv's local food scene, to name a few. The rapid growth of alternative proteins creates challenges and, mostly, opportunities for the Israeli ecosystem. It is up to us to grab the chance to forever influence the global food system.

I would like to use this opportunity to thank GFI's global team, headed by our executive director, Bruce Friedrich.

GFI is 100 percent funded by philanthropy; our accomplishments are possible only thanks to gifts and grants from our family of donors. As always, if you or someone you know would like to learn more about supporting our work, please don't hesitate to reach out to us at Israel@gfi.org

Executive Summary

GFI Israel focuses on advancing alternative protein innovation in the "Startup Nation." Israel is renowned for innovative technology, entrepreneurial spirit, supportive government policies, and investment capital. The country is also recognized as a world leader in agricultural research, stem cell research, tissue engineering, microbiology, nanotechnology, and engineering. Thus, Israel has emerged as a hub for alternative protein innovation and cultivated meat companies. GFI Israel engages the highest-level investors, established corporations, startups, scientists, and governmental bodies and fosters the alternative protein ecosystem.

Investments. From 2018 to 2020, investments in alternative protein companies in Israel increased eightfold, starting with $14 million in 2018 and growing to $114 million in 2020. Despite Covid-19, the total investment in 2020 almost tripled that of 2019, with 154 percent year-over-year growth. The largest sector is plant-based protein startups, which raised $77 million last year. 2020 was also unique, with four alternative protein companies choosing to go public and to be listed on the Tel Aviv Stock Exchange and the world's first acquisition of a cultivated meat company by an Israeli company.

Companies. More than 100 companies are active in the alternative protein sector in Israel. Among them, over 40 percent are considered startups whose breakthrough technology has the potential to help shape the future of our protein sources. Israel has five startup companies in cultivated meat and milk and ranked second in the world (the United States is first) for the number of fermentation companies (10 companies) in alternative protein products. Israel's foodtech incubators and accelerators, like those in the Israeli high-tech industries, provide entrepreneurs with tools and resources to transform ideas into innovative products. In many cases, the incubator programs are funded partially by the Israel Innovation Authority and partially by private multinational corporations and investors.

Academic Research. Alternative protein attracts the activity and interest of researchers in leading Israeli academic institutes. 2020 saw an increase in the number of academic scientists conducting research in the field or serving as advisors and founders of alternative protein startups. Although the progress, growing interest, and potential to further advance the field are huge, industry-academia collaborations, accessibility of knowledge, and funding opportunities are critical. To date, GFI has awarded seven open-research grants to Israeli researchers in the field of alternative protein.

Policy. In recent years, the alternative protein field has become an area of interest, practice, and policy change, with an increasing number of governments, societies, and policymakers worldwide, including the Israeli government, among the involved. Individual ministries have acted to support the sector through Prime Minister Netanyahu, who directed his State secretary to appoint a coordinator to serve the alternative protein sector and set Israel as a leader in innovation and R&D in the field. In addition, acknowledging the impact public funding has on young research- and technology-based fields, GFI is working to unlock local and international opportunities for R&D funding from the Israel Innovation Authority (IIA), the European Horizon program, and R&D agreements with more than 30 countries worldwide.

Market Data. In 2020, the global plant-based market was $21.5 billion (retail market only). Of this, plant-based dairy products accounted for $16.9 billion and plant-based meat for $4.6 billion. According to Barclays, the plant-based and cultivated meat market is projected to reach 10 percent of the total meat market by 2030 at $140 billion. Israel is a leader in this global movement, and 2020 was a record year with double-digit growth in every plant-based category. Plant-based product sales grew 13 times more than animal-based product sales. The greatest increase in analogue products was registered in plant-based burgers and minced meat (58 percent) and non-soy plant-based milk (55 percent). Plant-based milk is now 13 percent of the total milk market in Israel.

Israeli Alternative Protein Industry Snapshot

Investments in Alternative Protein Startups

- 2020 investments - **$114M**
- Number of deals - **18**
- Publicly traded companies - **6**
- IPO'-s in 2020 - **4**
- M&A-1 - (MeaTech acquire Peace of Meat.)

Companies

- Number of companies active in the alternative protein sector- **over 100**
- Number of active incubators and accelerators- **7**
- Number of new startups in 2020- **7**

Governmental Support

- Israel's prime minister was the world's first head of state to taste cultivated meat
- Approved government funding for a new national food institution- **$7M**
- Funding by Israel Innovation Authority for alternative protein startups- **~$11M**

Academic Research

- Number of active researchers labs - in the field - **28**
- Number of related and potential researchers in the field - **296**
- Number of GFI grantees - **7**

2020 Retail Market Data

- **18.5% increase** in all plant-based products
- **58% increase** in plant-based meat (burgers & mince)
- **35% increase** in plant-based milk
- Plant-based milk is **13%** of the total milk market

Section 2
Investments

Overview

According to the Israeli Ministry of Economy, Israel ranks number one in the world for R&D investment per capita, size of scientist and engineer pool, startups per capita, and venture capital investment per capita (more than $414 million raised in 2019, followed by $282.1 million raised by the United States). In 2018, Israel spent 4.95 percent of GDP on R&D, according to the World Bank.

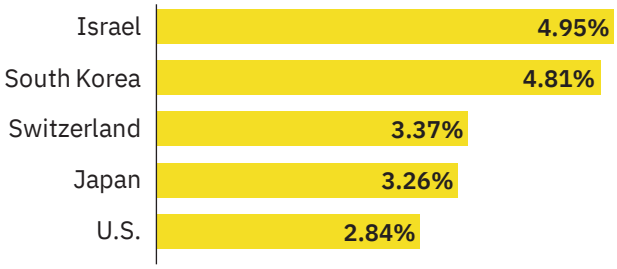


Figure 2.1. Countries by R&D spending as a percentage per capita. (Data from World Bank.)

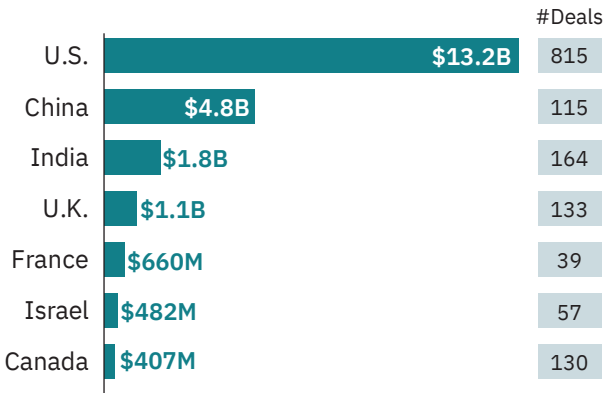


Figure 2.2. Countries by agrifood-tech venture capital deals in USD. (Data from *AgFunder AgFoodTech Investment Report*.)

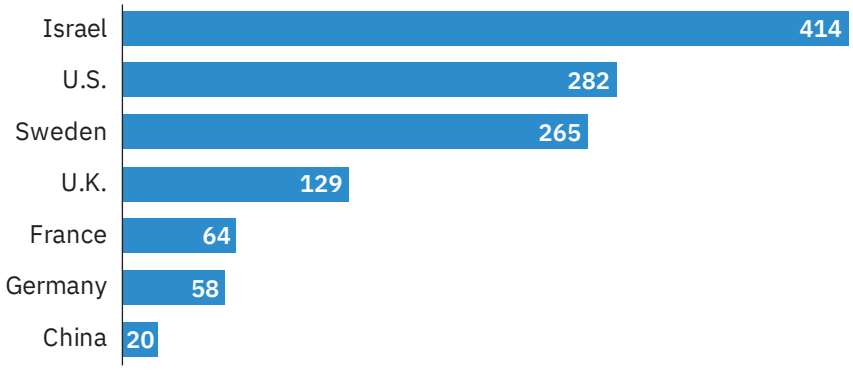


Figure 2.3. Countries by venture capital investment in millions of USD per capita. (Data from Statista.)

Israel, having established cultivated meat companies as early as 2015, is a pioneer in alternative protein innovation. Since then, Israel's alternative protein industry has rapidly gained momentum and grown with vigorous entrepreneurism based on solid scientific and technological foundations. According to the GFI Israel company database, more than 100 companies are active in the alternative protein industry. About 40 percent are startups with breakthrough technologies for the next alternative protein. The rest are food producers or medium to large food corporations.

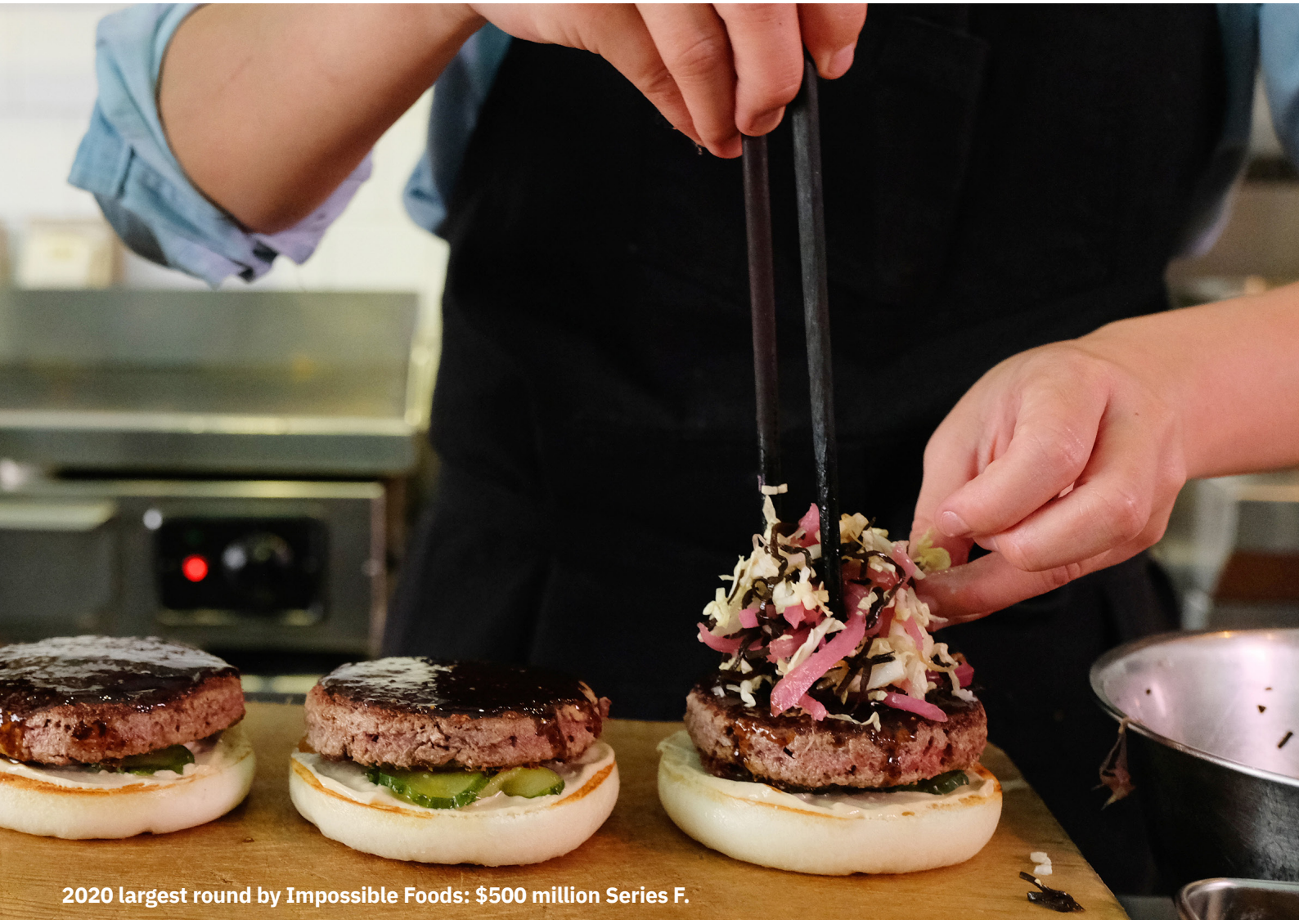
Global Insights: Alternative Protein Investments

Before diving into the Israeli ecosystem and numbers, here is the global status of investments in alternative proteins.

According to The Good Food Institute's analysis of PitchBook data, global alternative protein investments surged to **$3.1 billion in 2020—three times the investment capital raised in 2019—**signaling growing momentum for sustainable alternatives to animal products. Alternative protein companies have raised almost **$6 billion** in investments in the past decade (2010–2020), **more than half** of which was raised in 2020 alone:

- Plant-based meat, egg, and dairy companies received **$2.1 billion** in investments in 2020—three times the amount raised in 2019.
- Fermentation companies devoted to alternative proteins received **$590 million** in investments in 2020—double the amount raised in 2019.
- Cultivated meat companies received more than **$360 million** in investments in 2020—six times the amount raised in 2019.

Amid the social, environmental, and economic crises of 2020, these numbers signal a growing appetite for climate-friendly investments with returns beyond the bottom line. As the world still grapples with a global pandemic, the prospect of meat produced with zero risk of contributing to zoonotic disease transmission or antibiotic resistance has even greater relevance. With more and more investors acknowledging that climate risk is investment risk, alternative proteins offer a scalable solution that gets the world closer to a more secure, carbon-neutral food system.



2020 largest round by Impossible Foods: $500 million Series F.

