

#EMD2023

**EMD** 

EUROPEAN MARITIME DAY

**Brest**

24-25 May 2023





# **SeaMark** - Seaweed-based Market Applications: *"Unlocking the potential of macroalgae for a thriving European blue bioeconomy"*

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*The pain – and the gain!*

**PROBLEMS TO SOLVE:**

**Global shortages of sustainable and healthy feed and food.**

**To mitigate climate change..**

**OUR SOLUTION:**

**Cultivate seaweed as they are among the fastest growing crops on the planet. To grow, they only need sunlight, CO<sub>2</sub> and natural nutrients.**

**THE MARKET**

**Increasing demand in Europe and North America to use seaweed in human food, animal feed, as bio stimulants for agriculture, and replacing fossil-based packaging material (bio-plastic).**

## Geographic focus and the product focus



Healthy and  
tasty food



Functional  
feed  
(health and  
reducing  
feed)



Fresh  
biomass



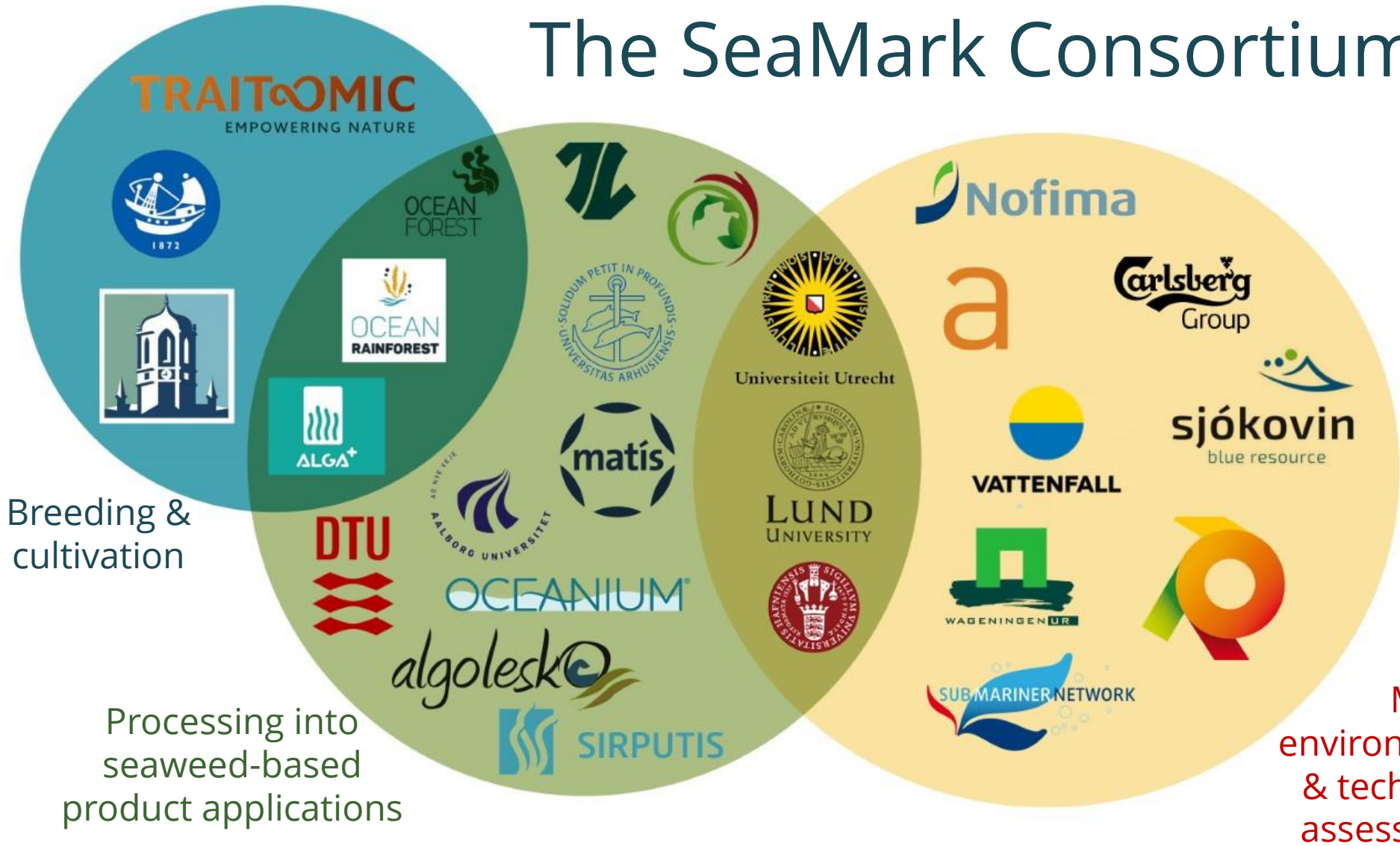
Food  
ingredients,  
bioplastic



- **In Europe:** Scale up operation in the Faroe Islands as fast as possible and, at the same time, start production in other locations in collaboration with local partners.
- **In Alaska:** Source seaweed from existing farmers and establish primary production in collaboration with local partners.
- **In California:** Continue to commercialize cultivation of Giant Kelp.



