

Brussels, 11 April 2022

Subject: Accelerating the shift towards more plant-based diets – request for dedicated calls for proposals on plant-based products within the Horizon Europe Work Programme 2023-2024

The European Commission has set clear ambitions to reach the Green Deal objective of climate neutrality by 2050, which includes a deep transformation of the EU’s agri-food sector in order to build healthier and more sustainable food systems. In this context, both the EU Farm to Fork Strategy and Europe’s Beating Cancer Plan acknowledge the environmental and health benefits of a shift towards more plant-based diets, to lower the carbon footprint of the agri-food sector while increasing prevention of non-communicable diseases. Several Member States actively support this ambition, namely Germany, France, the Netherlands, and Denmark. Those countries promote plant-based food production as part of their national protein plans¹, recognising its importance for Europe’s food security, autonomy, and environmental ambitions².

The plant-based food industry has been experiencing rapid growth in the last years, boosted by increasing consumer demand³. However, although highly innovative, this relatively young sector needs substantial research and innovation (R&I) support to be able to scale up the delivery of healthier, tastier, and affordable products to a growing pool of consumers. R&I is therefore an important pillar to accelerate the shift towards more plant-based diets and deliver on the Farm to Fork Strategy’s and Beating Cancer Plan’s objectives.

A coalition of 63 organisations, led by the European Alliance for Plant-Based Foods (EAPF) and the Global Plant-Based Food & Proteins EcoSystem of Bridge2Food (Bridge2Food), acknowledge the European Commission’s effort to tackle the specific needs to transition towards sustainable food systems through calls for proposals under Cluster 6 “Food, Bioeconomy, Natural Resources, Agriculture and Environment”⁴ of the current Horizon Europe priorities. Nonetheless, given the importance of plant-based foods in driving the transition towards more sustainable food production and consumption, the signatory organisations consider that the EU should go much

¹ DE - Federal Ministry of Food and Agriculture. (2020). [Protein Crop Strategy for promoting the cultivation of pulses in Germany](#); FR - Ministère de l’agriculture et de l’alimentation. (2020). [Le plan protéines végétales](#); NL - Ministry of Agriculture, Nature and Food Quality. (2020). [Dutch National Protein Strategy](#); DK - Ministry of Environment & Food. (2020). [Proteins for the future](#).

² De Boer & Aiking. (2011). On the merits of plant-based proteins for global food security: Marrying macro and micro perspectives. *Ecological Economics*; Mobeen, Vani & Riazunnisa. (2022). The Challenges of Food Security: A Comprehensive Study on Safety, Sustainability, Transforming Food Systems and Machine Learning Based Approaches

³ “Growth of meat and dairy alternatives is stirring up the European food industry”, ING Report, October 2020; “Plant-based foods in Europe: How big is the market?”, the Smart Protein project, 25 February 2021; [What do consumers want? A European survey on consumer attitudes towards plant-based foods](#), the Smart Protein project, November 2021.

⁴ [HE Work Programme Cluster 6](#), December 2021

further in promoting dedicated plant-based food specific R&I under the upcoming 2023-2024 Work Programme, currently under development.

In order to effectively facilitate the transition towards more plant-based diets, as outlined in the EU Farm to Fork Strategy and Europe's Beating Cancer Plan, the signatory organisations call on the Commission to consider the following principles in the development of future calls for proposals within the Horizon Europe Work Programme 2023-2024:

1. To promote R&I specifically tailored to the plant-based food research needs, at all stages of the supply chain (from farming to consumption), with a focus on developing products which appeal to consumers;
2. To widen the scope of plant-based foods by including processed products manufactured via the use of food innovation and technologies, which are critical to move towards more sustainable food systems.

1. Tailored R&I for plant-based foods

The scope of current calls for proposals under the 2021-2022 Work Programme are mainly focussed on other alternative proteins, rather than providing tailored R&I for plant-based innovations and plant-based analogues to animal-based products.

The clustering of different alt-protein alternatives in research projects not only dilutes the allocated R&I funding, but also hampers the development of sector-specific solutions and innovations – at both consumer and producer levels – that are necessary to make the needed sector-specific progress, allowing to effectively move towards more sustainable food systems.

During the Horizon 2020 programme some dedicated plant-based protein projects were funded (e.g., The Smart Protein Project). The output of this project and the speed of innovations clearly illustrates the need for further dedicated in-depth research on plant-based foods.

