Background information
to the Horizon4Proteins Policy Roundtable from 17th May 2023

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What is Horizon4Proteins?

While facing climate change and natural resource scarcity, ensuring sufficient, nutritious, safe and affordable food to a fast-growing world population with changing dietary habits becomes increasingly challenging. The protein supply is in this respect most critical. Integration of a variety of new or alternative protein sources from both terrestrial and aquatic origin into new and/or existing processes or products needs to be explored, in order to develop and ensure more sustainable, resilient supply chains, featuring high consumer acceptability by a clean labelling approach and attractive market opportunities.

Sharing this goal, the EU H2020 funded projects NextGenProteins, ProFuture, smart protein and SUSINCHAIN launched **Horizon4Proteins** at the end of 2021 to work together in key aspects such as: **Consumer acceptance of alternative proteins**, **Safety and Regulatory challenges**, **Food applications**, and **Sustainability**. Beginning of 2023, the EU Horizon Europe funded projects GIANT LEAPS and LIKE-A-PRO joined the collaboration.

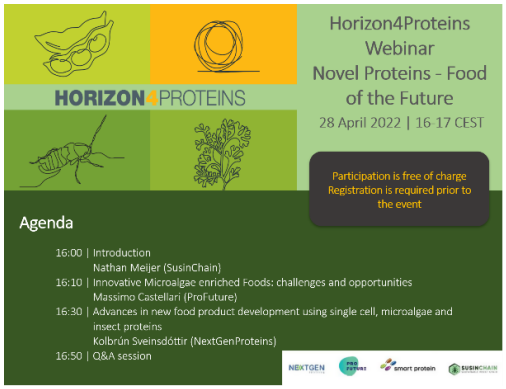
https://www.youtube.com/watch?v=vzmnWAQh2Fg&t=2s

Horizon4Proteins activities implemented to date

- Horizon4Proteins **Webinars**

https://www.youtube.com/watch?v=xRmww0YyU_Y&t=1099s

https://www.youtube.com/watch?v=WcQYhEuMG9E&t=7s



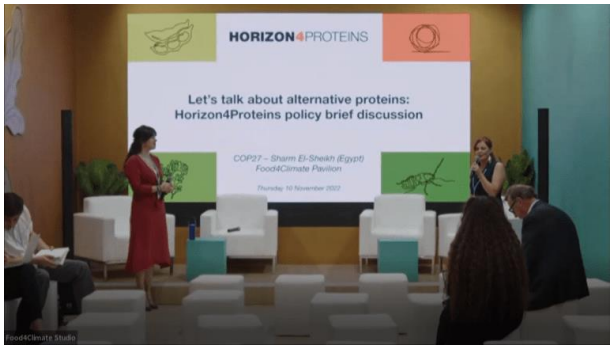
https://www.youtube.com/watch?v=vUHu96WhIfs&t=231s

- Horizon4Proteins **Social media campaign** in November 2022 to promote alternative proteins: #Horizon4Proteins

- Special session "Filling knowledge gaps on alternative proteins to accelerate the dietary shift" at the **scientific conference** EFFoST2022 conference in Dublin (Ireland) on 08.11.2022

https://giantleaps.eu/news/6/giant-leaps-at-the-36th-effost-international-conference

- Horizon4Proteins session "Let's talk about alternative proteins: Horizon4Proteins policy brief discussion at the **climate conference** COP27 in Sharm El Sheikh (Egypt) on 10.11.2022



https://nextgenproteins.eu/horizon4proteins-at-cop27-to-discuss-the-opportunities-that-alternative-proteins-provide-in-the-fight-against-climate-change/

- Horizon4Proteins **Policy Round table** "Unlocking the potential of alternative proteins in the EU: Diversification, environmental performance and competitiveness" on 17.05.2023, online

- Horizon4Proteins **Policy brief** "Solutions towards a more resilient food system" (to be release end of May 2023)

- Project group Service "Portfolio Dissemination & Exploitation Strategy" from **Horizon Results Booster** from November 2021 to November 2022

Research projects forming Horizon4Proteins

NextGenProteins - Bioconversion of underutilized resources into next generation proteins for food and feed

Description

Demand for proteins is increasing for food and feed applications. To meet the increasing demand, production will have to double by 2050. However, current protein production, both animal- and vegetal based, has severe negative environmental impacts in terms of greenhouse gas (GHG) emissions, land and water use, as well as biodiversity loss. The EU is not self-sufficient when it comes to protein production and a large proportion of the demand is met with imported proteins with concerns regarding food security and the general competitiveness of the EU. It is therefore of vital importance to find sustainable alternative protein sources that can be economically produced in quantities that meet growing food and feed sectors.

