

Cultivated Meat Industry Update

March 2024



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Introduction to GCF

About Us:



We provide cross-border **fundraising and M&A advisory** services to European deep tech companies, entrepreneurs and their shareholders.

Our team combines **in-depth investment banking knowledge**, an acute understanding of technology, entrepreneurial mindset, financial acumen and a pulse on emerging industry dynamics.



What we target

€5-50 million fundraising and M&A deals



Who we target

- ✓ Tech companies (clients) with €1-20 million revenue primarily from the DACH region
- ✓ Investors, buyers, strategic partners across the globe

Notable Investors



Track Record



Developer of Active Noise Cancellation (ANC) products – both hardware and software

Private Placement by



Manufacturer, developer, and seller of innovative equipment for laboratories

Private Placement by



Leading contract research organization for drug discovery in oncology

Acquired by



Our cultivated meat expertise

01

Engaged **since 2021** in executing cultivated meat mandates in DACH

02

Identified and worked through **700+ qualified investors** interested in cultivated meat

03

Organized **70+ pitches** that were received well

04

Reached out to investors from **Europe, North America and Asia**

Learnings From 700+ Hours Executing Cultivated Meat Mandates



Advantage:

Investors' level of interest in cultivated meat continues to be at elevated levels given sustainability considerations.



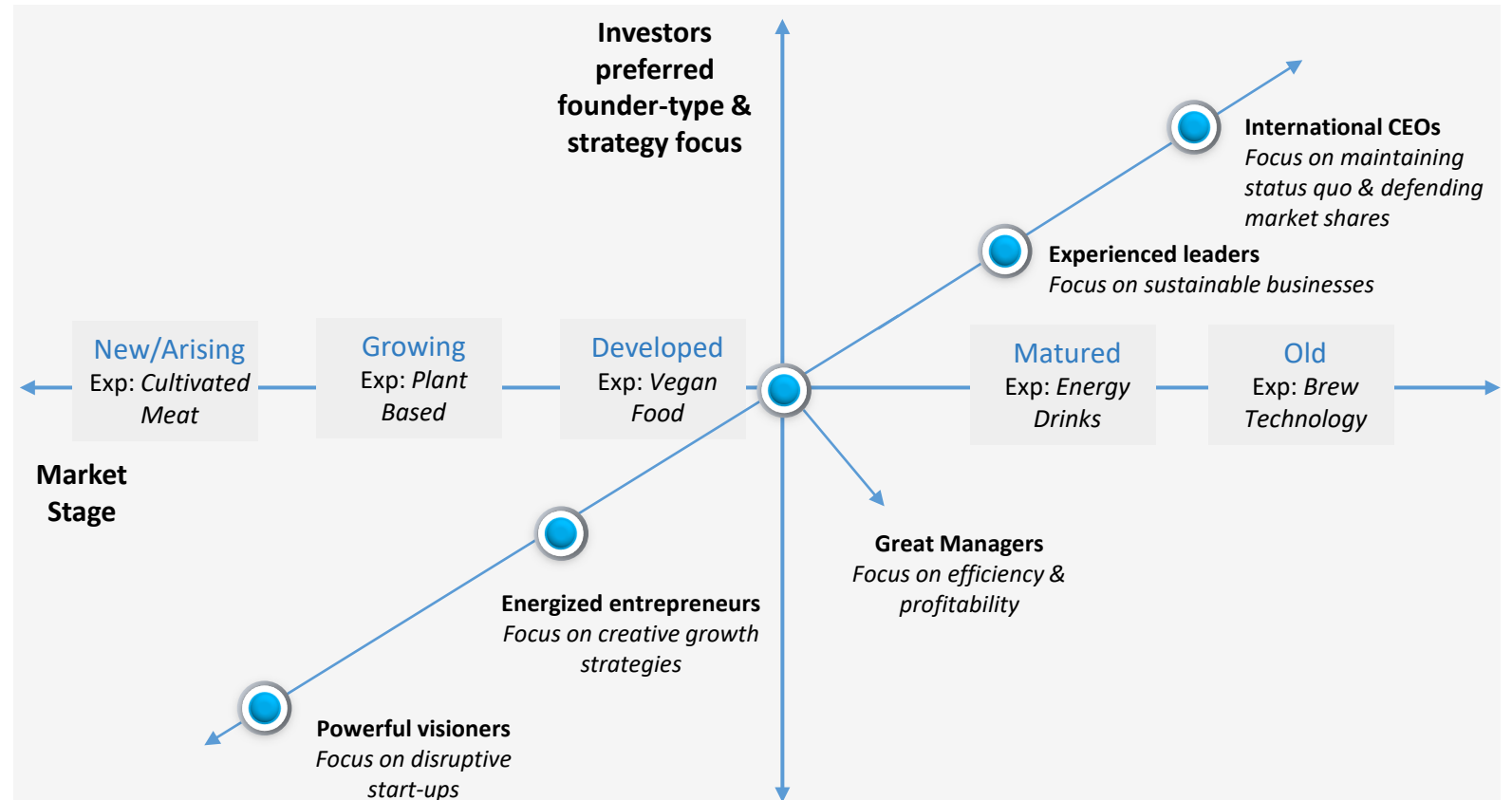
Challenge:

Elevated interest is tempered by heightened risk perception around scalability of technology and limited widespread consumer acceptance.



Outcome:

The risk-return profile is commensurate with that of an emerging technology market. Massive upside potential offset by high risk of failure in case the technology fails to find mass adoption. Limited comparable evidence makes it challenging for potential investors to project a growth trajectory.



Understanding: Since it is difficult to evaluate patents, studies and products in this unique environment, investors are struggling to analyze start-up's value. They are instead focused on great founders, teams and visions. In some instances, the best technology wins; but especially in very young markets the ventures with the greatest energy, passion and vision are able to navigate the uncertain development market successfully.

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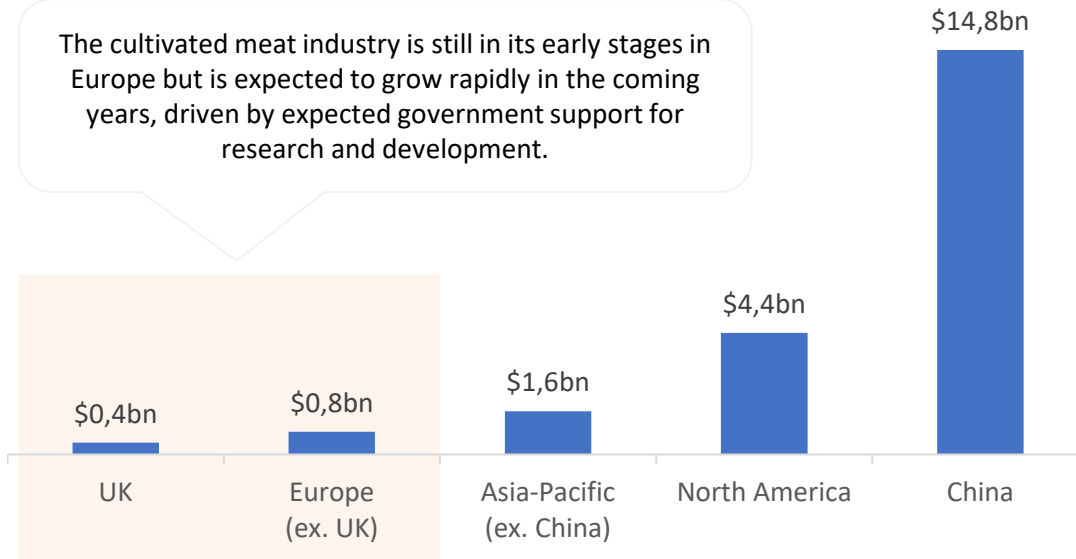
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Europe's Market Opportunity



Cultivated Meat Market Projection by 2026

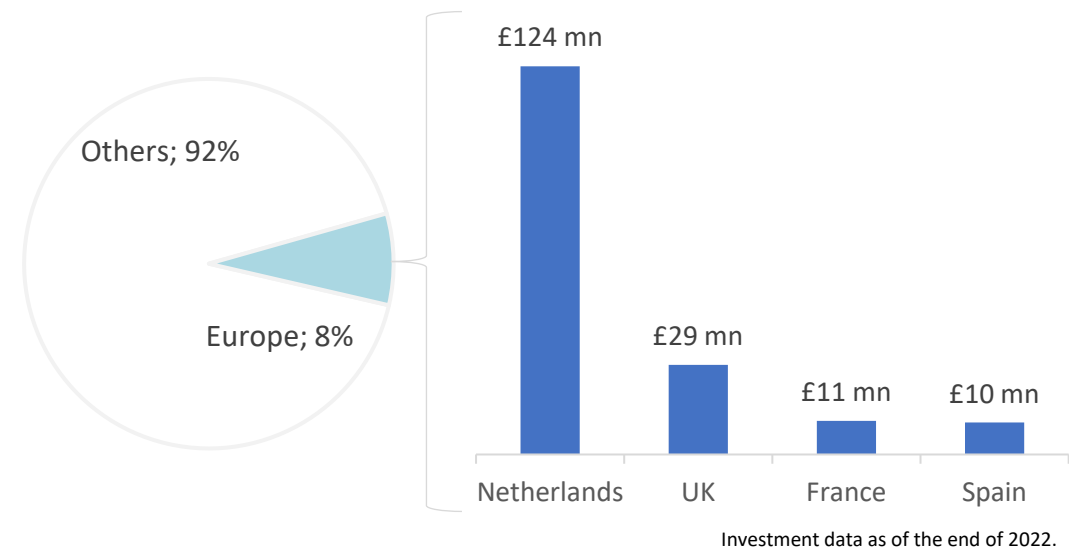
The cultivated meat industry is still in its early stages in Europe but is expected to grow rapidly in the coming years, driven by expected government support for research and development.



