

## CONSORTIUM

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Hirtshals, Denmark



[www.vega-salmon.dk](http://www.vega-salmon.dk)



Kolding, Denmark

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# life conquer

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**Sustainably exploiting  
the side stream  
of the salmon processing  
industry for producing  
salmon peptides and oil.**  
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Co-funded by  
the European Union

This project has received funding from the European Union's LIFE Programme for Environment and Resource Efficiency under grant agreement No. 101074400 LIFE21-ENV-DK-LIFE CONQUER.

## ABOUT THE PROJECT

The LIFE CONQUER project aims at sustainably exploiting the side stream of the salmon processing industry for producing salmon peptides and oil, to be used as ingredients for human nutrition at large scale. A sustainable first of-its-kind biorefinery will be developed in Hirtshals (Denmark) based on know-how developed by biomega® Denmark, the Coordinator, in its DEMO plant, bringing the process from TRL 6 to TRL 8.

The building of such a big system is huge in term of effort and investments. The beneficiary coordinator already started the work in autumn 2021, by using their own resources, to set-up all the external infrastructure and some of the equipment needed for producing salmon peptides and oil as ingredients for human nutrition. At the beginning of the LIFE project, the biorefinery will be ready to host and to demonstrate the innovative i) solutions for extracting proteins from bones ii) the in-situ spray drying iii) an innovative inbound logistics for raw material, the three main objectives of LIFE CONQUER project.

## OBJECTIVES

Once the three systems will be set-up, tested and optimised the whole biorefinery will be ready to demonstrate at industrial scale the following environmental goals in line with the priority of LIFE programme:



### Bio-waste reduction

Of app. 18.300 tonnes/year of salmon offcuts saved



### GHG reduction

Of app. 1,600 tonnes of CO<sub>2</sub>eq/year



### Water efficiency

Of app. 30,000 tonnes/year



### Thermal energy saving

Of app. 23.7 Gwh/year

The project will have benefits of the creation of new jobs, as 17 FTE will be employed in the biorefinery starting from 2023.

## IMPLICATIONS

The concept developed is deeply ingrained within the concept of circularity, as opposed to take-make-dispose model, and it is perfectly in line with the European Bioeconomy Strategy:

- preserve nature and restore healthy ecosystems (21,000 tonnes/year of side-stream from the fish processing industry will be exploited to produce high-value compounds closing the production cycle);
- create new green jobs in rural and coastal areas (employment of 17 new people in the coastal area of Hirtshals);
- turn waste into new added value products (undervalued raw material from the salmon processing industry will be transformed through biotechnology into nutritious premium food and premium pet food ingredients, generating an increased revenue);
- provide additional income for farmers, foresters and fishermen (the providers of side streams from fish processing industry will increase their business by establishing collaboration with biorefineries).