Alternative Protein Fundraising in Israel by Sector

The alternative protein sector in Israel is rapidly gaining momentum and growing with vigorous entrepreneurial activity that is based on solid scientific and technological foundations. From 2018 to 2020, investments in Israel's alternative protein companies increased eightfold, starting with $14 million in 2018 and growing to $114 million in 2020. Despite Covid-19, total investment in 2020 almost tripled from the previous year, with 154 percent year-over-year growth. In 2019, established cultivated meat companies raised $28 million mostly from seed and A rounds, which enabled them to focus on R&D. In 2020, cultivated meat companies raised $16 million, most of which was secured by companies new to the field.

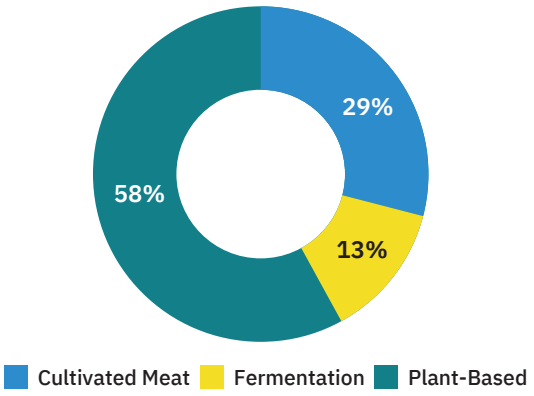


Figure 2.4. Startup fundraising by alternative protein sector as a percentage of total funds (2018–2020).

In the first quarter of 2021, Future Meat reported a post A round of $26.75 million. We are likely to see significantly increased fundraising from the other companies as they prepare to scale up during 2021. The greatest percentage increase in fundraising comes from the fermentation sector, with $21 million raised in 2020 compared with only $1 million in 2019. According to GFI's "state of the industry fermentation report", Israel ranks second in the world for the number of fermentation startups in alternative proteins. The largest sector is still plant-based, which raised $86 million in 2020. This sector also boasts the highest percentage of companies with a commercial product already on the market.

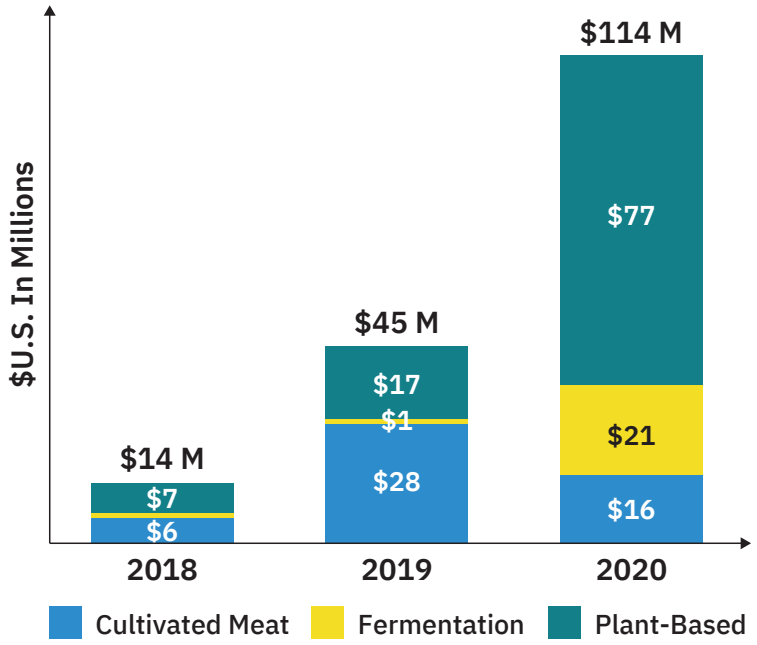


Figure 2.5. Startup fundraising by alternative protein sector in millions of USD (2018–2020).

Data sources and calculations: GFI Israel compiled a custom list of companies focused primarily on producing alternative proteins or serving those who produce them. Our analysis relied on PitchBook, Crunchbase, Startup Nation Central, and other public data sources. The list excludes the many Israeli companies involved in alternative proteins but not as their core business—crop—optimization and genetics companies, such as Evogene, NRGene, Equinom, and PlantArc Bio, for instance. Additionally, Since few Israeli early-stage startups increasingly choose to be listed as publicly traded to fund their research, development, and growth-and because we do not consider such listing an exit act-we included these startups in our analysis.

Table 2.1. 2019 and 2020 fundraising comparison

	2019	2020
Number of deals	**10**	**18**
Largest deal	**$14M (Future Meat Technologies)**	**$30M (Else Nutrition)**
Average deal amount	**$4.9M**	**$7.6M**
Median deal size	**$2.0M**	**$3.1M**

2020 Top Deals

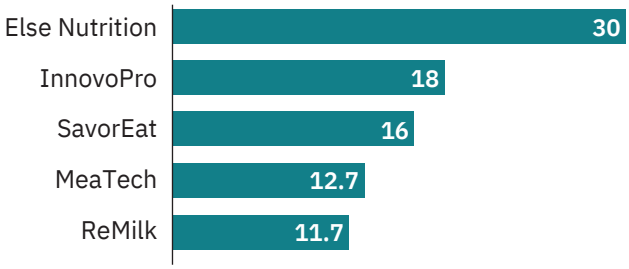


Figure 2.6. 2020 deals ranked by millions of USD.

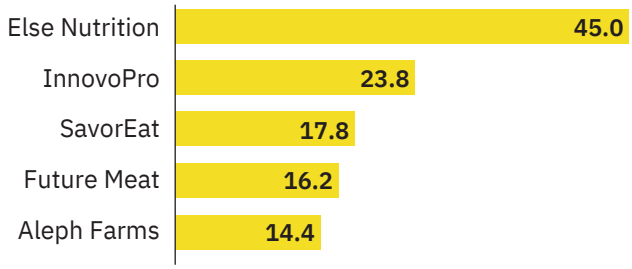


Figure 2.7. Companies ranked by total capital raised as of the end of 2020.

In early 2021, two companies announced major investment rounds:

Redefine Meat's $29 million Series A round is the largest A round by an Israeli plant-based meat startup to date. It brings total investments in Redefine Meat to $35 million. Happiness Capital and Hanaco Ventures led the round, and CPT Capital and other international investors participated. The new funds will enable the company to set up a production plant in Israel and move forward with the launch of its products in Europe, Asia, and North America. Future Meat Technologies' $26.75 million post A round, completed with participation from strategic partners, will enable the company to scale up production and accelerate R&D. It brings total investments in Future Meat Technologies to $43 million. The company is backed by global food giants, such as Tyson Foods, ADM, Müller Group, and Rich's Products Corporation, as well as leading venture capital investors, such as S2G Ventures, ADM Capital, Emerald Technology Ventures, Manta Ray Ventures, and Bits x Bites.

Fundraising by Investor Type

In the alternative protein industry, as in other tech industries, venture capital investors play a key role in the development of companies. In 2018, grants and incubator funding also contributed their fair share of the total investment, but as the industry advances, it brings larger deals and additional financial tools in later-stage rounds.

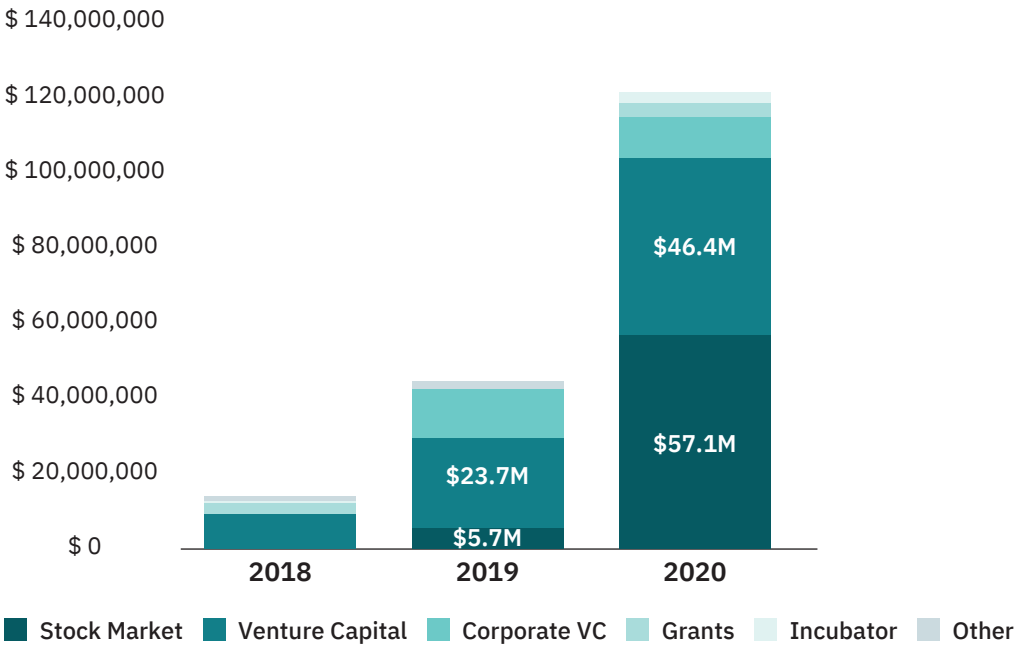


Figure 2.8. Fundraising in USD by investor type (2018–2020).

A very interesting trend unique to the Israeli market is the few startups that choose to raise capital from the stock market. Since such stock transactions fund early-stage development—mostly R&D—and early-stage growth, we do not consider them exits. In 2019, 13 percent of investments were stock purchases, while venture capital accounted for 53 percent. In 2020, the stock market accounted for 47 percent and venture capital only 38 percent. As the companies grow and raise more money, corporate ventures increase their share in the deals, although in 2020, their share dropped to 9 percent.

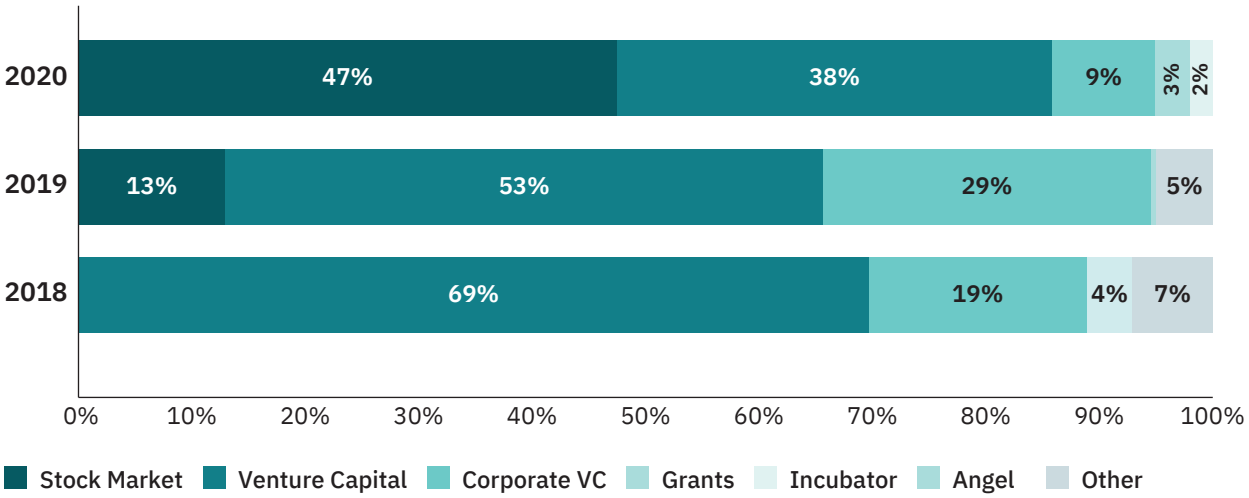


Figure 2.9. Fundraising as a percentage of total investment by investor type (2018–2020).

2020: New Opportunities on the Stock Market

2020 marked new opportunities for investments in alternative protein companies in Israel, with a record number of startups going public. But will the industry benefit from this, or is it too early for some of these companies?

A cultivated meat company can easily be categorized as a biotech company with tremendous market potential and a high barrier of entry due to many requirements: extensive R&D, regulatory hurdles, complex production and scale-up processes, and a long path to market. These challenges call for alternative means of financing—namely, an IPO—far in advance of a product's commercial sale, much like we see in the pharmaceutical and biotech sectors. On the flipside, startups risk being listed too early and thus reducing support from strategic or experienced investors that can empower companies to grow and hit their milestones on their way to generating revenue. Institutional investors should therefore be well educated on the alternative protein industry and the growing trend of IPOs under the umbrella of sophisticated financial tools, such as a reverse merger to a shell company or a traded R&D partnership. To date, Beyond Meat is the best-known alternative protein brand to be traded on the Nasdaq. The company went public in 2019 at a $1.5 billion valuation, and less than three months later, it was worth more than $13 billion.

