



## NextGenProteins 4th Newsletter

**Dear Readers of the NextGenProteins  
Newsletter,**

many activities were implemented in our project in the last months regarding Safety and Legal requirements, Production of alternative proteins, Application in food products, Application in feed products, Market opportunities and business potential, Sustainability assessment, Stakeholder involvement, Dissemination and Exploitation of Results.

NextGenProteins contributed to various scientific and industrial events and is planning more interactions with stakeholders and end-users in the coming months.

NextGenProteins launched with the EU H2020 funded projects [ProFuture](#), [smart protein](#) and [Susinchain](#) the [Horizon4Proteins partnership](#), kicked-off by a webinar series started in December 2021 to explore jointly key aspects of alternative proteins such as consumer acceptance, safety and regulatory challenges, food applications, and sustainability.

Birgir Örn Smárason, Research Group  
Leader for Sustainability & Aquaculture at  
Matis (Iceland), coordinator of  
NextGenProteins.

**For more information on the  
NextGenProteins project and its research  
topics, visit our website:**

<https://nextgenproteins.eu/>

**Project updates:**

### **Safety and Legal requirements**

Following interviews with 9 industry  
partners associated with the  
NextGenProteins project and with 30  
policy makers from ministries, authorities  
and associations in seven countries  
(Germany, Italy, Finland, UK, Sweden,  
Iceland and Faroe Islands),  
NextGenProteins' safety and legal  
requirements group is currently preparing  
policy recommendations to improve the  
EU regulatory framework based on  
research and societal needs.

The poster features logos for SUSINCHAIN (Sustainable Insect Chain) and NEXTGEN PROTEINS at the top left. To the right, it says 'in collaboration with' followed by logos for PROTEINS and smart protein. The main title 'HORIZON4PROTEINS' is in white, with 'Safety & Regulatory of novel protein Sources' below it. The date 'December 13<sup>th</sup> 2021' and time '10:00-11:00 CET' are listed. A green 'Webinar' tag is in the top right. A yellow circle on the right says 'Registration over Zoom'. The agenda is listed on the left: Introduction (with Birgir Örn Smárason), Regulatory challenges of alternative proteins (with Prof. Sveinn Agnarsson), Chemical safety of insects (with Prof. Ine van der Fels-Klerx), and Q&A.

**SUSINCHAIN** **NEXTGEN**  
SUSTAINABLE INSECT CHAIN PROTEINS

in collaboration with **PROTEINS** **smart protein**

**HORIZON4PROTEINS**  
**Safety & Regulatory of novel  
protein Sources**

**December 13<sup>th</sup> 2021**  
10:00-11:00 CET

Webinar

Registration over Zoom

**AGENDA**

- Introduction
  - **Birgir Örn Smárason**
- Regulatory challenges of alternative proteins
  - **Prof. Sveinn Agnarsson**
- Chemical safety of insects
  - **Prof. Ine van der Fels-Klerx**
- Q&A

Watch our [Horizon4Proteins Webinar:  
Safety & Regulatory of Novel Protein  
Sources](#)

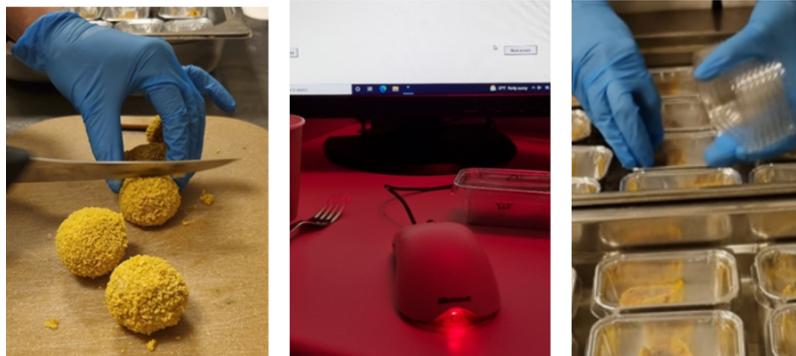
## Production of alternative proteins

NextGenProteins' production group is currently working on the optimisation and up-scaling of the production processes to meet the requirements of the food and feed sectors: feasibility and economic viability. Additionally, the team is assessing methods suitable for industrial downstream transformation

## Application in food products

NextGenProteins' food application group focussed in the last months on the final steps of product development and on the planning of consumer testing in four European countries.

- Development of vegetarian ready meals containing either protein rich microalgae extract (Spirulina) or yeast extract (Torula), with strong focus on sensory quality



- Production of spiced crisp bread slices and extruded snacks containing spirulina or cricket flour for stability testing and consumer test currently implemented.
- Creation of sausages and burgers with spirulina, insects and single cell protein (SCP) with sensory parameters close to

meat analogues to address the consumer palate (consumers favour taste and nutrition) and at the same time microbiological safety, lifecycle assessment and production compatibility in industrial scale

- Testing of NextGenProteins alternative proteins in different smoothfood (e.g. texture-modified meal components like vegetables, meat/fish, texture-modified bread, protein supplementation of thickened liquids) and bowls, dips and spreads. Products are ready for consumer testing.

