



NUTRI•KNOW

# WEBINAR N°1

## Introductory webinar

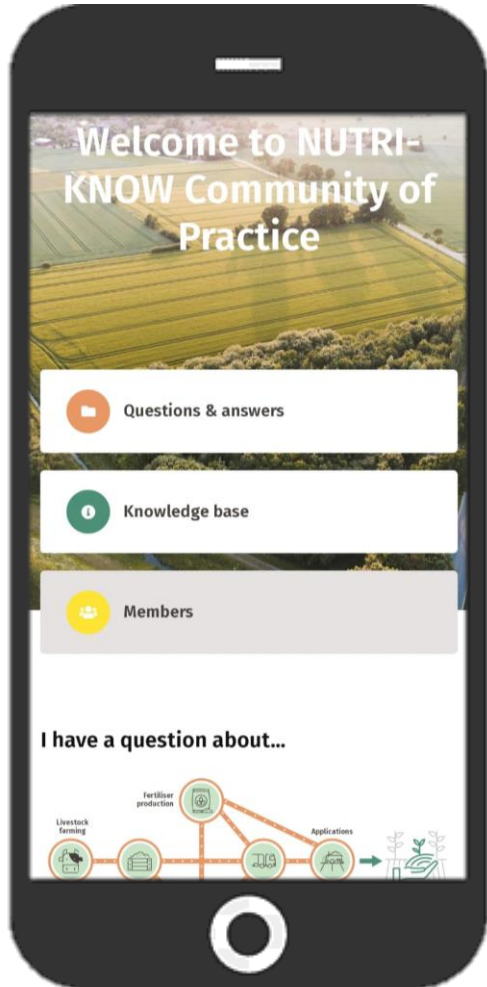
Coordination team

Victor Carbajal Perelló (BETA TC, UVIC/UCC)

8th October 2024



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NutriKnow - Co...  
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I accept the Code of conduct

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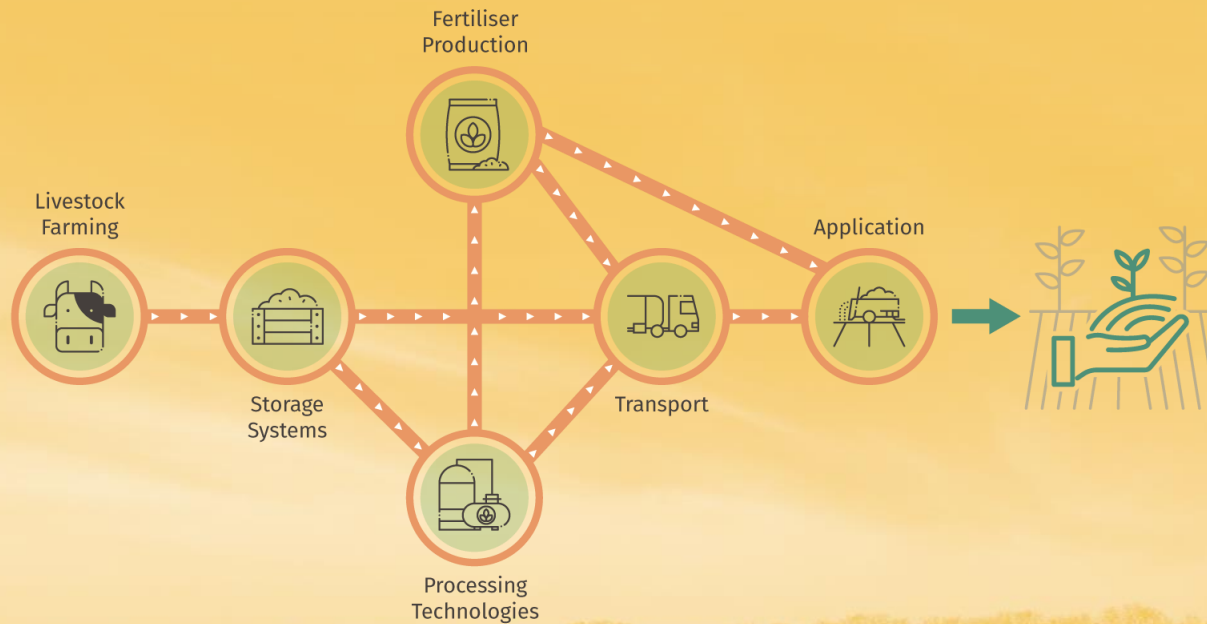
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# NUTRI•KNOW

