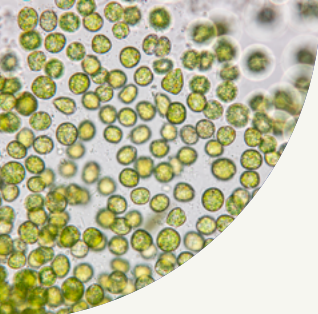




**GIANT
LEAPS**

POLICY BRIEF 4

Consumer insights to encourage the dietary shift



Consumer acceptance is key for the shift towards healthier and more sustainable diets

OBJECTIVE

Food systems today are responsible for a third of total greenhouse gas emissions (Crippa et al., 2021). While animal-based products provide essential proteins to the human diet, they also have a much higher environmental impact compared to plant-based products (Poore & Nemecek, 2018). Facing the challenges of the future, a dietary shift towards diets based on alternative proteins is required. The GIANT LEAPS project aims to provide a perspective on how to achieve this dietary shift with optimal impacts on environmental and human health parameters.

In recent years, many meat, milk, cheese, or yogurt alternatives based on alternative protein sources have been introduced into the European market. However, the current prevalence of diets based on plant-based proteins in Europe is low, despite the fact that this dietary pattern achieved the highest nutritional quality score and lowest environmental impact as calculated amongst all observed dietary patterns (Daas et al., 2025). Consumer acceptance of alternative proteins plays a decisive role in whether the dietary shift will accelerate in the future, thereby determining the possible impacts on population health and environmental parameters. While there are some enthusiastic consumers, the general population seems sceptical of alternative proteins (Etter et al., 2024; Pronk et al., 2025). To promote the transition to alternative proteins, it is important to recognise that food consumption is profoundly influenced by culture and habits. Reservations of consumers regarding alternative proteins need to be addressed for the dietary shift to be successful.

KEY POLICY RECOMMENDATIONS

The following policy recommendations aim to focus on the most effective measures to promote the dietary shift and are based on scientific findings.

Recommendations

1. Focus on plant-based products as the main driver for short to mid-term change
2. Allow time for food behaviour to change while taking cultural heritage into account
3. Replace high environmental impact animal protein with low impact alternatives
4. Introduce stricter sustainability and animal welfare standards
5. Improve plant-based alternatives and support cultivation of plant-based proteins
6. Promote plant-based proteins rather than taxing meat
7. Improve cooking skills for health, environment, and culture
8. Provide science-based education to consumers for informed dietary choices
9. Integrate consumer research into decision-making



Call for Action

1. Governments and regulators: integrate cooking skills into school curricula, promote plant-based alternatives, introduce stricter standards, preserve cultural heritage
2. Scientists and research institutions: improve plant-based alternatives, build on consumer research, further develop egg-based alternatives
3. Food business operators: increase availability and visibility of plant-based options, offer and promote plant-based alternatives as default options

POLICY RECOMMENDATIONS

Recommendation 1: Focus on plant-based products as the main driver for short to mid-term change

GIANT LEAPS research has shown that current consumer acceptance of plant-based protein sources is higher than for other categories of alternative proteins such as insects and cultivated meat (Etter et al., 2024; Onwezen et al., 2021). Although a small segment of consumers may be open to consider meat alternatives made from insects, earlier consumer research on insects has shown high disgust levels and low acceptance among the general population (Siegrist & Hartmann, 2020; Siegrist et al., 2018). For cultivated meat, studies showed that a large proportion of the population sees cultivated meat as unnatural or even with disgust (Siegrist & Hartmann, 2020). However, cultivated meat is at an early stage of development and products are not yet on the market in Europe. Therefore, it is uncertain how public perception and the market will develop in the future. For these reasons, the main driver for short to mid-term change on reducing our diets' environmental impact should be expected from plant-based products.