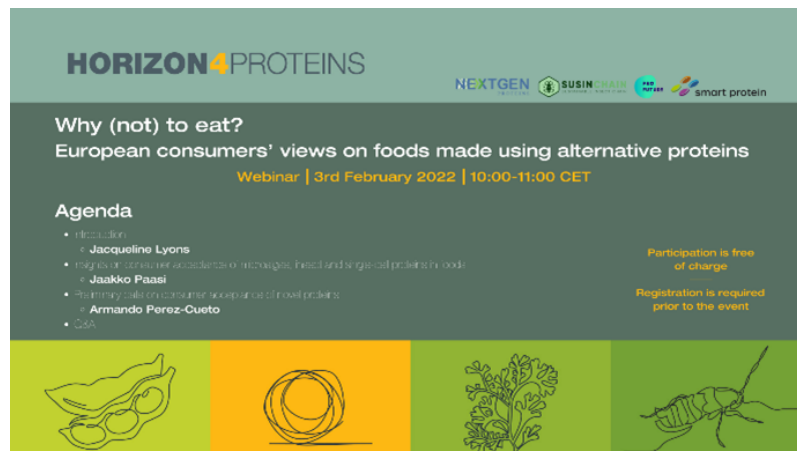


### Application in feed products

NextGenProteins' feed application group worked on lab-scale experimental trial feeding broiler chickens and turkeys with insect meal. Additionally, the team started a third lab scale trial with seabream to test SCP and started a field trial with seabream in Naturalleva facilities Spring 2022.

## Market opportunities and business potential

An European wide survey implemented in Finland, Germany, Iceland, Italy, Poland, Sweden, and UK with 6600 consumers completed in 2021 enabled NextGenProteins to gain a [European view on consumer attitudes towards alternative proteins](#), their production processes, and the use of resulting protein ingredients in food products. Additionally, 45 potential customers of alternative protein applications, such as food producers, retailers, restaurants and catering service providers, feed producers, and fish farmers were interviewed in Finland, Germany and Italy, and a European online survey to gain a [European view on the attitudes and expectations of business stakeholders within the value chains for food and feed towards the alternative proteins](#) and their production processes. Currently the work is concentrating on boosting consumer trust and acceptability towards alternative proteins and developing business models.



**HORIZON4PROTEINS**

NEXTGEN SUSIN GRAD smart protein

**Why (not) to eat?**  
European consumers' views on foods made using alternative proteins  
Webinar | 3rd February 2022 | 10:00-11:00 CET

**Agenda**

- Introduction
  - Jacqueline Lyons
- Insights on consumer acceptance of insects, fungi and seaweed proteins in food
  - Jaakko Paasi
- Primary data on consumer acceptance of novel proteins
  - Armando Perez-Cueto
- Q&A

Participation is free of charge  
Registration is required prior to the event

Illustrations: a pea in its pod, a cross-section of a mushroom, a sprig of parsley, and a grasshopper.

Watch our [Horizon4Proteins Webinar: Why \(not\) to eat? A webinar on European consumers' views on foods made of alternative proteins](#)

## Sustainability assessment

NextGenProteins' sustainability group analysed the circular economy potential of four alternative proteins case studies: protein production from algae, single-cell protein (SCP) production from yeast, black soldier fly cultivation and protein production, and cricket rearing and protein production. Moreover, the group performed a value-chain risk assessment of the four alternative protein case studies.

Check our [Horizon4Proteins Webinar: Sustainability of alternative proteins](#) (recording and presentations will be available shortly).

### NextGenProteins Publications:

- April 2022: Food protein from forest, insects and microalgae – Insights of European companies in food value chain to food revolution – [article in VTT News](#)
- May 2022: Insects rising – [article on insect-protein opportunities in Aquaculture North America](#)

### NextGenProteins Presentations:

- May 2022: Two presentations of [at the Icelandic Innovation week](#)
- June 2022: Oral presentation of [at the Insects to Feed the World Conference](#)
- August 2022: Oral presentation and poster [at the World's Poultry Congress](#)
- September 2022:
  - 12-15.09.2022: Keynote Horizon4Proteins at [Green for Good conference](#) in Olomouc, Czech Republic



- 13-16.09.2022: Oral presentation at [EuroSense2022](#) in Turku, Finland
- 20-23.09.2022: [Exhibition „Eat differently“](#) organised along the European Sustainable Development Week, in Bremerhaven, Germany

### **NextGenProteins Dissemination activities:**

- April 2022: Visit [Anuga FoodTec](#)
- May 2022: Visit [IFFA 2022](#)
- July 2022: TTZ booth at [BIOFACH 2022](#)
- July 2022: [Contribution to EU public consultation about Sustainable EU food system](#)
- September 2022: TTZ booth at [Fisch International](#)

### **Upcoming**

- 07-08.09.2023: [Next Generation Protein Conference](#), in Bremerhaven, Germany

*Thank you for reading, for following our channels, and for all your support.*

*Kind regards, The NextGenProteins Team*



**Are you interested in the NextGenProteins  
project?**

**Please send us a message**

[www.nextgenproteins.eu](http://www.nextgenproteins.eu)

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