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**Valorisation of the digestate
from pig manure as new fertilizers
with an organic / mineral base
and gradual release.**



The Project is funded by the LIFE financial
instrument of the European Commission



OBJECTIVES

- Management of a demonstration plant for treating 120 m³/d of digestate including **composting** of the solid phase and **stripping** for the recovery of the inorganic nitrogen from the liquid phase.
- Validation of the **new fertilizers** in field trials with wheat crops, both rainfed and irrigated.
- **Environmental** advantages: improving soil quality, minimization of nitrogen losses through nitrate leaching, reduced GHG emissions.
- **Economic** advantages: cost reduction by a single application.
- Promote compliance with EU legislation in the field of waste management of pig manure, especially regarding nitrates (91/676/EEC).
- Increase awareness of the stakeholders and farmers on environmental pollution associated with their activities, and the advantages of the new fertilizers.



ACTIONS

- Separation of the two solid / liquid phases of the digestate.
- Stabilization of the solid phase by composting to produce a high quality organic fraction for soil remediation.
- Recovery of the inorganic nitrogen from the liquid phase by stripping.
- Formulation of the new mixed organic / mineral base fertilizers with a nitrification inhibitor.
- Validation of the new fertilizers in field trials with wheat crops.
- Comparative Life Cycle Assessment (LCA) of the new fertilizers with other commercial products. Evaluation of the improvement in the carbon footprint.

