



Project co-financed by the European Regional Development Fund

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Union for the Mediterranean
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الإتحاد من أجل المتوسط

RE-LIVE WASTE



Countries: Segorbe (Spain), Monagroulli (Cyprus), Arborea (Italy) and the suburbs of Sarajevo (Bosnia and Herzegovina).

Target Groups: Sectoral agencies, business support organisations, enterprises except SMEs, interest groups, European Economic Interest Grouping, farmers, Higher education and research, research institutions and universities, training centres and schools, infrastructure and (public) service providers, international organisations, local public authorities, national public authorities, regional public authorities, the general public

Theme: Waste management

Key Words: Livestock waste management, struvite, struvite enriched precipitate (SEP), abatement of recovery of nitrogen and phosphorus, small-scale pilot Struvite Precipitation (SP) plants

Starting and Ending Dates:

1st February 2018 - 31st January 2021

Budget: €2,285,087.50

Agriculture and livestock breeding are key sectors in the Mediterranean region. Regions involved in the project are characterised by intensive cattle and pig farming, thus producing large amounts of waste that have become a major source of pollution, creating both environmental and economic challenges. There is an untapped potential for farmers in the Mediterranean to use innovative technologies to convert livestock waste into a resource. **RE-LIVE WASTE** tests innovative solutions for livestock waste management in selected Mediterranean regions, exploring the technical, environmental, economic, and legal aspects of fertiliser production. Pilot projects transform livestock waste into

organic high-value commercial fertilisers (struvite and SEP), contributing to smart and sustainable growth and to the creation of new business and market opportunities. Project outputs include 4 Struvite Precipitation (SP) plants, policy guidelines to stimulate innovative approaches to policy making, and establishment of a common legal framework. This transnational network aims to share innovative technologies that reduce the environmental footprint of livestock farming. A quadruple-helix and beneficiary oriented approach will ensure a tangible impact on the territories involved and the transferability of results to other European countries.

Improving innovation capacities of private and public actors for sustainable and profitable Recycling of LIVestock WASTE.

RE-LIVE WASTE Pilot Projects:



Challenges

RE-LIVE WASTE contributes to the Europe 2020 strategy, addressing challenges in research and development, innovation, energy management, and climate change. This project supports the region's transition to a

greener economy, because the organic fertilisers produced from livestock waste are more efficient than energy-intensive mineral fertilisers, and release less GHG emissions during the production cycle.

Solutions

The small-scale pilot Struvite Precipitation (SP) plants will allow the recovery of nitrogen and phosphorus, allowing farmers to comply with the EU Nitrates Directive (1991) as well as improving the 'nutrient use efficiency' of farming, contributing to environmental protection and green growth.

The project will strengthen transnational and regional action strategies in waste management. **RE-**

LIVE WASTE also contributes to the objectives of the LIFE Programme (2014-2020) concerning the shift towards a resource-efficient economy, reduced GHG emissions, and improving environmental governance at all levels. The project is also in line with regional Mediterranean policies that consider innovation as the key driver for competitiveness and growth, such as the Territorial Agenda 2020.

Lessons learnt and broader recommendations

At present, the project is still in its implementation phase, and the lessons learned and the recommendations will be part of a specific deliverable of Activity 3.7. It is important to note that one facility (CY) was able to produce high purity struvite (~90%), which was free of pathogens and carcinogens. This particular struvite was compared with commercially available fertilisers and the results appear to be very promising. Additional methodologies to

address different needs (i.e. farmers vs. companies) are currently being tested. This has made it clear that a flexible approach to livestock waste transformation is essential for developing an effective strategy. This stems from the diversity of livestock breeding and feed that results in a variety of waste materials which require fine-tuning of pilot plants according to the quality of the materials to be treated.

Green Growth and the EU Green Deal

RE-LIVE WASTE contributes to Interreg MED Green Growth's priorities by creating tangible options for sustainable development in the Mediterranean region. In particular, **RE-LIVE WASTE** will contribute to the 'Farm to Fork Strategy' for designing a fair, healthy, and environmentally-friendly food system¹. By processing waste, the pilot plants will reduce the leaching of nitrates into groundwater and the accumulation of excess nutrients and heavy metals in the soil. Furthermore, the liquid effluent produced at the end of the pro-

duction process might be used for fertigation, reducing the amount of freshwater used on these farms. From an industrial point of view, livestock waste reutilisation will reduce the use of raw materials. Industrial phosphorus fertilisers are manufactured from non-renewable phosphate rocks which are near depletion. Phosphorus recovery (along with nitrogen) from organic waste has the potential to become common practice, which is what the **RE-LIVE WASTE** project seeks to achieve.

The InterregMED Green Growth Community

Green Growth is a thematic community that promotes sustainable development in the Mediterranean within the framework of the Interreg Med Programme. It supports the sound management of natural resources by enhancing cross-sectoral innovation practices through an integrated, territorially-based cooperation approach.

The community supports its projects in communicating and capitalising on their results to increase their impact at the policy level and ensure their potential transfer into other territories.

Visit our website:
green-growth.interreg-med.eu

Join the Green Growth Capitalisation Platform:
interregmedgreengrowth.eu

Further Information:

RE-LIVE WASTE Website:
<https://re-livewaste.interreg-med.eu>

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