Israeli Alternative Protein Companies on the Stock Market:

- **Else Nutrition:** Else Nutrition started trading on the Toronto Stock Exchange (TSX) in June 2018 as a tier 2 technology company under the trading moniker BABY. The company was well received by Canadian investors, attaining a massive 176 percent rise on the first day. Else Nutrition produces a breakthrough 100 percent plant-based baby formula with protein-rich almonds and buckwheat and without purified oil blends. The formula is free of dairy, soy, hormones, antibiotics, and gluten.
- **NextFerm:** NextFerm Technologies Ltd. has completed its IPO on the Tel Aviv Stock Exchange (TASE), raising about $9 million at a company valuation of about $35 million. The company started to commercialize its novel yeast-based, fermentation-derived active food ingredients in the United States in 2020.
- **MeaTech:** In October 2019 for the first time, a cultivated meat company merged with a public company to run an IPO on the Tel Aviv Stock Exchange. A week after the announcement, the stock soared 120 percent and reflected a company value of $125 million. In June 2020, the company raised even more funding. Since then, MeaTech has announced its acquisition of Peace of Meat—the first acquisition in the cultivated meat industry—for EUR 15 million in a combination of cash and MeatTech ordinary shares. In March 2021, MeaTech became the first cultivated meat company to be traded on Wall Street. The company has priced its IPO on the Nasdaq: $22 million at $10.30 per share.
- **BioMilk:** The company is developing cultivated milk and went public in March 2021 by merging with publicly traded shell company Fantasy Network in a deal approved in December 2020. BioMilk raised about $12.6 million in 2020 from private investors and secured additional funding after the merger.
- **SavorEat:** The company completed its IPO in November 2020 and raised $13 million from leading Israeli institutional investors. The offering generated great demand from investors, including Gemel and Meitav Dash and Gemel Pensions. The company's valuation for the offering was $50 million.
- **Venture Capital R&D Partnerships:** Two R&D partnerships traded on the Tel Aviv Stock Exchange recently applied for IPOs to recruit and back early-stage foodtech and alternative protein companies:
  - Millennium FoodTech: This partnership, whose alternative protein portfolio includes SavorEat, has raised $8 million.
  - BioMeat: In March 2021, BioMeat applied for an IPO and raised $7.5 million. Rilbite and More Foods are BioMeat's alternative protein portfolio companies.

Investments by Industry

The average CAGR of investments in alternative protein surpassed that of any other industry in 2018–2020, with a remarkable 187 percent. New startups enter the field while others grow and raise significant capital. Alternative protein company valuations are also likely to rise as companies increasingly rely on strong scientific foundations and advanced technology that migrated to the food space. This reliance attracts new tech investors to the field, particularly because foodtech companies in this space are better positioned to protect their intellectual property; this means their unique products have the potential to grow into global brands and expand to the world's largest markets.

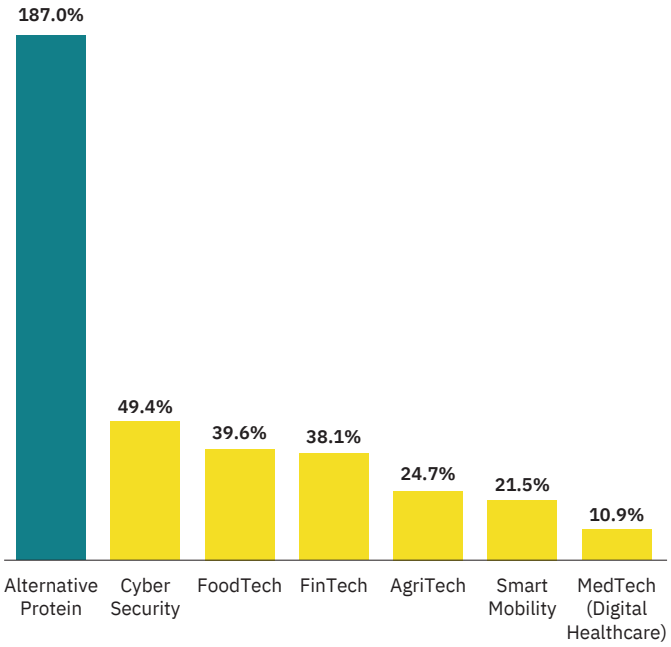


Figure 2.10. Industries by average investment CAGR (2018–2020) in Israel. (Data on industries other than alternative protein is taken from Startup Nation Central Finder, analysis by GFI.)

Assuming a market size of more than $140 billion in fewer than 10 years, investment in the alternative protein market is still in its infancy. Israel's leading sector is still cyber security, but alternative protein companies are capturing a larger share of the foodtech and agritech sectors. Across all industries, the Startup Nation is maturing as more companies go global. Israel is estimated to have more than 41 unicorns, mostly in the cyber, software, and fintech industries, and we are likely to see alternative protein companies join that exclusive club.

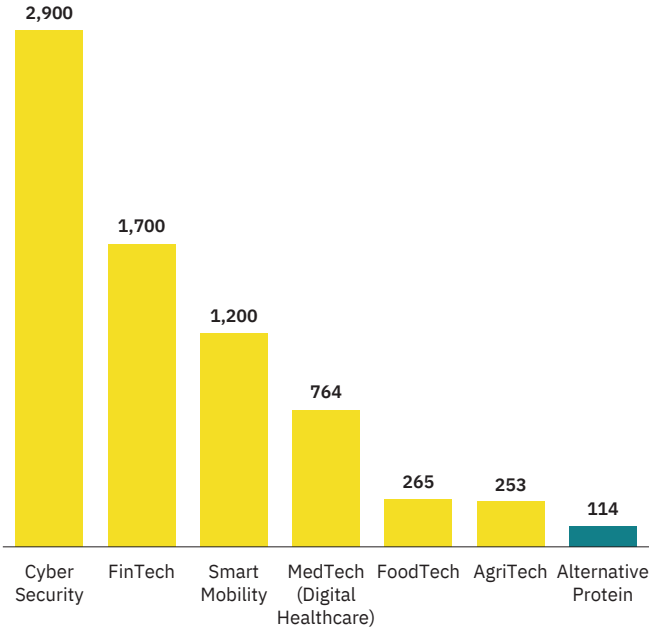


Figure 2.11. Industries by investment in millions of USD (2020). Data on industries other than alternative protein is taken from Startup Nation Central Finder, analysis by GFI.)

List of Investors

New investors from Israel and around the world join the alternative protein field every year. Companies in the field use cutting-edge science and technology backed by strong IP to invent and produce our future food. They attract many tech and impact investors that have not played in the foodtech sector before. The percentage of transactions by foreign investors in Israel has increased significantly in recent years. In 2018, foreign investors accounted for only 38 percent of transactions, but by early 2021, they accounted for 59 percent. Foreign investors in the field include international venture capital funds, such as S2G, and mega companies like Cargill. The alternative protein field, as part of the foodtech industry, also receives local support. The State of Israel views the field as a growth opportunity. It is estimated that the Israel Innovation Authority already transferred up to $11 million in grants to alternative protein startups. The nation also subsidizes hubs and research institutes in the field (see policy chapter).

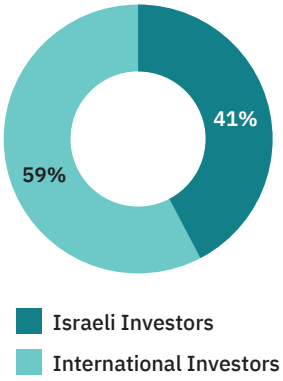


Figure 2.12. Investment origins as a percentage of total investment.

Table 2.2. Israeli investor data

	Investor	Type	Verticals	Led by	Target investments	Number of investments	Investment stages
1	Israel Innovation Authority	Government	Multiple	Dr. Ami Appelbaum	Multiple companies	above 7	Early-stage grants
2	The Kitchen FoodTech Hub	Incubator	Foodtech	Jonathan Berger	Zero Egg, Yofix, Rilbite, Imagindairy, Aleph Farms, Yeap	6	Pre-seed, seed
3	Strauss Group	Corporate fund	Food and beverages	Giora Bar Dea	RilBite, Yofix, Aleph Farms	3	Seed, Series A
4	Agrinnovation	Investment fund	Agrifood-tech	Dr. Ido Schechter	Future Meat, Innovopro, Chick.P	3	Seed
5	Meitav Dash	Investment house	Banking, financial services	Ilan Raviv	MeaTech, SavorEat	2	Series A–B, PO
6	More Investment House	Investment house	Portfolio management	Yossi Levi, Eli Levi	MeaTech, SavorEat	2	PO
7	Jerusalem Venture Partners	Venture capital	Cyber, hi-tech, Agrifood-tech	Erel Margalit	InnovoPro, Kinoko-Tech	2	Seed, Series A–C
8	iAngels	Angel group, venture capital	Fintech, real estate, agrifood-tech, SW, cyber	Shelly Hod Moyal, Mor Assia	InnovoPro, Amai Proteins	2	Seed, Series A–C
9	Food Lab Capital	Venture capital	Foodtech	Nadav Berger	InnovoPro, NextFerm	2	Seed, Series A–B
10	Peregrine Ventures	Venture capital	Health, IT	Eyal Lifschitz, Boaz Lifschitz	Aleph Farms, Future Meat	2	Series A–B
11	Psagot Investment House	Investment house	Growing stage, real estate	Shlomo Pasha	MeaTech	1	IPO, PO
12	Clal Insurance Enterprises Holdings Ltd.	Insurance investment house	Insurance, investments	Yoram Nave	MeaTech	1	PO
13	Rami Levy	Angel investor	Retail, foodtech, real estate	Rami Levy	MeaTech	1	PO
14	Fresh.fund	Venture capital	Technology	Zaki Djemal	ReMlik	1	Pre-seed, seed, Series A

	Investor	Type	Verticals	Led by	Target investments	Number of investments	Investment stages
15	Tnuva	Corporate fund	Food and beverages	Eyal Malis	ReMilk	1	Series A
16	Tempo Beer Industries	Corporate fund	Beverages	Jacques Beer	ReMilk	1	Series A
17	Millennium Food-Tech	Listed R&D Partnership	Foodtech	Chanan Schneider	SavorEat	1	Seed, Series A
18	Coller Competition	Startup competition	Various	Jeremy Coller	ReMilk	1	Early-stage grants
19	OurCrowd	Venture capital	IoT, fintech, adtech	Jon Medved	ReMlik	1	Series A–E

Table 2.3. International investor data

	Company	Country	HQ city	Company type	Verticals	Led by	Target investment	Number of investments	Stage
1	CPT Capital	United Kingdom	London	Venture capital	Foodtech, alternative protein	Jeremey Coller	InnovoPro, Redefine Meat, Fantastic Farms, ReMilk, Aleph Farms, Yofix, ChunkFoods	7	Seed, Series A–B
2	Technion-EIT Food Accelerator Network	European Union	Haifa	University accelerator	Environment	Dr. Avital Regev Siman-Tov (Israel)	Aleph Farms, Amai Proteins, The Mediterranean Food Lab, Redefine Meat	4	Early-stage grants
3	Unovis Asset Management	United States	New York	Investment management	Foodtech	Kim Anders Odhner, Mark Langley	Aleph Farms, SuperMeat, Zero Egg, Imagindairy	4	Seed, Series A–B
4	EASME-Executive Agency for SMEs	Belgium	Brussels	Government fund	Renewable energy, sustainable energy	Luisa Prista	Brevel, InnovoPro, Else Nutrition	3	Early-stage grants
5	Good Seed Ventures	Germany	Rheine	Venture capital	Foodtech	Frank Cordesmeyer	Yofix, SuperMeat, Chunk Foods	3	Seed
6	Bits x Bites	China	Shanghai	Venture capital	Foodtech	Matilda Ho	Future Meat, InnovoPro	2	Seed, Series A–B
7	PHW Group	Germany	Rechterfeld	Food processor	Nutrition	Peter Wesjohann	Redefine Meat, SuperMeat	2	Seed, Series A–B
8	Stray Dog Capital	United States	Leawood	Venture capital	Foodtech, alternative protein	Lisa Feria	SuperMeat, Chunk Foods	2	Seed, Series A–B
9	Hanaco Venture Capital	Israel, United States	Tel Aviv, New York	Venture capital	AI, foodtech, robotics	Alon Lifshitz, Lior Prosor, Pasha Romanovski	Redefine Meat	1	Series A–E

	Company	Country	HQ city	Company type	Verticals	Led by	Target investment	Number of investments	Stage
10	Yara Ventures	Ireland, Israel	Dublin	Venture capital	Fintech, AI, crypto currencies, media	David F de la Parra	InnovoPro	1	Seed
11	Custos Privatstiftung	Austria	Graz	Private foundation	Foodtech, IT	Torggler Hellwig	InnovoPro	1	Series B
12	EU Horizon	Belgium	Brussels	Government agency		Amir Cohen (Israel)	Brevel	1	Early-stage grants and seed
13	Canaccord Genuity Group Inc.	Canada	Vancouver	Investment management	Fintech, cannabis, energy	Dan Davidu	Else Nutrition	1	PO
14	NewH2 Limited	Hong Kong	Hong Kong	Corporate fund	Nutrition and healthcare	Luo Fei	Else Nutrition	1	PO
15	Icos Capital Management	Netherlands	Rotterdam	Venture capital	AI, foodtech, cleantech	Nityen Lal	InnovoPro	1	Seed, Series A–B
16	Rabobank-Rabo F&A Innovation Fund	Netherlands	Utrecht	Corporate fund	Foodtech, agritech	Richard O'Gorman	InnovoPro	1	Seed, Series A–B
17	ID Capital Pte. Ltd.	Singapore	Singapore	Venture capital	Agritech, foodtech	Isabelle Decitre	InnovoPro	1	Series A
18	VisVires New Protein	Singapore	Singapore	Venture capital	Life science and healthcare	Matthieu Vermersch	Aleph Farms	1	Seed, Series A–C
19	Growthwell Group	Singapore	Singapore	Food processor and investor group	Plant-based food	Justin Chou	Chick.P	1	Series A
20	Migros	Switzerland	Zürich	International retailer	Food retailer	Fabrice Zumbrunnen	InnovoPro	1	Seed, Series A–B
21	Micarna	Switzerland	Courtepin	Meat processor	Meat industry	Albert Baumann	Aleph Farms	1	Series A
22	Bell Food Group	Switzerland	Basel	Meat processor	Meat industry	Lorenz Wyss	Yofix	1	Series A–B
23	Müller Ventures	Switzerland	Zürich	Corporate fund	Food and beverage	Werner Stegmüller	Yofix	1	Series A
24	Emerald Technology Ventures	Switzerland	Zürich	Private equity	Materials, agtech, energy	Gina Domanig	Future Meat	1	Series A–D
25	Coller Capital	United Kingdom	London	Venture capital	Fintech	Francois Aguerre, David Platter	Aleph Farms	1	PO
26	Invest Nebraska	United States	Lincoln	Venture capital	Fintech	Dan Hoffman	WDL	1	Seed, Series A
27	M-Industry	United States	Stamford	Corporate fund	Food retailer		Aleph Farms	1	Series A
28	PepsiCo	United States	New York	Corporate fund	Food and beverage	Ramon Laguarta	Yofix	1	Grants

