President Jean-Claude Juncker
President-elect Ursula von der Leyen
European Commission, B-1049 Brussels, Belgium

Brussels, 26.09.2019

Re: Boosting research and innovation funding for plant-based and cultured meat, eggs, dairy, and seafood in Horizon Europe

Dear President Juncker,
Dear President-elect von der Leyen,

We warmly welcome the Commission's proposal and the swift progress made in formulating Horizon Europe, the EU's 9th Framework Programme for Research and Innovation for 2021-2027.

In the coming months, the shape of Horizon Europe will be decided. **We – a diverse group of European organisations working in the areas of food, agriculture, environment, climate change, health, and research and innovation – respectfully ask you to consider ensuring that a significant amount of funding – in the region of EUR 5 billion[1] – be made available for research and innovation on plant-based and cultured meat, eggs, dairy, and seafood.**

Plant-based meat delivers all the components of animal meat – protein, fats, minerals, and water – but sourced directly from plants. Cultured meat is produced from a small sample of animal cells, which are grown outside of the animal: meat made without antibiotics, fecal contamination, or slaughter.

We applaud the fact that a recent Commission report highlighted the importance of increasing funding for research and innovation – including a doubling of the budget for agri-food research in Horizon Europe – in order to boost the competitiveness of the European plant-protein sector.[2] We believe that there is an opportunity for Europe to go further. By accelerating the development of plant-based and cultured meat, Europe can lead the fight across all of the following areas:

- **Climate change**: Moving from conventional meat to plant-based meat would result in 30-90% less greenhouse gas emissions[3], thus helping Europe to fulfil its obligations under the Paris Agreement. Animal agriculture accounts for 14.5% of global greenhouse gas emissions.[4] In a recent landmark report, the UN International Panel on Climate Change (IPCC) emphasises that shifting to more plant-based diets is a major opportunity for mitigating climate change.[5]

[1] The provisional agreement between the European Parliament and the Council includes a commitment to spend 35% of the overall budget of Horizon Europe on tackling climate change. This amounts to EUR 35 billion based on the Commission's overall budget proposal of EUR 100 billion. The agriculture sector contributes 14.5% of global greenhouse gas emissions (see footnote 4). We propose that a similar share of the EU's climate-related research budget should be spent on plant-based and cultured food products that will help fight climate change. This amounts to EUR 5 billion.

[2] European Commission. (2018). *Report on the development of plant proteins in the European Union*. Retrieved from: https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/plants_and_plant_products/documents/report-plant-proteins-com2018-757-final_en.pdf

[3] The Good Food Institute. (2019). *Plant-Based Meat For A Growing World*. Retrieved from: https://www.gfi.org/files/pb-meat-sustainability.pdf

[4] FAO. (2013).*Tackling climate change through livestock: A global assessment of emissions and mitigation opportunities*. Retrieved from: http://www.fao.org/3/a-i3437e.pdf

[5] IPCC. (2019). *Climate Change and Land*. Retrieved from: https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf

- **Biodiversity loss**: Plant-based and cultured meat require just a fraction of the crops that are needed in conventional meat production, thus relieving pressure on forests and preserving their biodiversity.
- **Antimicrobial resistance**: Plant-based meat requires no antibiotics and therefore does not drive the development of antibiotic-resistant bacteria. Routine use of antibiotics in intensive animal agriculture has fueled the creation of antibiotic-resistant bacteria. Every year in the EU 33,000 people die as a direct result of antimicrobial resistance.[6]
- **Animal welfare**: Plant-based and cultured products have the potential to help meet growing global demand for protein without the need for tens of billions more land animals and fish to be raised and slaughtered each year.
- **Food security**: Climate change is very likely to increase food prices and will result in an increased number of food-insecure people by 2050.[7] With their highly efficient protein conversion ratio, plant-based and cultured meat, eggs, dairy, and seafood offer a solution to alleviate food insecurity driven by climate change and increased land use.
- **Food safety:** Plant-based and cultured meat have the potential to reduce the risks of food contamination for consumers and to facilitate greater monitoring, traceability, and oversight of Europe's food supply. Conventionally-produced meat, egg, and dairy products have repeatedly been contaminated by toxic substances, for example during the fipronil incident of 2017.[8] On industrial farms and in processing plants, there is a constant risk of contamination from animal feces.

Plant-based and cultured meat, eggs, dairy, and seafood will be a key component for the global transition to a sustainable food system in line with the UN Sustainable Development Goals. SDGs 1 (no poverty), 2 (zero hunger), 3 (good health and well-being), 8 (decent work and economic growth), 9 (industry, innovation, and infrastructure), 12 (responsible consumption and production), 13 (climate action), 14 (life below water), and 15 (life on land) can all be addressed through the advancement of plant-based and cultured meat, eggs, dairy, and seafood.