- ▶ The number of animals raised for meat will drop to less than half by 2040. Instead, it will be replaced by plant-based or lab-grown proteins, according to the report published by UK intellectual property specialist GovGrant.
- ▶ The European market (including the UK) is expected to grow exponentially, reaching \$1.2 billion by 2026 against negligible levels currently due to regulatory restrictions. The region, however, lags far behind China and North America.
- ▶ In order to prevent companies from leaving the European market, the European Union may have to reduce the waiting time for companies' application reviews. This will likely result in rapid growth for the European market for cultivated meat.



Total Investment Raised



- ▶ European cultivated meat companies raised at least €120 million in 2022, which is more than half of the cumulative total raised between 2016 and 2021. Despite this, the European market for cultured meat is expected to be considerably smaller than other major regions, reflecting the lack of domestic investment.
- ▶ Consumers' attitudes towards traditional meat alternatives also prompt industry players to enter the market. In 2022, GFI Europe conducted a survey on consumer attitudes in France, Spain, Germany, and Italy, which revealed a growing awareness of cultivated meat, with 65% of Spaniards, 55% of Italians, 57% of Germans, and a third of French expressing a desire to buy it, depending on availability.

DACH Region's Emerging Market Potential (1/2)

Germany



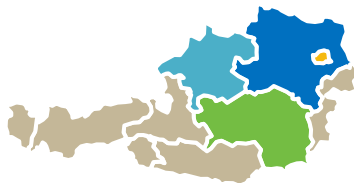
Market Potential

- ▶ At least 90 companies are working on plant-based, cultivated, and fermentation-made food products in Germany.
- ▶ According to a representative survey, 57% of people in Germany would buy cultivated meat if it was available. The opinion was 82% among those under the age of 25.

Market Facts

- ▶ According to the Federal Agency for Agriculture and Food (BLE), the consumption of animal-based foods in Germany declined by 8% to 52kg per person in 2022.
- ▶ Over the past few years, many established food companies, including Rügenwalder Mühle, Hochland, and the PHW Group, have expanded their product portfolios to include plant-based and cultivated meat products in Germany.

Austria



Market Potential

- ▶ More than 3,500 firms are already active in Austria's food tech sector.
- ▶ The EU has increased research funding on sustainable proteins through the Horizon Europe program, which can encourage cultivated meat production and investments in Austria.

Market Facts

- ▶ In April 2023, supermarket chain BILLA claimed that it now offers around 4,000 products verified as animal-free by the Vegan Society Austria.

Switzerland



Market Potential

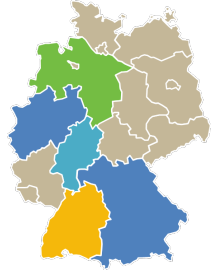
- ▶ A joint study by Aleph Farms and Migros found that 74% of Swiss consumers are interested in trying cultivated meat and are motivated by curiosity and a desire to align with sustainability and animal welfare principles.

Market Facts

- ▶ In 2022, Migros, the largest retail group in Switzerland, also invested in SuperMeat to work with the company to build an infrastructure to bring cultured meat to the European market.

DACH Region's Emerging Market Potential (2/2)

Germany



Key Government Initiatives

- ▶ Germany's Research Institute for Farm Animal Biology recently established the country's first multidisciplinary research consortium, CELLZERO Meat.
- ▶ With €1.19 million in funding from The Federal Ministry of Education and Research, CELLZERO Meat is focused on finding and developing sustainable process solutions for the nascent cultivated meat industry.

Recent Developments

- ▶ In 2022, the first cultivated meat products were launched by German startups, including a cultivated schnitzel by Alife Foods and cultivated fish products by Bluu Seafood, representing a first for Europe.

Switzerland



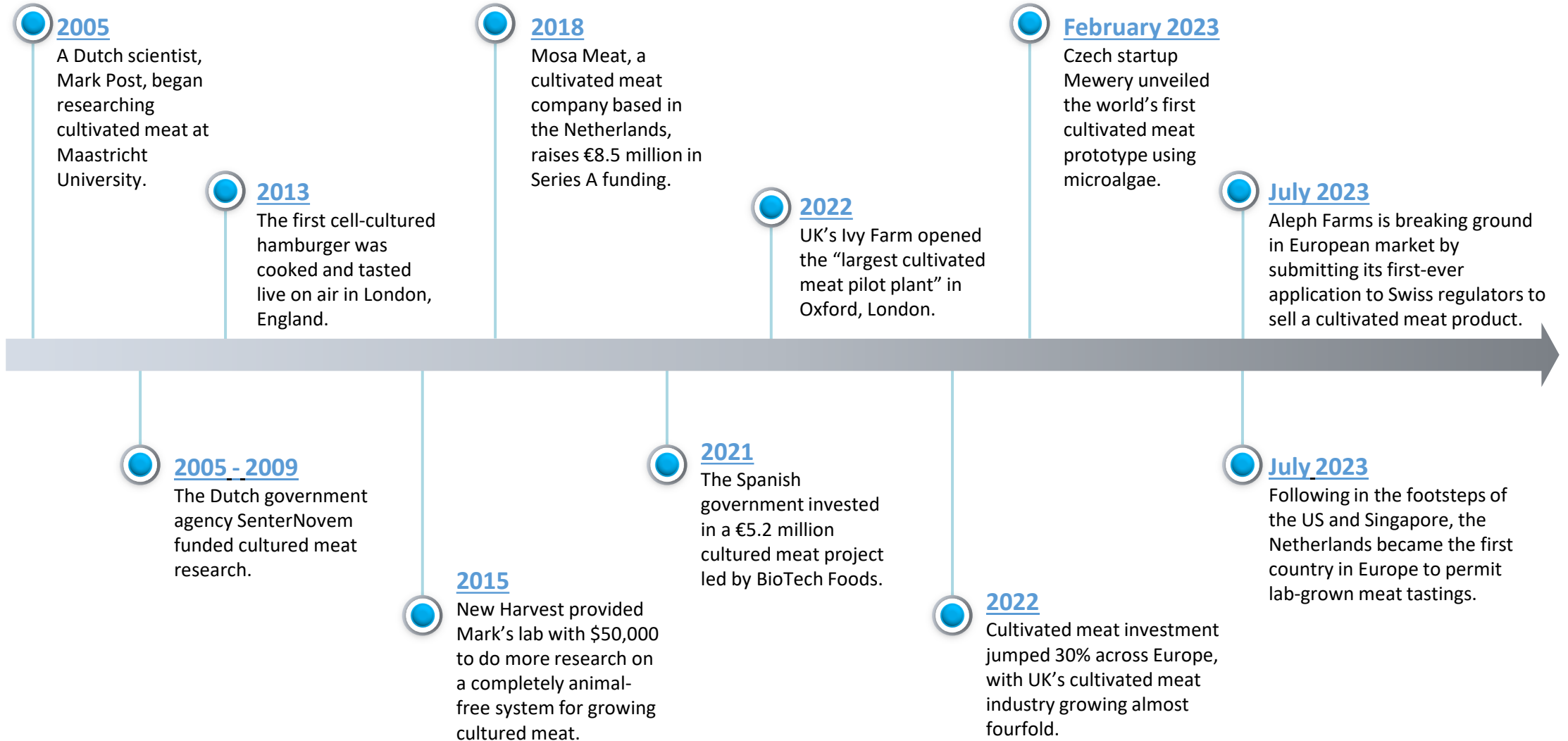
Key Government Initiatives

- ▶ The regulatory oversight for cell-based meat falls under the purview of the Swiss Federal Food Safety and Veterinary Office.
- ▶ The regulatory approval for commercialization of cell-based meat is expected to take one to three years and could be available for Swiss supermarkets by 2025.