	Company	Country	HQ city	Company type	Verticals	Led by	Target investment	Number of investments	Stage
29	The Good Food Institute	United States	Washington, DC	International nonprofit organization	Foodtech	Bruce Friedrich	The Mediterranean Food Lab	1	Early-stage grants
30	Jesselson Investments	United States	New York	Investment management	Real estate, private equity	Micha Jesselson	Aleph Farms	1	Seed, Series A
31	PowerPlant Ventures	United States	Los Angeles	Venture capital	Food and beverage	Mark Rampolla, Dan Gluck, Kevin Boylan, T.K. Pillan	Zero Egg	1	Series A–B
32	S2G Ventures	United States	Chicago	Venture capital	Agrifood-tech	Bruce Rasa	Future Meat	1	Seed, Series A–D
33	Cargill	United States	Minneapolis	Corporate fund	Food	David MacLennan	Aleph Farms	1	Series A–D
34	LionTree Partners	United States, United Kingdom, France	New York	Venture capital	Media, technology, telecommu-nications	Aryeh Bourkoff	Yofix	1	Series A–C

Section 3
Alternative Protein Startups in Israel

Table 3.1. Alternative protein startups in Israel by stage

	Seed	Development	Pilot & Scaleup	Commercialisation & Growth
Cultivated meat / dairy		MeaTech, BIOMILK™	SuperMeat, FUTURE MEAT, ALEPH FARMS MEAT GROWERS	
Fermentation	Fantastic Farms, Chunk	remilk., Imagindairy, BREVEL a new era for algae, kinoko, WHITE DOG LABS, MED FOOD LAB		NextFerm Genuinely Fermented
Plant-based	ALFRED'S, MEAT. THE END, Plantish, Dune	RILBITE, yeap!, SavorEat, more. foods	redefine meat, Planterra FOODS	CHICK.P, else, INNOVOPRO, YOFIX Yofix Probiotics Ltd, ZERO EGG., WONDERS OF NATURE

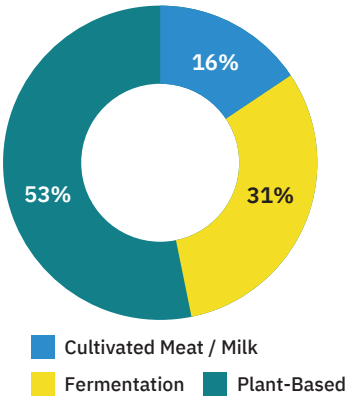


Figure 3.1. Alt protein industry by percentage of companies per sector.

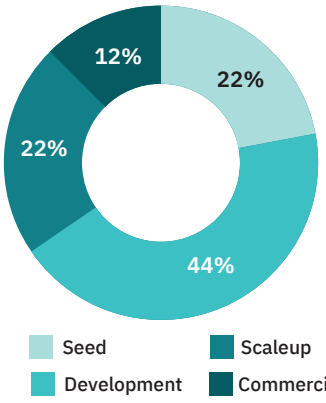


Figure 3.2. Alt protein industry by percentage of companies per stage.

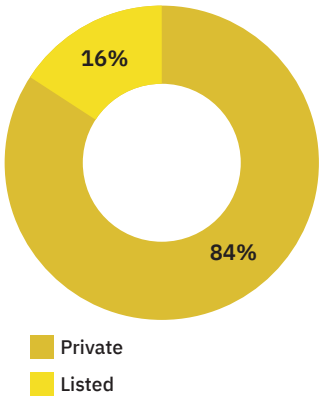


Figure 3.3. Alt protein industry by percentage of private and listed companies.

Cultivated Meat Startups

Aleph Farms

Year Founded: 2017 **CEO:** Didier Toubia **Founders:** Technion, Strauss Group

Aleph Farms operates in the cultivated meat space to create a beef steak using their breakthrough scaffolding technology for the B2C market. The technology originated at the Technion — Israel Institute of Technology. The company has been based in Rehovot since being incubated by The Kitchen Food Tech Hub. Aleph Farms seeks to lower costs and ramp up manufacturing after an $11.7 million Series A in May 2019. In November 2020, Israel's prime minister tasted the company's cultivated steak, becoming the first head of state to do so. Regulatory approval is pending, but the company aims to take its product to market by the end of 2021. In January 2021, Aleph Farms signed a partnership agreement with Mitsubishi Corporation to scale up production and distribute to the Japanese market. In March 2021, Aleph and BRF signed an MOU to co-develop and co-produce cultivated meat using Aleph's patent. BRF will also distribute Aleph-backed cultivated beef products in Brazil.

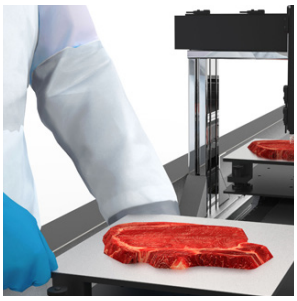
Future Meat Technologies

Year Founded: 2017 **CEO:** Rom Kshuk **Founders:** Prof. Yaakov Nahmias

Future Meat Technologies advances a distributive manufacturing platform for the non-GMO production of meat directly from animal cells. This biotech company focuses on developing a technology that enables concurrent production of fat and muscle cells in the same bioreactor. The technology originated in Yissum, the technology transfer company of the Hebrew University of Jerusalem. Future Meat Technologies, a B2B company, finished a $14 million Series A round in October 2019 and in 2021 a post A round of $26.75 million.

MeaTech

Year Founded: 2018 **CEO:** Sharon Fima **Founders:** Sharon Fima



MeaTech develops complex cultured red meat by combining advanced 3D printing technologies with cellular agriculture. A combination of beef and fat cells are made into a "bio-ink" that runs through a 3D bioprinter to produce a steak in its familiar shape. MeaTech went public by merger in October 2018 and is traded on the Tel Aviv Stock Exchange. The company's most recent PIPE (private investment in public equity) selloff, led by some of Israel's largest pension funds and investment houses, totaled $7 million. MeaTech plans to list on the Nasdaq under the moniker MITC. In March 2021, MeaTech became the first cultivated meat company to be traded on Wall Street. The company has priced its IPO on the Nasdaq: $22 million at $10.30 per share.

SuperMeat

Year Founded: 2015 **CEO:** Ido Savir **Founders:** Ido Savir, Shir Friedman, Koby Barak

SuperMeat is a foodtech company working to supply the globe with high-quality chicken meat grown directly from chicken cells. Founders Koby Barak and Shir Friedman and CEO Ido Savir took the private company through a seed funding round in 2018. SuperMeat is in the development stage, and its product is not yet commercial. "The Chicken" is the company's test kitchen, which has been transformed into a restaurant to enable customer engagement and feedback. SuperMeat aims to bring its product to market in B2C and B2B2C forms and awaits regulatory approval.

Cultivated Dairy

BioMilk

Year Founded: 2018 **CEO:** Tomer Aizen **Founders:** Dr. Nurit Argov-Argaman, Dr. Maggie Levy, Dr. Kobi Buxdorf, Arik Kaufman, Yaron Kaiser, Sharon Fima

BioMilk cultivates bovine milk cells for the B2B2C market. Based in Rehovot, the company is currently in the development stage. Founder Dr. Nurit Argov-Argaman recognized the need for quality infant food that mimics breast milk and opened a physiology lab in Jerusalem's Hebrew University in 2009. He, along with co-founder Prof. Maggie Levy, developed protocols for segregating milk proteins, lactose, and fat from bovine mammary cells in 2014. The startup commercialised out of the Yissum technology transfer company and incorporated in 2018. Since then it has raised $3.7 million in seed funding. BioMilk quickly turned public by a reverse merger with Fantasy Network in January 2021.

Fermentation Startups

Brevel

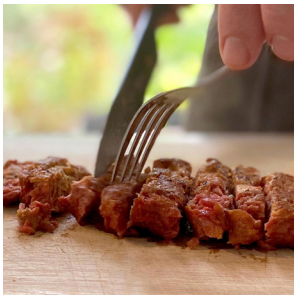
Year Founded: 2016 **CEO:** Yonatan Golan **Founders:** Ido Golan, Yonatan Golan, and Matan Golan

Brevel cultivates microalgae using a combination of fermentation technology and a high concentration of internal illumination. The multipurpose, beta-stage microalgae ingredient serves various industries, including food, pet feed, cosmetics, pharmaceuticals, nutraceuticals, and renewable energy. In 2020, Brevel was chosen to participate in a pilot of the European Union's Horizon program, whereby the European Commission awards significant grants coupled with large equity investments. Brevel received nearly $2 million from the commission.

Chunk Foods

Year Founded: 2020 **CEO:** Amos Golan **Founders:** Amos Golan

Chunk Foods' novel technology combines plant-based ingredients and fermentation to create realistic, clean-label, whole-muscle-cut meat analogues. Chunk recently closed its pre-seed round and is focused on scaling up its technology and expanding its portfolio of beef, fish, and seafood alternatives.



Fantastic Farms

Year Founded: 2019 **CEO:** Aviel Even **Founders:** Aviel Even, Dan Even

Fantastic Farms works to produce milk proteins using genetically engineered plants. The biotechnology company was incorporated in November 2019 and has raised $2 million in seed funding. It is supported by PentaLab Incubator, whose creators have founded successful startups, such as iMesh, Viber, and Juno.

Imagindairy

Year Founded: 2016 **CEO:** Dr. Eyal Afergan **Founders:** Prof. Tamir Tuller, Dr. Eyal Afergan

Imagindairy uses bioengineered yeast to create milk without any cows or even milk cells. The product eliminates cholesterol, lactose, and somatic cells while retaining the color, smell, and taste of cow's milk. The startup uses proprietary computational systems biology integrated with AI technology and industrial-scale precision fermentation to increase the expression of milk proteins in microflora. The combination of technologies results in maximized yield and substantial cost reduction. This development-stage company incorporated in 2020 as a portfolio company of the Strauss Group's Kitchen FoodTech Hub in Ashdod. The company has raised its seed funding.

Kinoko-Tech

Year Founded: 2019 **CEO:** Jasmin Ravid **Founders:** Jasmin Ravid, Daria Feldman, Hadar Shohat

Kinoko-Tech's fermentation technology uses fungal mycelium, legumes, and grains. This foodtech company, currently in the development stage, is based in Rehovot. Its production process improves the nutritional value, texture, and taste of fungal protein, creating a high-protein raw material that can be cooked and eaten as a product itself or incorporated into different products (B2B, B2B2C). Kinoko-Tech incorporated in 2019. The company raised its seed funding from Jerusalem Venture Partners and in 2020 received a grant from Israel Innovation Authority, for a total of $1 million.

NextFerm

Year Founded: 2013 **CEO:** Boaz Noy **Founders:** Tzafra Cohen, Boaz Noy

NextFerm, a nutrition supplement company, produces fermented proteins (astaxanthin) from various improved yeast strains. The company's products range from functional protein and dietary supplements to specialized yeast biofuel. In addition to making its own products and selling them through mediators (B2B, B2C, B2B2C), NextFerm manufactures and delivers the astaxanthin ingredient to other brands. NextFerm raised $5 million in its final Series A round in 2016, which enabled the company to release its first product after acquiring regulatory approval. Later on, NextFerm completed its IPO on the Tel Aviv Stock Exchange (TASE), raising about $9 million at a company valuation of about $35 million.

ReMilk

Year Founded: 2019 **CEO:** Aviv Wolff **Founders:** Aviv Wolff

ReMilk uses microbial fermentation to reproduce milk proteins to craft a product that has the same flavor, texture, and nutritional value as dairy from animals. A graduate of accelerators Tel Aviv University (Jump TAU), Israel Innovation Authority (The Lift), and Proveg Incubator, the company is now in the development stage and raised $11.3 million in a Series A round in October 2020.

The Mediterranean Food Lab

Year Founded: 2017 **CEO:** B.Z. Goldberg **Founders:** B.Z. Goldberg

The Mediterranean Food Lab develops natural solutions that improve the taste of plant-based meat. The company uses modalities based on traditional, multiphase, solid-state fermentation of plant protein. The startup is currently bootstrapping but has received multiple grants and other awards from the EIT Food Accelerator Network, the Israel Innovation Authority, and The Good Food Institute. The company aims to tackle the meat-flavoring industry rather than create cuts or grinds of plant-based meat. In November 2020, The Mediterranean Food Lab won the EIT Food Accelerator Network program.