NextGenProteins identified microalgae, single cell protein and insects as three promising sources of alternative proteins that can be produced through innovative and environmentally sustainable bioconversion processes using industrial waste streams. These processes cause limited environmental impacts and pressure on natural resources. Through collaboration between industry and RTD, the project addresses key barriers that currently prohibit or limit the application of the three alternative proteins in food and feed, such as production scalability and optimisation, production costs, value chain risks, safety, regulations and consumer trust and acceptance. The project demonstrates the suitability and economic viability of the alternative proteins in food and feed value chains and explore their market opportunities with the industry, stakeholders, policy makers and consumers. NextGenProteins finds means to improve the acceptability and trust of consumers towards alternative proteins and processes. The project will contribute to strengthening food security, sustainability and self-sufficiency of EU protein production with future-proof supply, as well as long-term reduction of land use, water use, GHG emissions and energy of EU food sector.

https://nextgenproteins.eu/

https://cordis.europa.eu/project/id/862704

NextGenProteins project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862704

Main Results of the NextGenProteins project

- Industrialisation of protein production process in SMEs (scale-up)
  - ⇨ Production of 12tons of alternative proteins along 4 years of project
- Applications in food products; products developed, storage and consumers tests ongoing
- Applications in feed products
  - Broiler & Turkey: 6-18% inclusion rate (dose-response tests)
  - Salmon & Seabream: 5-15% inclusion rate (dose response & field trial)
- Assessment of Consumer acceptance of 6.600 European consumers (FI, DE, IS, IT, PL, SE, UK)
  - positive and open to NextGenProteins protein production (especially consumers with tertiary level education and vegetarian/flexitarian diet)
  - because of novelty and unfamiliarity, a large share of consumers did not know what to think
  - most challenging concept: protein ingredients from Crickets
  - acceptance: conditional from taste, trust, not being misled by food companies
  - basis of positive attitudes: expectations of positive consequences for sustainability, animal and human health
- Assessment of sustainability for NextGenProteins
  - 79-99% lower carbon footprint per kg protein compared to beef
  - implementing circular economy actions would reduce carbon footprint from 2- 72%
  - processes need to develop/scale to improve beyond lower carbon protein sources (e.g. fishmeal)
  - Major risks: being unable to attract funding & willingness of consumers to try and accept new alternative proteins

NextGenProteins Challenges & Key messages for policy makers

- Regulations in EU and other countries have consequences for innovation and competitiveness
- Shorter time for approval of novel food applications could support innovation
  - More resources for EFSA
  - More research funding (evidence based safety assessment)
- Changing approach from "bottom-up" to "top-down"
- EU R&D support for innovation projects, and not just early-phases
- Diversification of commercial-scale alternative proteins
- Integrate management perspectives across policy-areas to harness the benefits of alternative proteins
- Technical and financial assistance from existing EU instruments (cohesion funds, EAFRD, CAP)
- Boost consumer acceptance (inform and educate); joint ventures – industry, EU, retail

