

Launch of SEA2LAND project: Producing advanced bio-based fertilizers from fisheries wastes.

Nutriloop OÜ and Estonian Crop Research Institute participate in the Horizon2020 4-year international project SEA2LAND.

European Agriculture relies heavily on external sources for the supply of key fertilisers, while at the same time large quantities of minerals are discharged into the environment through a variety of organic waste streams.

The SEA2LAND project aims to provide solutions that help overcome challenges related to food production, climate change and waste reuse through the use of these organic waste streams. To this end, the SEA2LAND project will work on improving and adapting nutrient recovery technologies to produce bio-based fertilisers from fish and aquaculture processing by-products.

The project will create model pilots to be copied to Europe, taking into account regional circumstances and circular economic opportunities.

Nutriloop's role in the project is to create an improved fermentation solution for the production of fertilizers by combining fish waste with other biowaste streams - food waste, tree leaves, reed residues, etc. and to describe replicable business models for similar regions as Estonia. The role of the Estonian Crop Research Institute is to carry out plant experiments and assess the suitability of different fertilizers for different crops.

SEA2LAND will optimise technologies, some of them combined, (advanced composting, bio-drying, freeze concentration and extraction, algae production, pyrolysis, membrane technology, chitin extraction, thermo-mechanical fractionation, enzymatic hydrolysis) that will generate bio-based and tailor-made fertilisers, both for local crops and conditions and for export.

The basis of the project is the regional production of biofertilisers within a local and circular framework through the development of demonstration pilots that can be replicated across Europe. The project proposes the application of more than 10 technologies in 7 case studies in 6 representative areas of the fisheries sector (North, Baltic, Atlantic, Cantabrian, Mediterranean and Adriatic).'

The SEA2LAND project is a 4-year collaborative Innovation Action (IA) funded with 7.7 million € by the EU in the framework of the Horizon 2020 programme in the call H2020-RUR-2020-1.

SEA2LAND has started in January 2021 and the first coordination meeting has been held 27th-28th of January.

SEA2LAND project is coordinated by the Spanish organization NEIKER-INSTITUTO VASCO DE INVESTIGACION Y DESARROLLO AGRARIO SA (NEIKER), project Coordinator, together with 25 other partners **from 11 different countries (10 European States and Chile)**: UNIVERSITE DE LIEGE (ULIEGE), FIBL EUROPE - FORSCHUNGSINSTITUT FÜR BIOLOGISCHEN LANDBAU IN EUROPA (FIBL EU) and UNIVERSITEIT GENT (UGENT) from **Belgium**; IPS KONZALTING DOO ZA POSLOVNE USLUGE (IPS) from **Croatia**; NUTRILOOP OU (NUTRI) and EESTI TAIMEKASVATUSE INSTITUUT (ECRI) from **Estonia**; CENTRE REGIONAL D'INNOVATION ET DE TRANSFERT DE TECHNOLOGIE AGRORESSOURCES (CATAR), INSTITUT NATIONAL POLYTECHNIQUE DE TOULOUSE (INPT) and CHAMBRE D'AGRICULTURE DES PYRENEES ATLANTIQUES (CAPA), from **France**; UNIVERSITA POLITECNICA DELLE MARCHE (UNIVPM), UNIVERSITA DEGLI STUDI DI MILANO (UMIL) and SOCIETA COOPERATIVA PESCATORI MOLLUSCHICOLTORI CO.PE.MO. (CO.PE.MO), from **Italy**; AQUABIOTECH LIMITED (ABT) from **Malta**; GRONN GJØDSEL AS (Grønn), NIBIO - NORSK INSTITUTT FOR BIOØKONOMI (NIBIO) and NORSK LANDBRUKSRÅDGIVNING NORD NORGE (NLR-NN), from **Norway**; INSTITUTO DE SOLDADURA E QUALIDADE (ISQ) from **Portugal**; BARNÁ SA (BARNÁ), CAVIAR PIRINEA SL (CAVIAR), FUNDACION AZTI - AZTI FUNDAZIOA (AZTI), FUNDACIO UNIVERSITARIA BALMES (UVIC-UCC), FERTINAGRO BIOTECH SL (FERTINAGRO), INICIATIVAS

INNOVADORAS SAL (INI) from **Spain**; **Switzerland** (FORSCHUNGSINSTITUT FUR BIOLOGISCHEN LANDBAU STIFTUNG (FIBL- CH) and **Chile** (INSTITUTO DE INVESTIGACIONES AGROPECUARIAS (INIA).

SEA2LAND partners represent research organisations from by-products, valorisation, technologies and agronomy (including organic agriculture), industry from: (i) fish/aquaculture sectors; (ii) fertiliser sector; (iii) technology sector; including also aquaculture, fisheries and environmental consulting; management and dissemination, and business plan development, farmer representing organizations.

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