White Dog Labs

Year Founded: 2012 **CEO:** Dr. Bryan Tracy **Founders:** Dr. Bryan Tracy, Talli Somekh

White Dogs Labs (WDL) is a biotech company developing and scaling up a suite of nutritional products by leveraging the microbiome ecosystem to produce animal-free proteins. Dr. Bryan Tracy and Talli Somekh founded the company in 2012 in the state of Delaware. Its Israeli subsidiary and R&D lab were established in 2016. Through its Israeli subsidiary, the company has demonstrated proof of concept for its technologies that identify new clostridia strains as potential probiotics. Using biomass fermentation, WDL aims to apply its technology to producing alternative dairy products.

Yeap

Year Founded: 2020 **CEO:** Jonathan Goshen **Founders:** Dominik Grabinski, Didier Toubia, Jonathan Goshen

Yeap is developing methods for processing yeast-based single-cell proteins for the meat analogue industry. The company recently joined the Kitchen FoodTech Hub incubator with seed funding from the incubator and Israel Innovation Authority.

Plant-Based Startups

Ingredients

Chick.P

Year Founded: 2016 **CEO:** Ron Klein **Founders:** Prof. Ram Reifen

Chik.P produces a non-GMO, 90% chickpea plant protein isolate, free of allergens and hormones and neutral in taste and odor. The product can be used as a raw material for commercial products, such as plant-based meat, egg, and dairy replacers, high-protein bars, snacks, and beverages. Chick.P's technology spun out of Yissum, the technology transfer company of The Hebrew University of Jerusalem. The company brought its product to market in 2019 and in April 2020 raised $4.5 million in a funding round. Singaporean plant-based company Growthwell led the round. In February 2021, Chick.P announced that it had begun expanding full-scale commercial production to the United States, where it has forged a partnership agreement with Illinois-based food ingredient firm Socius Ingredients.

Dune

Year Founded: 2021 **CEO:** Guy Michrowski **Founders:** Dr. Roye Nuriel, Guy Michrowski

Dune develops an algae-based alternative protein that is cost-competitive, scalable, and sustainable. Dune combines cutting-edge gene editing and grow-system technology with the world's most abundant resources—desert land, sun, and seawater—to provide a neutral protein ingredient for the growing plant-based food industry. The company incorporated in 2021 and is raising its seed round.

InnovoPro

Year Founded: 2013 **CEO:** Taly Nechushtan **Founders:** Dr. Ascher Shmulewitz

InnovoPro has developed a technology capable of extracting protein concentrate that is 70 percent chickpea. InnovoPro's technology harnesses a biotechnological process that yields an emulsifying, foaming product suitable for a range of industry food applications. InnovoPro completed a two-part Series B in 2020, raising a total of $18 million. The company will use the capital to expand its global reach and manufacturing capabilities.

Plant-Based Meat

Alfred's

Year Founded: 2021 **CEO:** Ronny Reinberg **Founders:** Rafi Shavit

Alfred's Foodtech is developing innovative texturization and manufacturing technology, applied with plant-based and hybrid AP products. Alfred's technology mimics the texture, taste, and mouthfeel of animal source meat and cheese products as well as being very nutritious.

Meat.The.End

Year Founded: 2020 **CEO:** Dr. Yishai Mishor **Founders:** Dr. Yishai Mishor

Meat.The.End has developed an enzymatic process for texturizing plant proteins to create nutritionally well-rounded products. With the company's plant-based proteins, which mimic familiar meaty textures, products rely less on artificial inputs that typically play a role in emulsifying and texturizing plant-based meats.

More Foods

Year Founded: 2019 **CEO:** Leonardo Marcovitz **Founders:** Leonardo Marcovitz

Formerly known as FFW (Food for the World), More Foods plans to create a meat analogue from yeast and other plant protein sources. The Tel Aviv-based company's first product, More Beef, is a completely plant-based beef cut. Leonardo Marcovitz leads the company, which he founded in 2019. This beta-stage, B2C- and B2B2C-aligned company is still fully bootstrapped to retain full equity holdings.

Plantish

Year Founded: 2021 **CEO:** Ofek Ron **Founders:** Ofek Ron, Dr.Ron Sicsic, Dr. Ariel Szklanny, Dr. Hila Elimelech

Plantish is a food technology company developing plant-based seafood products. The company was founded by Ofek Ron, Dr. Ron Sicsic, Dr. Ariel Szklany and Dr. Hila Elimelech. The team brings their extensive experience in 3D printing, chemistry, and bioengineering. The company has raised $2M in pre-seed funding from TechAviv Founder Partners and a global syndicate of industry experts.

Redefine Meat

Year Founded: 2018 **CEO:** Eshchar Ben-Shitrit **Founders:** Daniel Mandelik, Adam Lahavand, and Eshchar Ben-Shitrit

Redefine Meat is designing printing technology to enable innovations in digital 3D printing for the foodtech industry. The company's proprietary technology, software, and formulations produce plant-based meat with the appearance, texture, flavor, and cooking properties of animal meat. While not yet in the market, the company holds a manufacturing license and is already testing its processes. In September 2019, Redefine Meat raised $6 million in seed funding. In February 2021 the company raised $29 million in a Series A.

RilBite

Year Founded: 2018 **CEO:** Barak Melamed **Founders:** Barak Melamed, Shlomi Goren

Another graduate of the Strauss Group's Kitchen FoodTech Hub, RilBite is a plant-based meat producer ready to manufacture at full scale. Rilbite's technology blends and binds eight fresh ingredients to produce a minced meat equivalent. The company aims to enter the market via foodservice and eventually create a product that serves multilevel industry manufacturers. In May 2019, RilBite raised its seed money in a round led by Strauss Group, for a total of $1.5 million.

SavorEat

Year Founded: 2018 **CEO:** Racheli Vizman **Founders:** Racheli Vizman, Prof. Oded Shosayev, Prof. Ido Braslevsky

Commercialised from the Yissum technology transfer company, SavorEat initiated a successful IPO in November 2020 on the Tel Aviv Stock Exchange, raising a total of $13 million. SavorEat is developing a processing method that will turn non-GMO plant-based ingredients into meat with various familiar textures. The company's method combines a 3D printing technology—patented in the European Union, the United States, and Australia—with a robot chef that cooks, grills, or bakes the ingredients into processed products. SavorEat announced plans to conduct a pilot under a signed cooperation agreement with the Israeli BBB restaurant and burger chain. The agreement includes SavorEat's consultancy on product development and systems installation for the chain's kitchens.

Wonders of Nature

Year Founded: 2020 **CEO:** Ronit Davidovich **Founders:** Ronit Davidovich

Wonders of Nature, creators of plant-based meat analogues, spun off established Israeli meat producer Soglowek Food Group. Soglowek financially backs the company in addition to manufacturing its own vegetarian non-analogue products under the brand Zoglos. CEO Ronit Davidovich leads Wonders of Nature, aiming for the consumer market as well as food industry producers. Recently the company launched its line of burgers, kebabs, mince, and chorizo in the Israeli retail market.

Plant-Based Dairy

Else Nutrition

Year Founded: 2012 **CEO:** Hamutal Yitzhak **Founders:** Uriel Kesler, Michael Azar, Hamutal Yitzhak

Originally named INDI, Else Nutrition focuses on developing innovative plant-based dairy products and nutritional formulas for infants and toddlers. The company's toddler formula is sold across the United States directly, through e-commerce affiliates, and at retail stores (B2C, B2B2C). In June 2019, Else became publicly traded and applied for listing on Toronto Stock Venture Exchange. Else acquired post-IPO investments totaling more than $44 million. These investments enabled the company to increase production, launch its products through retail chains, and finally establish a child and adult nutrition R&D division. The round's main contributors were H&H International Holdings subsidiary NewH2 Ltd. and Canadian investment bank Canaccord Genuity Group.

Planterra

Year Founded: 2019 **CEO:** Noam Sharon **Founders:** Noam Sharon, Noam Dekkers

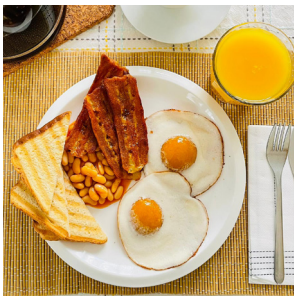
Planterra engages in development of plant-based dairy products. The company's chickpea-based protein is used for various consumer products, such as milk, drinkable and cream yogurt, spreadable cream cheese, and sweet puddings.

Yofix Probiotics

Year Founded: 2014 **CEO:** Steve Grun **Founders:** Shlomi Alfia, Oded Ilan, Ronen Lavee, Steve Grun

Yofix Probiotics develops and manufactures clean-label, soy-free, fermented plant-based prebiotic and probiotic foods. Its product base is a blend of cereals, nuts, and seeds. The company began full production in 2018. The first products it brought to market are plant-based yogurt varieties. Yofix has declared that the next generation of plant-based products will include drinkable yogurt, desserts, frozen yogurt, and an ice cream base. The company is a graduate of the Strauss Group's Kitchen FoodTech Hub incubator. Yofix markets its products globally under the Real Foodist brand and locally under the brand ONLY. The company closed a $2.5 million Series A round in May 2020.

Plant-Based Eggs



Yo!

Year Founded: 2020 **CEO:** Nissim Ben Cohen **Founders:** Nissim Ben Cohen

Yo! is an early-stage startup that has developed an advanced prototype for a plant-based sunny-side up egg, a project that received a grant from the Israel Innovation Authority. The Yo! team aims to penetrate the foodservice market soon.

Zero Egg

Year Founded: 2018 **CEO:** Liron Nimrody **Founders:** Tammy Meiron, Amiel David, Liron Nimrody

Zero Egg, a portfolio company of the Kitchen FoodTech Hub incubator, produces a plant-based egg. In November 2020, the company secured a $5 million Series A investment. The funding announcement came a month after the company made its U.S. debut producing for food manufacturers. Zero Egg will use the funding to grow the brand in the United States and support product launches. In a rapid next step, CEO Liron Nimrody signed a distribution deal with Diplomat, one of Israel's largest distributors of fast-moving consumer goods.

Zero Egg addresses the consumer and foodservice markets with several products. For the B2C market, the company developed EGG Basics, a plant-based liquid egg that looks and functions exactly like liquid bird's egg. For the foodservice industry, Zero Egg created two powdered products—one to replace eggs in traditional egg entrees and breakfast dishes and the other to replace eggs in baked goods.

Note: Our analysis of alternative protein companies did not include companies in the crop-optimization sector, such as PlantArcBio, NRgene, Equinom, Evogene, and Hazera Seeds. We are aware, however, of their increasing activity in the plant-based sector.

Foodtech Incubators and Accelerators

Israeli foodtech incubators and accelerators, like in the Israeli high-tech industries, provide entrepreneurs with tools and other resources to transform ideas into innovative products. In many cases the incubators are partly funded by the Israel Innovation Authority and partly by private multinational corporations and investors. In the past year, a major food incubator began operating in Kiryat Shmona, where several startups are already running. As of this writing, 10 foodtech-related incubators and accelerators operate in Israel.

The Kitchen FoodTech Hub

The Kitchen FoodTech Hub is a seed investor and an incubator, owned and supported by the Strauss Group, an Israel-based international food-product manufacturer. Among its global partners are food giants PepsiCo, Danone, Mondelēz, Givaudan, and Mitsui. The hub supports startups that improve food production processes and address global food challenges as well as inefficiencies in supply chains. Its alternative protein startups include Aleph Farms, Yofix, Zero Egg, Rilbite, Imagindairy, and Yeap. The Kitchen FoodTech Hub offers a pre-seed or seed investment of $650,000 to $1 million.

Fresh Start

Fresh Start is an Israeli foodtech startup ecosystem. Part of the Israeli government's $100 million program to build a foodtech cluster in northern Israel, the incubator is supported by four strong and equal partners: **Tnuva**, Israel's food company; **Tempo**, Israel's beverage company; **Ourcrowd** fund; and **Finistere Ventures**, a foodtech fund. Fresh Start offers a minimum $860,000 fund for two years, infrastructure and support services, professional technological and business mentoring, local and global industry access, funding platform access, and holistic assistance in relocating to the north.

The Trendlines Group

Trendlines invests in and incubates foodtech and medical-device startups. The company invests through its two incubators located in Israel and Singapore, which local government agencies support and the company funds through the Trendlines Agrifood Fund and the Bayer Trendlines Ag Innovation Fund.

InNegev

InNegev is a technology incubator in southern Israel, dedicated to fostering Israeli innovation, including in the foodtech and agritech fields.

IFF Innovation Israel

This international flavor and fragrance giant has established the IFF Innovation Israel Lab, together with the Israel Innovation Authority, for foodtech startups in the initial stages.

XLR8

XLR8 is a tech company accelerator in northern Israel—a joint venture between the Israel Ministry of Economy and the Israeli Initiative 2020 by Erel Margalit, chairman and founder of Jerusalem Venture Partners. Nutrilees and Peace of Beans participated in the accelerator program with plant-based products.

ICL Planet Startup Hub

ICL Planet Startup Hub is ICL's vehicle for working with innovative companies, for synergizing with their novelties and shortcutting their path to becoming global players. ICL Planet seeks to invest in and grow game-changing tech companies in the crop-nutrition and food domains that address critical global needs and intend to positively impact the environment.

Corporations

In addition to the vibrant startup community, many established and leading food companies in Israel are increasing their interest, activities, and investment in the alternative protein space.