Recent Developments

- ▶ July 2023: Israeli startup Aleph Farms applied to Swiss food safety regulators for approval to sell its cultivated beef steaks in its first European market.
- ▶ In 2023, the Swiss startup Mirai Foods announced the development of the world's first thick-cultivated steak utilizing its proprietary fibrillation technology.

Key Milestones in European Market Development



Regulations Shaping the Market Trajectory

Regulatory Progress in the Cultivated Meat Market



Aleph Farms

August 2023:

Aleph Farms filed for regulatory approval for its cell-based steak in the UK. The approval will allow it to launch Aleph Cuts, the world's first cultivated beef steaks, in the UK.



Aleph Farms

July 2023:

Aleph Farms bypassed the European Union and headed straight to the Swiss authorities to seek regulatory approval for its cultured meat products.



BELIEVER

February 2023:

Israel-based Believer Meats announced to build the America's first large-scale lab-grown meat facility in North Carolina.



UPSIDE Foods

December 2022:

The US FDA's first FDA preliminary approval for cultivated meat to UPSIDE Foods. As well as Good Meat received preliminary approval in March 2023.



JUST Egg

December 2020:

Singapore approved Eat Just Inc.'s sale of laboratory-grown chicken in 2020, becoming the first government in the world to do so.

Recent momentum has seen the approval of cultivated meat in markets such as Singapore and the USA, with Europe being the next, as per expectations.

US approval is considered a major milestone for the cultivated meat industry, and it is likely to accelerate the development and commercialization of cultivated meat products in Europe.

The FDA's approval will likely spur more investment in European cultivated meat research and development. In addition, it may simplify the process of gaining regulatory approval for cultivated meat companies in Europe.

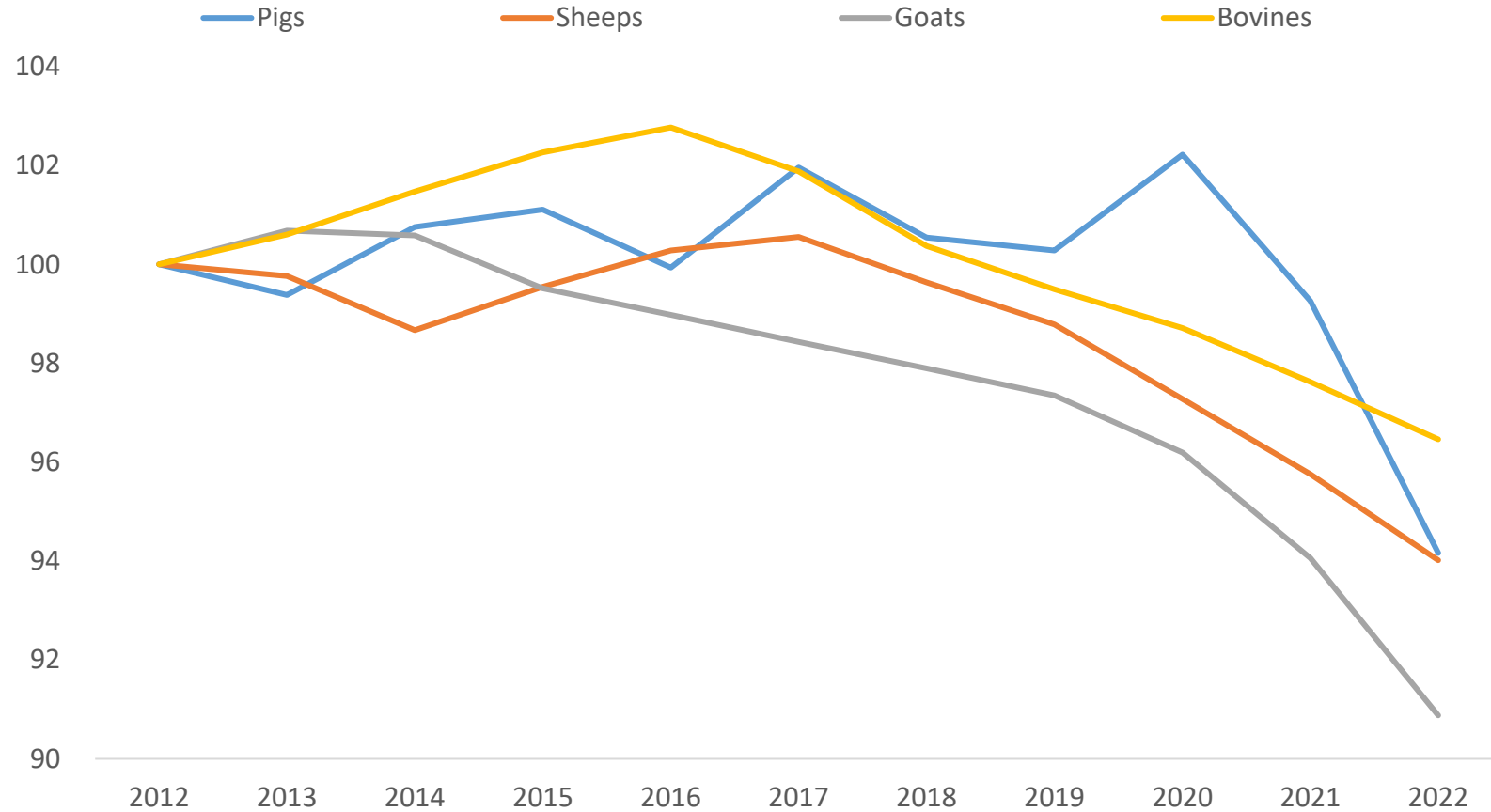
Increasing investor interest and growing awareness of cultivated meat in Europe could be positive signs for the sector, with 65% of Spanish consumers, for example, willing to purchase it if it becomes available.

Market Catalysts (1/3)



Livestock Population Trend in Europe

Index 2012=100, based on livestock population.



The declining livestock population in Europe promotes the demand for meat substitutes. Such a shift in demand strengthens the case for cultivated meat.

The cultivated meat segment could play an important role in bridging the demand-supply gap related to livestock with a steep decline in population.

The DACH region has also experienced a significant decline in livestock population, primarily due to the rising feed cost. In addition, there is a growing demand for plant-based food and other alternate meat products.

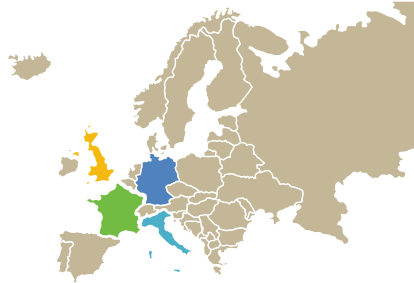
For example, pigs' total population in Germany, Austria, and Switzerland declined by 25%, 11%, and 12%, respectively during the past decade.

Market Catalysts (2/3)

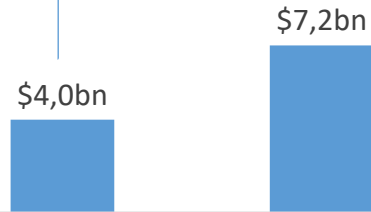


Meat Substitutes Market

Europe



CAGR: 10.4%

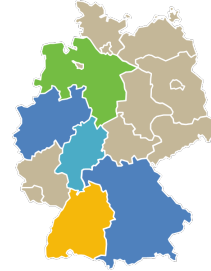


2023

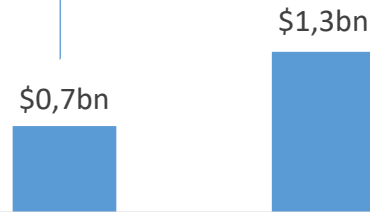
2028

393.3 mn kg Meat substitute volume by 2028.

Germany



CAGR: 11.0%

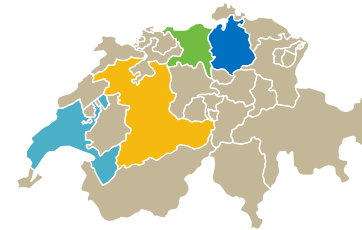


2023

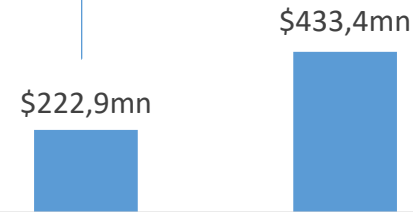
2028

63.1 mn kg Meat substitute volume by 2028.

Switzerland



CAGR: 11.7%

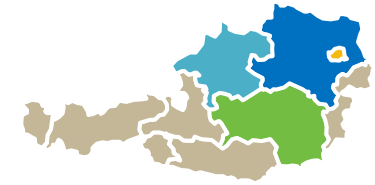


2023

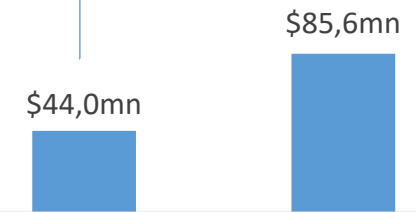
2028

16.1 mn kg Meat substitute volume by 2028.

