

# PROSEAFOOD

## 2019 Newsletter

Innovative processing of seaweed for novel, healthy food products and ingredients

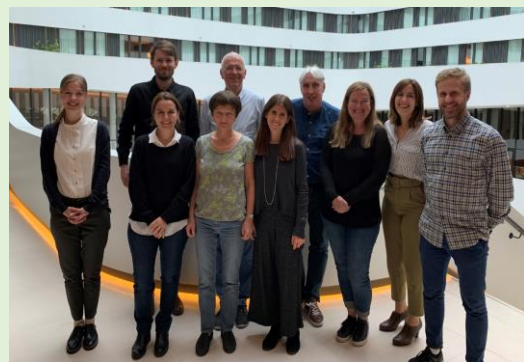
### Project overview

The primary objective of the "ProsSeaFood" project is to apply advanced processing methods to increase the digestibility and nutrient availability of brown seaweeds. This will be achieved through employing enzymes and fermentation to increase nutritional availability and remove inedible or potentially harmful substances, and to introduce novel sensory properties. Based on the processed ingredients, the project will further develop innovative food products that are nutritious, tasteful and have well-documented effects on consumer health.

### The Consortium

- SINTEF Industry (NO)
- Lund University (SE)
- Seaweed Energy Solutions (NO)
- Matis (IS)
- Desarrollo Panaderos Levantinos (ES)
- Grupo La Caña (ES)
- AINIA (ES)

Contact: Øystein Arlov, [oystein.arlov@sintef.no](mailto:oystein.arlov@sintef.no)  
Contact: Eva Karlsson, [eva.nordberg\\_karlsson@biotek.lu.se](mailto:eva.nordberg_karlsson@biotek.lu.se)  
Contact: Jon Funderud, [funderud@seaweedenergysolutions.com](mailto:funderud@seaweedenergysolutions.com)  
Contact: Guðmundur Óli Hreggviðsson, [qudmundo@matis.is](mailto:qudmundo@matis.is)  
Contact: Ximo Salvo, [xsalvo@grupodesarrollo.com](mailto:xsalvo@grupodesarrollo.com)  
Contact: Beatriz Molina, [beatriz.molina@mqsehijos.es](mailto:beatriz.molina@mqsehijos.es)  
Contact: Beatriz Pérez Graells, [bperez@ainia.es](mailto:bperez@ainia.es)



### Harvest and pre-processing

- 40 tonnes *Saccharina latissima* and *Alaria esculenta* harvested at Frøya in April-May 2019 by SES for distribution to research partners and customers
- Conditions for iodine reduction are being optimized and adapted toward large-scale processing
- Seaweed biomass has been pre-treated using various thermal and chemical procedures, and distributed to project partners for characterization and evaluation in product prototypes



### Fermentation and enzymatic processing

- Enzymes for taste enhancement and as pre-treatment for fermentation has been evaluated in lab scale experiments at SINTEF
- Lab scale fermentation with lactic acid bacteria and yeast has been performed on milled fresh *A. esculenta* at SINTEF
- Screening of probiotic bacteria growth on seaweed carbohydrates ongoing at Lund

### Product development and characterization

- Multiple prototypes of bakery products and vegetable-based products have been prepared by AINIA, incorporating processed *S. latissima* and *A. esculenta*
- The prototypes have been characterized with respect to nutritional content and sensorial properties (taste, smell, texture).
- Further studies will additionally focus on the shelf life of developed products, emphasizing microbial stability and maintenance of sensorial properties



### Upcoming events

- 2019 September 4<sup>th</sup>-6<sup>th</sup> Conference: *Seaweed Applications – Opportunities and Challenges*, Inderøy, Norway <https://www.sintef.no/en/events/seaweed-applications-opportunities-and-challenges-2019/>
- 2019 November 28<sup>th</sup>-29<sup>th</sup> SUSFOOD2 project mid term seminar, Ghent, Belgium
- 2020 January ProSeaFood project meeting, Granada, Spain



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Project administrator:

Håvard Sletta  
Research Manager  
SINTEF Industry, Dept. of Biotechnology and Nanomedicine  
[havard.sletta@sintef.no](mailto:havard.sletta@sintef.no)

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04 / 2018 — 03 / 2021

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