

## **Submission for public consultation - European bioeconomy policy: stocktaking and future developments**

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The Good Food Institute Europe welcomes the opportunity to provide feedback on the Progress Report of the European Bioeconomy Strategy. We strongly support this stocktaking exercise and in particular the aim to align this important strategy with the European Green Deal.

To be sustainable, circular, and resilient, the European bioeconomy must be aligned with the European Green Deal and the Farm to Fork Strategy in explicitly recognising the transformative potential of alternative proteins to make our food system sustainable, healthy, and secure. To make sure that alternative proteins reach their full potential, Europe must support these industries and invest R&D into improving taste and reducing prices of plant-based meat, cultivated meat, and fermentation.

The bioeconomy strategy is rightly concerned with addressing food and nutrition security, alongside sustainability. Industrial animal agriculture is a root cause of many environmental challenges such as climate change, and biodiversity loss, and public health challenges such as antimicrobial resistance, and the spread of zoonotic diseases. Studies show that governments will not be able to meet their Paris climate change targets without tackling agricultural emissions. According to the United Nations' [Preventing the Next Pandemic](#) report, of the seven human-mediated factors most likely driving the emergence of zoonotic diseases, the first two are: “increasing human demand for animal protein” and “unsustainable agricultural intensification”. Tackling these issues requires more than incremental change, it requires a transformative approach.

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Producing meat from plants or by growing it directly from animal cells, bypasses the need for individual behaviour change (which moves much too slowly to have a sizeable impact on pressing issues such as climate change) by giving consumers the products they love, but made more sustainably. A shift to alternative proteins not only cuts down on greenhouse gas emissions, but crucially it drastically reduces land-use needs (up to 99% for plant-based meat and 95% for cultivated meat) therefore freeing up vast swathes of land for other uses - such as carbon sequestration, rewilding, or more sustainable farming practices such as regenerative agriculture. This also shows to what extent plant-based and cultivated meat can be truly circular products with huge reductions in resource inputs.

The plant-based and cultivated meat industries provide an opportunity to valorise virtually all waste- and side-streams from agricultural harvest and the food, biomaterial, and biofuel industries. Because plant-based and cultivated meat relies on basic biological building blocks as their key inputs (namely proteins, sugars, amino acids, and fibrous polymers), waste- and side-streams can be broken down into appropriate feed sources. Further public investment will allow plant-based and cultivated meat industries to utilise these residual streams that would otherwise be waste.

The plant-based and cultivated meat sectors are experiencing exponential growth both globally and in Europe, with investment figures in Europe rising to €441 million in 2020 – more than four times the amount invested in 2019. As consumer demand swells, many big brand names such as Nestle and Unilever are taking interest and opening up plant-based meat product lines. The global momentum is building around these sectors as consumer demand rises, with retail sales growing by 49% in Europe from 2018 to 2020 and rising to a sales value of €3.6 billion. The momentum is building for cultivated meat too as in December 2020 Singapore became the first country to approve cultivated meat with products now for sale on the market. There are now over 70 cultivated meat companies active globally.

The shift towards plant-based protein could allow farmers to grow higher value legumes and crops instead of growing vast amounts of low value crops destined for animal feed. Cultivated meat offers animal farmers an opportunity to diversify, installing cultivators that will enable them to produce local food with fewer animals and lower feed costs. More research is needed into how this will play out in the European context, but recent figures from the UK estimate that making alternative proteins in the UK would create around 10,000 new factory jobs and 6,500 farming jobs (to grow protein crops and other inputs).

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The exact numbers and the smoothness of this transition will depend on governments. By funding open-access research and development and investing in infrastructure and training for workers, they can help to make knowledge about plant-based and cultivated meat available to everyone – increasing the number of entrepreneurs and companies able to enter this space and create jobs. More public investment in R&D in this field will also play a crucial role in unlocking new opportunities for farmers and allowing them to make evidence-based business decisions, for example by identifying which protein crops are best suited to different climates, and how to optimise their crops for the plant-based meat value chain.

Addressing questions of sustainability, circularity, and food and nutrition security, a strong share of alternative proteins in the future food system is a key pillar of the European bioeconomy. Future revisions of the Strategy should recognise the important role of alternative proteins in achieving the goal of a more sustainable, circular, and secure food system and should create an Action to advance these sectors.