

Press Release

Embargo 4 September 2025

EU Protein Production and Consumption New EASAC Report Examines Potential of Meat Alternatives to Meet Challenges

Brussels, 4 September 2025 - The European Academies Science Advisory Council (EASAC) today published a comprehensive report on meat alternatives. As the EU is mulling a Protein Strategy to bolster sustainable food systems, the report examines the fast-growing world of meat alternatives, from plant-based and insect-derived proteins to microbial fermentation and cultivated meat.

The report offers policymakers a science-based roadmap for balancing climate commitments, public health, and food system resilience. However, policy frameworks are lagging scientific and technological developments.

“The EU needs to act now if it wants to stay ahead of the protein transition, ensure food security, and meet its climate and biodiversity goals. It should create policies that support innovation in meat alternatives while ensuring food safety and consumer protection” says Professor Bert Rima, Chair of the Working Group composed of experts nominated by European science academies. “Europe’s future generations are likely to grow up with less meat on their plates - and that may be both necessary and beneficial. The report offers guidance to encourage people to eat less meat and to enable better choices.”

Environmental Gains

The analysis shows that several meat alternatives potentially have a lower environmental footprint than conventional meat, that insects and microbial fermentation provide efficient protein sources with minimal environmental impact when using sustainable feedstocks, and that cultivated meat could potentially offer sustainability benefits, if the process is powered by renewable energies.

Health and Nutrition

Alternatives can support balanced diets, but not all are equal: some processed plant-based products may contain excess salt and saturated fat. More data is needed on long-term impacts of newer products like cultivated meat and precision fermentation proteins.

Consumer Acceptance

Naturalness, taste, affordability, and clear labelling remain critical to consumer trust. Younger and urban populations are more open to alternatives, especially those concerned with animal welfare and climate change. “Consumer trust can break easily - especially if products are overhyped or misleadingly labelled,” warns Hanna Tuomisto, Professor of Sustainable Food Systems and co-author. “We need full transparency, not just on the ingredients, but also on environmental impact and processing.”

Innovation Needs Support

Fermentation and cultivated meat show high potential but face cost and scalability hurdles. Strategic public funding and policy clarity are needed to drive safe and sustainable innovation.

Six Urgent Calls to Policymakers

1. Increase transparency and introduce clear, mandatory labelling standards on nutrition, processing, and environmental footprint
2. Establish clear policies and regulatory framework to guide the additions to plant-based and microbial protein products
3. Enhance environmental sustainability standards, i.e. comparability in life-cycle assessment, use of renewable energy, industrial and agricultural side streams
4. Strengthen consumer awareness with evidence-based recommendations on integrating meat alternatives into balanced diets and by combating misinformation
5. Create a positive framework for innovation by Investing in R&D, especially for safe and scalable alternatives like microbial and cultivated meat, and by helping livestock farmers adapt to changing markets for meat alternatives and alternative proteins
6. Consider ethical and societal questions, such as varying dietary needs, culture, traditions, and economic conditions. Attention must also be paid to ethical considerations in insect farming and ethical issues raised by cultivated meat relying on animal cells.

A Turning Point for European Policy

“Europe has the tools and the innovation power to lead globally,” says Tuomisto. “But we need more than just technological solutions. The social and political shaping of the transition to sustainable proteins will determine its success. Without coordinated action, we risk losing both environmental gains and public confidence.”

Press Briefing: 28 August 2025, 12.00 to 13.00 h CEST with Prof. Bert Rima

Please register to pressoffice@easac.eu to receive the zoom-link

Launch event:

4 September 2025

In-person: 12:00–15.00 h CEST, sandwich lunch and networking included, Palais des Académies, Rue Ducale, 1000 Brussels

Online: 12.30 h – 14.30 h CEST, <https://www.youtube.com/@easac-europeanacademiessci7375>

Please register here www.easac-events.eu

EASAC Commentary:

Contacts:

Prof. Bert Rima
Chair of Meat Alternatives Working
Group
Bert.rima@easac.eu

For general enquiries
Sabine Froning
Email: sabine.froning@easac.eu
Phone: +49 15208727000

Prof. Hanna Leena Tuomisto
University of Helsinki
Member of Meat Alternatives Working
Group
hanna.tuomisto@helsinki.fi

About the European Academies' Science Advisory Council (EASAC)

EASAC is formed by the national science academies of the EU Member States, Norway, Switzerland and United Kingdom, to collaborate in giving advice to European policymakers. Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of European policies to those who make or influence policy within the European institutions.

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Key Numbers from the EASAC Report on Meat Alternatives

Protein Consumption & Food System Context

- 82 g of protein per person per day are consumed in the EU on average, with 49 g coming from animal sources and 33 g from plant sources
- EU citizens consume approximately:
 - 22 kg of animal-based proteins per year.
 - 16 kg of plant-based proteins per year
- Total annual consumption of feed protein for livestock production in the EU was 72 million tonnes in 2023–2024, with about a quarter being imported

Environmental Footprint

- Livestock production contributes up to 60% of global food system greenhouse gas (GHG) emissions.
- Food consumption is estimated to be responsible for 48% of the EU's overall environmental consumption footprint, about half being attributed to livestock production
- To stay within the planetary boundaries for climate, EU food-related emissions must be reduced by 90%, reaching ~350 kg CO₂-eq per capita annually.
- Agricultural expansion causes 90% of global deforestation, of which 39% due to livestock grazing.
- In the EU, the food system is estimated to be responsible for 40% to 85% of the biodiversity footprint.

Meat Alternatives Market and Adoption

- Global market size of meat substitutes in 2024: \$7.24 billion, could reach \$16.13 billion by 2032.
- Europe leads globally, with a 42.27% share of the market (2024).
- Germany reduced meat consumption by 4.2 kg per capita between 2021 and 2022 (52 kg per person/year in 2022).

Health and Nutrition

- EFSA recommends 0.83 g protein/kg body weight/day for healthy adults of all ages, and 0.9 - 1.2 g/kg for older adults (>65), due to muscle maintenance needs.
- Meat alternatives can provide adequate protein, but may lack bioavailable iron, zinc, vitamins B12, A, and D - especially in vulnerable groups (e.g., children, women of reproductive age).

Public Perception and Behaviour

- Younger, urban, and environmentally concerned consumers are most open to switching to meat alternatives.
- Taste, texture, naturalness, and price remain major adoption barriers.