ProFuture - Microalgae protein ingredients for the food and feed of the future

Description

ProFuture will set the basis for the market uptake of innovative, healthy and sustainable food and feed products, reformulated with protein-rich ingredients from microalgae Spirulina, Chlorella vulgaris, Tetraselmis chuii and Nannochloropsis oceanica. With this aim, following the results of LCA/LCC studies, innovative, more efficient, and sustainable technologies for the production of microalgae biomass and ingredients are being identified and implemented in the facilities involved in the project. New strains of microalgae with different organoleptic properties and colors were isolated and already made available in the market as food ingredients. A complete characterization of nutritional, sensorial, and techno-functional properties of ingredients and isolates from microalgae was conducted. Food and feed were formulated with these novel ingredients and, in collaboration with SME and large companies, the most valuable recipes were scaled up at industrial level. Specifically, vegetable creams, soups, nutrition bars, shake drinks, vegan sausages, breadsticks, crackers, and pasta enriched with different microalgae ingredients were produced. These products are now ready to be submitted to consumer sensorial and sales performance tests to evaluate the potential impact from social and economic points of view. At the same time, the food/feed microalgae value chain in the EU is being analysed and improvements will be proposed to increase the economic viability and the communication between actors. Concerning feeds, Iso-nutritional and iso-energetic feed formulations for poultry, piglets, fishes and shrimps were developed and the effects on animal health and the quality of the meat are being evaluated. Finally, communication and dissemination activities about microalgae and their potential in food application were conducted, also together with the other projects working under the cluster 'Horizon4Proteins', to make people aware.

https://www.pro-future.eu/

https://cordis.europa.eu/project/id/862980

ProFuture project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862980

Smart Protein - for a Changing World. Future-proof alternative terrestrial protein sources for human nutrition encouraging environment regeneration, processing feasibility and consumer trust and acceptance

Description

It is undeniable that protein is an indispensable part of the human diet, but the way we produce and consume it today presents many challenges, in terms of both global consumption patterns and their social, environmental and economic impacts. Providing a growing global population with healthy diets from sustainable food systems is therefore an immediate challenge. SMART PROTEIN aims to industrially validate and demonstrate innovative, cost-effective and resource-efficient, EU-produced, nutritious plant (fava bean, lentil, chickpea, quinoa) and microbial biomass proteins from edible fungi by up-cycling side streams from pasta (pasta residues), bread (bread crust) and beer (spent yeast and malting rootlets) industries. The alternative SMART protein will be used for the production of ingredients and products for direct human consumption, through developing future-proofed protein supply chains with a positive impact on bio-economy, environment, biodiversity, human nutrition, food and nutrition security and consumer trust and acceptance. These priorities will be addressed through global partnerships forged with consortium members from Europe, North America, Israel, Thailand and New Zealand to develop and demonstrate a climate-smart, sustainable protein-food system for a healthy Europe. We will harness plant and microbial protein knowledge to significantly enhance the sustainability and resilience of a new European protein supply chain, improve professional skills and competencies, and support the creation of new jobs in the food sector and bioeconomy.

https://smartproteinproject.eu/

https://cordis.europa.eu/project/id/862957

Smart Protein project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862957

SUSINCHAIN - SUStainable INsect CHAIN

Description

The expected global population growth to 9.1 billion people in 2050 and the significant change of global dietary patterns require increasing world-wide food production by about 60%. The protein supply for feed and food is most critical, and requires a transition in protein sources. Edible insects can upgrade low-grade side streams of food production into high-quality protein, amino acids and vitamins in a very efficient way. Insects are thus considered to be the "missing link" in the food system of a circular and sustainable economy. Insects and insect-derived products have entered the European market since first being acknowledged as a valuable protein source for feed and food production at around 2010. However, scaling up the insect value chain in Europe is progressing at a relative slow pace. The aim of this project is to contribute to novel protein provision for feed and food in Europe by overcoming the remaining barriers for increasing the economic viability of the insect value chain and opening markets by combining forces in a comprehensive multi-actor consortium. The overall project objective is to test, pilot and demonstrate recently developed technologies, products and processes, to realise a shift up to Technology Readiness Level 6 or higher. The project focuses on these crucial activities, as well as living labs and workshops with stakeholders in the insect protein supply chain for feed and food. These actions provide the necessary knowledge and data for actors in the insect value chain to decrease the cost price of insect products, process insects more efficiently and market insect protein applications in animal feed and regular human diets that are safe and sustainable. This will pave the way for further upscaling and commercialisation of the European insect sector, resulting in a replacement of animal protein by insect protein of 10% in animal feed and of 20% in human diets, and a thousand fold increase in both production volumes and jobs in 2025.