Nestlé-Osem Tivall	Tnuva	Strauss
Osem, owned by Nestlé S.A., is one of Israel's largest food manufacturers and distributors and holds the country's longest-standing plant-based meat brand, Tivall. Started in 1985, Tivall is a local pioneer in plant-based meat, producing a wide range of processed, ready-to-eat frozen items, including plant-based sausages, burgers, schnitzels, shawarma, meatballs, Bolognese, and chicken nuggets. The company's products and processes are protected by global IP and distributed globally under the Garden Gourmet brand. Osem recently launched Sensational, a product line including burgers and mince.	Tnuva, Israel's largest protein producer, launched the plant-based brand Tnuva Alternative, which includes various plant-based chilled-dairy and tofu products. Tnuva has begun importing Meatless Farm plant-based meat to Israel and is investing in alternative protein companies. Tnuva is also a partner in the Fresh Start foodtech incubator.	Strauss, Israel's second-largest dairy producer, launched Soom, a line of plant-based puddings made from sesame seeds. The company is increasing its interest in the alternative protein space. In fact, in January 2021 Strauss announced plans to invest over $45 million in a new plant-based production facility in northern Israel. Strauss is also co-founder of The Kitchen FoodTech Hub and has multiple alternative protein companies in its portfolio.
Unilever	**ICL Group Ltd.**	**Soglowek**
Unilever Israel produces plant-based ice cream under the brand Strauss.	ICL serves the agriculture, food, and engineered-materials markets. It develops and supplies food-ingredient solutions to the plant-based meat market.	Soglowek is a local producer of processed plant-based meat, including sausages, schnitzels, and burgers. Soglowek also established the company Wonders of Nature.

Local Food Producers

The following food producers are engaged in manufacturing and selling in the local market. Some also export. This list excludes importers of plant-based meat and dairy, as well as small or boutique plant-based producers.

Company	Sector	Description
Chef Man	Plant-based meat	Manufactures ready-to-eat plant-based chicken and beef meals, as well as flavored and unflavored mince and strips. Caters to both retail and foodservice.
Harduf	Plant-based dairy	Produces plant-based milk varieties from soy, rice, buckwheat, and oats. Makes tofu as well.
Hamim VeTaim	Plant-based meat	Manufactures a variety of traditional ethnic frozen foods, including an array of ground meat products for both retail and foodservice. Provides white label production services.
Mashu Mashu	Plant-based dairy	Produces plant-based yellow and Greek-style cheese.
Meshek Tzuriel	Plant-based dairy	Produces almond and soy milk.
Otentivee	Plant-based meat	Produces seitan in a technique exclusive to the Hebrew Israelite community and sells mainly retail seitan-based products and other vegan foods.
Teva Deli	Plant-based meat	Creates plant-based meat that caters to both retail and foodservice. Produces patties and cutlets from legumes, grains, seeds, and nuts; seitan; and seitan- and tofu-based processed meat dishes. Produces veggie minced meat, burgers, and more for the public market, as well as seitan and vegan cheese for the professional market.
Vegan Power	Plant-based meat	Manufactures soy-based meat, catering mainly to foodservice. Produces dry minced meat and strips, seasoning, and binding powder—branded as VegaTen in retail.
Wyler Farm	Plant-based meat and dairy	Produces mainly tofu from soy and chickpeas.

Section 4
Academic Research

Alternative Protein Research in Israel

The ultimate success of the alternative protein industry depends heavily on continued research and technological development. High-quality research and open-access data will build the necessary scientific foundation. Thus, the academic role is highly important. Researchers are increasingly interested in entering the field to address key industry questions and obstacles and perform groundbreaking research that gives rise to new startups. Academic institutes are becoming more involved and focused on alternative proteins, conducting webinars and lectures in the field and investing in programs to educate the researchers of the future.

Israeli academic institutes are vastly experienced in plant sciences and crop optimization, cell culture and tissue engineering for therapy, animal sciences and microbiology, food and mechanical engineering, and so on. By directing this expertise to research in the alternative protein field and leveraging focused interdisciplinary research, Israel can become a leader in the cultivated, plant-based, and fermentation production platforms.

Alternative Protein University Course

Tom-Ben Arye
PhD, Senior Scientist,
GFI Israel

GFI identified the relatively few researchers and innovative research ideas as a bottleneck in our field. Accordingly, we developed a course on plant-based and cultivated meat that we teach in the Hebrew University of Jerusalem, Tel Aviv University, and Ben Gurion University of the Negev to hundreds of undergraduate and graduate students. As interest grows, the course is expanding to universities in the United States, Asia Pacific, Europe, and South America. We will gladly share the full course materials with those interested in providing the course. Requests should be directed to our senior scientist, Dr. Tom Ben-Arye, at tomba@gfi.org.

Israel, the Powerhouse: Cultivated Meat Research

In the past decade, Israel has become a center for cultivated meat research; while Israel constitutes just 0.1 percent of the world population, it is home to 10 percent of the world's cultivated meat companies. This is for several reasons. From a scientific perspective, Israel is leading the charge in stem cell and tissue engineering research, owing to Judaism's moderate view of stem cell research. On the business side, Israel is known for its supportive entrepreneurial ecosystem and leading science and tech companies whose breakthrough technologies are exported to the world. Further, Israeli culture is remarkably mindful of sustainability and animal welfare issues, having led efforts to advance cultivated meat as early as 2012 and boasting the first nonprofit dedicated to cultivated meat R&D, founded in 2014. Israel paved the way for one of the world's first cultivated meat companies, **SuperMeat**. The company collaborates with pharmaceutical-production experts to create cultivated chicken products that are sustainable, cost-efficient, animal-friendly, and delicious. Founded in late 2015 and backed by crowdfunding, SuperMeat later earned seed funding from several investors, including PHW, a global chicken manufacturer. Around the same time, **Dr. Tom Ben-Arye** in the **Levenberg Lab** of the Technion initiated cultivated meat research that was published in *Nature Food* and in 2016 gave rise to cultivated meat startup **Aleph Farms**. This company develops cultivated steaks from isolated cow cells. Its proprietary 3D platform uses various cells to form complex tissue, ensuring an end product virtually indistinguishable from conventional steak in taste, texture, and structure. **Future Meat Technologies** took a similar path. Founded by **Prof. Yaakov Nachmias** from the Hebrew University of Jerusalem, Future Meat Technologies advances the distributive manufacturing platform for the non-GMO production of meat directly from animal cells. The company focuses on developing a manufacturing technology that enables concurrent production of fat and muscle cells in the same bioreactor. Then in 2018, **MeaTech** formed. This company focuses on 3D-printed cultivated meat

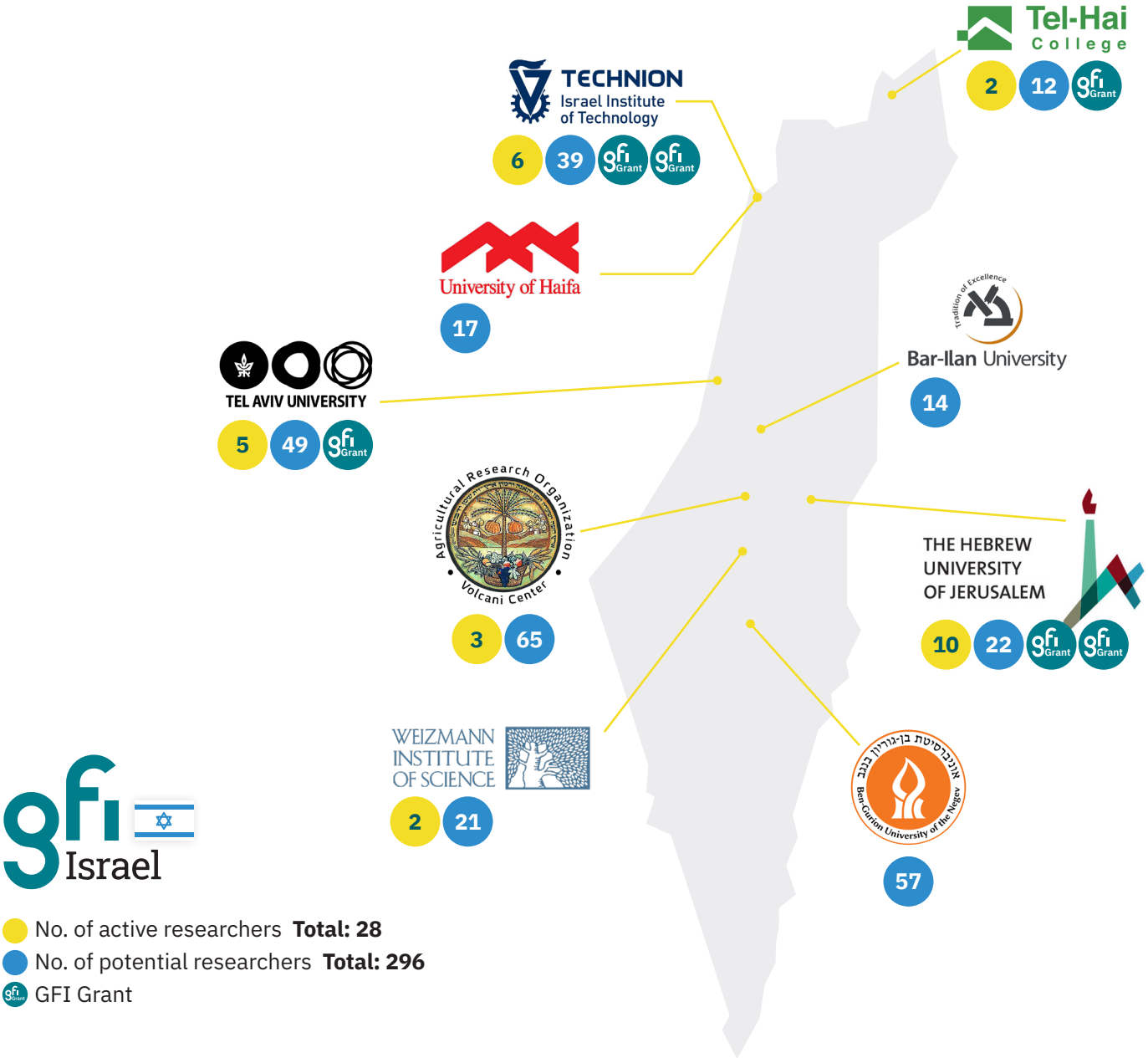
PhD, Michal Halpert
Academic Engagement,
GFI Israel

to develop commercial manufacturing technologies based on the rapid growing cycles of stem cells. MeaTech is the world's first cultivated meat company to make an IPO when it launched. MeaTech recently acquired the cultivated meat company Peace of Meat.

Israeli academia is also working to advance cultivated meat, including the research of Prof. Marcelle Machluf, Dr. Iftach Nachman, Dr. Sharon Schlesinger, and others. In the past year, a group of Israeli companies and scientists approached the Israeli Innovation Authority and requested to open the world's largest cultivated meat consortium.

Academic Research Map and Figures

GFI Israel has mapped the activity and interest of researchers in leading academic institutes. In the table below, scientists that conduct research in the field or serve as advisors or founders of alternative protein startups are marked "active." Researchers with an interest in entering the field or relevant expertise and knowledge are marked "potential." In light of this progress and rising interest, the potential to advance the field is tremendous. With industry-academia collaborations and accessible knowledge and funding opportunities, the field can realize this potential and attract more researchers to address white spaces.



Active Researchers in the Alternative Protein Field

Researcher	Research Center	Field	Description
Dr. Ofir Benjamin	Tel-Hai College	Plant-based meat	Food sensory and food structure.
Prof. Ido Braslevsky	The Hebrew University	Plant-based meat, 3D printing	Food biophysics and cryobiology lab. Co-founder of SavorEat.
Prof. Yoav D. Livney	Technion	Plant-based meat	Lab of biopolymers for food and health.
Prof. Ram Reifen	The Hebrew University	Plant-based products	Nutritional quality and safety of foods. Founder of Chick.P.
Prof. Oded Shoseyov	The Hebrew University	Plant-based meat, 3D printing	Nanobiotechnology, protein engineering, and plant molecular biology lab. Co-founder of SavorEat.
Dr. Zvi Hayouka	The Hebrew University	Fermentation	Novel antimicrobial agents for food applications. Advisor - The Mediterranean Food Lab.
Prof. Tamir Tuller	Tel Aviv University	Fermentation, milk alternative	Computational systems and synthetic biology. Co-founder of Imagindairy.
Prof. Tal Dvir	Tel Aviv University	Cultivated meat	Tissue engineering and regenerative medicine. Advisor - MeaTech
Prof. Yaacov Nachmias	The Hebrew University	Cultivated meat	Application of tissue engineering and microfluidics.
Prof. Shulamit Levenberg	Technion	Cultivated meat	Stem Cell and Tissue Engineering. Scientific advisor - Aleph Farms.
Dr. Iftach Nachman	Tel Aviv University	Cultivated meat	Organoid development for suspension-based muscle mass production.
Prof. Marcelle Machluf	Technion	Cultivated meat	Lab for cancer drug delivery and cell-based technologies.
Prof. Shlomo Magdassi	The Hebrew University	3D printing	Formation and stabilization of inorganic and organic nanomaterials. Advisor - MeaTech.
Dr. Sharon Schlesinger	The Hebrew University	Cultivated meat	Epigenetic regulation in embryonic stem cells.
Dr. Nurit Argov-Argaman	The Hebrew University	Cultivated milk	Metabolism and lactation biology. Founder of BioMilk.
Dr. Marganit Levy	The Hebrew University	Cultivated milk	Plant-pathogen interactions and glucosinolate accumulation. Co-founder of BioMilk.

