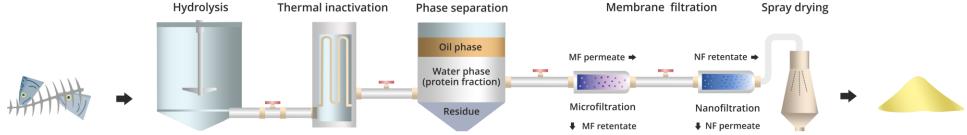


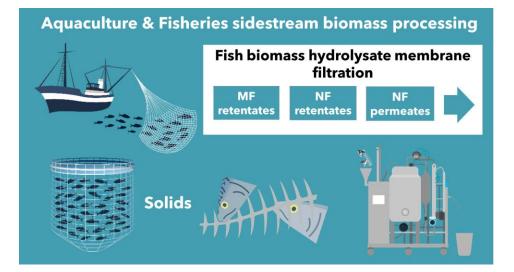
BLUE WAY to a

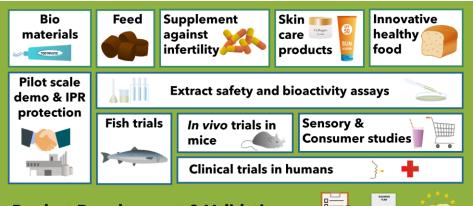
Sustainable Europe

Scope: The project will develop high-quality proteins and bioactives from European aquaculture and fisheries side streams combined with microalgae systems for applications in nutritional supplements, innovative food, cosmetics, biomaterials, and animal feed, targeting a holistic foodfirst zero-waste approach.



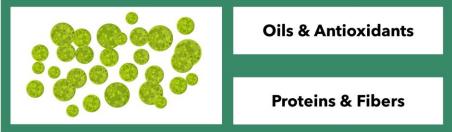






Product Development & Validation

Microalgae cultivation & biorefinery



Specific project objectives:

To develop... practices with industrial applicability for marine residue processing for food first

... industrial protocol for microalgae cultivation using upcycled nutrients from fish residue processing

... biorefining process that produces valuable fractions of microalgae biomass

... upgraded salmon feed formulation that integrates valuable fractions of microalgae biomass (antioxidants, omega-3 oils) and processed fish residues

... healthy food products with integration of protein-rich microalgae biomass

... fish side stream and microalgae-based food supplement with bioactive properties against low-grade chronic inflammation, male infertility, and its long-term consequences ... safer sunscreen creams replacing synthetic preservatives and reducing UV-filters using microalgal extracts and sun protection factor boosters from fishbones, respectively

... biomaterials from fisheries biomass processing residues, such as bone minerals



Environmental, Societal & Economic sustainability

LCA

Communication, Dissemination, Exploitation

Also, to... Calculate the environmental, societal, and economic risks and benefits & Inform, co-create, communicate, disseminate the public, and target stakeholders to open new markets, enable investments and enhance market acceptance and demand for BLUE food and feed.

IMPACT

- Save up to 10.5 million tons CO2 equivalents by using marine biomass for human food first
- Increase marine resource usage efficiency, reduce imports and pressure on marine biodiversity & deforestation
- Enable the knowledge based BLUE change in food, feed, cosmetics, and material sectors including documentation for the consumers
- Inform; Educate; Change food choice attitudes; improve consumer health; increase the markets for BLUE ingredients; Increase food security.
- Reduce the environmental footprint of aquaculture; improve animal welfare; reduced use of chemicals.

BLUEWAYSE COORDINATOR: Katerina Kousoulaki, Nofima, www.Nofima.no