In addition, there is also a massive commercial opportunity for the EU to establish itself as a leader in the plant-based and cultured meat sector. At present, in the absence of significant public investment, it seems likely that the U.S. and Asia will capture most of the value created by these new industries. Therefore, we need a big and bold approach and for Europe to invest in these food technologies of the future in order to spur innovation, create new jobs, and maintain sustainable growth.

When designing the guidelines and defining the scope of Horizon Europe we respectfully ask you to consider the following proposals across the programme's three pillars. In total, we recommend aiming to allocate approximately EUR 5 billion on research and innovation funding for plant-based and cultured meat, eggs, dairy, and seafood.

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[6] Cassini, A., Högberg, L. D., Plachouras, D., Quattrocchi, A., Hoxha, A., Simonsen, G. S., ... & Ouakrim, D. A. (2019). Attributable deaths and disability-adjusted life-years caused by infections with antibiotic-resistant bacteria in the EU and the European Economic Area in 2015: a population-level modelling analysis. *The Lancet infectious diseases, 19*(1), 56-66. Retrieved from: https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30605-4/fulltext

[7] IPCC. (2014). *Food Security and Food Production Systems*. Retrieved from: https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap7_FINAL.pdf

[8] European Commission. (2017). Fipronil Incident [Website]. Retrieved from: ttps://ec.europa.eu/food/safety/rasff/fipronil-incident_en

Plant-based meat, eggs, dairy, and seafood: We propose the allocation of funds for research into the development and optimization of, amongst other things:

- novel sources of raw materials for creating plant-based products that mimic the sensory attributes of conventional meat, eggs, dairy, and seafood;
- techniques for improving plant protein functionality and structuring for plant-based products;
- methods of plant-based product manufacturing that are low-cost and easily scalable.

Cultured meat, eggs, dairy, and seafood: We propose the allocation of funds for research to:

- support the development of technologies and manufacturing processes, particularly multi-disciplinary research programs, aimed at developing stable agriculturally-relevant cell lines, and optimizing cell culture media for cell-based meat;
- explore novel methods of scaffolding support for muscle cell growth, and modifying bioreactor designs to efficiently support cell proliferation and differentiation for large-scale cell culture of agriculturally-relevant cell lines;
- support advances in food science to better understand the physical, chemical, and biological composition of meat, particularly on a molecular level to enable the development of cultured products that mimic the sensory experience of eating conventionally-produced meat.

We are deeply grateful for your kind consideration of this matter. We would very much welcome the opportunity to meet with you and relevant colleagues in order to discuss this further, and we remain at your disposal to answer any questions and to provide more detail. To take this discussion forward, please feel free to contact Richard Parr MBE, Managing Director of The Good Food Institute Europe, on richardp@gfi.org. Thank you!

Yours sincerely,

The Good Food Institute Europe - Richard Parr MBE, Managing Director
Mosa Meat - Prof Mark Post, Chief Scientific Officer
Maastricht University - Prof.dr. R.M. Letschert, Rector Magnificus
ProVeg International - Sebastian Joy, CEO
European Vegetarian Union - Felix Domke, Head of Public Affairs
Compassion in World Farming - Olga Kikou, Head of EU office
Peace of Meat - Eva Sommer, Co-Founder and Head of Food Design
Humane Society International/Europe - Alexandra Clark, Campaign Manager
Legendairy Foods - Raffael Wohlgensinger, Co-founder & CEO
GAIA - Ann De Greef, Director
University of Bath - Dr Marianne Ellis, Senior Lecturer at the Department of Chemical Engineering
Nova Meat - Giuseppe Scionti, CEO & Founder
Lindfors Foundry AS - Emil Lindfors, CEO
3F BIO - Jim Laird, CEO / Founder
Suprême - Nicolas Morin-Forest, Chief Executive Officer

Planted Foods - Pascal Bier, Co-Founder
Cellular Agriculture UK - Seren Kell, Co-Founder
Cellular Agriculture Society - Kris Gasteratos, Founder
Foods For Tomorrow - Jerome Pagnier, Managing Director International
Equinom - Itay Dana, Director of Marketing
Delphy BV - Jacco van der Wekken, Director
Tommaso Lucchesi, PhD

Cc: President David Sassoli, Prime Minister Antti Rinne, First Vice-President Frans Timmermans, Commissioner Carlos Moedas, Commissioner Phil Hogan, Commissioner Miguel Arias Cañete, Commissioner Karmenu Vella, Commissioner Vytenis Andriukaitis