Austria



CAGR: 11.7%



2023

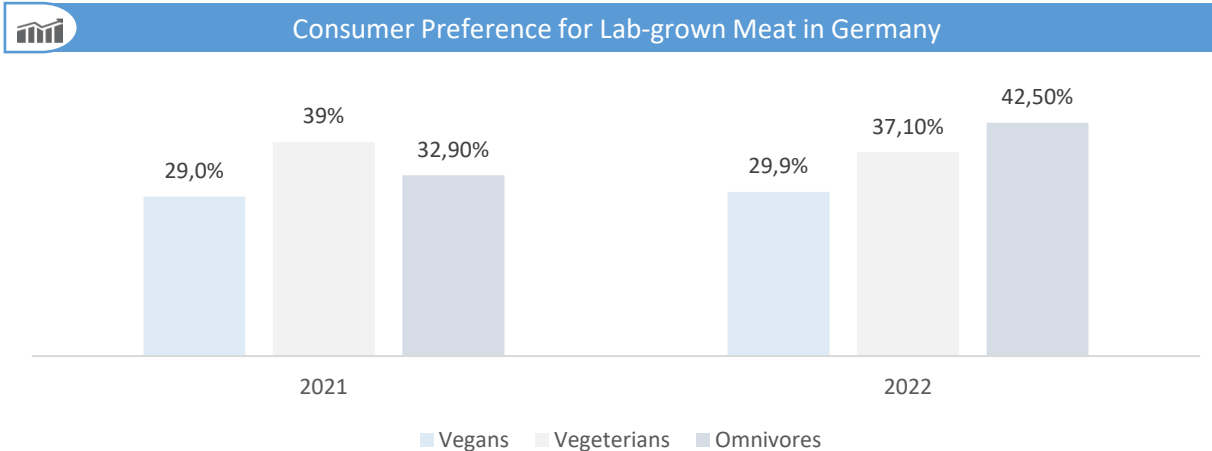
2028

4.0 mn kg Meat substitute volume by 2028.

Cultured meat, or in-vitro meat, is a meat substitute produced through in vitro cell culture technology. The demand for the product is quickly gaining traction across Europe and other regions worldwide.

Market Catalysts (3/3)

- The consumer awareness regarding cultured food products is currently low, but acceptance is growing across the globe.
- Almost one-third of UK consumers are willing to try cultured meat because of its less intensive environmental impact than conventional meat.



- Survey results of 2022 showed that around 30% of German vegans are inclined towards having lab-grown or cultivated meat.
- Between 2021 and 2022, the Omnivores sub-segment of surveyed respondents appears to have a rise in preference towards the shift to cultivated meat.



- The market for plant-based meat is well-established in Europe. Plant-based meat consumers are more likely to consider cultured meat.
- According to GFI Europe's research of retail sales data from NielsenIQ spanning 13 European nations, sales of plant-based meat increased to €2 billion in 2022, which was 6% of Europe's total pre-packaged meat industry.

Evolving Global Technology and IP Landscape

Cultivated meat approvals in the US are a game-changer for the global cellular agriculture IP landscape.

Two recent US approvals for cultivated meat technology marked a significant milestone in alternative protein production. The implications of the approvals are significant not only for the US market but also for the global cellular agriculture IP landscape.

The US Approval Landscape

June 2023

USDA approved the sale of cell-cultivated chicken by UPSIDE Foods and GOOD Meat, signaling a major shift toward the cultivated meat market's perception and acceptance.

As part of the FDA's oversight of cultivated meat production, the USDA has established a regulatory framework that ensures safety, labeling requirements, and compliance with existing food regulations.

Through this collaborative approach, other countries can follow suit and develop their own regulatory frameworks to facilitate access to global markets for cultivated meat.

Other countries, such as the UK, are following the trend, as recommendations for changes to the Novel Foods Regulatory Framework have just been published in a report commissioned by the UK's Food Standards Agency (FSA).

Cellular Agriculture IP Landscape

Innovation is driven by increased investment

Global investment in alternative protein technologies has already exceeded \$14 billion over the last decade, with \$2.8 billion in cultivated meat, according to the Good Food Institute.

Companies, researchers, and investors now have a clearer path to navigate the regulatory landscape, providing a more stable environment for long-term commercial planning for the cultivated meat market.

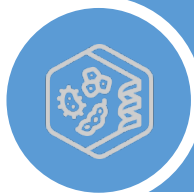
Consequently, a surge in patent filings can be anticipated as stakeholders strive to protect their advancements and secure a competitive advantage.

Global patent filing strategy is expected to be a priority

The US and Singapore are important jurisdictions for companies seeking international protection for their innovations, given their influential position in global markets.

Patent protection in the US and Singapore will strengthen the overall portfolio and make the technology more credible, increasing licensing and partnership opportunities abroad.

Market Trends and Drivers (1/2)



Demand for Alternative Protein

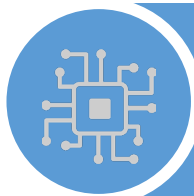
Over the years, the market for alternative proteins has grown due to shifting consumer preferences from meat, partly driven by health concerns. The controlled environment of cell-based meat production reduces contamination risks. Additionally, meat from cells can be created with less saturated fat, implying healthier choices. German companies, for instance, produced 6.5% more meat alternatives in 2022 compared to the previous year.



Multinational Companies Entering Cultivated Meat Industry

Business Insiders predict cultivated meat to be the future of meat, and multinational companies are increasingly recognizing its potential.

- Brazil's JBS announced plans to acquire Spain's Biotech Foods to establish a cultivated meat R&D center in Brazil.
- Switzerland-based Nestlé, the world's biggest food company, confirmed that they are also working on cultivated meat by partnering with Future Meat Technologies in Israel and several other startups in the cultivated meat space.



Technological Advancement

A major barrier to scaling up cultivated meat is the lack of availability of growth medium proteins. The market is rapidly seeking alternative growth medium proteins to eliminate significant barriers to mass-produced cultivated meat production.

Aleph Farms and protein tech supplier Wacker collaborated to develop new fermentation-based growth medium proteins to eliminate fetal bovine serum from cell-based meat equation.



Competitive Cost Driving Growth

As per GFI research, cultivated meat could be cost-competitive with some conventional meats by 2030 at a production cost of \$2.92 per pound. On average, plant-based meat is twice as expensive as conventional beef, three times as expensive as conventional pork, and four times as expensive as conventional chicken. With technology maturity and scale, cultivated meat can potentially deliver competitive offerings against available options in the market.

Market Trends and Drivers (2/2)



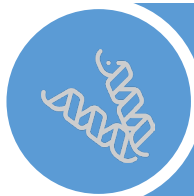
Growing Population and Meat Demand

The increase in population is causing a deficit in meat supplies, offering an opportunity for the expansion of meat replacements or cultured meat products. The European Union population is projected to increase from 446.7 million in 2022 to 453.3 million in 2026. Although meat consumption is expected to decline in the European Union from 38.3 million tons in 2021 to 37.2 million tons in 2031, the demand for meat substitutes and cultured meat is expected to rise rapidly.



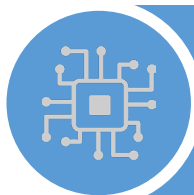
Investment is Ramping Up with PE and VC Activities

Despite the nascent stage, investor interest is high. Private Equity and Venture Capital investments are catching up, with more than 200 deals from the 15 most active investors in the cultivated protein market from 2018 to June 2023. Additionally, the investment is expected to increase after the US and Singapore's approvals to sell the cultivated meat products. SOSV, CPT Capital, and Big Idea Ventures are among the most active investors in the cultivated meat companies.