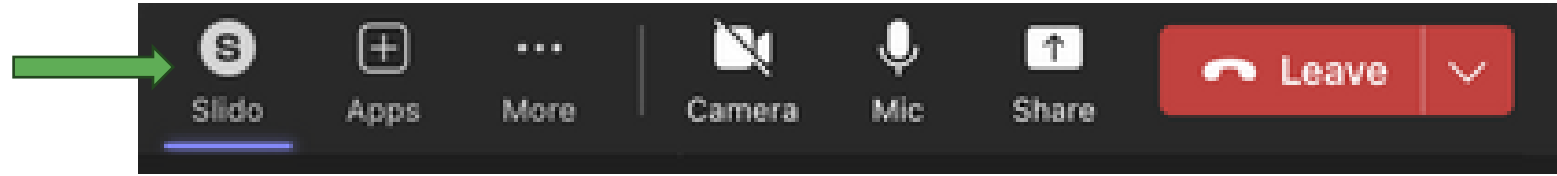
## List of webinars

- 1- Introductory webinar (08/10/24)**
- 2- Livestock Farming (15/10/24)**
- 3- Application (22/10/24)**
- 4- Processing Technologies (29/10/24)**
- 5- Fertiliser Production (05/11/24)**
- 6- Transport (12/11/24)**
- 7- Storage Systems (19/11/24)**





slido



# What do you expect from these webinars?



# Contextual Challenge: NUTRIENT MANAGEMENT

[Home](#) / [News](#) / [Agrifood](#) / [CAP reform](#) / EU is too dependent on animal feed and fertiliser imports, warns Parliament study

## EU is too dependent on animal feed and fertiliser imports, warns Parliament study

By Sofia Sanchez Manzanaro | Euractiv ⌚ Est. 3min

📅 7 mar 2024

MEPs want to bring down their prices

## "EU should be less dependent on imported fertilizers"

The European Parliament urges the Commission to ensure the supply of fertilisers, take action to bring down prices, and increase the EU's strategic autonomy in fertilisers.

## Europe's fertilizer demand struggling amid high gas costs, cheaper imports



★ Favorites 🖨️ Print ✉️ Forward ➦ Share [in](#) [X](#) [f](#)

Oct. 9, 2023

By Deepika Thapliyal (Deputy Managing Editor, Fertilizers), Sylvia Tranganida (Senior Ammonia Editor) and Aura Sabadus (Senior Journalist), ICIS

02 February 2024 by Diego Giuliani

## Reuse or let die. Crucial for life but threatening if in excess: the nutrient challenge



Essential for life but threatening for the environment if in excess. The nutrient challenge and the circular response: turning them from waste into biofertilizers to tackle pollution and feed the world's growing population

⌕ ⌕

## Recovering Nutrients To Save The Planet: The Fertilizer Challenge

📅 July 31, 2023 💬 0 Comments

By Eurasia Review

[Home](#) / [News](#) / [Agrifood](#) / [Sustainable food systems](#) / EU stalls on strategy to curb nutrient losses

## EU stalls on strategy to curb nutrient losses

By Julia Dahm | Euractiv.com ⌚ Est. 4min

📅 8 nov 2023 (updated: 📅 13 nov 2023)

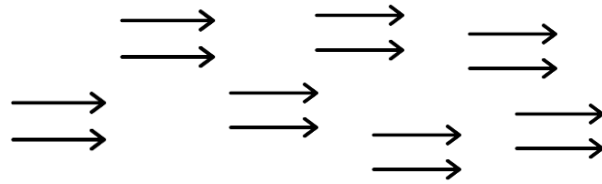


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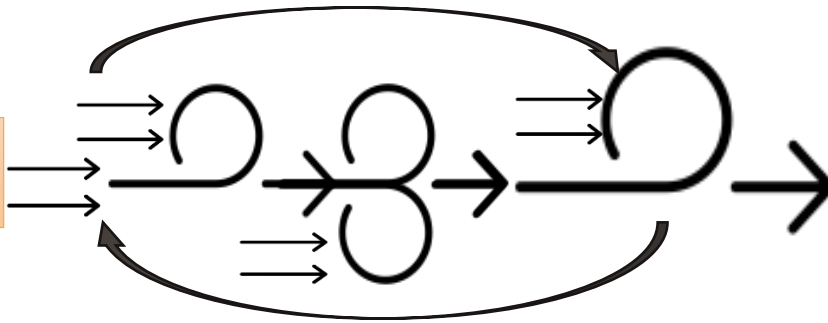


