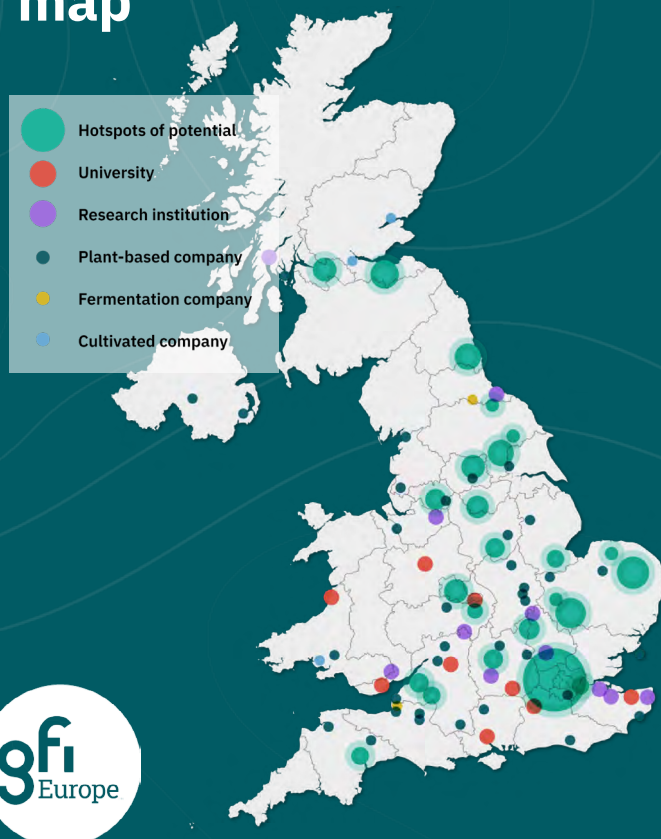


Making the UK a global leader in alternative proteins

The Climate Change Committee and National Food Strategy are unequivocally clear: we cannot keep eating the amount of meat and dairy that we currently consume without further eroding food security, emitting unsustainable levels of greenhouse gases, and destroying precious ecosystems like our waterways.

But eating meat is part of Britain's national food culture and it's understandable that policymakers are reluctant to talk about reducing meat consumption.

UK AP ecosystem map



Alternative proteins offer a fresh solution: making the foods people know and love from plants, fungi and animal cells enables a simple, sustainable switch in our diets, without the impacts of intensive animal agriculture.

There's room for more whole plants in our diets too, but we need to recognise that the majority of people want to continue eating meat and dairy.

Alternative proteins are particularly well suited to replacing everyday meat products like sausages and chicken pieces, which usually come from intensively farmed animals. This leaves space on our plates for higher-welfare meat and dairy, and the sustainable farming practices these foods support.

Alternative proteins are generally split into three main pillars:

Image: Juicy Marbles



Plant-based meat

Looks, cooks and tastes like conventional meat – but is made entirely from plants. The UK is home to some of the world's oldest plant-based meat brands, but new next-generation products are emerging that can better replicate the taste and texture of meat.

Image: Uncommon



Cultivated meat

Made from real animal cells, but grown in fermentors. Cultivated meat (and fat) can give the authentic flavour of meat that is difficult to achieve using only plant-based ingredients. Cultivated meat has been approved in Singapore and the US, and approval is pending in the UK following the first regulatory submission in 2023.

Image: Quorn



Fermentation

A centuries old process common in food production with several AP applications. One example is precision fermentation, already commonly used to make rennet for cheesemaking. Precision fermentation uses yeast to make proteins like whey and egg white, as well as fats like palm oil. Many of these new ingredients are approved in the US, Singapore and Israel, but awaiting UK approval.

Fact:

The Climate Change Committee recommends a 20% reduction in meat and dairy by 2030 and a 35% reduction in meat consumption by 2050, driven partly by consuming more plant-based alternatives.

British science and innovation can enable the UK to lead the global race to develop alternative proteins and deliver green growth.

UK Research & Innovation has already invested **more than £70 million** in alternative proteins, tapping into the nation's latent scientific strengths.

World-leading research centres have been launched at three UK universities: Bath, Leeds and Imperial College London. Post-Brexit, the UK also has the chance to modernise the regulatory approval process for new foods like cultivated meat. Estimates suggest that by 2035, alternative proteins could create 25,000 jobs, adding £6.4 billion to the economy.

We cannot afford to stand still. From China to Canada, countries are investing heavily in developing and scaling APs. With the right support, British scientists, entrepreneurs and food producers can challenge them and become world leaders.

“The UK should be positioning itself at the forefront of this new industry... We are in danger of missing a prime opportunity for green growth.”

Henry Dimbleby,
The National Food Strategy

The challenge

Although many UK shoppers already purchase plant-based meat and dairy, only a quarter of consumers are satisfied with the current generation of plant-based options. Surveys consistently report that they're too expensive and aren't tasty enough, particularly for meat eaters.

The solution

Developing more affordable and appealing options will boost consumer choice for people who still want to eat meat. We can do this by catalysing the science and regulation of plant-based foods, cultivated meat and fermentation.

The Benefits

Slashing GHG emissions: Alternative proteins have the second-highest climate mitigation potential, after tree planting, and could help to reduce global CO₂eq emissions by 6 billion tonnes. That's more than the total CO₂eq emissions the whole EU. **Find out more.**

Boosting food security: Because alternative proteins need far less land than animal-based meat and dairy, they could enable the UK to increase its domestic food self-sufficiency from 47–64% by 2050. **Find out more.**

Reducing dietary ill-health: Peer-reviewed research studying hundreds of plant-based meat and mycoprotein products shows that the vast majority were significantly higher in fibre and lower in saturated fat. **Find out more.**

Policies to support the growth of alternative proteins

Plan	Plant-based foods, cultivated meat and fermentation should be consistently integrated into long-term planning for food, climate and land, starting with the new Net Zero Strategy.
Invest	The UK should invest – principally via UKRI – at least £245 million in research, development and commercialisation for alternative proteins by 2030. This should range from early-stage R&D, to support for first-of-a-kind production facilities.
Reform	Regulations including the novel foods framework should be modernised to make the UK the most competitive place in the world to bring new alternative protein products to market. Updates to public procurement rules that mandate a move away from processed meat would also help to stimulate demand for plant-based meat.
Lead	The UK should leverage multilateral agreements and convenings like the Breakthrough Agenda and COP to bolster its position as an alternative protein leader and forge scientific and regulatory collaborations with its allies.