



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)

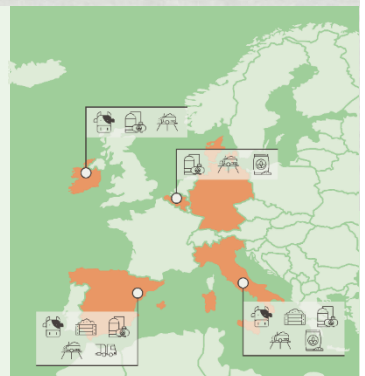
FERTICOOP-GO
(ES)

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.



Gas Loop

Emissions capture for a virtuous nitrogen cycle in pig livestock

GOi Gas Loop

Gas Loop has developed and monitored an air washing system that removes ammonia from the air of animal housing and recovers it in an ammonium sulphate solution. This increases animal welfare and productivity due to better air quality inside the pig housing.

Approach

An essential nutrient like nitrogen, often emitted as harmful ammonia into the atmosphere, can be reclaimed and repurposed into fertilisers, contributing to nutrient recovery and reuse initiatives.

Activity

- Ammonium sulphate production and chemical characterisation.
- Quantification of GHG reduction (kg CO₂eq/kg pig meat) due to replacement of industrial fertilisers.

Results

- Ammonium sulphate solution produced complies with the UE Regulation 2019/1009 as liquid inorganic N fertilisers based on category PFC1.
- The recovered fertilisers allow for a GHG reduction due to the replacement of N industrial fertilisers equal to 66t CO₂eq per year and per ton of live weight.
- It was possible to recover 14.5 kg nitrogen N per ton of live weight per year and to avoid ammonia emissions into the atmosphere for 1.94 kg NH₃/animal place per year.



Ammonium sulphate fertiliser

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our journey!

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