

Convenience Food Enriched with Marine based Raw Materials (EnrichMar)

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FP7-SME-2013: Research for the benefit of SMEs

The aim of this project is to convert marine based low value by-products and underutilised raw materials into highly valuable products. The focus will be placed on ingredients such as powder of fish oil and seaweed extracts which may positively enhance positive health effects, salt reduction, flavour and stability of the products to meet market demand. The functional properties of the enriched products will be studied via dietary intervention. The aim is to strengthen the competitiveness and increase market share of the companies involved and create business opportunities in national and European markets.

Background to the project:

Generally, seafood industries are largely placed far back in the value chain. The challenges facing the seafood industry is identifying added value processes for their raw materials. Commonly after processing, 40-50% of whole white fish can be utilised as edible fish. (FAO Corporate Document Repository, <http://www.fao.org/docrep/003/T0219E/T0219E01.htm>). The rest or 50 -60% are by-products of different lower or no values "waste". Only a few natural food antioxidants are commercially available on the market and the use of synthetic antioxidants has declined due to consumer awareness and demand for natural protection. Rosemary extracts have been the most successful natural plant based antioxidants commercialized so far. Due to the strong market demand and very positive preliminary tests it is believed that seaweed food antioxidant extracts can be highly competitive on the market and find various uses in food.

Recent process improvements have created new possibilities for the use of marine based ingredients in functional foods. Consumers tend to favour functional foods over supplementary pills according to Euromonitor International (2010) as means to prevent diseases. With increased knowledge about the effects of functional ingredients consumers increasingly choose foods that fit their specific health conditions. The market for these types of products is one of the fastest growing markets in the world.

Expected Results, Lead Users and Exploitation/Dissemination Plan,

Upscaled process of seaweed extract. Lead User would be Seaweed extract producer

New product categories of enriched seafood, convenience, dairy and cereal products

Lead User: SME's food processors

Information on stability and bioactivity of foods and ingredients

Lead User would be SME food processors and food ingredients producers

Verification of physiological effect of consuming enriched convenience food

End users would be consumers

Phases of Work:

- 1) Upscaling of the seaweed powders.
- 2) Product development of (oven ready) seafood dishes, dairy and cereal products with bioactive compounds;
- 3) A web-based concept testing among selected European consumers to measure consumer responses
- 4) Marketing strategy. Information about regulations and legislations in different markets will be gathered.
- 5) Physiological effect of consuming enriched convenience food will be tested.

Consortium

Matís, Iceland, VTT in Finland, TNO in the Netherlands, University of Milan, GK-Grímur kokkur Icelandic seafood producer, Marinox, BioActive Foods AS, BioActive Foods Europe BV, Finnish cereal producer Ruislandia/ Ruisvoima, Dutch dairy producer

Expected Contribution €1.3 million

Duration: 24months