High Protein Conversion Efficiency

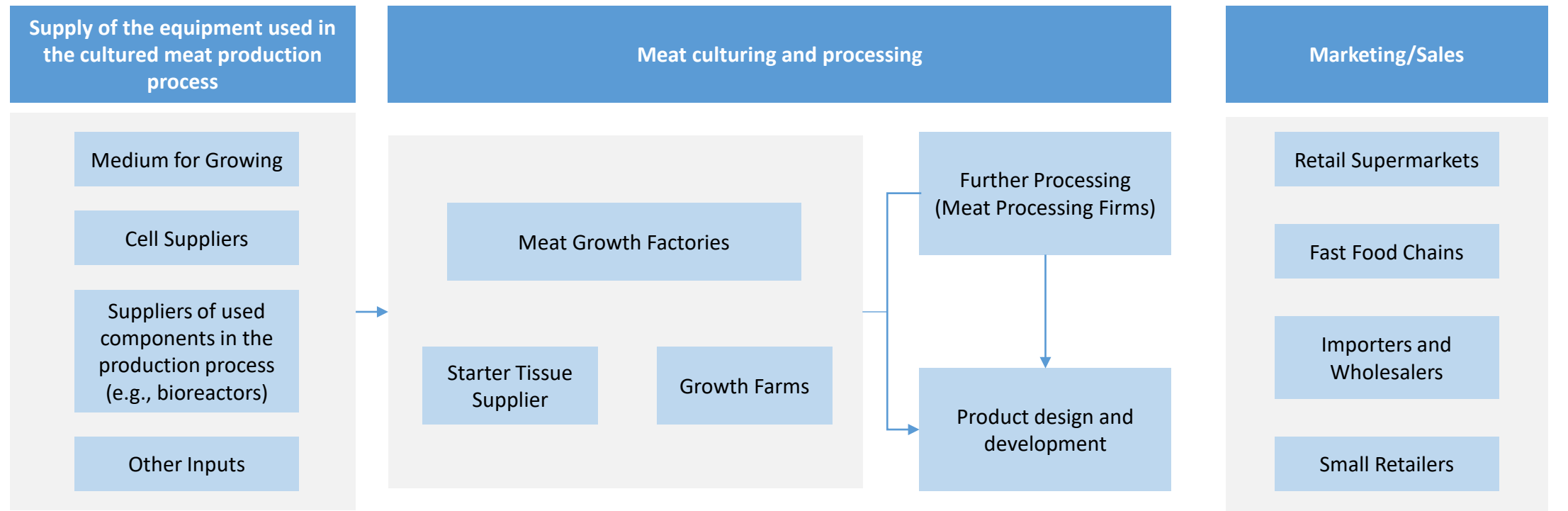
Cultivated meat products can yield a higher protein conversion rate (the amount of protein obtained relative to the input supplied) than the competitive options in traditional meat. Estimates indicate the potential 70% protein conversion rate in cultivated meat against less than 20% in traditional ones. This makes cultivated meat a far more resource efficient option in terms of the intensity of inputs required.



Growing Opportunities and Research Landscape

With over 400 universities and a unique network of non-university research institutes, Germany plays a crucial role in conducting in-depth research on sustainable proteins. One significant development in 2022 was the establishment of the world's first chair for cellular cultivated meat and precision fermentation at the Technical University of Munich. Most universities have focused on sustainable proteins as a niche research area, but there is still room for growth.

Industry Ecosystem and the Role of CDMOs



Space for Contract Development and Manufacturing Organization (CDMO)

CDMOs are entering the cultivated meat market in order to provide services such as cell line development, medium formulation, and process development.

Drivers for CDMOs to enter the market:

- >> Bringing cost-effective products to market is a significant challenge for the emerging cultivated meat industry.
- >> Currently, manufacturing processes are mostly derived from the biomedical sector, which produces fewer outputs than the food industry needs.

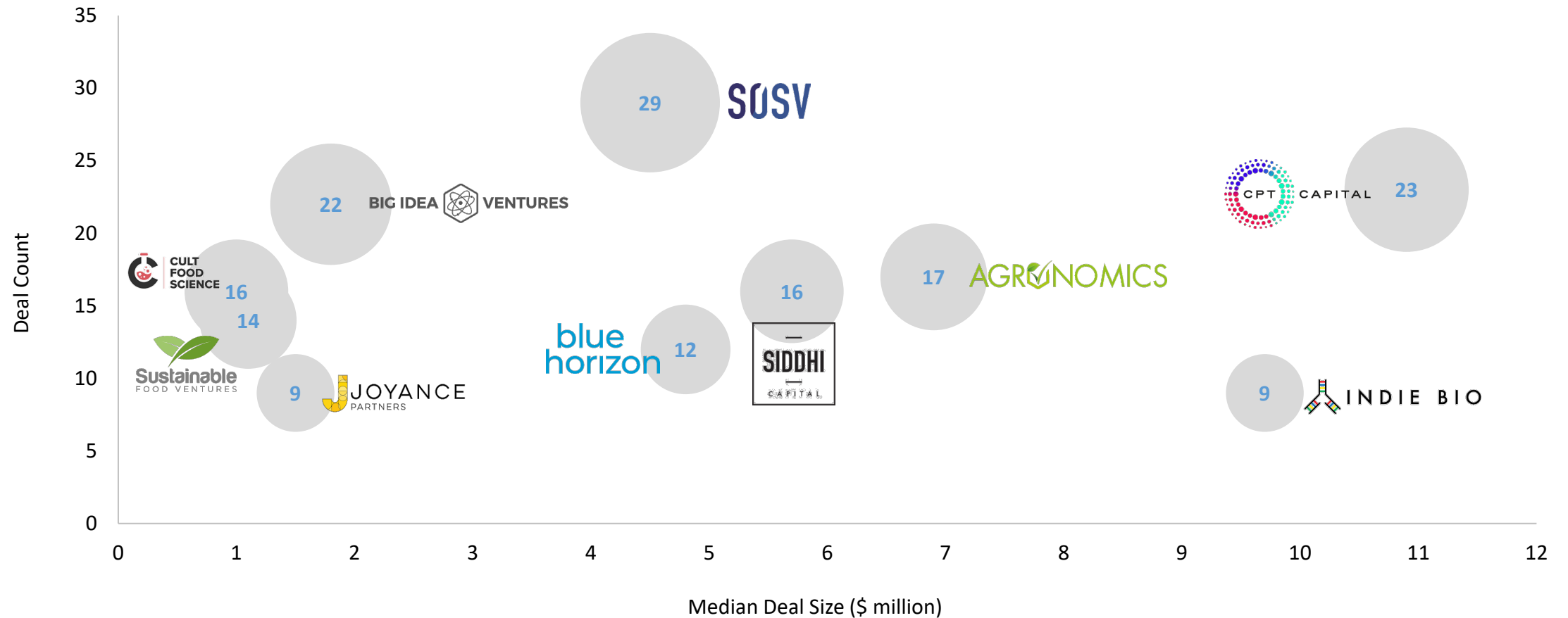
Recent example of European CDMO into the market:

 **Extracellular**
(UK Based)

The first dedicated CDMO secured investment from Big Ideas Ventures after being chosen as one of seventeen early-stage startups. It is specialized in media and process development.

Top Ten Active Investors (by deal count since 2018)

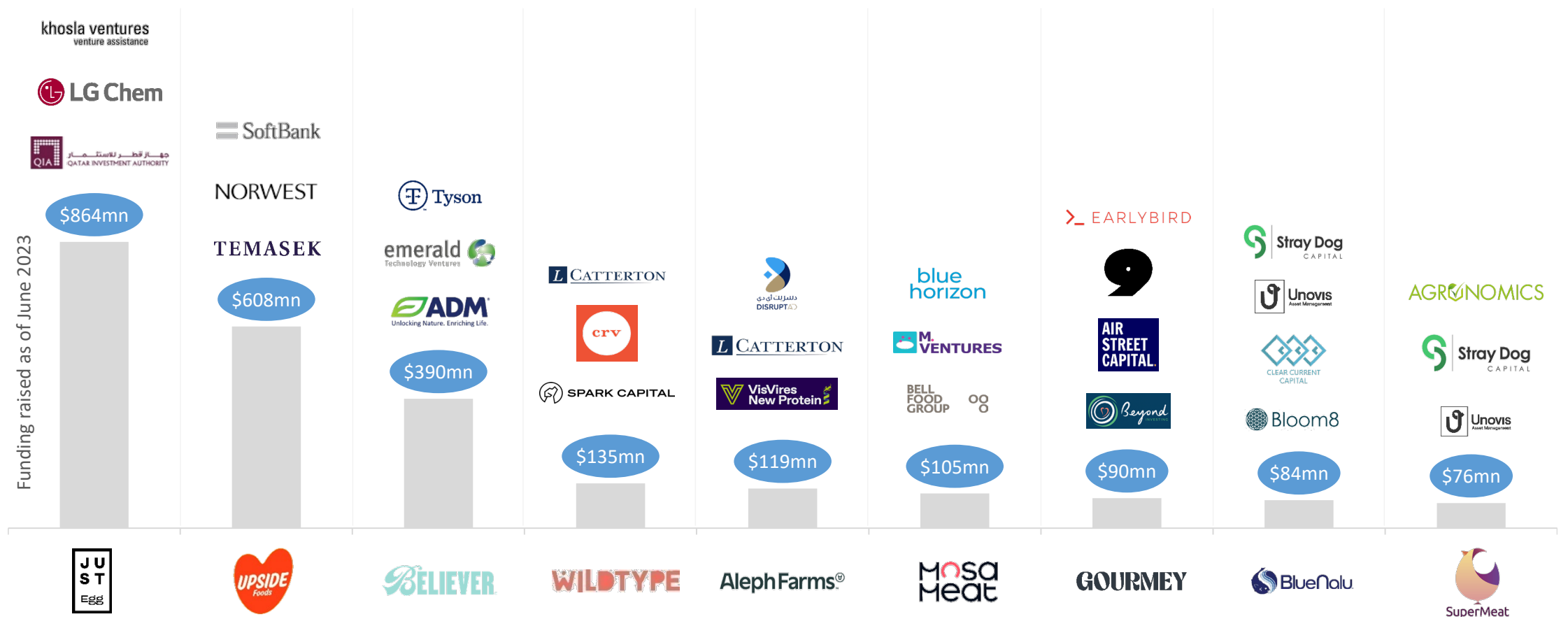
Cultured meat attracted substantial capital, with investments crossing \$1.0 billion in 2022. It has also attracted interest from the High Net-worth investor segment. For example, Bill Gates and Richard Branson joined Tyson Foods, DFJ, Atomico, and Cargill to invest in the Silicon Valley start-up Memphis Meats.