SUSINCHAIN project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 861976

SUSINCHAIN – Key messages for Policy makers related to barriers/ needs/ challenges / and ways to overcome

- Further streamline existing EU and national legislation/rules regarding insect production and use, including the safe and efficient export/import of insect products and live insects (eggs/larvae etc.). Safeguard that food and feed safety standards for imported insect products are enforced throughout the EU.
- Safeguard legal certainty for use of insects as waste converters and create approaches for safeguarding separated processes for use of insects in non-food/non-feed products (such as glue, surfactants etc.), and prevention of mislabelling.
- Where appropriate, and based on research, widen the categories of substrate permitted for use in insect protein production (for example, the use of former foodstuffs and catering waste with meat and fish as substrate)
- Evaluate the practical application of recently introduced legislative requirements for treatment of frass for use as fertilizer and soil enhancer
- Consider introduction of targeted economic incentives (e.g. catering procurement requirement regarding alternative proteins, VAT reduction etc to reduce price gap)
- Promotion of open innovation and co-creation in the framework of EU funded research projects such as Horizon Europe. Acceleration of further upscaling to a mature insect sector by opening a new EU call specifically on insects: SUSINCHAIN 2.0 to avoid fragmentation over different projects which implicates smaller steps forward
- More legal feed sources are needed (e.g. pre-consumer waste) to reach the full potential and reduce competition with traditional livestock
- The legal landscape is not always easy to understand (e.g. frass) and can lead to different implementations or restrictions
- The lack of certain rules may hinder the growth of the industry (e.g. organic rules) and should be addressed
- The use of insects outside the food/feed market could be a potential market and further circularize our economy
- Transport and storage are necessary steps in the insect logistic chain
    - Logistic chain for insects and insect products is not yet established
        - Guidelines? Do's and don'ts? Partially based on results of SUSINCHAIN
        - Permissions? Transport of living animals?
    - Ethical considerations for storage and transport of living insects?
    - Food safety considerations for storing killed (fresh) insects

- Processing insects into stable (intermediate) products or fractions facilitates long-term storage and product development (drying, LEEB, HME, tricanter)
    - All processing technologies have an impact on physical, (physico)chemical and microbiological composition, stability and/or safety
    - Impact differs for each insect species and for each technology
    - Especially regarding food safety, specific criteria or limits lack to comply with
- Main issues for insect meals as feed = price (not yet competitive). An increase of the allowed substrates could help to become more competitive
- For imports of insect products from outside EU the legislation from EU should be applied. In other words: Is it always known on which substrates the insects were grown when imported in the EU?
- Organic diets. The EU is focusing on an increase of organic. How to apply organic legislation in insect production?
- Secure food safety evaluations and standards are efficiently set for the relevant insect species and products
- Speed up the Novel Food EFSA evaluations
- Set high standards for imported insect products (e.g. insect powder) in return for ease the access to the European market for products certified for high quality.
- Invest in R&D! Long way to go to reach the level of livestock production and products
- Chemical safety generally not concern using currently allowed substrates, but
    - Data for some chemicals lacking
    - BAF of Cadmium is high
- Microbiological risks of substrates generally low
    - Main concerns are bacterial endospores and endospore-formers
    - *Bacillus cereus* is the pathogen encountered frequently, yet still below typical food safety limit (105 cfu/g)
- Every insect x substrate x hazard needs to be evaluated separately!
- Frass is considered safe as regard of microbiological and chemical hazards
- Only *B. cereus* was detected in a few frass samples
- Levels of chemicals (pesticides, heavy metals, dioxins) follow levels in substrate; keep substrate levels low
- Vacuum packaging is not beneficial as compared to refrigerated storage.

- The low energy electron beam treatment can decontaminate surface of dried insects
- High moisture extrusion reduced microbial counts (including bacterial spores)
- (Un)processed insect products can lead to allergenic reactions in persons who are already sensitized to shrimp and HDM and possibly other seafood and fish allergens
- Thus, (un)processed mealworm larvae, black soldier fly larvae, and house crickets products should have warning labels
- Insects seem to metabolize mycotoxins
- Potential market for rearing insects on contaminated (cheaper) substrates
- Insects can be a sustainable solution for addressing food security and nutrition challenges, particularly in regions where traditional protein sources are scarce or expensive.
- Policymakers should consider implementing policies and regulations that support the development of the insect sector, such as providing funding for research, creating favorable tax and trade policies, and promoting consumer education and awareness
- The safety and quality of insect-based products should be ensured by applying appropriate regulations and certifications, and standards of hygiene, animal welfare, and environmental impact should be addressed by the policymakers.
- Policymakers should also consider the long-term implications of the insect sector on food security, nutrition, and the environment, and develop strategies to address potential challenges.
- International cooperation and harmonization of regulations and standards in the insect sector should be pursued.

