



NUTRI•KNOW

STRUVITE (IT)

RENURE (BE)

POCKETBOER 2
(BE)

Grass2Algae
(BE)

MOPS (IE)

Duncannon Blue
Flag Farming (IE)

Biorefinery
Glas (IE)

Slurry
Concentrator
(ES)

Manure
Management
Tool (ES)

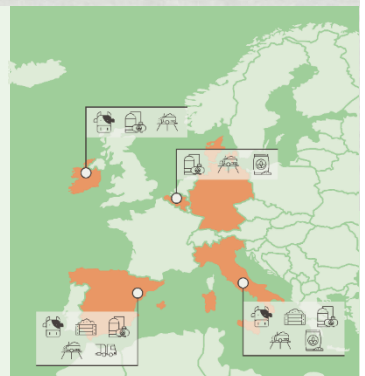
FERTICOOP-GO
(ES)

SOS_AQUAE
(IT)

GAS LOOP (IT)

Exchanging easy-to-understand nutrient management knowledge with farmers

NUTRI-KNOW aims to improve nutrient management practices in agriculture by establishing an ongoing cycle of knowledge exchange for the benefit of both farmers and the environment.



Livestock manure and digestate treatment to reduce emissions and produce struvite

STRUVITE operational Group designed and implemented a prototype, a farm-scale system, capable of recovering struvite from agricultural digestate.

Challenge

Producing a renewable, slow-release fertiliser (struvite: magnesium ammonium phosphate) with the nitrogen and phosphorus recovered from manure and digestate. This fertiliser can replace the chemical input in nutrient-deficient areas.

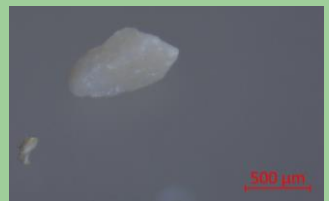
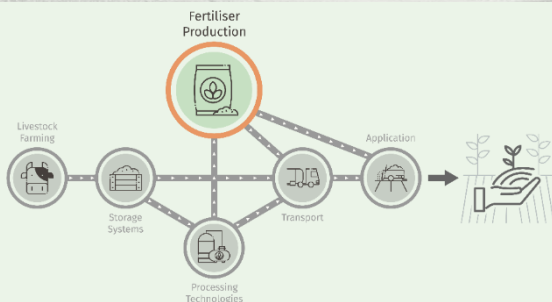
Activity

Laboratory analysis for the characterisation of the input digestate and of the output fractions and flows after the treatment.

Results

The phosphorus, nitrogen and magnesium are concentrated in the precipitate. There, the nitrogen and phosphorus are in a saline and stable form and no longer in an orthophosphoric and ammonia form.

The struvite-containing precipitate fraction requires additional refinement by a fertiliser manufacturer to replace phosphate minerals with phosphorus recovered from manure or digestate, meeting the new European fertiliser regulation's P Component Material Categories.



Struvite crystal

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our journey!

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