

Foodtech

Does the UK have an appetite for a cultivated meat revolution?

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Research has found that cultivated meat could cut the climate impact of meat by [up to 92%](#) and reduce air pollution by up to 94%. What exactly is the meat source, how is it more sustainable than the traditional meat industry, and does the UK have an opportunity to lead the way in this subsector?

Cultivated meat, or cultured meat, is a slaughter-free meat alternative that is made by taking a sample of cells from an animal and growing them in a fermentor – like that used for brewing beer – instead of by farming animals.

The fermentor supports the same processes that happen inside an animal by providing the warmth and the basic nutrients needed to produce meat. Because meat is grown in a lab, there is a drastically lower carbon footprint compared to rearing livestock.

Going to market

Despite cultivated meat offering a way to beef up sustainability efforts, it isn't currently authorised to be sold in the UK.

In December, the government announced it will [invest £2bn](#) in research, development and infrastructure over the next decade, including in the UK's cultivated meat industry – and noted that failing to keep up with countries like Singapore and the US, which have approved the sale of cultivated meat, could send UK companies abroad to more accessible markets.

"Before a cultivated meat product can be sold in the UK, it needs to be approved by regulators from the Food Standards Agency (FSA) and Food Standards Scotland (FSS), who will carry out a thorough and evidence-based assessment of a product's safety and nutritional value," Linus Pardoe, UK policy manager at non-profit think tank the Good Food Institute, told *UKTN*.

"The regulations say this process should run to a 17-month timeline, although in practice it may take longer."

Despite the challenges in going to market, the UK's cultivated meat sector continues to grow. The UK Research and Innovation (UKRI) agency invested [more in alternative proteins](#) last year than throughout the entire previous decade, with most of this going to cultivated meat.

A standout investment was a [£12m research hub](#) led by the University of Bath aimed at commercialising the food source. But experts say the UK could go further to expedite growth in the subsector.

"Cultivated meat was highlighted by the Cabinet Office as an opportunity in a 2022 Benefits of Brexit whitepaper, but our departure from the EU has led to the FSA's remit expanding considerably," says Pardoe.

"The next government must provide the funding regulators urgently need in order to ensure this food can be brought to restaurants and dining tables in the UK."

Pardoe notes that means investing at least £245m in R&D and infrastructure over the course of the next parliament to build a globally competitive sector.

'More dialogue' needed

Hoxton Farms grows real animal fat – without the animals. The London-based startup sells its lab-grown pork fat as an ingredient to food manufacturers to combine with plant-based protein and create hybrid products.

Ed Steele, co-founder at Hoxton Farms, says plant-based protein is a step in the right direction to reduce the environmental impact of the traditional meat industry, but says most alternative protein products rely on fat from oils that don't perform like traditional fat. This means, he says, that end products don't taste, smell or cook like the real thing.

"This is where cultivated products, and particularly cultivated fat, offer a more sustainable alternative," he says.

"Cultivated fat grows quicker than muscle and a small amount transforms the taste, texture and performance of meat alternatives."

Steele says that after Brexit, the UK retained EU law and inherited a system that is not designed with innovation in mind – but now, there is an opportunity to adapt it.

"We'd like to see a more formal pre-submission dialogue between the FSA and novel food companies, which would ideally lead to a specific pathway for cultivated meat – similar to the processes that have been developed by the FDA and USDA in the US, and the SFA in Singapore," says Steele.

"We would also like to see international collaboration, where products are fast-tracked through the novel foods approval process if they have already been approved in other countries."

Ripe for investment?

The government has committed investment to the cultivated meat industry, and VCs want a slice of the action too.

Andrew Bennett, policy principal at Form Ventures, says the VC firm believes that cell-cultivated foods can play a major role in global decarbonisation efforts by enabling sustainable, cruelty-free diets – which is why it invested in Hoxton Farms.

"Ultimately, this is about a major shift in consumer behaviour," Bennett told *UKTN*. "To succeed, startups in this sector need their products to be as tasty and cost-effective as what's on shelves today, and that's clearly a huge challenge.

"Many companies in this sector are still working with small bioreactors and only able to produce small quantities, but we're seeing incredible advancements in bioreactor design and engineering to produce ever-greater quantities and bring costs down.

"While it'll take time, we're enormously optimistic about the long-term trend."