



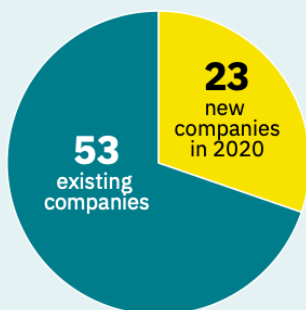
**At a glance** 2020 State of the Industry

# Cultivated Meat

2020 was a year of firsts for the cultivated meat industry—capped off with a head of government consuming cultivated meat in Israel and the first commercial sale of cultivated meat in Singapore. The regulatory approval of a cultivated chicken product in Singapore is a good sign for regulatory green lights in other countries, and the sector made headway in advancing the viability of industrial-scale production.

## Commercial landscape

### Companies dedicated to producing cultivated meat



↑ **43% YOY increase**

**First commercial launch.** Eat Just launched the commercial sale of its cultivated chicken bites at restaurant 1880 in Singapore. 1880 sold the product to consumers for the first time via a series of invitation-only dinners in December before adding it to the menu in early 2021.

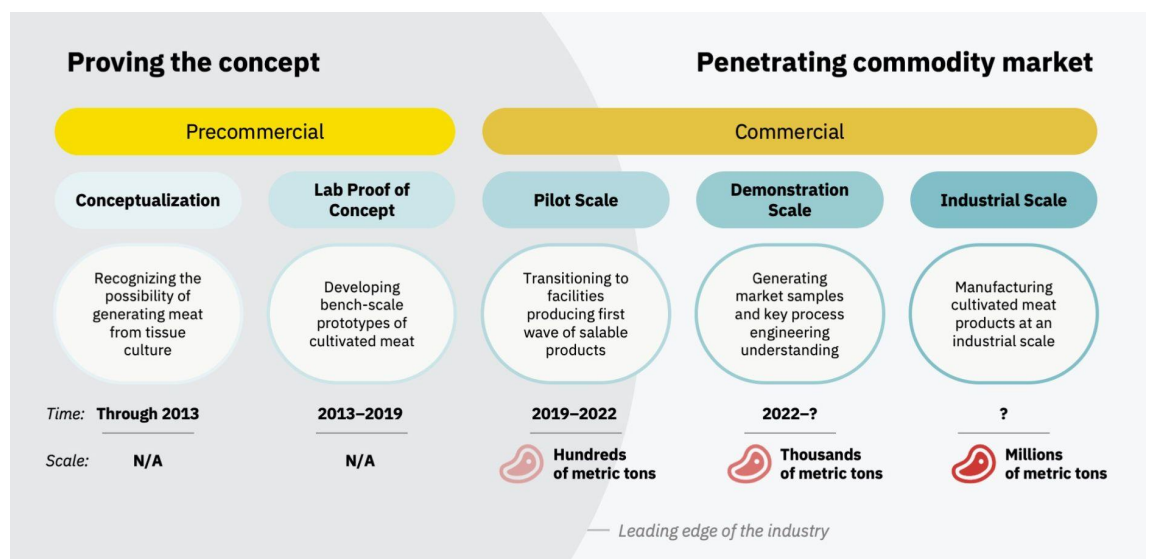
**Spotlight: seafood.** 3 of 8 major 2020 cultivated meat tasting events were for seafood products—fish fillet, sushi-grade salmon, and lobster.

In 2020, companies advanced cultivated meat technology and pursued the production of a wide variety of meat types, including:

- Beef
- Chicken
- Pork
- Shrimp
- Duck
- White fish
- Sturgeon
- Salmon
- Tuna
- Lamb
- Foie gras
- Fish maw
- Horse
- Kangaroo
- Lobster

### Leading edge of cultivated meat production

Companies at the leading edge of the industry are now manufacturing cultivated meat at pilot scale, a crucial early step to assess the viability of industrial-scale production.





## Investments

Investment in cultivated meat companies topped \$350 million in 2020, nearly double the previous cumulative investment in the industry. 2020 also saw the industry's first Series B funding rounds.

Category	2020	2016-2020	Highlights
Total invested capital	\$366M	\$505M	2020 invested capital grew 487% from 2019.
Invested capital deal count	49	125	2020's largest investment was \$186M (Memphis Meats).
Unique investors	94	245	The number of unique investors grew 62% from 2019.
Series B funding rounds	2	2	Included Memphis Meats and Mosa Meat.
Series A funding rounds	6	12	Included Blue Nalu, Shiok Meats, IntegriCulture, and Biomilq.



## Science and technology

Several techno-economic assessments revealed the technical and financial feasibility of scaling up cultivated meat production. **Recombinant proteins** and **growth factors** are dominant cost drivers of production; as raw-material costs decrease, **bioreactors** and **facilities** will represent a lion's share of costs. Challenges remain in **chemical** and **biological engineering** as well as in securing data for **cellular metabolism metrics**. Studies also revealed that fundamental technological breakthroughs are not necessary to eventually achieve economically viable production. Learn about more science and technology breakthroughs from GFI's [research grant program](#).



## Government and regulation

**Regulatory approval.** The Singapore Food Agency (SFA) became the first national regulator to **green-light the sale of a cultivated meat product**. The approval of Eat Just's cultivated chicken, for use as an ingredient in the company's chicken bites, was the culmination of a regulatory process developed over more than two years.

**Head of state tasting.** GFI Israel and Aleph Farms hosted **Israeli prime minister Benjamin Netanyahu** for a tasting of Aleph Farms' cultivated steak. Netanyahu directed the **appointment of a body** to serve the industry.

**Public funding.** Both the U.S. and the E.U. provided their first substantial public R&D funding in the sector.



[Download the full report.](#)

## About GFI

The Good Food Institute is a 501(c)3 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.