# Knowledge Paradigm

Knowledge Linearity Approach



Knowledge Circularity Approach



## ADDED VALUE

- Considering Experience
- Aggregating Knowledge
- Identifying New Challenges
- Increasing Lifespan of Innovations



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# Capitalisation

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## Process Overview

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Combines research outcomes to broaden impact

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Involves knowledge sharing and raising awareness

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Maximises impact through new knowledge generation

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Supports policy development and circularity

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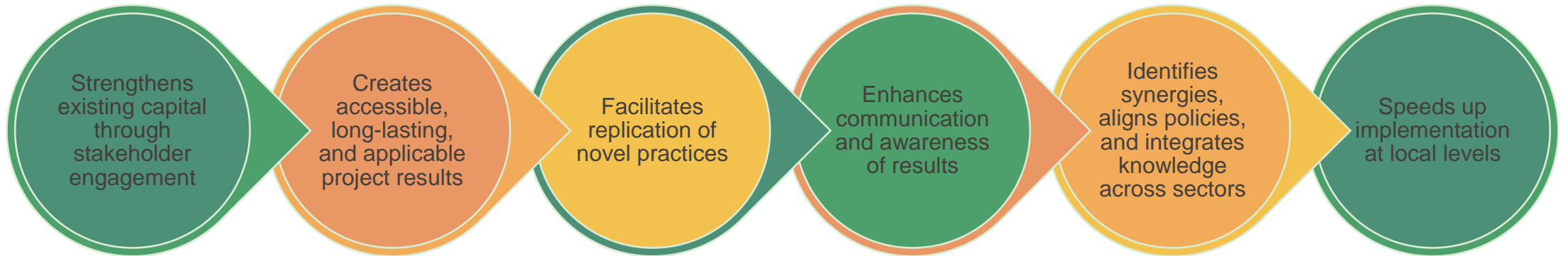
Promotes re-use, knowledge transfer, and improved performance



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# Capitalisation



**Capitalisation, eventually, becomes a complementary procedure to the information, communication, monitoring and evaluation processes.**



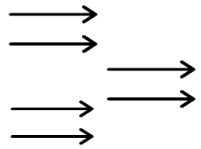
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# Knowledge Challenge

EIP-AGRI  
Operational  
Groups



## KNOWLEDGE

*What we know*



Recommendations  
Innovative Technologies

Products  
Tools



## NUTRI•KNOW



Collecting, translating, and  
sharing **easy-to-understand**  
and **practice-oriented**  
knowledge