Table by category and alphabetic

GFI Research Grantees

GFI has awarded more than $7 million to innovation projects around the world since it began funding research in 2018. These projects are poised to advance the science and technology of the cultivated, plant-based, and fermentation industries.

GFI-funded research initiatives span the alternative protein field: crop breeding to product formulation for plant-based meat, cell line development to bioprocess scaleup for cultivated meat, and target molecule selection to bioprocess design for fermentation-derived products.

GFI has awarded grants to five Israeli innovation projects—two cultivated meat, two plant-based meat, and one fermentation project, which are described briefly below:

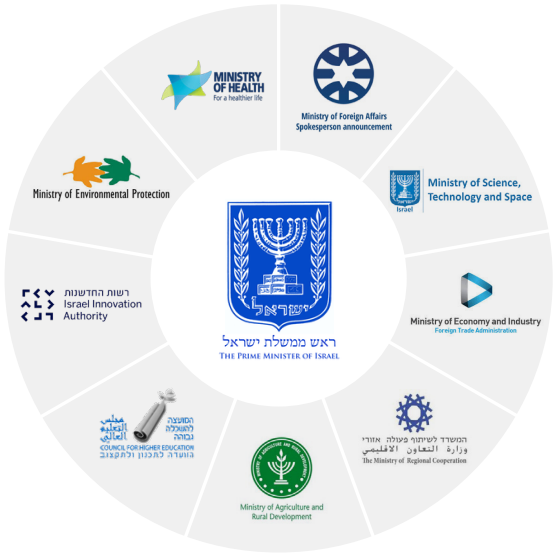
- **Prof. Marcelle Machluf,** from the Faculty of Biotechnology and Food Engineering at the Technion, focuses on designing a cultivated meat platform based on scalable cellular building blocks and matching processing methodologies. The project aims to characterize two biomaterials for two cellular building-block applications, develop oleogel microparticles for incorporation into cultivated meat to improve texture attributes, and combine cellular building blocks and oleogel microparticles to produce thick-cut cultivated meat on fibrous scaffolds. It is a collaboration with **Prof. Ayelet Fishman** and **Asst. Prof. Maya Davidovich-Pinhas**, also from the Faculty of Biotechnology and Food Engineering at the Technion.
- **Dr. Ofir Benjamin,** from Tel-Hai College, and **Dr. Lior Rubinovich**, from Migal, study quinoa as a raw material for plant-based meat products. The project aims to characterize five high-yield quinoa varieties for protein, fat, and fiber composition; develop methods for preparation of quinoa protein concentrate, and design prototypes of quinoa-based meat products. The team managed to produce fibrils from the quinoa protein concentrate and has begun analyzing their functional properties, including quality and functionality of starch and protein and their interactions as these relate to quinoa's utility in plant-based meat.
- **Mr. BZ Goldberg,** R&D director of The Mediterranean Food Lab, works on traditional multiphase fermentation of plant-based materials as a source of organoleptically satisfying flavors. The project explores the potential of traditional and adapted fermented materials and production methods as a source of plant-based materials that could elevate and accentuate desirable organoleptic properties of plant-based foods customarily flavored with animal protein.
- **Dr. Iftach Nachman,** from Tel Aviv University, is developing a novel bESC-derived bovine-muscle progenitor organoid that will be scalable and economical due to its suspensive nature and use of intraorganoid signaling that reduces the need for external factors in the differentiation medium. The model will mimic the developmental stages and spatial organization of cells—from pluripotent to muscle progenitor—during embryonic development in a 3D suspension format. This protocol is amenable to industrial scaleup.
- **Prof Yaacov Nachmias** from the Faculty of Natural Sciences at the Hebrew University of Jerusalem is working on developing an injection molding steak system. This grant was offered through a local grant program between GFI Israel and the Hebrew University of Jerusalem, and the grant period has just started.
- **Prof. Yoav D. Livney,** from the Faculty of Biotechnology and Food Engineering at the Technion, is developing animal-product analogues from plant proteins. The project is a collaboration with **Prof. Alex Golberg**, from Tel Aviv University; **Dr. Alvaro Israel**, from the Israel Oceanographic & Limnological Research Institute; and **Dr. Ruslana Rachel Palatnik**, from the Max Stern Yezreel Valley College.
- **Prof Oded Shoseyov,** from the Faculty of Agriculture, Food, and Environment at the Hebrew University of Jerusalem is developing a cost-effective extraction method of high-quality Rubisco protein from green waste of common crops. This grant was offered through a local grant program between GFI Israel and the Hebrew University of Jerusalem and has just started.

Section 5
Policy

Israeli Government's Support of Alternative Proteins

Leveraging Israel's unique assets in the alternative protein industry and ensuring the industry's growth requires comprehensive, forward-looking government planning and support. In 2020, we saw numerous positive advancements by the Israeli government, including the following:

- **The Israel Innovation Authority** in partnership with GFI Israel hosted a digital event aiming to establish industry-academy consortiums in the field of alternative proteins. The event drew more than 500 registrants.
- After our work with the **Ministry of Agriculture & Rural Development, Volcani Center,** one of Israel's leading agricultural research institutes conducted an online seminar focused on scientific challenges and opportunities in alternative protein research that was attended by more than 100. Mr. Alon Shuoster, the Israeli minister of agriculture and rural development, delivered an encouraging opening speech: "We acknowledge Israel's responsibility for leadership ... which is why the Ministry of Agriculture is here. I predict that the results of your research will contribute to the production of sustainable agriculture and the Israeli economy in general."
- **The Ministry of Foreign Affairs** has shared Israel's innovation in the field of alternative proteins through Israeli embassies around the world (Singapore, China, Ireland, Scotland). The production division of the office has generated a promotional video of the alternative protein industry in Israeli (cultivated meat, plant-based meat).



Alternative Protein National Plan

Acknowledgment of its own position in the field, coupled with the country's involvement outlined above, reveals Israel's openness, strong supportiveness, and great enthusiasm regarding GFI's theory of change and the potential to capitalize on and leverage the alternative protein ecosystem to become a long-term leader in research and innovation in the field. Recognition of the field's potential extends to Israel's prime minister, Benjamin Netanyahu; GFI Israel presented the prime minister with its national policy plan—a detailed roadmap for making Israel the global leader in alternative proteins—and he promptly directed his state secretary to appoint a coordinator to connect and oversee all the stakeholders operating in the alternative protein field. "Israel will become a powerhouse for alternative meat and alternative protein," he declared.

Israel's evolving alternative protein ecosystem, the government's cooperation with and attention to the field, and our analysis of the country's overall governmental and political climate, lead to the conclusion that GFI Israel should continue to promote a national policy plan to make Israel a global leader in alternative protein R&D. Our aim is that the government assume responsibility for cultivating change, as it did in response to cyber security and water purification challenges.

In April 2020, in collaboration with leading consulting firm TASC, GFI Israel completed the first phase of our preliminary analysis and proposal for a national policy plan. This work was in partnership with the Industrial Department at the Ministry of Economy, which provided continual feedback. We shared the findings of our analysis

with key figures in government ministries, food companies, academia, and startups, all of whom also offered valuable feedback and helped frame the findings.

The analysis identified three challenges to further evolution of the Israeli alternative protein ecosystem:


Securing adequate funding for basic and applied scientific research


Transitioning from applied research to product development and scaleup


Obtaining regulatory approval and launching products

GFI Israel's continual engagement with government and the great interest shown by Israel's ministries and prime minister in advancing the field have given rise to a governmental forum aimed at strengthening Israel's alternative protein industry and integrating governmental efforts toward that aim. In January 2021, the forum held its first round table, led by the prime minister's office and including 10 ministries.

In the months after, each ministry submits a proposal on actions it plans to take to overcome challenges and create more opportunities in the Israeli alternative protein ecosystem. The Ministry of Health has already declared that a designated team of experts will study cultivated meat technologies and assess their safety in order to support applications to the Israeli National Food Services seeking approval to manufacture and market cultivated meat.

Additional Funding Opportunities

Promoting public R&D funding is a prerequisite to further acceleration of the alternative protein industry in Israel. Such funding is necessary to ensure that questions concerning environmental sustainability and nutrition are accorded well-researched answers. Public investment is also effective in bringing together various value chain actors to resolve supply chain blockages and find collaborative real-world solutions. Importantly, the most impactful investment is funding open-access R&D, as freely shared knowledge benefits multiple companies and reduces duplicative R&D, thereby accelerating the entire sector's progress.

GFI Israel is dedicated to unlocking existing public support for the Israeli alternative protein ecosystem and increasing public funding opportunities.

IIA Opportunities

רשות החדשנות
Israel Innovation Authority

"In recent years, Israel has become a powerhouse for research and innovation in the alternative proteins field. Innovation Authority is a government agency that encourages innovation through funding for foodtech incubators, technology transfer from academia, direct investment in startups, and industrialization programs. IIA has already funded numerous alternative protein research projects and startups, and we believe it to be a growth engine for Israel's post-Covid economy and to provide a way to feed the world's growing population safely while avoiding further environmental degradation. Regulation that encourages innovation, focused applied research, and manufacturing infrastructure are key factors that we focus on."

—Anya Eldan, VP of the Israel Innovation Authority and Head of Startup Division

Horizon Europe Programs

The Horizon Europe Cluster 6—food, bioeconomy, natural resources, agriculture, and environment—is committed to steering and accelerating the transition to sustainable, healthy, and inclusive food systems to effectively achieve the objectives of the Farm to Fork strategy.

During 2020, in partnership with the Israel-Europe R&D Directorate, GFI Israel worked to identify opportunities for alternative protein companies and scientists to network, brainstorm, and collaborate. Together we identified four calls to action under the European Green Deal that are relevant to alternative protein technologies. The work of the R&D directorate has resulted in nearly 10 consortium agreements for research on alternative proteins, half of which involve Israeli partners.

Horizon Europe funding calls for 2021 and 2022 have begun circulating for projects that include three focused on alternative proteins. The projects, which require €32 million in total, have three respective focuses:

- Addressing knowledge gaps (nutrition, allergens, environmental impact)
- Incentivising farmers to shift to protein crops
- Examining food industry value chains and making recommendations for adding alternative proteins to menus and product lines (primary focus foodservice).

GFI Israel will continue to investigate all opportunities and engage in strategic outreach, as well as serve as a networking platform for the alternative protein ecosystem in Israel and beyond.

Bilateral Funds and Agreements

Bilateral R&D programs enable Israeli companies to access technological knowledge, R&D infrastructure, and scale-up and commercialisation opportunities in world markets together with international partners.

Four bilateral funds have been established for the mutual benefit of Israel and the following countries, respectively: the United States, India, Singapore, and Korea. Additionally, Israel is a party to trade agreements with more than 35 countries.

The primary objective of these initiatives is to incentivise Israeli companies to pursue two key aims:

- Develop or significantly upgrade technological products with an international partner
- Conduct pilot projects in destination target markets with a local partner

Grant focus areas are undergoing dynamic changes. GFI's geographical spread and connections enable GFI Israel to connect with decision-makers worldwide and influence their funding priorities. Shifts in grant focus, along with a stronger alternative protein community in Israel and abroad, will avail more and more companies of funding to power their work. Generating more funding opportunities is a key objective of GFI's 2021 organizational strategy.

Alla Voldman
Director of Strategic Alliances, GFI Israel

"Governments have a responsibility to accelerate the growth of alternative proteins. The Israeli government was among the first to identify and support the field through funds for research and innovation. These days, with the advancement of the field worldwide, the Israeli government faces the challenge of continuing to lead the race. Its primary focus must be ensuring funds to promote scientific research, R&D infrastructure, and fair regulation as a primary focus."

Section 6
Market Data

Global Trends and Alternative Protein Market Forecast

Globally, the high demand for protein—traditionally met mainly with meat, fish, eggs, cheese, and milk—continues to grow. Change is afoot, however; consumer preferences have shifted for several reasons, such as escalating environmental concerns and a desire to replace animal products with healthier alternatives. Protein sourcing is beginning to evolve and is likely to continue doing so. According to our analysis of Euromonitor data, **in 2020 the global plant-based retail market was worth $21.5 billion**. **Dairy product analogues accounted for $16.9 billion and meat analogues $4.6 billion.** Barclay projects that the plant-based and cultivated meat markets will reach 10 percent—$140 billion—of the global meat market by 2030, while A.T. Kearney estimates that these markets will reach 23 percent—$370 billion—of the global meat market by 2035. Already, 2020 was a record year, with double-digit growth in every plant-based category—and Israel is a major part of this worldwide movement.

Global plant-based and cultivated meat market projections			
Source	**Projected market size**	**By year**	**Projected share of global meat market**
Barclays	$140B	2030	10%
A.T. Kearney	$370B	2035	23%

Israel Plant-Based Market Data

Israel is known for its high percentage of plant-based customers. More than 5 percent of Israelis self-identify as vegan, and the country's Mediterranean diet means almost all restaurants offer rich plant-based cuisine. The flexitarian group is believed to be about a third of the population, and in October 2020, a survey revealed that 23 percent of the Israeli population had recently begun reducing animal-product intake. Additionally, Israeli supermarket chain Victory has shared that plant-based burgers accounted for 44 percent of total income from burger sales in Q3 of 2020. Israelis are widely viewed as early adopters of trends and technology. The foodtech and alternative protein sectors are not exceptions and enjoy the support of Israel's younger demographics. Thirty percent of early adopters are under the age of 16, and the early adopter median age is under 30. These demographics are highly health-conscious, climate-aware, sustainability-minded, and concerned about animal welfare
.

