

## Horizon4Proteins Policy Brief

# Alternative Proteins: towards a more resilient food system

[Horizon4Proteins](#) represents a rolling collaboration between projects funded under the theme of 'alternative proteins' within the EC's Horizon 2020 and Horizon Europe research programmes. The project consortia represent universities, research institutes, industries and NGOs. The alternative proteins being explored on the projects include plant proteins, insects, microalgae, bacterial single cell proteins, and more.



Successful development of the alternative proteins sector in the EU will require changes to the current regulatory frameworks, to accommodate with evolving market innovations while continuously ensuring that food safety and sustainability standards remain the core concern of policy-makers. **In this policy brief, a number of the Horizon4Proteins projects - [NextGenProteins](#), [Smart Protein](#), [ProFuture](#), [SUSINCHAIN](#) and [LIKE-A-PRO](#) - outline five actions that should be implemented to ensure meaningful development of the EU alternative proteins sector in this regard.** This is an overview document, and representatives of the project may be contacted for further detail on any of the points discussed hereunder.

## A challenging context

The EU's food system is currently facing a number of challenges:

- Around 10% of total GHG emissions in the EU come from the agri-food sector, of which **nearly 70% is linked to animal agriculture** (not counting the impact of imported food products). **The European livestock sector contributes 53% of the EU's total anthropogenic methane emissions.**
- The world's population has almost tripled in the 63 years from 1959 (3 billion) to 2022 (8 billion). It is estimated that the population will reach 8.5 billion in 2030 and 9.5 billion in 2050 [1]
- Food systems are becoming increasingly **vulnerable to climate change**, which is exacerbating **food security risks**. By 2050, temperature increases could reduce wheat yields by up to 49% in southern Europe.
- **Food insecurity has severely increased after Covid-19**: approximately 2.3 billion people worldwide (29%) were moderately or severely food insecure in 2021, 350 million more than before the pandemic outbreak [2]. It remains to be seen how conflicts will affect food security.
- Around **20% of all food produced** in the EU is lost or wasted.
- Unhealthy diets are one of the main drivers of **non-communicable diseases**. Only 12% of the EU's population consumes the recommended five portions of fruit and vegetables daily.

- **Farmers' average income** is 40% lower than the average EU wage (2017) and generational renewal is increasingly challenging.

## Alternative proteins as an effective mitigation and adaptation strategy

A fundamental transformation of the ways we produce and consume food in Europe is urgently needed. Plant-based whole foods, as well as other alternatives to meat, dairy and eggs, have an important role to play in the shift towards healthier, more circular and sustainable food systems. Due to their lower emissions, resource use, and environmental degradation, the IPCC has identified the shift toward plant-based diets as an important climate mitigation and adaptation strategy. The sustainable alternative protein products and ingredients being developed across the Horizon4Proteins projects are key to facilitating this shift.

Alternative proteins face a challenging policy framework in the EU, making their development and launch complicated and laborious. As a result, alternative protein products may be less readily available and accessible for EU citizens wishing to adopt more nutritious and sustainable diets.

**A more positive, comprehensive and supportive policy framework is urgently needed to facilitate the development and scaling of alternative protein production in the EU.**

## Available policy and regulatory tools

Existing tools can be used to create an improved policy framework for the development of alternative proteins, and more generally, the transition towards more sustainable, resilient and healthy food systems. In this policy brief, we have identified **five main policy and regulatory areas** that could be leveraged to effectively support the development of alternative proteins as an addition to our current protein sources.

### Labelling and marketing standards

Create a genuine level playing field by providing improved food marketing and labelling standards for plant-based products and alternative proteins, making them more readily available and accessible to European consumers.

- **Allow conventional denominations for plant-based products**

Currently, the Food Information to Consumers (FIC) Regulation and the Common Organisation of Markets (COM) Regulation prohibit the use of dairy terms like **milk**, **cheese** and **yoghurt** for non-dairy products. Using traditional names and concepts helps consumers understand what taste and texture to expect from a product, and is supported by a majority of European consumers. In practical terms, banning Food Business Operators (FBOs) from



- **Consider whether fortified plant-based products comply with sustainability standards to be eligible for future organic certifications**  
The current regulation on the production and labelling of organic foods ((EC) No 834/2007) does not allow the use of fortification in organic products. This means that many plant-based foods and alternative protein products **are not eligible for organic certification** and therefore **cannot be included in any organic targets for sustainable food procurement**.
- **Establish European sustainable dietary guidelines**  
Dietary guidelines inform the development of official food and public-health policies, and significantly influence public food procurement. **Guidelines should promote not only healthy diets, but also sustainable ones.** Establishing **EU-wide Sustainable Dietary Guidelines** could be a cost-effective tool to help European citizens make the shift towards more plant-rich diets.

### **Equal tax system**

When compared with animal-sourced products, **many plant-based alternatives with a lower ecological footprint still face higher VAT rates in several EU member states.** This tax discrimination hinders consumers uptake of more sustainable options. To facilitate access to more sustainable plant-based products, it is vital to establish **EU-wide equal VAT rates for plant-based and animal-sourced products.**

Member states could be further encouraged to introduce **0% VAT rates for fruit, vegetables and legumes, and eventually extend it to plant-based whole foods.** Changes to the EU's VAT rules from April 2022 now allow Member States to introduce 0% rates on certain necessities (including food), but so far very few countries have taken up this possibility.

### **Support measures, including for research**

Use EU public funding tools to accelerate the transition towards plant-rich food systems.

#### **Revise the EU's agriculture promotion policy**

The EU's agriculture promotion programme should be revised to **extend the scope of products eligible for promotion**, as listed in Article 5 of Regulation 1114/2013, to include sustainable and healthy plant- and alternative protein-based food innovations, like some of those being developed on the Horizon4Proteins projects.

Integrate agri-environmental measures under the current Common Agricultural Policy (CAP) in the framework of national rural development **programmes to support farmers who decide to diversify their activities** by developing alternative protein production, or who want to transition from other livestock production systems to alternative proteins, and include specific measures to support this transition in the CAP post 2027.



## References

- [1] See United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: the 2022 Revision, New York, 2022
- [2] See FAO, IFAD, UNICEF, WFP, WHO, The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable, Rome, 2022; and global network against food crises, food security information network, Global report on food crises. Joint analysis for better decisions, 2022



## Learn more about the Horizon4Proteins projects



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This document has received support from ICONS in the context of the Horizon Results Booster services delivered to NextGenProteins (GA N.862704 ), SUSINCHAIN (GA N.861976 ), Smart Protein (GAN.862957) and ProFuture (GA N.862980 ). This product does not reflect the views of the European Commission.