## PRACTICE

*What we practice*



Knowledge-to-  
application

**GAP**



## NUTRIENT MANAGEMENT

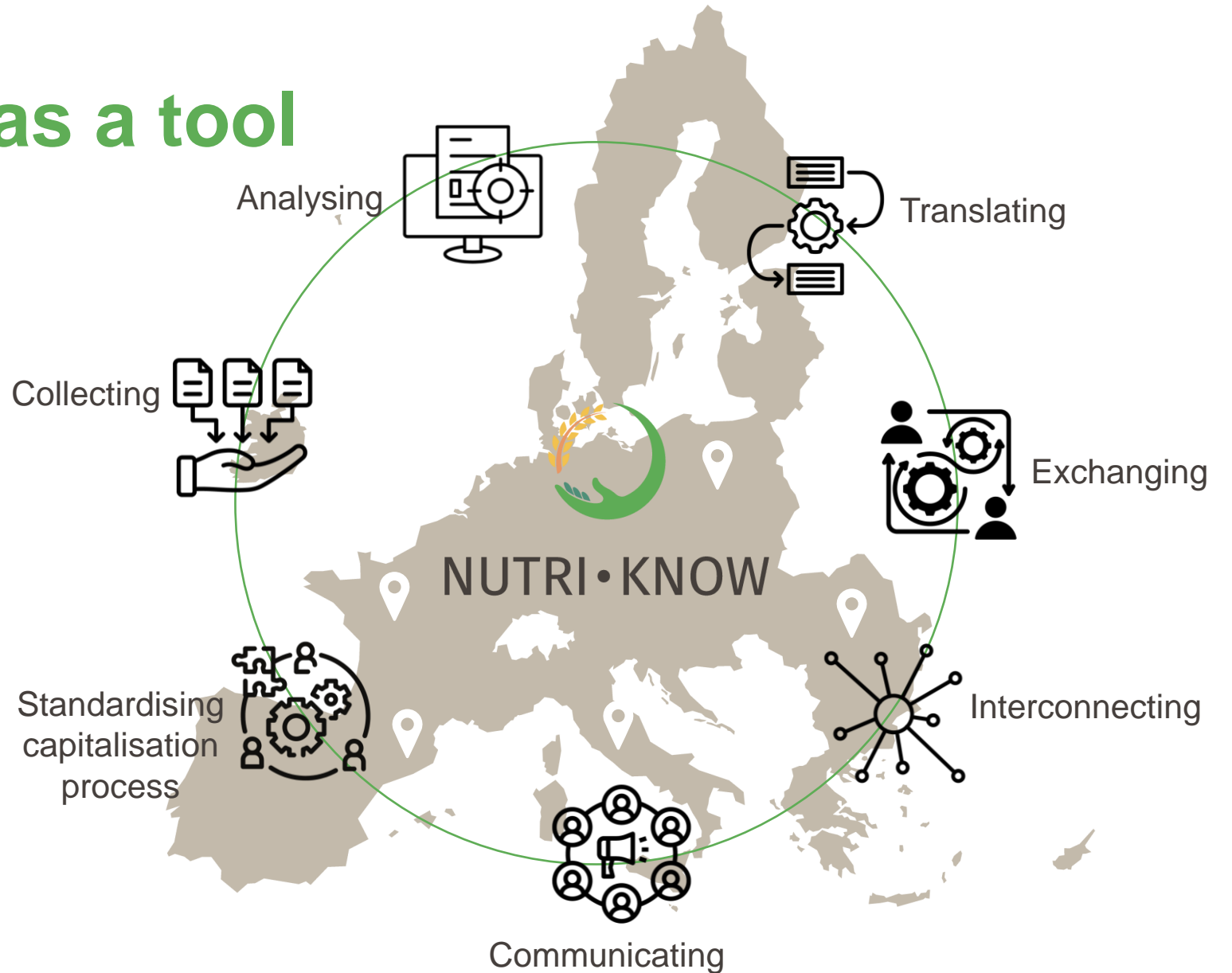
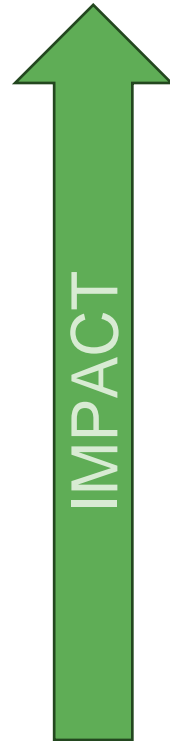


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# NUTRI-KNOW as a tool

Increase the **impact** of research and innovation on nutrient management





# NUTRI-KNOW Project

**Call:** HORIZON-CL6-2022-GOVERNANCE-01 (Innovative governance, environmental observations and digital solutions in support of the Green Deal)

**Topic:** HORIZON-CL6-2022-GOVERNANCE-01-13

**Type of Action:** HORIZON-CSA

**Proposal number:** 101086524

**Duration:** 3 years (36 months)

**Budget:** € 1 999 962,50

## Project Information

### NUTRI-KNOW

Grant agreement ID: 101086524

### DOI

[10.3030/101086524](https://doi.org/10.3030/101086524) 