Note: Numbers in circles represent the total deal count for the respective investor.

Notable Startups and Investors

With the regulatory approvals from the US and Singapore authorities, startups got a significant boost in an otherwise challenging environment. Many of the lab-grown meat companies have managed to secure major deals and partnerships even with limited visibility on profits.



Current Market Structure

The downstream is fragmented and characterised by a high number of brands. The upstream is more consolidated with limited suppliers. This resembles the legacy meat industry where there were few breeders, farmers and slaughterhouses but a large number of meat brands.

Multiple competing **B2C Brands** with diverse technologies and **go-to-market strategies**

With growing demand, **manufacturing capacity** is outsourced to **CDMO's**

Comparable to other markets, a small amount of **Keystone Tech. firms** will serve a **large ecosystem** of B2C players

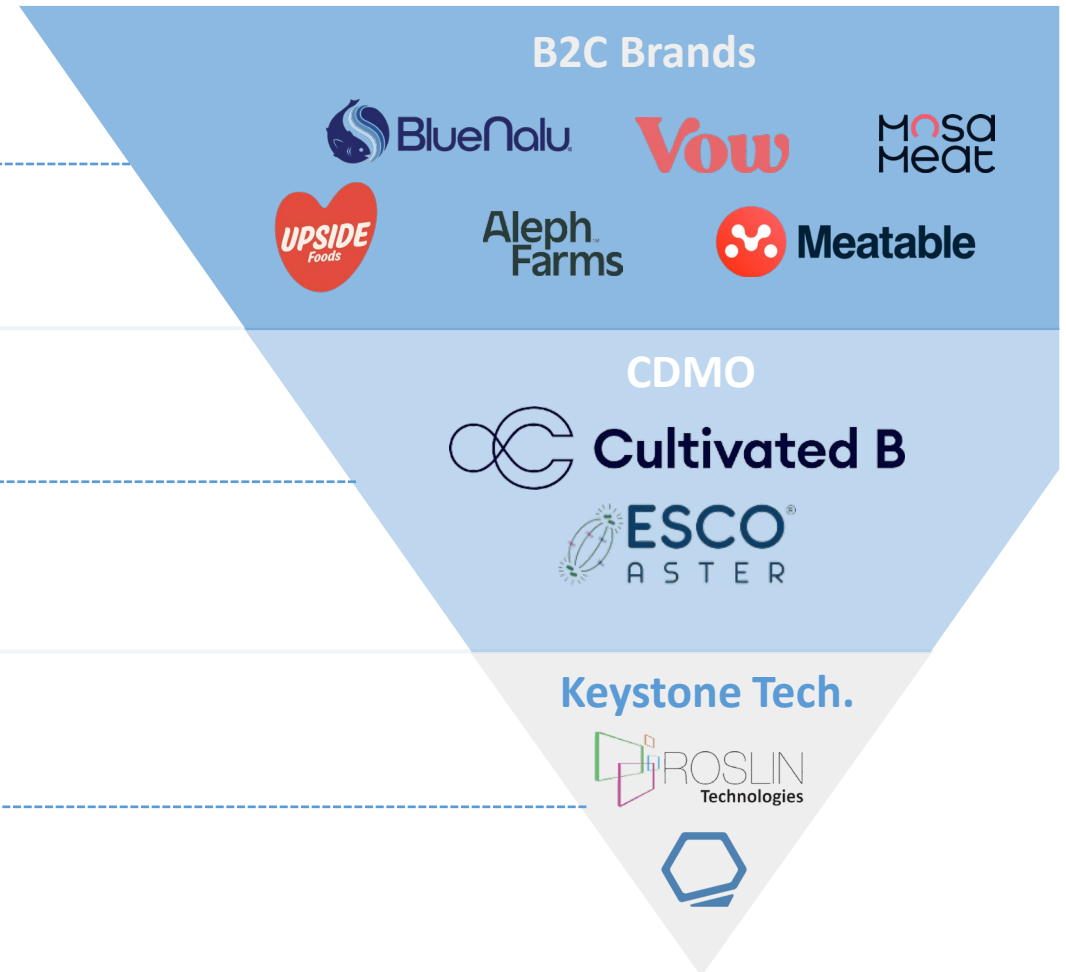


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Key Transactions

About the Target

Meatless Farm is a UK-based producer of plant-based food products designed to help people reduce their meat consumption. The company's products include mince, burger patty, and sausages made using plant-based ingredients, an alternative to meat combined with essential plant proteins.



The Transaction

In June 2023, vegan food company VFC Foods acquired the Meatless Farm brand, which was on the brink of bankruptcy. After the acquisition, Meatless Farm retained its name along with the product range, diversifying VFC Foods' existing plant-based portfolio.

Acquisition Highlights

The transaction was worth £12 million in sales (\$15.2 million). The deal only covered Meatless Farm's UK sales operations. The acquisition enabled VFC to provide more vegan products across retail and foodservice.

Management Quote

"Meatless Farm has built strong consumer awareness, which aligns with our core values, and their exciting product portfolio enhances our existing range. By integrating both brands, we can utilize numerous synergies with valued customers and suppliers, thus driving innovation and extending customer choice."

- David Sparrow, CEO, VFC Foods

About the Target

Vivera is a Dutch plant-based protein brand that develops and produces a broad range of plant-based meat replacement products. It offers chicken-style nuggets and goujons, sausages, and ground meat. The company sells in the Dutch, German and UK markets, accounting for roughly 60% of Europe's plant-based protein market.



The Transaction

In April 2021, São Paulo-based JBS, a protein company and food producer acquired Vivera. The deal included three manufacturing facilities and a research and development center located in the Netherlands. Vivera remained as a standalone business with its current management in place after the acquisition.

Acquisition Highlights

The transaction was valued at €341 million (\$408.11 million). The acquisition strengthened JBS's position in the rapidly growing alternative protein market by adding a brand to its existing animal-free portfolio.

Management Quote

"This acquisition is an important step to strengthen our global plant-based protein platform. Vivera will give JBS a stronghold in the plant-based sector, with technological knowledge and capacity for innovation."

- Gilberto Tomazoni, Global CEO, JBS

M&A Transactions

Date	Acquirer	Target	Target Country	Target Summary	Deal Value
21-Jun-23	VFC Foods	Meatless Farm	UK	The Meatless Farm is a British company that produces vegan, plant-based meats made primarily from pea protein. The company produces high-protein, gluten-free mince, burgers & sausages.	£12M
06-Mar-23	Next Gen Foods	Mwah!	UK	Mwah! is an alt-dairy start-up creating creamy and indulgent dairy-inspired products from plant-based ingredients.	N/A
23-May-22	Beneo	Meatless	The Netherlands	Meatless produces vegetable fibres used in composite meat products. This provides opportunities for cost savings, fat reduction, and footprint reduction within the meat processing industry.	N/A
18-Nov-21	JBS	BioTech Foods	Spain	BioTech Foods is a Spanish biotechnology company dedicated to the development of cultured meat from the cultivation of muscle cells previously extracted from animals.	N/A
19-Apr-21	JBS	Vivera	The Netherlands	Vivera is Europe's third-largest plant-based food company. The company makes vegetarian and plant-based meat alternatives primarily from soybeans, lupine, chickpeas, vegetarian cheese, beans, corn, rice, and potatoes.	€341M
06-Jan-21	LIVEKINDLY Collective	The No Meat Company	UK	No Meat manufactures plant-based food products that include the award-winning No Bull burger, No Bull mince and 'meatballs, No Porkies sausages and burgers, No Chick fillets and strips, No Duck spring rolls, No Lamb koftas, No Fish fingers, No Cheese pizzas, pasties, macaroni cheese, No Moo dairy-free chocolate puddings, and strawberry cones.	N/A