On the demand side, **taste** is a key factor in consumers' purchase decision. Even though the sector has advanced a lot in the past years, there is still wide room for improvements to better align products with consumers' expectations. R&I should thus explore ways to improve the **nutritional and organoleptic properties** of plant-based processed foods, including taste, flavour, and texture. This would help better tailor plant-based products to consumer preferences and encourage more people to turn towards a flexitarian diet, thereby increasing their demand and acceptance.

Other main drivers of consumer food choices entail **price and convenience**. Plant-based foods remain more expensive than meat and dairy products, partly due to the latter benefiting from greater subsidies and more favourable VAT rates, as well as lack of scale. Horizon Europe should thus open funding opportunities for projects aiming to bring down the cost of plant-based foods,

to create price parity and to ensure fair competition with their animal-based analogues. This would make them sustainable, affordable choices for all.

With respect to feedstock, it is essential to fund R&I for crops that will be used as inputs for plant-based food, as opposed to those to be used as animal feed. Such a shift holds significant potential for reducing the environmental impact of the agri-food sector, given that livestock and intensive farming account for 78% of agriculture's negative impact on biodiversity and 60% of its greenhouse gas emissions (GHG)⁵. Complementing actions that facilitate the consumption and production of plant-based foods – with a consequent decrease of animal-based foods – could also be an important contributor to **Europe's food security and strategic autonomy in the long-term**, by reducing dependence on feed imports and making more food available for human consumption. This is particularly urgent, considering the current geopolitical situation and its implications for food security, as well as the detrimental impacts of the EU's dependency on imports of feedstock and specific food commodities⁶.

Operating this change in the EU's farming landscape requires investments into R&I on topics such as food crops selection, improving crop yields, and enhancing collaboration and alignment in the plant-based value chain, to optimally match demand and supply.

See the Annex to this letter for a non-exhaustive overview of concrete research needs in the plant-based food sector.

2. A holistic approach to plant-based foods

An effective shift towards more plant-based diets requires **an inclusive approach to plant-based food products**, ranging from whole foods (e.g., whole grains, fruit, vegetables, legumes, and nuts) to processed products made of plant ingredients (e.g. plant-based drinks, analogues to meat, dairy and egg products, plant-based innovative foods). Limiting the scope of plant-based food to the former hinders innovation along the plant-based food value chain, since it leaves out potential solutions that apply processing and technologies which are critical for a large-scale transition to more sustainable food systems optimising the use of all available resources (e.g., via food reformulation and food waste/loss reduction).

The role of food technology is often misunderstood, and aspects – such as food processing – are frequently antagonised in the public and policy debate. Yet, it is essential to attain sustainable, long-lasting food security. As such, the Commission should consider (plant-based) foods in a holistic manner, accounting for different levels of processing, and undertake additional efforts to educate

⁵ European Court of Auditors. (2019) [Biodiversity in Farming, Audit Preview](#).

⁶ [Informal meeting of the Heads of State or Government - Versailles declaration](#), 11 March 2022, p. 8



the general public about the importance and added value of food technology to achieve sustainable food systems, prevent misperceptions and increase acceptance.

The signatory organisations call on your support to define **R&I opportunities that can effectively deliver on** the EU Farm to Fork Strategy and Beating Cancer Plan's ambition to **shift towards more plant-based diets**. This can be best done via **tailored calls for proposals for plant-based foods**, which encompass the wide range of products composing the plant-based food offer for consumers, making such products the sustainable, healthy, tasty and affordable option.

We are eager to support the European Commission in this process, by providing the expertise and perspective of the plant-based food sector. We would be available and delighted to further discuss the topic in a meeting.



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Gerard Klein Essink
CEO Bridge2Food



Co-signed by:

- Alpro Foundation | Contact person: Ms Stephanie de Vriese, External Scientific Affairs Manager
- Anima International | Contact person: Ms. Sabina Sosin, Head of People and Development
- Association Vegetarienne de France | Contact person: Ms. Elodie Vieille Blanchard, President
- Beyond Animal | Contact person; Claire Smith, Chairwoman and co-founder
- Beyond Meat | Contact person: Mr. Bram Meijer, Regional Marketing Director EMEA
- Better Nature | Contact person: Mr. Christopher Kong, Co-founder and Head of Business Development
- Brabender | Contact person: Marc Gelautz, Strategic Marketing & PR Manager