### EC signature date

17 October 2022

### Start date

1 January 2023

### End date

31 December 2025

### Funded under

Food, Bioeconomy Natural Resources, Agriculture and Environment

### Total cost

€ 1 999 962,50

### EU contribution

€ 1 999 962,50



### Coordinated by

FUNDACIO UNIVERSITARIA BALMES

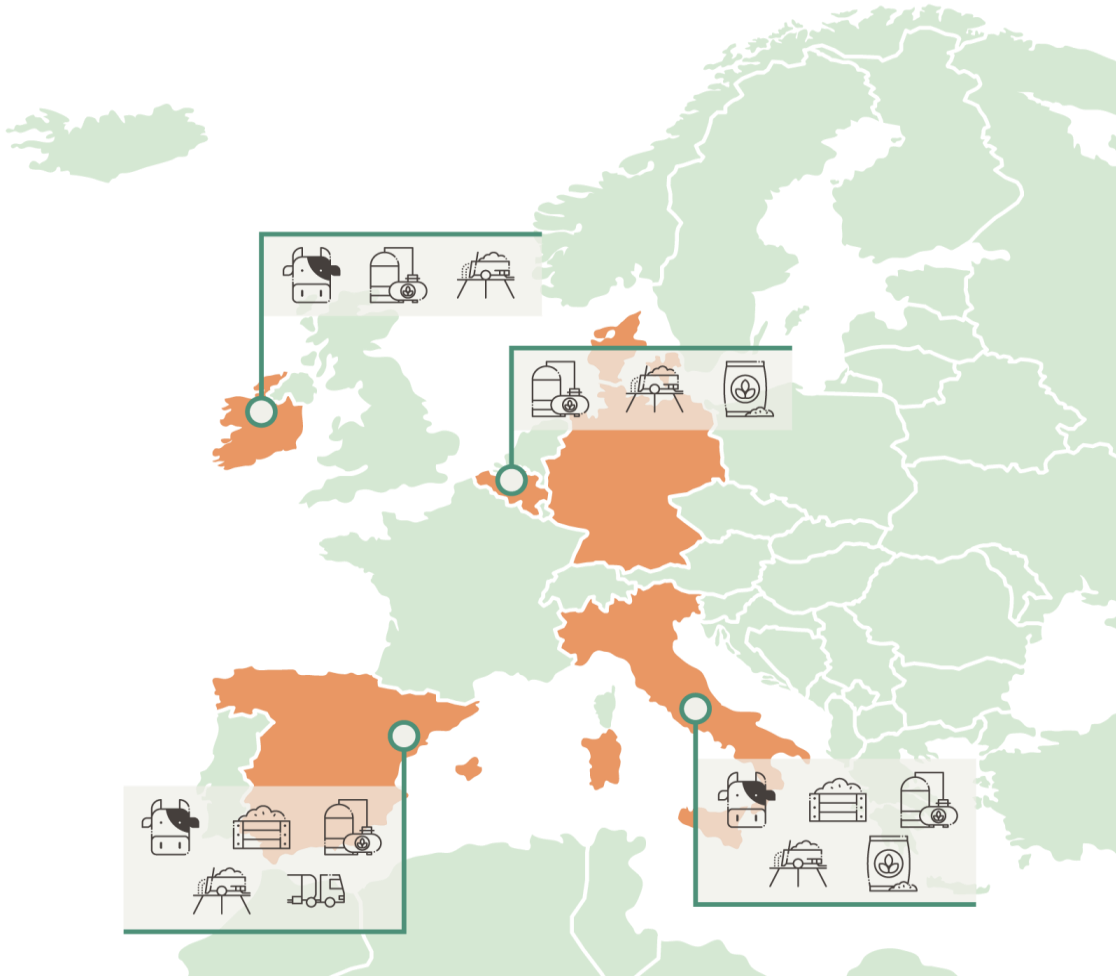
 Spain



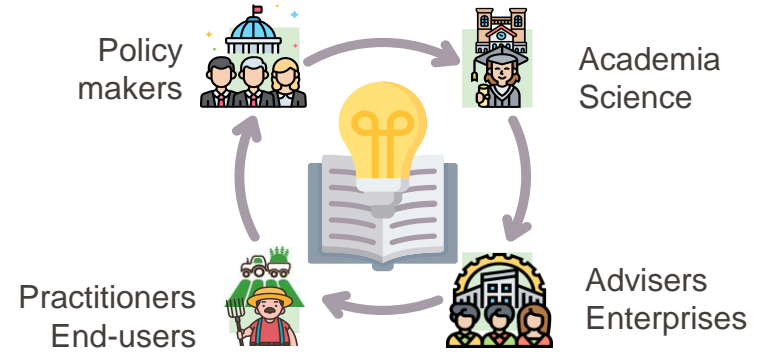
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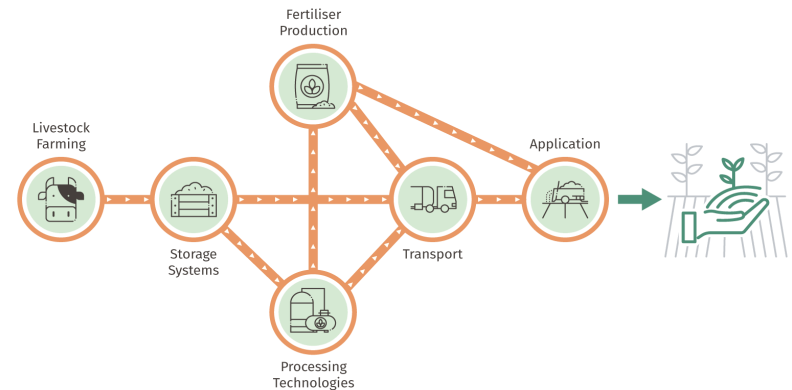
# NUTRI-KNOW APPROACH