Fundraising Transactions (1/4)

Date of Funding	Investor Name	Target Company	Transaction Type	Money Raised	HQ Country	Description	Other Investors
07-Aug-23	Agronomics	Meatable	Series B	\$35M	The Netherlands	Meatable is a biotechnology company that creates manufactured meat using stem cell technology.	Invest-NL, BlueYard, Bridford Group, Milky Way Ventures, DSM Venturing, Taavet
28-Jun-23	LBBW VC	Bluu Seafood	Series A	€16M	Germany	Bluu Seafood is an operator of a biotechnology company intended to make cultivated fish a reality. The company's platform specializes in food technology that cultivates tastier, healthier, and more sustainable seafood made from fish cells.	Sparkfood
20-Jun-23	SFC Capital	Adamo Foods	Pre Seed-Round	£1.5M	UK	Adamo Food is a UK-based food tech company developing plant-based whole-cut meats using proprietary fermentation technology combined with mycelium.	N/A
09-Jun-23	Balderton Capital	Higher Steaks (Uncommon)	Series A	\$30 million	UK	Higher Steaks (Uncommon) is the producer of lab-grown meat products intended to address climate change, food shortages, and animal welfare.	Lowercarbon Capital, Red Alpine, East Alpha, Max and Sam Altman, Miray Zaki, and Sebastiano Castiglioni
22-May-23	Croudcube	Heura Foods	Equity Crowdfunding	€3.4M	Spain	Heura Foods is a plant-based startup that produces sustainable and nutritious plant-based meat products.	N/A
9-May-23	Climentum Capital	Fermify	Seed Round	\$5M	Austria	Fermify is to domesticate microorganisms and build a super simple and fully automated production platform to address the issue of large-scale milk protein production.	N/A
05-May-23	Agronomics	Good Dog Food	Seed Round	\$4.5M	UK	Good Dog Food provides cultivated meat made specifically for pets.	Siddhi Capital

Fundraising Transactions (2/4)

Date of Funding	Investor Name	Target Company	Transaction Type	Money Raised	HQ Country	Description	Other Investors
28-Mar-23	N/A	Extracellular	Seed Round	\$1.9M	UK	Extracellular is a UK-based contract development and manufacturing organization (CDMO) in the cultivated meat space. The company offers biology, digitalisation and biomanufacturing to accelerate cultivated meat.	Future Food Fund, Newland Syndicate, Tiny VC, Big Ideal Ventures, Unruly Capital, Good Startup, Alex Payne
16-Mar-23	BiInnovation Institute Venture House	Nordic Virtual Pastures	Convertible Note	€1.4M	Denmark	Nordic Virtual Pastures offers cultured minced beef products, 'Poetic Meat', allowing the world to continue eating meat without the environmental and ethical issues that surround the conventional meat industry.	N/A
07-Mar-23	BGF Ventures, Lever VC	THIS	Series B	£10M	UK	THIS is a plant-based meat brand that provides alternative meat products. The company's products are fortified with vitamin B12 and iron, enabling meat lovers to get the real feel of having meat-based products and satisfy their tastes without killing animals.	N/A
17-Jan-23	Mandi Ventures	Multus Biotechnology	Series A	£7.9M	UK	Multus creates animal-free growth media for the cultivated meat industry, specifically, to grow muscle, fat, and connective tissue cells for poultry, meat, and seafood.	SOSV, Big Idea Ventures, SynBioVen, Asahi Kasei
15-Dec-22	Downing Ventures, Parkwalk Advisors	Qkine	Series B	£4.3M	UK	Qkine is a developer and manufacturer of high purity, bioactive recombinant cytokine proteins and growth factors for cellular agriculture including cultivated meat, dairy and seafood.	N/A
01-Dec-22	N/A	Project Eaden	Seed Round	€2.1M	Germany	Project Eaden engages in the development and licensing of technologies to produce sustainable food and meat alternatives. The company offers proprietary fibre spinning technology that can produce 'ultra-realistic' plant-based meat.	Creandum, FoodLabs, Magnetic

Fundraising Transactions (3/4)

Date of Funding	Investor Name	Target Company	Transaction Type	Money Raised	HQ Country	Description	Other Investors
22-Nov-22	Global Entrepreneurs hip Centre	Better Nature	Seed Round	£700K	UK	Better Nature is the producer of plant-based protein products intended to source nutrition for a vegan diet.	N/A
03-Nov-22	Novo Holdings	Roslin Technologies	Series A	£11M	UK	Roslin Technologies operates as an animal agriculture technology company. It develops animal cells for lab-grown cultivated meat that can self-renew and differentiate into any tissue, including muscle and fat.	Nutreco, Old College Capital, Kairos Capital Group, Esco Lifesciences, Alchimia Investments, Scottish Enterprise, Future Planet Capital
25-Oct-22	Unovis Asset Management	Heura Foods	Series B	€20M	Austria	Heura Foods is a plant-based startup that produces sustainable and nutritious plant-based meat products.	Unovis Asset Management, Sergi Roberto, Sergi Busquets, David Broncano, Ricky Rubio
20-Oct-22	Collaborative Fund	Hoxton Farms	Series A	£19.8M	UK	Hoxton Farms is a producer of an animal-free fat-using tissue culture system to create meat alternatives. The company offers purified animal fat in bioreactors and combines cell biology and mathematical modeling to produce purified animal fat in bioreactors.	Fine Structure Venture
05-Oct-22	Earlybird Venture Capital	GOURMEY	Series A	€48M	France	GOURMEY is a French cultivated meat company. It creates sustainably grown meat delights for an uncompromising and conscious generation.	Bpifrance, Point Nine, Partech, Omnes capital
15-Sep-22	Ship2B Ventures	RIP Foods	Pre Seed-Round	€625K	Spain	RIP Foods manufactures plant-based meat products. The company's products specialize in chicken substitutes made from soy protein with less water consumption.	Bstartup Banco Sabadell





Fundraising Transactions (4/4)

Date of Funding	Investor Name	Target Company	Transaction Type	Money Raised	HQ Country	Description	Other Investors
06-Sep-22	BioInnovation Institute	Upstream Foods	Convertible Note	€500K	The Netherlands	Upstream Foods is a biotechnology firm offering cruelty-free plant-based protein supplements. The company develops a proprietary cell line from salmon cells, cultivates them in a bioreactor, and then combines the fat with a plant-based matrix.	N/A
01-Sep-22	L Catterton	Planted	Series B	CHF 70M	Switzerland	Planted is a Swiss plant-based food start-up that produces delicious meat from alternative proteins. Using various proprietary technologies, Planted designs and structures alternative proteins in any size, shape, and fibrous texture.	Vorwerk Ventures, re:food, Movendo, Be8 Ventures, ACE, ETH Foundation, Yann Sommer, Tengelmann Ventures
27-Aug-22	JR Holding	Green Lanes	Seed Round	\$210K	Poland	Green Lanes Foods is a food-tech company that designs food products based on the nutritional and health-promoting values of hemp, including primarily meat substitutes based on textured hemp protein.	N/A
05-May-22	BackBone Ventures, Übermorgen Ventures	Fermify	Pre-Seed Round	-	Austria	Fermify is to domesticate microorganisms and build a super simple and fully automated production platform to address the issue of large-scale milk protein production.	Kale United, PUSH Ventures
21-Apr-22	Acequia Capital	Unicorn Biotechnologies	Seed Round	\$3.2M	UK	Unicorn Biotechnologies is developing a next-generation biomanufacturing platform to power cell-based manufacturing solutions, including cultivated meat.	HAX, SOSV, Cult Food Science, C3, Marinya Capital, Alumni Ventures
19-Apr-22	Astanor Ventures	Planetary	Seed Round	\$8M	Switzerland	Planetary uses biomass and precision fermentation techniques to create meat and dairy alternatives.	Xange, Blue Horizon Corporation, Nucleus Capital





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Recent developments (1/4)