GIANT LEAPS - Gap resolutIon in sAfety, NuTritional, alLergenicity and Environmental assessments to promote Alternative Protein utilization and the dietary Shift

Description

Accelerating the transition from animal-based to alternative dietary proteins – the dietary shift – is key to reducing the footprint of our food system in terms of greenhouse gas emissions (GHG), energy, water and land use, and other relevant environmental impacts, and for improving the health and well-being of people, animals and the planet. GIANT LEAPS delivers the strategic innovations, methodologies, and open-access datasets to speed up this dietary shift, in line with the Farm-to-Fork strategy and contributing to the Green Deal target of reaching climate neutrality by 2050.

Achieving the dietary shift in practice is inherently complex due to the diverse set of actors involved and further hindered by major knowledge gaps, scattered across the various alternative protein sources and the domains of health (safety, allergenicity and digestibility), environment (GHGs and other environmental and climate impacts, biodiversity, circularity), and/or barriers to adoption (technological, sensory, and consumer acceptance). The GIANT LEAPS consortium consists of the key actors and spans all expertise to address relevant knowledge gaps and proactively engages to arrive at optimized future diets based on alternative proteins that are broadly accepted across stakeholder groups. In order to deliver required insights for short-, mid- and long-term decision making and impact, GIANT LEAPS protein sources have been selected for either targeted or full assessment based on their current level of specification. The innovations and improved methods combined with accessible and comprehensive information, generated for a wide collection of alternative proteins, will enable policymakers to prioritise changes in the food system towards the dietary shift based on desired impact, value chain actors to make strategic scientific, business and investment choices, and the general public to make more sustainable and healthy dietary choices.

https://cordis.europa.eu/project/id/101059632

https://giantleaps.eu/

Giant Leaps project has received funding from the European Union's HORIZON EUROPE research and innovation programme under grant agreement No 101059632

GIANT LEAPS – Main barriers and ways to overcome them

Barriers / challenges / needs:

An integrated assessment across domains of alternative protein availability, sustainability (environmental, economic and social), safety, health, technical feasibility and consumer acceptance domains is necessary to predict environmental and health impacts of alternative of the dietary shift and to define feasible and acceptable future diets that are optimised for these outcomes.

Knowledge gaps need to be addressed on three different levels to enable an integrated assessment across alternative protein sources: data is scattered and incomplete across protein sources and the relevant knowledge domains, new methodologies are needed to address crucial issues (e.g. prediction of allergenicity, comprehensive environmental assessments including biodiversity impacts) and innovations are needed to overcome technological, sensory and other limitations.

Ways to overcome:

Address knowledge gaps strategically to maximise the opportunities for creating short, mid, and long-term impact on environmental and health outcomes using diverse alternative proteins in European diets, in relation to:

- Consumer insights
- Food processing innovations
- Food safety: methodological innovations and risk assessment case studies
- Digestibility & health impact
- Environmental sustainability, climate & biodiversity impacts

Create an open-source data platform and define optimised future diets based on an integrated assessment as a basis for evidence-based policymaking and insights into synergies and trade-offs between public health and environmental impacts.

Updated dietary recommendations based on integrated knowledge on protein quality, co-nutrients, and management of risks. Guidance to maximise public acceptance based on insights regarding consumer acceptance data and effects of policy incentives (e.g. taxes, nudging).

Possibilities to improve the regulatory approval process of novel proteins (e.g. without use of animal studies), identification of critical parameters for food safety monitoring, and recommendations to improve current food labelling policies and to implement an EU post-market surveillance system for monitoring adverse effects.