# The SeaMark Consortium







# Overall objective

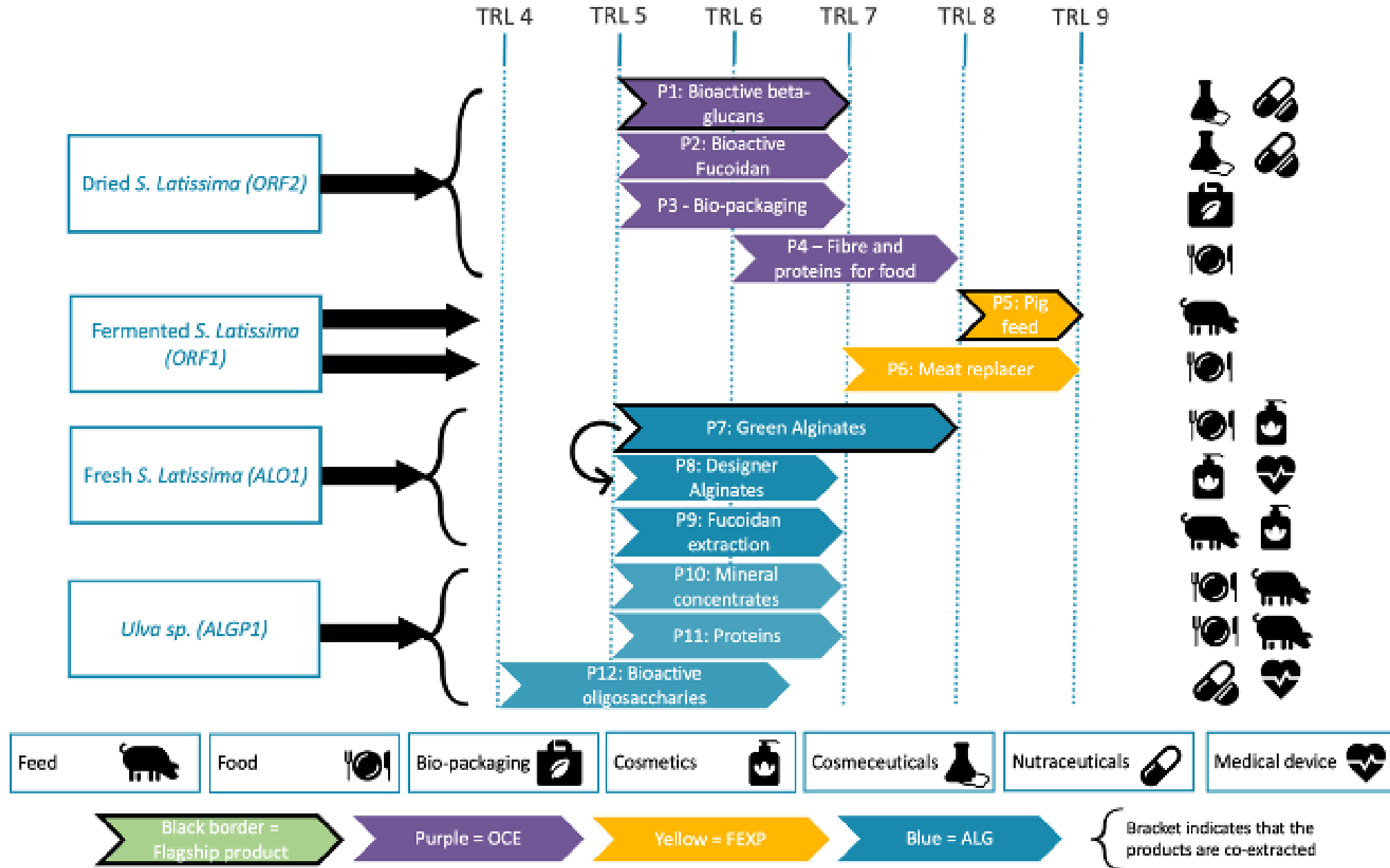
**SeaMark** will demonstrate how to scale up innovative seaweed cultivation and processing into price-competitive product applications making the entire supply chain attractive for commercial investments



# Biomass source

# Start and end technological readiness level

# Applications







# Key Exploitable Results of SeaMark

No.	
KER1	A suite of 12 products for high and low value market segments
KER2	Protocols for genetic breeding increasing yield with more than 50% compared to today
KER3	Prototypes for large scale and automated seeding, harvesting and landing technologies
KER4	Validated business models for four different supply chains
KER5	Good Practice recommendations on Life Cycle Assessments
KER6	Strategic development plan for the scale-up of the European seaweed industry
KER7	Policy and investor recommendation for scaling up to 30 million T biomass in 2050





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



PRODUCT(S) OF INTEREST

- P1: Bioactive beta-glucans (flagship)
- P2: Bioactive fucoidan
- P3: Bio-packaging materials
- P4: Fibre & protein food ingredients
- P5: Pig feed supplement (flagship)
- P6: Meat replacer
- P7: Green alginate (flagship)
- P8: Designer Alginates
- P9: Fuciodan extraction with enzymes
- P10: Mineral concentrates
- P11: Proteins
- P12: Bioactive oligosaccharides

APPLICATION(S) OF INTEREST

- Pharmaceuticals & Medical Devices
- Cosmetics
- Human food
- Feed additives
- Bio-packaging
- Processing Machinery
- Ecosystem Services
- Other (please specify below)

The European seaweed industry is the fastest growing form of aquaculture, but supply chains have yet to reach industrial capacities. A wide range of claims are made about seaweed's health and environmental benefits. In Europe especially, these claims require substantiation before products can reach the market and gain real traction.

To achieve this, buyers and sellers of seaweed biomass need to identify and understand logistical, regulatory and commercial requirements to ensure safe, sustainable and price-competitive products for consumers.

Register your interest in the SeaMark Market Platform to co-develop

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# The main impact in 2030

- Technical innovations to upscale production, while reducing production costs.
- Uniform standards for existing products and production methods.
- An increased European seaweed supply has the potential to diversify value chains with multiple high value-added products.
- Additional economic benefits include potential monetisation of ecosystem services.
- Boost European resource self-sufficiency, resilience, and competitiveness.
- Creation of knowledge-based jobs in coastal and rural areas.



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



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