- Brige2Food | Contact person: Mr. Gerard Klein Essink, Founder and CEO
- CheWow | Contact person: Mr. Federico Krader, CEO
- Compassion in World Farming | Contact person: Ms. Olga Kikou, Head of EU Office
- ČSZV (České sdružení pro značkové výrobky; Czech Association for Branded Products) | Contact person: Mr. Lukáš Horák, Executive Director
- Danish Plant-Based Food Organisation – Plante Branchen | Contact person: Mr. Frederik Madsen, Director
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- EFKO | Contact person: Mr. Andrei Zyuzin, CEO
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- European Vegetable Protein Association, EUVEPRO | Contact person: Ms. Nuria Moreno, Secretary General
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- Green REV Institute | Contact person: Ms Anna Spurek, COO
- The Good Food Institute Europe | Contact person: Ms Acacia Smith, Policy Manager
- HappyVore | Contact person: Mr. Guillaume Dubois, CEO and Co-founder
- HealthyProteins | Contact person: Mr. Arnauld van Hees, CEO
- Heura | Contact person: Mr. Bernat Anaños Martinez, Co-Founder
- Humane Society International/Europe, HSI Europe | Contact person: Dr. Joanna Swabe, Senior Director of Public Affairs

- IMACE, European Margarine Association | Contact person: Ms. Siska Pottie, Secretary General
- IFF International Flavors & Fragrances Inc. | Contact person: Alexander Lamm, Re-Imagine Protein® Senior Food Technologist
- Jeremy Coller Foundation | Contact person: Ms. Helena Wright, Policy Director
- Lallemand Bio-Ingredients | Contact person: Mr. Greg Erdei, Business Development Manager Plant-Based Nutrition
- Nestlé | Contact person: Mr. Bart Vandewaetere, VP Corporate Communication and ESG engagement
- Nova Meat | Contact person: Mr. Giuseppe Scionti, CEO
- Oatly | Contact person: Ms. Cecilia McAleavey, Director Sustainable Eating and Public Affairs
- Plant-based Events and Expo | Contact person: Ms. Abigail Stevens, Manager
- Plant Based Health Professionals UK | Contact person: Rohini Bajekal, Head of Communications
- Plantcraft | Contact Person: Csaba Hetenyi, Co-Founder
- Planted. | Contact person: Mr. Lukas Böni, Co-Founder
- Plantier | Contact person: Poormina Luthra, Co-Founder
- PLD Solutions | Contact person: Mr. Kay Uplegger, CEO
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- Slovenske Zdruzenie pre Znackove Vyroby (Slovak Brand Goods Association) | Contact person: Mr. L'ubomír Tuchscher, CEO
- Swissveg | Contact person: Ms. Simone Fuhrmann, Geschäftsführerin
- Symrise | Contact person: Stefan Brehm, SVP Global Growth Platform



- TAPP Coalition | Contact person: Jeroom Remmers, Director
- Tate & Lyle | Contact person: Maren Molitor, Senior Ingredient Specialist, R&D
- Unilever | Contact person: Ms. Julie Paquay, Deputy Head of External Affairs Europe
- Upfield | Contact person: Dr. Jeanette Fielding, Chief Corporate Affairs and Communications Officer
- Uplegger Food Company | Contact person: Mr. Konstantin Uplegger, CEO
- Växtbaserat Sverige | Contact person: Ms. Cecilia McAleavey, President
- Vegini | Contact person: Mr. Andreas Gebhart, CEO & Founder
- Vereins Soja aus Österreich | Contact person: Mr. Karl Fischer, President
- VIVERA BV | Contact person: Mr. Willem van Weede, CEO
- Willicroft | Contact person: Mr. Brad Vanstone, Founder
- World Animal Protection | Contact person: Mr. Dirk-Jan Verdonk, Director
- Yoghurt Barn | Contact person: Mr. Wouter Staal, CEO

European Alliance for Plant-based Foods:

The European Alliance for Plant-Based Foods (EAPF) brings together like-minded organisations in the plant-based value chain around a unique mission: To put plant-based foods at the heart of the transition towards more sustainable and healthy food systems. The Alliance represents the entire plant-based value chain: Food producers and manufacturers, NGOs, nutritionists, research & academia, and consumers.

Bridge2Food:

*Bridge2Food brings together industry & research leaders from around the world in the Global Plant-Based Foods & Proteins Ecosystem. The aim of this EcoSystem is to **accelerate the transition** towards a more plant-based diet, with better foods, produced in a **sustainable way**, as well as **increase food security** with an **abundant supply of proteins** for food, feed, and petfood markets as well as initiating €1 Billion Public-Private Partnerships by 2025.*

Annex:

Plant-based research needs to accelerate the transition towards more plant-based foods

Agriculture – The Farm

R&I is a key driver for improving the competitiveness of EU-grown protein plants. Continued support from EU and Member States' research programmes will help close gaps in breeding, to offset low investment from the private sector in 'smaller' protein crops and focus on eco-friendly crop protection, sustainable soil management and supply chains.