Israeli market analyst StoreNext provided the data in the tables below. Collected from 2,650 supermarkets' brick-and-mortar and online retail channels, the data shows that while both animal-based products and alternative protein products spiked in sales amid the coronavirus pandemic, the latter category grew 13 times more than the former (1.4 percent and 18.5 percent, respectively, excluding the pandemic effect).

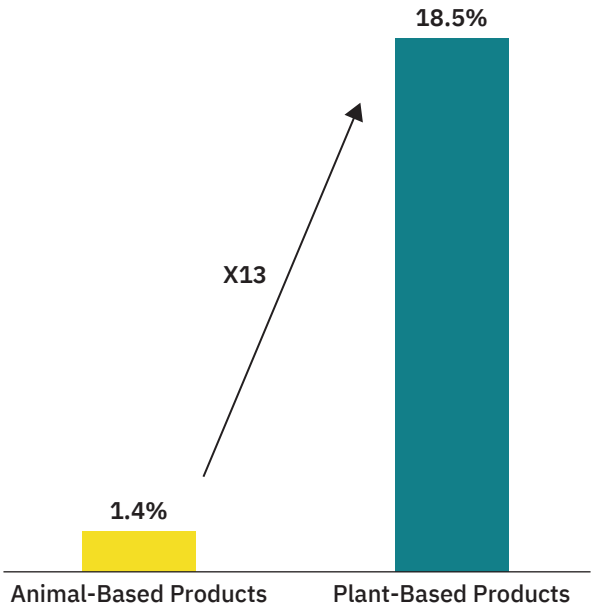


Figure 6.1. Plant-based and animal-based retail sales growth in Israel 2019–2020, excluding the 9.5 percent growth in retail food purchases in Israel attributed to Covid-19. (Data from StoreNext.)

Year-over-year growth at the end of 2019 was 7.8 percent, but 2020 was a record year, with a market worth of $219 million and a year-over-year growth rate of 27.5 percent.

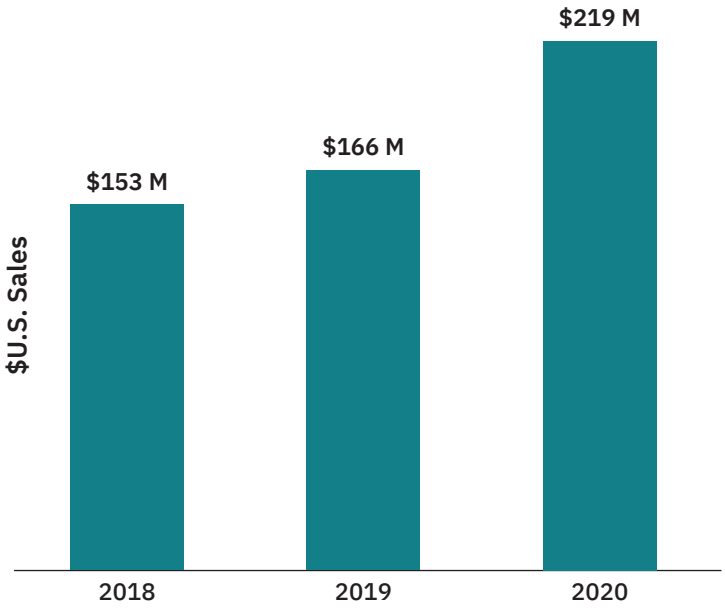


Figure 6.2. Israeli plant-based retail market size and growth (2018–2020). (Data from StoreNext)

Covid-19 has resulted in sales growth across all retail categories, but plant-based products greatly outperformed their animal-based counterparts. Plant-based fish and eggs are virtually unavailable in Israeli supermarkets, however, and are significant growth opportunities.

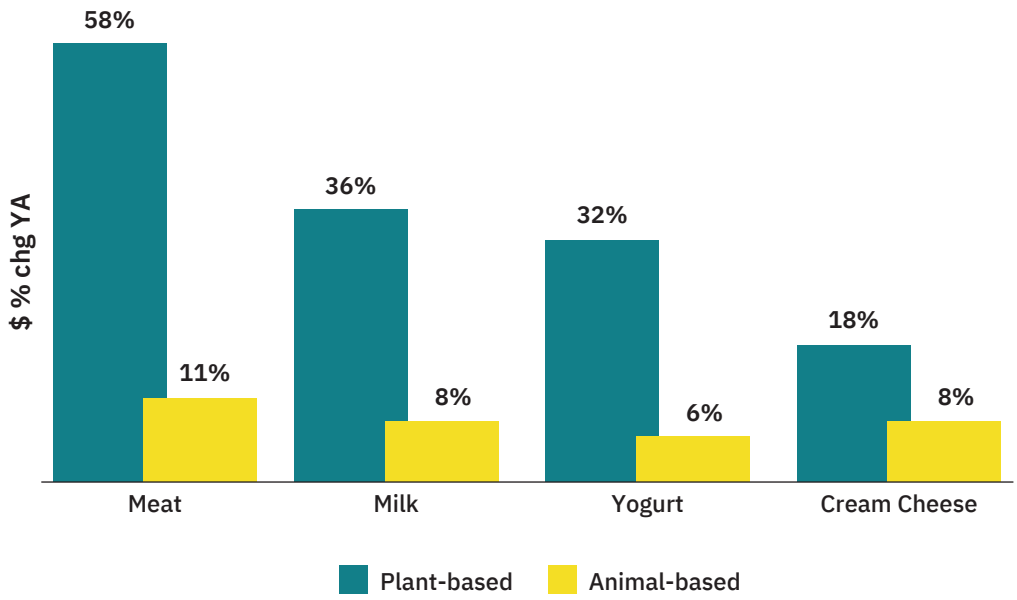


Figure 6.3. Plant-based and animal-based retail sales growth in Israel by category (2019–2020). (Data from StoreNext)

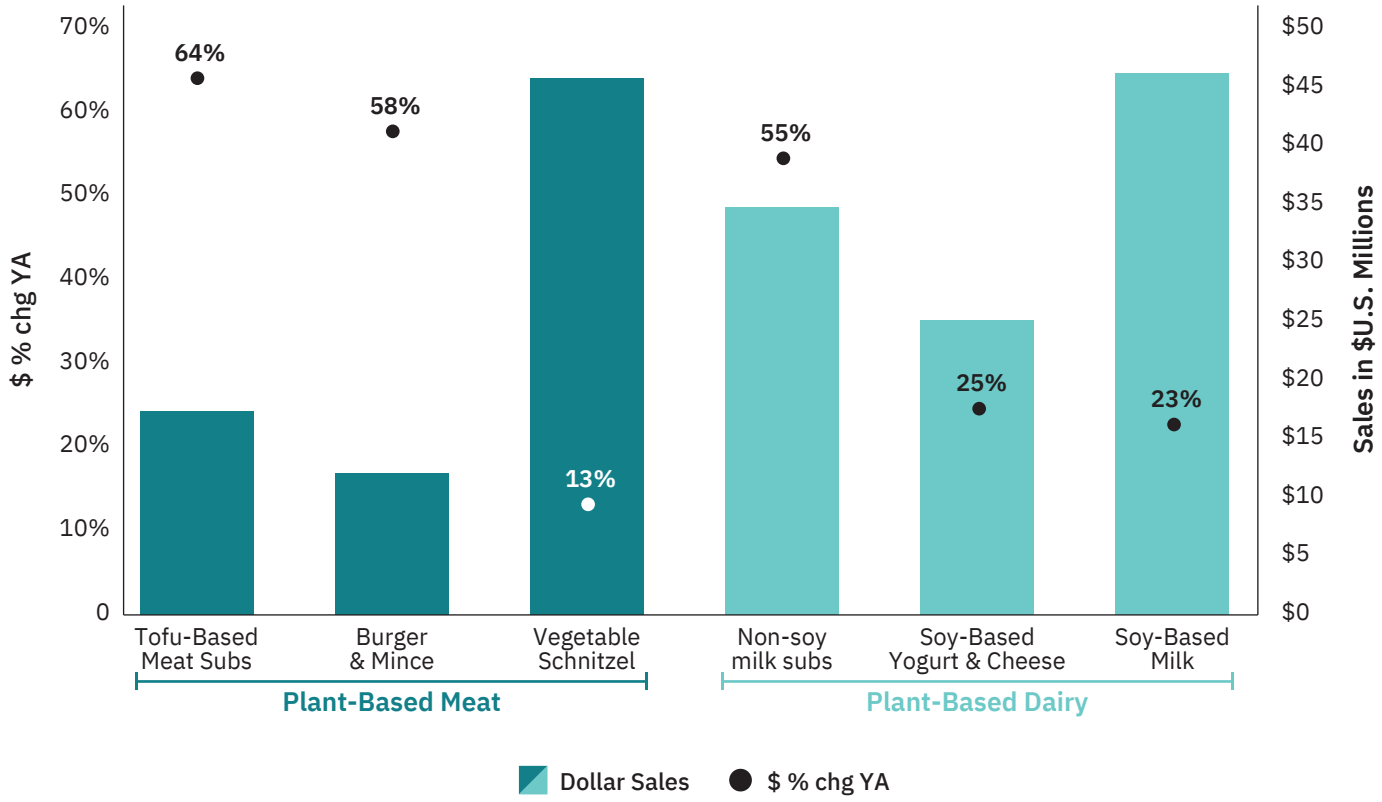


Figure 6.4. Plant-based growth and market size by category (2019–2020). (Data from StoreNext).

- The burger and mince category grew by 58 percent in 2020. Most meat analogues fall into this category. The introduction of new products, such as Beyond Burger and Sensational by Nestlé (marketed by Osem-Tivall in Israel), greatly accelerated growth in this category, including among flexitarians.
- Tofu and tofu-based meat analogues saw the highest growth, at 64 percent. This is probably because major food corporations, such as Tnuva, Israel's largest food company, have launched plant-based "alternative" product lines and made significant entrance into the tofu category as well. Additionally, chickpea-based tofu debuted under this category.
- In plant-based meat, schnitzel—the best-known meat analogue on the Israeli market—still enjoys the greatest market share.
- In plant-based dairy, soy milk is still dominant, although non-soy-milk drinks, such as oat, almond, and rice milk saw the highest sales growth, at 55 percent. During 2020, the plant-based milk, market composed 13 percent of Israel's total milk market.

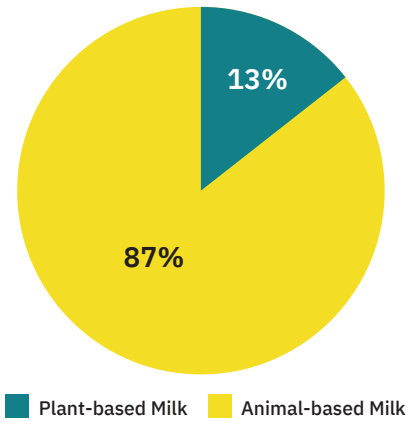


Figure 6.5. 2020 plant-based and animal-based milk retail sales as percentage of market share.

Section 7
Conclusion

Summary

The alternative protein industry is in its infancy in Israel and around the globe. Investors, entrepreneurs, and strategic partners have vast opportunities to get involved in the early stages and capitalize on this global shift. Israel positioned itself as a leading industry innovation hub and expects to accelerate its growth in scientific research, number of startups overall, and number of later-stage startups looking to scale up and commercialise their breakthrough products to the world's biggest markets. Just as it was in the cyber and smart-mobility sectors, Israel is ideally positioned in the alternative protein sector to serve as a global pilot market and a global R&D and innovation hub.

Significant opportunities do not end at private investors. Strategic investment partnerships and government investments are needed to resolve regulatory bottlenecks and advance production facilities and distribution systems to power progress in the field.

GFI Israel looks forward to continuing our support of the burgeoning alternative protein field as its cutting-edge science and technology transform the food industry into one that is more sustainable, humane, economical, and secure.

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We'd also like to thank **Brooke Mays** and **Anya Eldan** for their contribution and assistance.

Design by: **Hapoalot**

About GFI Israel

GFI Israel is an affiliate of The Good Food Institute, a nonprofit organization developing the roadmap for a sustainable, secure, and just protein supply. We identify the most effective solutions, mobilize resources and talent, and empower partners across the food system to make alternative proteins accessible, affordable, and delicious.

Our vision:

A world where alternative proteins are no longer alternative.

Our programmatic priorities:

- **Science and Technology**
  Advancing foundational, open-access research in alternative proteins and creating a thriving research and training ecosystem around these game-changing fields.
- **Corporate Engagement**
  Partnering with companies and investors around the globe to drive investment, accelerate innovation, and scale the supply chain—all faster than market forces alone would allow.
- **Policy**
  Advocating fair policy and public research funding for alternative proteins.

Alternative proteins are a global solution to global problems. GFI works where we can have the greatest possible impact on our global food system: North America, Asia Pacific, Brazil, Europe, India, and Israel.

GFI is 100 percent powered by philanthropy. Our progress is possible only thanks to gifts and grants from our global family of donors.

People around the world support our work because together, we can transform our food system to mitigate climate change and environmental degradation, feed our planet's growing population, and secure a food supply that decreases the risk of zoonotic and antibiotic-resistant diseases.

Amplify your impact. Join us.

Stay in the know with GFI Israel's monthly newsletter.

Find business resources and insights at gfi.org.il.

Fuel the future of food at gfi.org/donate.

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