## MULTI-ACTOR APPROACH



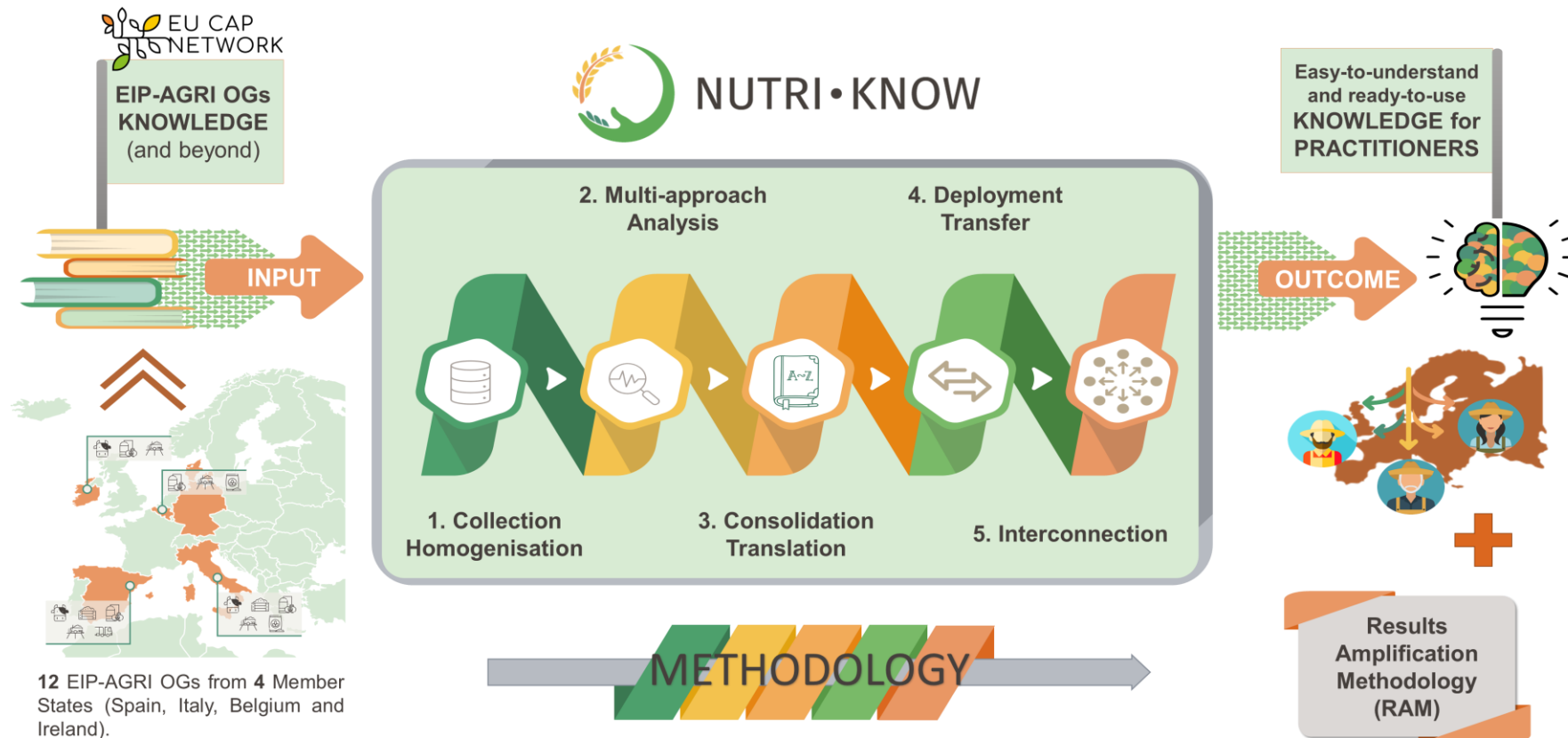
## CONCEPTUAL APPROACH







# General Project Overview



12 EIP-AGRI OGs from 4 Member States (Spain, Italy, Belgium and Ireland).

With this approach, NUTRI-KNOW aims to bridge the knowledge-to-application gap, fostering a sustainable and dynamic agricultural sector.