Comprehensive understanding of the environmental footprint and sustainability of alternative proteins. Recommendations to (dis)incentivise production of alternative and/or traditional proteins (land-based and aquatic). Guidance on subsidies and other policy measures, including climate and environmental policies, fair redistribution of profits and fair access to healthy food. Recommendations on climate adaptation strategies for the selected alternative proteins and in general for the protein sector. Inform EU climate policies and strategies, contributing to EU emissions mitigation and climate adaptation goals.

LIKE-A-PRO - From niche to mainstream - alternative proteins for everybody and everywhere

Description

The interest of Europeans in alternative proteins is becoming clear and this trend is the perfect ground for the dietary shift towards sustainable and healthy nutrition and food systems, in line with the ambitions of the EU Green Deal, Farm to Fork strategy and EU's climate goals. Yet, this interest is not reflected in the European dietary patterns, as alternative proteins are mainly consumed by early adopters, while the majority is less receptive towards alternatives or have limited possibilities to integrate them in the diets. This gap between interest and consumption is due to obstacles in the food environments such as product limited offering, suboptimal product taste, isolated product placement in shops or menus etc. Without overcoming these obstacles, alternative proteins will remain a niche.

LIKE-A-PRO aims at mainstreaming alternative proteins, making them accessible, available, and acceptable to everybody (from children to elderly, vulnerable groups) and everywhere (across Europe, in urban, peri-urban, and rural areas). To achieve this, key representatives along the entire alternative protein value chain (growers, producers, cooks, retailers, consumers, researchers) will work together in a trans-disciplinary consortium.

To improve European food environments towards fostering alternative protein consumption, practical solutions will be co-designed with citizens. This social innovation will take place in 11 living labs and in 4 real life food environments. For a diversified alternative protein offering, 16 new alternative protein products will be developed with 7 sustainable, healthy, and novel sources. To secure result deployment, the project will actively involve middle food system actors (+35,000 companies) – via co-creation and capacity building. For a maximised impact, innovative communication campaigns will be launched in 6 countries, reaching 8 M citizens in 4 years.

https://www.like-a-pro.eu/

https://cordis.europa.eu/project/id/101083961

LIKE-A-PRO project has received funding from the European Union's HORIZON EUROPE research and innovation programme under grant agreement No 101083961

LIKE-A-PRO – Main barriers and ways to overcome them

Barriers:

Consumers are willing to turn to alternative proteins for health and environmental reasons but still facing issues of affordability, confidence and acceptance of new tastes, textures, ingredients, etc. (e.g., alternative proteins may be perceived as not as good as animal proteins). There also exist concerns about the products being ultra-processed, the presence of additives, insufficient essential vitamins or micronutrients.

Due to insufficient research, funding and consumers' uptake, access to adequate infrastructure and equipment for growth is limited, the production processes are still small scale, highly energy-demanding and the costs remain high.

Current regulatory and safety legislations and assessments for novel foods have been reinforced to protect consumers' health, resulting in lengthy and complicated administrative processes for industries, SMEs and startups. While the EU legislations prioritise safety, legislations in some other countries (e.g., the US, Israel, China) globally are less strict and provide more incentives, allowing for strong global competition.

Ways to overcome:

Provide adequate means to bridge the knowledge, research and investment gaps in order to improve cost and energy-effectiveness of production and improve product formulation that would respond to the needs and concerns of consumers over health and environmental issues, while being attractive for consumption.

Understand consumer attitudes towards alternative proteins and implement the project actions in accordance with this developed knowledge (e.g., co-design solutions, develop products with required specifications, adapt the communication actions).

Develop an efficient and responsive regulatory framework allowing for swift evaluations and approvals of novel foods, while at the time ensuring the highest safety standards for consumers across Europe and opportunities for industries and businesses to remain competitive at global level.

Protein development and diversification strategy needs to be an integral part of all the transition to sustainable food systems and related policies across various sectors (including food, the environment, climate change, health, industry, international trade, social cohesion and education, among others).

Rethinking value chains and strengthening a democratic multistakeholder dialogue is key to sharing long-term vision for healthier, more sustainable and inclusive food systems, reducing impact on the farming sector and maximising economic opportunities. Decision-making processes ought to include the widest range of value-chain stakeholders possible, and especially the most marginalised such as farmers or indigenous populations and reach all parts of Europe.

