

INSIGHTS

Singapore has a strong appetite for alternative proteins

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Published on 31 Aug 2021 • 5 mins read 📖

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Singapore was the first country to approve cell-based meat for human consumption and sale in 2020. Now, it's becoming a hub for the alt protein industry.

of protein. Meat and seafood consumption is estimated to rise 78% by 2050 in Asia, but with higher consumption comes an environmental price.

The meat industry is one of the biggest contributors to greenhouse gas emissions associated with global warming. Yet, as more people become aware of their personal nutritional habits and the associated environmental impact, they are exploring alternative options to reduce meat consumption. This has led to the rise of the alternative protein industry.

The Singapore Food Agency defines alt protein as proteins derived from sources other than animals, including plants and cultured or cell-based meat grown under controlled conditions. Over 46% of Singaporeans would adopt a plant-based diet due to general health concerns, according to research published by Statista. Another recent online survey conducted by cell-based meat and seafood firm ShioK Meats found that 78% of Singaporean consumers are willing to try cell-based seafood options, with 45% citing sustainability as the primary motivation.

While the industry is still in its infancy in Asia, alt protein companies have attracted the attention of venture capital (VC) firms that foresee growth opportunities in the sector. The Asia Pacific region saw a sixfold increase in investment capital in the alternative protein sector from 2019 to 2020, totaling USD 206 million last year, according to a report by market research firm Preqin.

In Singapore, dozens of startups in the sector have emerged and raised significant investments since 2018. For instance, alt protein firm Next

A governmental push

The Singaporean government has been progressive in boosting the local food tech industry. Singapore was the first country to approve the sale of cultured meat in December 2020, when it granted egg substitute maker Eat Just approval to sell lab-grown meat to the public.

The Asian nation established in 2019 its “30 by 30” vision to reduce dependence on food imports, with the goal to locally produce one-third of consumed food domestically by 2030. The plan looks to support Singapore’s local production capabilities to create sustainable food systems, including developing an alternative protein sector.

“Singapore is the innovation center for cell-based meat in Asia,” Andrew Ive, founder and general partner of Big Idea Ventures, a clean meat-focused accelerator based in Singapore and New York, told *KrASIA*.

“Not only was Singapore the first country to approve cell-based meat for human consumption and sale, but it also has an ecosystem composed of a highly educated workforce, corporate partners, financial support, and a vibrant startup scene,” he added.



The government is embracing the alt protein industry in many ways, from creating a friendly regulatory environment that favors cell-based companies to encouraging global food corporations to establish

For example, Hong Kong-based lab-grown meat company Avant Meats established an [R&D center and pilot manufacturing facilities](#) in Singapore in April 2021, supported by the Singapore Economic Development Board. That same month, Swiss companies Givaudan and Buhler jointly opened the [Asia-Pacific protein innovation center](#) in the city-state. Singapore is also the first in the Asia Pacific region to offer an [alternative protein university course](#), launched at Nanyang Technological University in August.

State-backed investors like Temasek, GIC, and Seeds Capital, the investment arm of Singapore Enterprise, have also injected capital into startups in the alt protein sector. “Moreover, Singapore has very well-trained and educated scientists, supported by the Agency for Science, Technology, and Research, A*Star,” I’ve continued.



Shiok Meats' cell-grown shrimp dumplings. The company recently acquired Gaia Foods for broader

While the government's main goal in advancing the foodtech ecosystem is to reduce dependence on imported food, Singapore's homegrown alternative meat companies can enjoy the favorable environment to grow big enough to compete on the global stage, experts believe.

I've drawn a comparison between Singapore and other Asian foodtech ecosystems like Japan and China. "Japan has some great cell-based companies that were early to the category. However, the ecosystem is not as cohesive or as supported by investors and local food corporations. China recently announced a five-year plan which includes cellular and genetic foodtech technologies, but it only has a few successfully funded cell-based alternative companies so far."

A number of Singaporean companies are already showing a promising future in the international arena. Some examples are Karana, which sells its whole-plant *bao* and dumplings in Hong Kong. The startup also aims to launch its products in the US soon. In August, Shiok Meat [acquired cell-based red meat Gaia Foods](#) for broader cell-meat commercialization and expansions in Asia. Moreover, cultured milk company TurtleTree Labs is reportedly working with Virginia-based Solar Biotech to [scale the production](#) of its cell-based milk.

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Gautam Godhwani, managing partner of alt protein-focused VC Good Startup, said that while many Singaporean alternative protein startups have their eyes on the global market, they often adopt a hybrid strategy, seeking supply chains and manufacturing opportunities in Asia while focusing on R&D and distribution efforts in the Europe or US markets.

“We will see more specialization across each region when it comes to the different segments within the alternative protein sector. Over time, Singapore has had the opportunity to become a significant player in R&D, manufacturing, and a corporate hub for companies targeting Asia,” said Godhwani.

He added that the industry is “nearing the end of the first chapter of the alt protein revolution,” with the next chapter bringing new technologies, innovation in the supply chain, and broader product offerings. It will take time for Asia to reach its full potential in the industry, but Singapore is well-positioned to do so, given its current focus and traction in the sector, Godhwani added.

“Singapore still needs additional investment in talent and infrastructure to develop a rich ecosystem that can support a large number of startups in this area. This will become more important in the coming years due to increased engagement from the government, businesses, and research institutions.”

As the market for alternative meat and plant-based diets is set to hit USD 290 million by 2035, according to a study by [Boston Consulting Group and Blue Horizon Corporation](#), faux meat could soon become a daily dish in Singaporean restaurants and home cuisines.