# Collection & Homogenisation: Knowledge





# OG highlights for nutrient management



## Manure Concentrator (ES)

Technology to separate pig slurry into two distinct liquid fractions at a low cost, without additional emissions, and with minimal energy consumption. Both fractions can be applied as fertilisers using the same machine.



## Manure Management Tool (ES)

Use of conductivity meters for optimized fertilization with in-situ determination of NPK content of slurry, and a computer application to quickly and accurately generate the livestock management book and fertilisation plans.



## FERTICOOP-GO (ES)

Rapid testing systems and IT platforms to facilitate fast and reliable recommendations for farmers to implement Best Available Techniques (BATs) to reduce environmental impacts of livestock farm, manure management and agricultural fertilisation.





# OG highlights for nutrient management



## **SOS\_AQUAE (IT)**

Innovative application of 'renewable' fertilizers derived from livestock slurries and digestate by drip lines in sub-irrigation, to optimize the efficiency use of the local-available nutrients.



## **Gas Loop (IT)**

Ammonia Washing Machine to reduce ammonia emission and improve the air quality inside the pig housing, meanwhile producing ammonium sulphate as alternative for synthetic N fertilizers



## **STRUVITE (IT)**

The STRUVITE prototype treatment system to reduce greenhouse gas emissions from livestock manure and digestates. The application of recovered struvite promotes the N and P relocation in areas characterized by nutrient deficiencies.



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# OG highlights for nutrient management



## RENURE (BE)

Technology to recover ammonium salts from livestock manure through stripping and scrubbing process, facilitating the legislative uptake of RENURE with knowledge and experiences at field application.



## POCKETBOER 2 (BE)

Elaboration of recommendations based on the experiences dairy farmers who are already using pocket digesters, to find solutions for common problems and improve performance.



## Grass2Algae (BE)

Technology to process the excess farm-edge grass into grass juice and assess its agronomic value for cultivation of microalgae biomass as alternative protein source.





# OG highlights for nutrient management

## MOPS (IE)



Optimisation of organic horticulture production through crop planning and effective use of green manures and other organic manures and fertilisers to improve continuity of supply and reduce reliance on imported inputs

## Biorefinery Glas (IE)



Simultaneous production of multiple products from a small-scale mobile grass biorefinery, including press-cake fiber, protein concentrate feed for monogastrics, high value prebiotic sugars and recovery of nutrients for use as fertilizer.

## Duncannon Blue Flag Farming (IE)



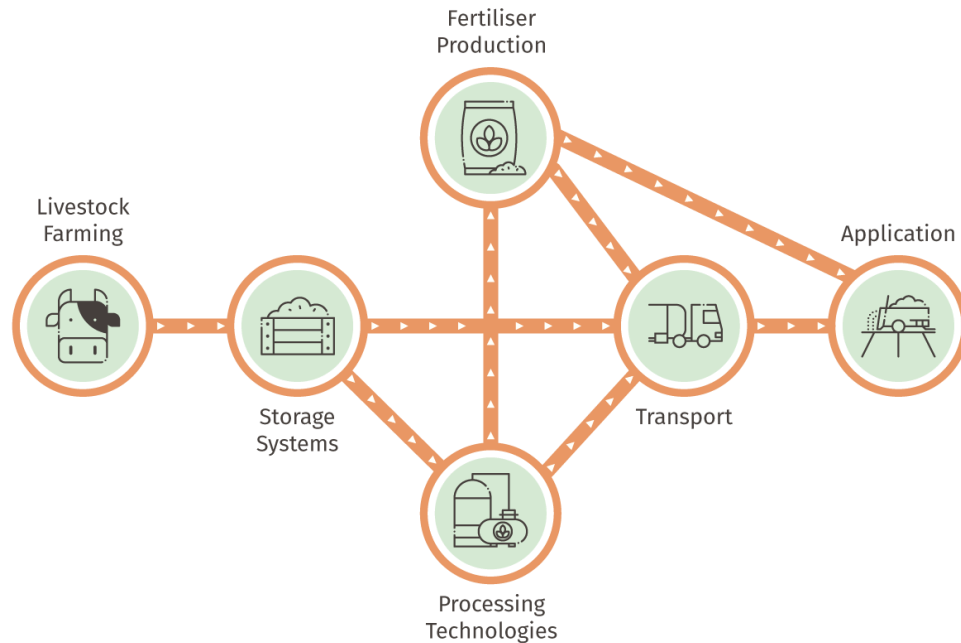
A template for the development of farm-specific pollution potential zone 'PPZ' maps, with the aim to develop a results-based, reward scheme to improve water-quality in particularly sensitive catchments.