Recommendation 2: Allow time for food behaviour to change while taking cultural heritage into account

Consumer attitudes toward food are deeply ingrained and change only slowly over time. Moreover, food is an integral part of cultural heritage (Rozin, 2006). Attempting to fundamentally change national dietary habits has the risk of undermining cultural traditions and identities. Therefore, rapid shifts in dietary patterns should neither be expected nor forced. Instead, collaborative efforts and incremental changes are required to achieve a more sustainable food future. Opportunities could be leveraged around food cultures by identifying traditional plant-based dishes and promoting these. This could be especially effective when national dietary guidelines are adapted to reflect cultural heritage at the same time as increased sustainability awareness. Whereas caution is warranted to avoid fostering negative public sentiment toward policies, finding opportunities around food cultures by identifying traditional plant-based dishes and promoting them is most promising.

Recommendation 3: Replace high environmental impact (animal) proteins with low impact alternatives

Replacing animal products with plant-based products leads to large reductions in greenhouse gas emissions in most cases. However, many consumers are hesitant to transition to completely plant-based diets. Therefore, replacing animal protein sources associated with high greenhouse gas emissions through animal protein sources that are lower in emissions already presents a step into the right direction (Green et al., 2022). Red meat such as beef, mutton, and lamb, but also pork could be replaced by poultry or eggs. Research within GIANT LEAPS indicates that consumer acceptance of egg-based products is higher than for many plant-based alternatives (Etter et al., 2024). However, there is currently little research on innovative egg-based meat substitutes. Funding such research, provided that strict animal welfare standards for egg production are maintained, could be another way to reduce the environmental impact

compared to current diets. Replacing meat with an established and familiar product such as eggs may also serve as a gateway for consumers to foster awareness for further dietary changes.

Recommendation 4: Introduce stricter sustainability and animal welfare standards

A recent study on policy acceptance within the GIANT LEAPS project showed that consumers support the introduction of stricter sustainability and animal welfare standards for meat production even if that increases the price for meat (Pronk et al., 2026). Stricter sustainability and animal welfare standards will not only improve the situation for animals on the farm but are likely to advance the dietary shift through lowering demand for the animal-based products that will have become more expensive due to the increased standards. Important to consider is that such standards should span across countries thereby avoiding loopholes to circumvent standards by importing such products from countries with lower standards.

Recommendation 5: Improve plant-based alternatives and support cultivation of plant-based proteins

Currently, a small segment of consumers is interested in meat- and dairy alternatives (Etter et al., 2024). Improving the quality of these products is required to increase their market share and advance the dietary shift. Allocating more funding to research in the domain of meat and dairy alternatives could lead to the required improvements in taste, texture, quality, and appearance of these products. Our research within GIANT LEAPS has identified potato, rice, and peas to be the most promising plant-based protein sources for the development of meat alternatives from a consumer perspective (Etter et al., 2024). Increased research on the utilisation of these proteins for the making of alternative products is needed. To ensure the supply of plant-based proteins for the large-scale production of alternative products, the transition risk for farmers needs to be reduced and the profitability of the cultivation of pulses must be demonstrated. Agronomic advice, help with infrastructure repurposing, assistance for the integration into supply chains, as well as regulatory support may help to make the cultivation of plant-based products more attractive than animal husbandry.

Recommendation 6: Promote plant-based proteins rather than taxing meat

Results from GIANT LEAPS suggest that consumers oppose increases in VAT on meat products (Pronk et al., 2026). While small increases of only a few percentage points are unlikely to make consumers reconsider their habitual meat consumption, high tax rates would likely face strong resistance from both consumers and farmers. While the literature indicates some consumer support for taxes on unhealthy foods such as sweets or sugar-sweetened beverages (Pineda et al., 2024), these findings are not directly transferable to meat, which is perceived as healthy and part of a balanced diet. In this context, policies that promote plant-based proteins by supporting consumers and farmers throughout the transition, by providing education and financial stability, are likely to have more sustained effects on consumer behaviour than taxation aimed to reduce meat consumption.

