



LIFE BioLubridge

BIOLUBRICANTS FROM URBAN SEWAGE SLUDGE



PROJECT DETAILS

ACRONYM:	LIFE BioLubridge
START DATE:	01/09/2021
END DATE:	31/08/2024
TOPIC:	Environment and resource efficiency
SECTOR:	Waste
EU CONTRIBUTION:	1,352,049 Euro
WEBSITE:	www.life-biolubridge.eu

Biolubricants from urban sewage sludge

The European Commission allocates 1.3 million euro for pilot project LIFE BioLubridge

LIFE BioLubridge, started in September 2021 for a total duration of 36 months, is a project funded by the European Union under the LIFE Programme with 1.3 million euro, and it brings together 5 Partners to reach an important goal: proposing and demonstrating an alternative method to obtain bio lubricants from sewage sludge, lowering the environmental impact of these products and in line with principles of Circular Economy.

LIFE BioLubridge is a pilot project that introduces a new paradigm for the treatment of urban sewage sludge and the use of its lipids, to produce added-value raw material for bio-lubricants and bringing to substantial environmental benefits such as decreasing the impact of urban waste and providing a new source of raw material to substitute the need of extracting oils from plants and trees. The main scope of the project is to develop a totally new value chain, able to trigger a virtuous circle for generating raw materials from waste and that embraces the new concept of converting hazardous waste into consumable products. This system has never been implemented before. During LIFE BioLubridge project a pilot scale capable to process 2 m³/h of thickened sludge will be realized and run. The pilot demonstrator unit will be assembled at VITONE ECO premises, Coordinator of project, then it will be positioned at Acquedotto Pugliese water treatment plant in Bari, in a location which will be finely selected.

Sewage sludge handling is becoming a concern in Europe and the conventional wastewater treatment procedure suffers from lacks in terms of efficacy of treatments with respect to some specific compounds which more often contaminate urban wastewater. Endocrine disruptors, pharmaceuticals and antibiotics belong to new category of "emerging pollutants" contaminants which are not degraded through conventional wastewater treatments. The method proposed in LIFE BioLubridge aims to reduce the quantity of sewage sludge to be treated as dry solid and incinerated or landfilled, as well as to reduce the "emerging pollutants" which prevent it to be used for agricultural applications. LIFE BioLubridge results may encourage the **safe use of sludge in agriculture** as an effective alternative to chemical fertilisers.

In addition to Vitone Eco, the consortium is composed by a French company with experience in converting raw lipids into valuable esters, namely CERATEC, and FIOCHEM which will guarantee the direct test on the market of metalworking fluids. All the steps will be monitored and studied by CNR-IRSA; Acquedotto Pugliese will allow the pilot plant to be installed and tested, giving a support in the characterization of sewage sludge.

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