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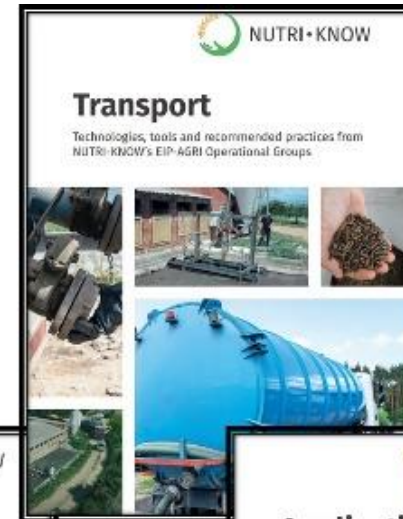
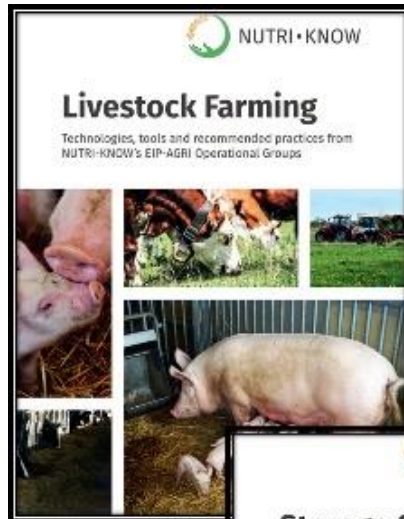
# OG highlights for nutrient management



Value chain step	NUTRI-KNOW OGs
<b>1. Livestock farming</b>	OG. Biorefinery Glas OG. FERTICOOP OG. Gas Loop
<b>2. Storage systems</b>	OG. FERTICOOP OG. Struvite
<b>3. Processing technologies</b>	OG. Slurry Concentrator OG. Biorefinery Glas OG. Gas Loop OG. Grass2Algae OG. Pocketboer2 OG. RENURE OG. SOS AQUAE OG. Struvite
<b>4. Fertiliser production</b>	OG. Biorefinery Glas OG. Gas Loop OG. RENURE OG. Struvite
<b>5. Transport</b>	OG. Slurry Concentrator
<b>6. Application</b>	OG. Manure Management Tool OG. Duncannon Blue Flag OG. MOPS OG. RENURE OG. Slurry Concentrator OG. SOS AQUAE OG. Struvite



# NUTRI-KNOW Booklets







# You can also find our knowledge objects in the EU-Farmbook!

The screenshot shows the EU-FarmBook search interface. At the top, there is a navigation bar with 'EU-FarmBook', 'About', 'Support', and 'Topics'. A search bar contains the text 'NUTRI-KNOW' with a green arrow pointing to it. Below the search bar, it indicates '70 results'. On the left, there is a 'Filters' sidebar with categories: RESOURCE TYPE, TOPIC, SUBTOPIC, CONTRIBUTION LANGUAGE, LOCATION, and PROJECT. The main content area displays three search results:

- OG\_Pocketboer II: Eindverslag**  
DOCUMENT · 30-06-2021 · NUTRI-KNOW · Inès Verleden, Tine Vergote  
processing technologies anaerobic digestion pocket digestion small-scale digestion biogas
- OG RENURE: Production of manure-derived ammonium salts through stripping and scrubbing process**  
DOCUMENT · 01-11-2023 · NUTRI-KNOW · Ines verleden  
processing technologies fertiliser production application stripping and scrubbing
- OG RENURE: Production and agronomic assessment of the manure-derived ammonium salts as RENURE fertilisers**  
DOCUMENT · 01-11-2023 · NUTRI-KNOW · Ines Verleden  
processing technologies fertiliser production application stripping and scrubbing ammonium salts



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Thank you!

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16/09/2024

Learn more about us at [www.nutri-know.eu](http://www.nutri-know.eu)

