

2024 STATE OF THE INDUSTRY:

Cultivated

meat, seafood, and ingredients



Acknowledgments

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The cover image is courtesy of UPSIDE Foods.

About GFI's State of Alternative Proteins series

GFI's State of Alternative Proteins series serves as our annual alternative protein sector deep-dive. The series compiles business developments, key technologies, policy updates, and scientific breakthroughs from around the world that are advancing the entire field. To read other reports, visit the [series homepage](#).

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Executive summary

In 2024, cultivated meat made noteworthy progress while also facing numerous obstacles, both new and continuing. The year was marked by diversified new products, impactful scientific breakthroughs, and new regulatory progress. Despite those successes, cultivated meat also continued to face technical and cost hurdles, declining investments, and regulatory bans, raising questions about consumer choice and food freedom in several countries around the world.

Over the year, 155 cultivated meat companies and a growing number of scientists were hard at work innovating and optimizing cultivated meat products so consumers can enjoy the foods they love made with a lighter footprint. In a challenging funding environment, cultivated meat and seafood companies raised \$139 million in 2024, according to a GFI analysis of data from Net Zero Insights. Cultivated meat products debuted in new formats and markets despite closures and setbacks for some in the industry (common in the trajectory of any transformative innovation).

Throughout 2024, scientists discovered novel methods to reduce costs, companies collaborated to advance key technologies, and new innovation hubs and research centers launched around the world. Signals of market expansion beyond Singapore and the United States emerged. In late 2024, Vow's cultivated quail briefly debuted in Hong Kong SAR, a significant step toward introducing this innovative food to one of the world's major markets. As of this writing, Aleph Farms' cultivated beef steaks are pending a few final regulatory steps before reaching consumers' plates.

These are among the notable advancements in 2024:

Commercial landscape

- **Introducing innovation hubs:** Two cultivated meat innovation hubs, facilities in which companies can de-risk processes and demonstrate commercial viability, opened or were announced in 2024. These facilities can help lower companies' scale-up costs.
- **AI and cost reduction:** Companies partnered to utilize AI to develop processes and technology to reduce the cost of cultivated meat. Others agreed to codevelop equipment to improve cultivated meat's unit economics and establish methods for optimizing cell growth.
- **New product launch: GOOD Meat**, the cultivated meat division of the U.S. plant-based food company **Eat Just**, launched GOOD Meat 3, the first product containing cultivated meat (3%) to be available in retail, in the frozen section of **Huber's Butchery** in Singapore.

Investment

- **Significant deals:** The two largest cultivated meat deals in 2024 were **Prolific Machines'** \$54.6 million Series B and **Mosa Meat's** €40 million (\$42.9 million) round.
- **The long-view context:** Though both deals were larger than 2023's largest round of \$35 million, neither ranks among the top 10 largest investments in the sector. The investment environment of the past two years has been fundamentally different from the low-interest-rate period of 2020 to 2022, when the 10 largest cultivated meat and seafood rounds were raised.
- **Total raised:** Since 2013, privately held companies involved primarily in the cultivated meat sector have raised more than \$3 billion. For comparison, in the first three quarters of 2024 alone, global private equity and venture capital funding into the electric vehicle sector totaled \$3.3 billion, eclipsing all-time cultivated meat funding.

Science and technology

- **Cultivated bioprocess advances at the facility level:** Large-scale production systems are planned or coming online with the support of established industrial manufacturers: **Vow** is manufacturing cultivated quail in a 15,000 L bioreactor, with a 20,000 L bioreactor coming online soon, the largest production scale reported to date.
- **Alternative protein research, science, and commercialization centers:** Global innovation in alternative proteins continues to expand at dedicated hubs, including The Bezos Centers for Sustainable Protein, the Alternative Protein Technology Innovation Center of the China State Administration for Market Regulation, the UK's four dedicated alternative protein research centers, and India's IKP Knowledge Park's Centre for Smart Protein and Sustainable Material Innovation.

- **New facilities:** The Cultured Hub in Switzerland, the largest cultivated meat contract development and manufacturing organization (CDMO) in Europe, opened its doors. Additionally, Tufts University received a \$2.1 million grant from Massachusetts state funds to establish pilot scale-up facilities on campus, and Fermbox/BBGI made progress on establishing the first CDMO facility in Thailand.

Government and regulation

- **Forward progress:** The sole entity tasked with legal authorization to issue Halal certificates in Singapore declared that cultivated meat can be Halal. In other regions and countries, the first regulatory submissions were made or accepted for cultivated meat and are undergoing the review process (EU, South Korea, and Thailand).
- **Explosion of global public investment:** The government of India made a billion-dollar commitment to develop domestic biotechnology capabilities that included cultivated meat in their wider scope, while Japan, New Zealand, Singapore, and South Korea funded public and private research to advance cultivated meat science.
- **Challenges at the state level in the United States:** Bills to ban cultivated meat were introduced across 12 states in 2024, and all but two failed to pass. In March 2024, Florida's legislature became the first in the country to vote to ban cultivated meat, with the governor signing the bill into law on May 1. Also in May, Alabama enacted a bill banning the production and sale of cultivated meat. Litigation challenging the Florida ban is currently ongoing.

Unless otherwise cited, all of the investment information presented in this "Executive Summary" is from GFI's analysis of data from the Net Zero Insights platform. Please note that aggregated data has not been reviewed by Net Zero analysts.