Upcoming Horizon4Proteins activities

- Horizon4Proteins **Policy Round table** on 14.09.2023, Brussels
- Horizon4Proteins project final conferences:

07-08.09.2023 **NextGenProteins** Final conference in Bremerhaven, Germany

Registration under: https://ttz-bremerhaven.de/article_cate/nextgenproteins-conference/

13-14.09.2023 **ProFuture** Final conference in Brussels, Belgium

Registration under: https://www.eventbrite.co.uk/e/microalgae-for-the-foods-and-feeds-of-the-future-registration-615483015267

27.09.2023 **Susinchain** symposium

Draft program SUSINCHAIN Symposium with preliminary titles September 27th, 2023		
9:00 - 9:10	Opening	Ernst van den Ende, Director Animal Sciences
9:10 - 9:30	SUSINCHAIN project: Upscaling the European insect chain	Teun Veldkamp
9:30 - 9:50	Market opportunities and barriers incl. consumer acceptance	Frank Alleweldt
9:50 - 10:10	Upscaling rearing insects	David Deruytter
10:10 - 10:30	Insect processing	Mik van der Borght/Dries Vandeweyer
10:30 - 11:00	Coffee break / Posters	
11:00 11:20	Insects in animal feed	Laura Gasco
11:20 11:40	Insects as food	Nanna Roos
11:40 12:00	Safety along the insect value chain	Ine van der Fels-Klerx
12:00 12:20	Decision support system for sustainable insect value chains	Sergiy Smetana
12:20 13:30	Lunch / Posters	
13:30 14:00	Production of edible insects as a novel sector in agriculture and rural development	DG AGRI *(pending confirmation)*
14:00 14:30	Edible insects related to health and food safety	DG SANTE *(pending confirmation)*
14:30 15:00	Policy recommendations from the SUSINCHAIN project	Policy Officer *(pending confirmation)*
15:00 15:30	Coffee break / Posters	
15:30 15.50	EFPRA (relation between animal by-product processing sector and insect production)	Dr. Martin Alm
15.50 16.10	Developments in the last four years in the insect sector	Prof. Arnold van Huis
16.10 16.30	IPIFF: future prospects for insects in the EU	Christoph Derrien
16:30	Wrap up and closure of the Symposium	Teun Veldkamp
16:30 17:30	Drinks and insects tasting / Posters	

Registration will open soon.

Presentation of the EU policy scene

Protein strategy

No document has been published yet on the revision of the plant protein policy. However the recent work of the European Economic and Social Committee on this topic could be interesting:

European Economic and Social Committee, Towards a sustainable plant protein and plant oil strategy for the EU (own-initiative opinion), NAT/856-EESC-2022 (https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/towards-sustainable-plant-protein-and-plant-oil-strategy-eu)

The European Parliament is also preparing a draft own-initiative report on the "European protein strategy" that contains a motion for a resolution:

Draft report, European Protein Strategy (2023/2015(INI)), Committee on Agriculture and Rural Development, Rapporteur: Emma Wiesner

https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2023/2015(INI)&l=en

This resolution should be adopted during this summer.

Farm to Fork strategy

The Farm to Fork Strategy is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally-friendly.

Read more: Farm to Fork Strategy (europa.eu)

Food 2030

The Food 2030 pathways for action publication frames the deployment phase of the European Commission's Food 2030 initiative and is meant to guide future research and innovation policy reflections relevant to Horizon Europe, the Farm to Fork strategy and European Green Deal, and beyond.

Read more: Food 2030 pathways for action - Research and innovation policy as a driver for sustainable, healthy and inclusive food systems (europa.eu)

European Commission, Directorate-General for Research and Innovation, Froidmont-Görtz, I., Faure, U., Gajdzinska, M.et al., *Food 2030 pathways for action – Research and innovation policy as a driver for sustainable, healthy and inclusive food systems*, Ndongosi, I.(editor), Fabbri, K.(editor), Publications Office, 2020, **https://data.europa.eu/doi/10.2777/104372**