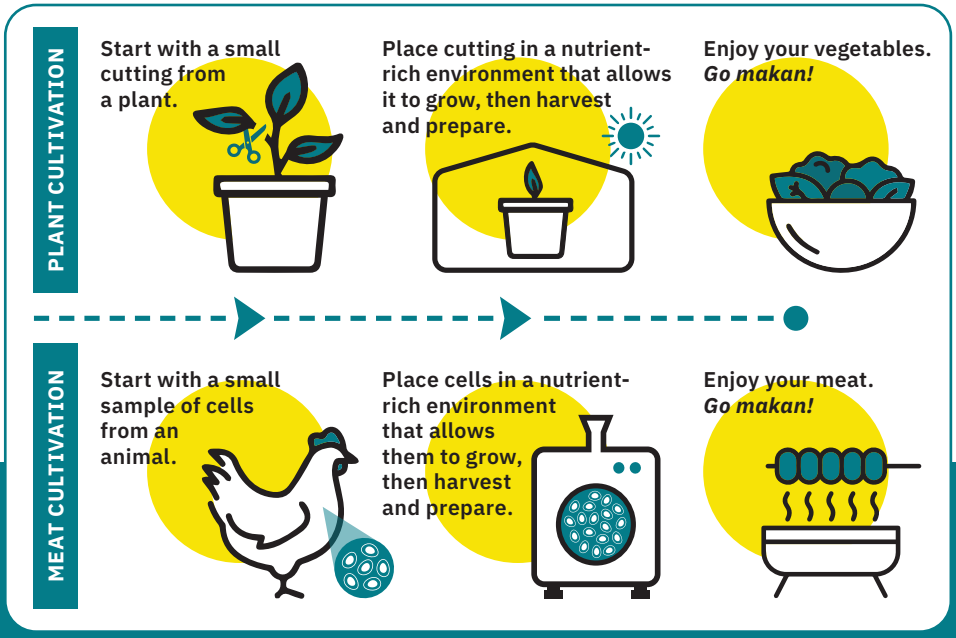
REIMAGINING PROTEIN

Cultivated meat is genuine animal meat that is produced by cultivating it directly from animal cells. By decoupling protein production from industrial animal agriculture, cultivated meat eliminates the risk of zoonotic disease and could significantly reduce potential contamination by pathogens like *E.coli*, making it a more secure and sustainable food source. **It's simply a smarter way to make meat—full stop.**



Cultivated Meat, Explained: Just as greenhouses help farmers cultivate full-sized plants from tiny seeds, meat can be grown directly from animal cells by placing a small sample of cells in a nutrient-rich environment within a cultivator.

Cultivators enable the cells to undergo similar biological processes to those inside an animal's body. By providing warmth, oxygen, and a mix of nutrients in a broth known as "cell culture media," the cells are given the basic elements, such as water, amino acids, proteins, carbohydrates, fatty acids, vitamins, and minerals, needed to build the components of meat. Plant-based "scaffolding" is often combined with the cells to assemble them into familiar dishes, such as sausages and nuggets, while techniques like 3-D printing can help produce structured meat cuts and more complex dishes, such as steak.

The result is a product that can **replicate the meat experience diners know and love,** while significantly reducing supply chain disruptions and using a tiny fraction of the land and other finite resources—a quintessential win-win-win.

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Modernising Meat Production: Under a business-as-usual scenario, Asia's appetite for conventional meat and seafood has been projected to increase by 78 percent by 2050, contributing to historic levels of deforestation, water depletion, and greenhouse gas emissions. **A change of trajectory is urgently needed and cultivated meat is an essential part of that shift.**

- Up to **92%** lower climate footprint compared to conventional beef ...
- ... requiring **90%** less land ...
- ... **98%** less soil acidification ...
- ... and **94%** less air pollution
- Can be produced anywhere, increasing food security
- Reduced risk of zoonotic disease and antimicrobial resistance
- More efficient production
- Clean and slaughter-free

[Credits: GOOD Meat and Shiok Meats]

State of the Industry: Singapore was the first country on Earth to grant regulatory approval for the commercial sale of a cultivated meat product, followed by the U.S. More than 150 companies are now dedicated to producing cultivated meat and key food industry leaders like Thai Union, ADM, and CPF are investing and partnering with startups to help them scale up. Projections show that **cultivated meat could be cost-competitive with some conventional meats by 2030**, allowing it to become a staple of high-end restaurants and a value-add ingredient that can take mainstream plant-based meat products to the next level.*

Despite this progress, the success of cultivated meat is not inevitable. Significantly more investment is needed from the public and private sectors to address critical knowledge gaps, optimise processes to scale up, and lower costs. Regulatory approvals are also an essential element for market access, but current frameworks for alternative proteins lag behind consumer demand and require greater international coordination.

Building the Roadmap: Headquartered in the Lion City, the Good Food Institute APAC is Asia's leading alternative protein think tank, accelerating a shift towards a more secure, sustainable, and just food system through open-access R&D, corporate engagement, and public policy.

GFI APAC is powered entirely by philanthropy. To help us build a better food future for Asia, visit **GFI-APAC.org/Donate**.

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* Cost and environmental impact reports: https://gfi.org/resource/cultivated-meat-lca-tea-report-analysis/