Recommendation 7: Improve cooking skills for health, environment, and culture

Better cooking skills are associated with a lower consumption of meat and a higher consumption of fruit and vegetables (Hagmann et al., 2020). Cooking education thus supports both healthy, and environmentally friendly diets. By taking culinary heritage into account, cooking dishes rich in plant-based, whole foods can be a complementary strategy to increase alternative protein consumption. As such, traditional cooking skills should be incorporated into school curricula across Europe.

Recommendation 8: Provide science-based education to consumers for informed dietary choices

Many alternative protein innovations are currently in development (Wood & Tavan, 2022). This may lead to foods that consumers have never eaten before, or to more familiar foods that may be produced in

novel ways. Examples include novel protein production technologies such as cellular biomass, precision fermentation, or cultivated meat. While investments in science are necessary to mature these technologies, and to provide objective data on safety, health, and environmental impacts, it is essential to keep investing in consumer education to ensure that consumers can make informed dietary choices based on trustworthy information. Factors affecting dietary choices are complex, including personal, emotional, as well as cultural factors (Rozin, 2006). Also, rational considerations play a role and should be based on science-based information. European funded scientific projects like GIANT LEAPS provide excellent content for information campaigns. Sustained funding for such initiatives is therefore essential.

Recommendation 9: Integrate consumer research into decision-making

Measures are likely to fail when consumer preferences are overlooked. Future efforts to replace animal-based products must integrate consumer insights to ensure higher chances of adoption and policy success. Policy measures that do not take consumer acceptance into account are unlikely to succeed and may even backfire, leading to public resistance or wasted resources. A balanced approach is needed that supports innovation while respecting cultural traditions and consumer preferences.

Investments should prioritise solutions that are both environmentally sustainable and likely to be accepted by consumers. Ultimately, collaborative efforts and incremental changes are required to achieving a more sustainable food future.

CALL FOR ACTION

To ensure a safe and efficient dietary shift towards healthy and sustainable diets, in which the potential of alternative proteins is fully exploited without unnecessary delays, we recommend the following concrete actions for key stakeholders:

For governments and regulators:

- ✓ Incorporate traditional cooking skills, including plant-based dishes, into school curricula.
- ✓ Focus on promoting plant-based alternatives instead of taxing meat as meat taxation tends to be ineffective when low and unaccepted by consumers when high.
- ✓ Introduce stricter sustainability and animal welfare standards.
- ✓ Preserve the cultural heritage in dietary policies.

For scientists and research institutions:

- ✓ Improve plant-based meat and dairy alternatives regarding taste and texture.
- ✓ Build on consumer research to guide product development.
- ✓ Concentrate on proteins with high consumer acceptance first.
- ✓ Conduct research on and further develop egg-based alternatives to meat.

For food business operators:

- ✓ Invest in development of tasty and attractive recipes.
- ✓ Increase availability and visibility of plant-based options.
- ✓ Offer plant-based alternatives as default option (e.g. oat drink as default in coffee).
- ✓ Promote plant-based offers instead of meat and dairy.

ABOUT GIANT LEAPS

The EU-funding project 'GIANT LEAPS' aims to accelerate the dietary shift towards a more sustainable and healthier food system, aligning with the EU Green Deal objectives and the Farm to Fork Strategy. The ambition of GIANT LEAPS is to transform European diets by reducing the consumption of traditional animal proteins, targeting a goal where 50% of total protein dietary intake is derived from alternative proteins sources – such as plants, microalgae, insects, and single-cell proteins – by 2030. To achieve this goal, GIANT LEAPS employs a multi-actor approach, actively engaging with policymakers, production sectors, and European citizens. This collaboration fosters key innovations, methodologies, datasets and information that empower all stakeholders in the food system to make informed decisions, strategic investments, and sustainable choices. Ultimately, the Project seeks to facilitate a large-scale dietary shift towards alternative protein-rich foods, maximizing both nutritional and environmental impacts.

DISCLAIMER

While GIANT LEAPS is funded by the European Union, views and opinions expressed are, however, those of the authors only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the European Research Executive Agency (REA) can be held responsible for them.

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