Company	Recent Developments
	<p>Mycorena partnership with collaborators to introduce mycoprotein-based products</p> <p>Mycorena, a Swedish fungi-based, next-generation vegan protein and food manufacturing solution provider has teamed up with several industry players to introduce mycoprotein-based products in key European markets. The company has formed alliance with Rebl Eats, Meeat Food Tech Oy, Revo, and RIP Foods, to carve out a niche in the food industry in Austria, Finland, France, Spain, Sweden, and the Netherlands. Through these partnerships, Mycorena aims to influence a broader market beyond vegans, elevating the alternative food segment through innovative products and technologies.</p> <p>Date: July 11, 2023</p>
	<p>Cultivated meat & seafood tasting made possible by Meatable, Mosa Meat and HollandBIO</p> <p>The Dutch government, in collaboration with cultivated meat producers Meatable and Mosa Meat and sector representative HollandBIO, have created a Code of Practice to make cultivated meat and seafood tastings possible in controlled environments. This makes the Netherlands the first country in the European Union to make pre-approval tastings of food grown directly from animal cells possible, before an EU novel food approval. The was immediately following the government's 'National Growth Fund' committing €60 million to build a robust cellular agriculture ecosystem to make the Netherlands a global hub for the rapidly growing technology.</p> <p>Date: July 06, 2023</p>
	<p>Planted & Fleury Michon collaborates on new plant-based gourmet products</p> <p>Swiss alternative meat brand, Planted partnered with French agrifood business Fleury Michon to launch a range of gourmet plant-based products into retail. The result of the collaboration was a line of three plant-based products. The three products, Emincés Végétaux line consists of seasoned, sliced plant-based chicken, and are available in three recipes: Rôtis, aux Herbes and Epices douces. The partnership enabled Fleury Michon to offer its consumers a new range of plant-based options by leveraging Planted's expertise in plant-based foods.</p> <p>Date: June 14, 2023</p>
	<p>Extracellular & Multus collaboration to launch cultivated meat cell banks</p> <p>Extracellular, a CDMO dedicated to supporting cultivated meat and seafood, developed low-cost, license-free cell banks for use by the cultivated meat sector in collaboration with Multus Biotechnology. This UK-based company creates the critical ingredients for the affordable scale-up of cellular agriculture. The cell bank initiative aims to support early-stage companies and researchers by providing animal primary cells suitable for cultivated meat research and development, up to 90% cheaper than other cell line providers, and free from licensing restrictions.</p> <p>Date: June 12, 2023</p>





Recent developments (2/4)

Company	Recent Developments
	<p>Meatable changes market pace with faster manufacturing of cultivated meat</p> <p>Meatable, a Dutch biotech company developing cultivated meat products, announced it had reduced the time to create cultivated pork meat to only eight days. The company has developed the ability to produce cultivated meat in only eight days, a significant reduction in the process, which previously would take three weeks. Traditionally, it has taken farmers around eight months to rear a pig for pork. To create its cultivated meat, Meatable isolates a single animal cell and replicates its natural growth process using opti-ox technology in combination with pluripotent stem cells (PSCs). The firm aims for its cultivated meat products to reach the mass market with a retail launch in 2025.</p> <p>Date: May 23, 2023</p>
	<p>Mosa Meat opens new facility in Maastricht</p> <p>Dutch cultivated meat startup Mosa Meat has opened a 30,000 sq ft scale-up plant in Maastricht, Netherlands. Part of a 79,000 sq ft facility at the new Mosa C.A.M.P.U.S. (Center for Advanced Meat Production, Upscaling, and Sustainability), the plant can initially make tens of thousands of cultivated burgers a year from 1,000-liter bioreactors. The facility is designed to grow hundreds of thousands of cultivated hamburgers annually as demand increases with regulatory approvals and regional market entries. The Dutch government awarded the company €60 million to support cellular agriculture.</p> <p>Date: May 08, 2023</p>
	<p>Archer Daniels Midland (ADM) & Believer Meats collaborates to create novel products made with cultivated meat</p> <p>Archer Daniels Midland (ADM), a Swiss human and animal nutrition company signed a non-exclusive memorandum of understanding (MOU) with Israel-based cultivated meat maker Believer Meats to collaborate on new ways of developing and commercializing cultivated meat products, including hybrid plant and animal cell options. Under the terms of the agreement, the companies intended to work together to explore a variety of opportunities spanning the cultivated meat production process. Through the partnership, Believer leveraged ADM's ingredients and expertise in nutrition to enhance its cultivated meat process. The agreement also laid out a path to utilize ADM's processing expertise and footprint to potentially commercialize newly created products.</p> <p>Date: April 13, 2023</p>
	<p>CUBIQ FOODS & Cargill collaborates on novel fat technology</p> <p>Spanish food-tech startup CUBIQ FOODS and American food company Cargill have signed product co-development and commercial go-to-market agreements to develop and accelerate the wide-scale commercialization of CUBIQ FOODS' innovative fat technologies. With this strategic partnership, Cargill gained access to CUBIQ's innovative technologies to help customers develop plant-based alternative foods with benefits surpassing typical products made with animal fats or tropical oils. CUBIQ's novel fats, including Go!Drop, joined Cargill's existing portfolio of plant-based solutions, spanning plant proteins, texturizers, and a full array of traditional fats and oils.</p> <p>Date: March 01, 2023</p>

Recent developments (3/4)

Company	Recent Developments
	<p>Mewery introduces cultivated meat based on microalgae cells</p> <p>Czech cell-based food tech startup, Mewery has introduced the prototype of cultivated meat based on microalgae cells in Central and Eastern Europe. The prototype, which combines 75% pork cells and 25% microalgae cells, was cultivated by Mewery scientific team in 10 weeks. Microalgae plays a crucial role in cultivated meat development by replacing controversial ingredients, including fetal bovine serum (FBS). It also offers a nutritional advantage, enriching the products with additional vitamins, minerals, fatty acids, fiber, and antioxidants. The company has submitted a patent for its production process, including developing its own cultivating medium.</p> <p>Date: February 02, 2023</p>
	<p>Ivy Farm announces first production facility and international launch</p> <p>Ivy Farm Technologies, a UK-based cultivated meat company, has announced plans to build its first manufacturing plant to be located overseas. The manufacturing facility will feature fermentation tanks with a 200,000-liter capacity, producing at least 12,000 tons of cultivated meat, the equivalent of over 300 million hot dogs, each year. The company is partnering with Dennis Group, a global design-build firm specializing in food processing facilities, to develop the engineering plans and designs for the plant and sourcing the facility's location.</p> <p>Date: January 17, 2023</p>
	<p>Project Eaden uses fiber technology</p> <p>Project Eaden, a Berlin-based food technology company, produces whole cuts of plant-based meat alternatives using a proprietary fiber spinning technology. The company develops edible plant-based protein fibers like those already used by the textiles, aerospace, and automotive industries that mimic animal meats' texture and appearance. The company uses bio fibers, the building blocks of most animals and plants, as the center of its technology. Investors have added €2.1 million (about \$2.3 million) of additional funding to a previous seed round so that Project Eaden can continue development and accelerate the launch of its first product, a plant-based steak.</p> <p>Date: January 11, 2023</p>
	<p>Plant Revolt plans to expand both its product portfolio and geographical reach</p> <p>Hungarian plant-based start-up Plant Revolt has developed meat alternatives with gluten-free properties, predominantly based on pea protein. The company leverages processing technologies similar to those used in meat production, including cutting and forming. Its formed products, such as meat-free nuggets, are pre-baked. In Q1 2024, Plant Revolt plans to launch a plant-based fish and chips product, plant-based cabanossi, and a plant-based frankfurter. In Q2, it intends to launch plant-based prawns, squid, and cold cuts. Later in the year, the start-up plans to bring out a plant-based paté and plant-based chicken whole cut. As to its geographical expansion, Plant Revolt hopes to advance across the UK, Germany, Croatia, and Italy by the end of the year in retail and food service markets.</p> <p>Date: January 05, 2023</p>

Recent developments (4/4)

Company	Recent Developments
	<p>Ivy Farm opens the largest cultivated meat factory in Europe Ivy Farm has built its largest cultivated meat pilot plant and expanded its R&D facilities in the UK. The new 18,000 sq ft plant near the Oxford University Engineering Department houses a terminal 600-liter bioreactor, producing nearly three tons of cultivated meat annually. The company entered the next phase of its technology by boosting its R&D capabilities to reduce costs, scale up production, and make cultivated meat accessible to consumers on a global scale. Date: August 29, 2022</p>
	<p>Bluu Seafood unveiled its first lab-grown fish products Bluu Seafood, a German company developing lab-grown fish, has developed fish sticks and balls made from cultivated fish cells and enriched with plant proteins. The company starts with a one-time fish biopsy and then uses stem cell technology to develop full cell lines (fish species) in a lab setting. Date: August 8, 2022</p>
	<p>PHW Group signed an MoU with food-tech company SuperMeat PHW Group, a company that produces and markets poultry specialties in Europe, signed an MoU with the food-tech company, SuperMeat. With this signed MoU, PHW Group and SuperMeat will work together to obtain EU authorization for the products and be among the first to develop, manufacture and distribute cultivated meat at a large scale. Date: April 6, 2022</p>
	<p>Barcelona-based bioengineering startup Novameat has created the world's first meat substitute Novameat, a company that designs and manufactures high-quality plant-based sustainable meat alternatives, has developed the world's first meat substitute. The company's super-hybrid meat alternative combines lab-grown animal cells, plant-based ingredients, fungi, algae, and spirulina, a blue bacteria. The blue hybrid meat was produced in five minutes with a lab-scale 3D printer. Date: Jan 21, 2022</p>

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