- ✓ What kind of new traits for the food industry are needed to make the crops more suitable for food applications? Nowadays most protein crops have been bred for feed applications with a focus on yield rather than nutritional and functional needs of the food industry.
- ✓ What are effective strategies to change the dynamics for production systems of many legumes? These legume products systems are demanding and legumes suffer from yield gaps and higher yield variability compared to cereals or rapeseed. The latter is a major obstacle in further expansion and a main target for improving protein crop production. A lack of breeding resources and knowledge gaps (low agronomic expertise, insufficient cooperation between farmers and other actors, etc.) are responsible for the fact that only 3 % of EU arable land is currently used for legumes, despite their agronomic and environmental benefits.
- ✓ How to develop supply chains for food products (regional/European sourcing) (Year-round) availability with multi-annual commitments?
- ✓ How to increase the value chain transparency related to origin and production method?

- ✓ What are the best sectoral programmes, with a direct or indirect benefit for protein, to strengthen supply chains, unlock the market potential of plant proteins and make farmers more resilient?
- ✓ How should rewarding strategies for the benefits of legumes for environment and climate objectives (such as green cover or crop rotation) through Eco-schemes and environmental/-climate management commitments under rural development programmes look like?
- ✓ How to mobilise rural development supporting strategies for on-farm investment, for supporting farm advice, for knowledge transfer, for setting up producer organisations, and for cooperation along the food chain?
- ✓ What are the key appropriate amounts needed to coupled income support for plant proteins facing difficulties in their development, to make them more competitive/sustainable or improve quality?

Sustainable food & ingredient processing – The transformation

A better transformation of agri-cultural produce to ingredients with applications in food, and also non-food sectors is key for an acceleration towards more plant-based food diets. The European food and feed industry is also producing large side streams with a low value. R&I can assist to find, develop, and grow new more attractive properties, functionalities and applications to for instance existing legume/crop transformations. Key Investment budgets are needed for R&I on:

- ✓ What are new usage opportunities for pulse value chain stream such a starch and fibres, which can add significant value to the transformation, and thus make processing systems more efficient, and plant-based foods more affordable?
- ✓ What are the new processing technologies to make use of all crop ingredients suitable for plant-based foods, using less water, less energy, and creating less co-

streams, while increasing the nutritional value of plant-based foods and creating plant-based foods based on less ingredients?

- ✓ How to scale the development, transformation, creation of new value chains for new proteins with fermentation processes/bio-solutions like mycoprotein, microalgae etc...?
- ✓ The development of analytical methods and model systems for plant-based foods to accelerate the development of new ingredients from existing, new side-streams and new protein sources.
- ✓ How to create analytical, functional and new application platforms to lower access barriers for new entrants?
- ✓ More research on taste, texture, convenience and faster preparation/cooking and understanding the fundamental properties of all protein varieties is needed to unlock the potential.
- ✓ Developing a European database for the various plant corps from all regions for processing based on determining the unique nutritional and functional properties of (regional) varieties is a pre-requisite to scale the implementation of (regional) value chain.
- ✓ More flagship projects (like BBI-JU/CBE JU) can accelerate transformation of new proteins and side stream
- ✓ Projects for solving the special challenges in organic plant-based foods/diets
- ✓ ...

Diets – The Fork

Research has shown that diets rich in plant-based foods are healthier than diets rich in animal-based foods and in particular than those with high amounts of red meat. Furthermore, Europe's Beating Cancer Plan and the Farm to Fork Strategy call for a shift to more plant-based diets. Plant-based foods consumption is growing fast, yet the impact on the required protein transition towards more plant-based is still small, which is related to the small percentage of

plant-based foods in the daily diets. Research is needed to accelerate this transition in the following fields:

- ✓ What are the best nudging strategies to have consumers try, test, and repurchase?
- ✓ What are effective retailing (bricks & mortar supermarkets as well as digital) and food service strategies to create strategies to accelerate the transition?
- ✓ How can communities assist the change? How should such consumer, value chain, and other stakeholder ecosystems look like?
- ✓ What are the effective (national) government strategies to facilitate and to create an environment to make plant-based foods more accessible and affordable for consumers?
- ✓ How can true pricing be implemented by (national) governments and what are the best strategies?
- ✓ What is the long-term effect of an increased intake of plant-based food diets on the health of elderly consumers?
- ✓ What are the best promotional strategies for plant-based foods diets?
- ✓ More knowledge on (optimal) nutrition of plant-based diets when people shift diets from animal to plant-based.
- ✓ ...
