

# Project website

## Deliverable D5.6

INNOVATIVE DECISION-MAKING TOOL FOR DEFINING THE MOST SUITABLE MANURE MANAGEMENT STRATEGIES TO ACHIEVE A SUSTAINABLE LIVESTOCK FARMING SYSTEM DURING THE WHOLE VALUE CHAIN

Proposal number: 101135400-2



Deliverable D5.6 – Project website			
<b>Deliverable Number</b>	D5.6	<b>Lead Beneficiary</b>	1-MEDRAR
<b>Deliverable Name</b>	Project website		
<b>Type</b>	DEC – Websites, patent, filings, videos, etc.	<b>Dissemination Level</b>	PU-Public
<b>Due Dae (month)</b>	6	<b>Work Package No</b>	WP5

<b>Grant Agreement No:</b>	<b>1011135400</b>	<b>Project acronym:</b>	<b>NUTRITIVE</b>
<b>Project Title:</b>	<b>INNOVATIVE DECISION-MAKING TOOL FOR DEFINING THE MOST SUITABLE MANURE MANAGEMENT STRATEGIES TO ACHIEVE A SUSTAINABLE LIVESTOCK FARMING SYSTEM DURING THE WHOLE VALUE CHAIN</b>		
<b>Financing scheme:</b>	HORIZON-CL6-2023-ZEROPOLLUTION-02		
<b>Project coordinator:</b>	<b>MEDRAR</b>		
<b>Principal beneficiary:</b>			
<b>Project start date:</b>	11/07/2024	<b>Duration of the project:</b>	48 month
<b>Deliverable:</b>	D5.6. Project erbsite		
<b>Contractual delivery date:</b>			
<b>Actual delivery date:</b>			
<b>Type of deliverable</b>	DEC – Websites, patent, filings, videos, etc.		
<b>Dissemination Level</b>	PU (public)		
<b>Authors:</b>	MEDRAR		
<b>Contributors:</b>			
<b>Version:</b>	<b>1.1</b>		

<b>History of change</b>			
<b>Version:</b>	<b>Author:</b>	<b>Date:</b>	<b>Comments:</b>
0.1	MEDRAR	18/11/2024	

The designations employed and the presentation material in this information product (deliverable) do not imply the expression of any opinion whatsoever on the part of the NUTRITIVE Consortium. Mention of specific companies, events, manufacturers' products does not imply that these have been endorsed or recommended by the NUTRITIVE Consortium.

The views expressed in this deliverable are those of the author(s) and do not necessarily reflect the views of the NUTRITIVE Consortium.

**Third-party materials:** Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is required for such reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third party proprietary component of the work rests solely with the user.

**TABLE OF CONTENTS**

1. INTRODUCTION .....	3
2. PROJECT WEBSITE .....	5
2.1. CONTEXT .....	5
2.2. RELATION OF C&D ACTIONS WITH OTHER ACTIVITIES IN THE PROJECT .....	5
2.3. CONTRIBUTION OF PARTNERS .....	5
3. NUTRITIVE WEBSITE .....	6

## 1. INTRODUCTION

Livestock farming is a key sector that involves 40 % of the total agricultural activity in Europe, representing a total value for products equal to € 170 billion. However, there is an increasing concern due to livestock farming's contribution to environmental pollution since it generates more than 1.4 billion tonnes/year of manure leading to significant greenhouse gases (GHG) and air pollutants emissions (NH<sub>3</sub>, NO<sub>x</sub>) as well as to soil and water contamination caused by hazardous manure chemicals and biological contaminants (called here emerging contaminants). In this context extensive effort has been carried out for years to assess the detrimental effects of farming systems and to develop abatement methods to be implemented. However, despite major advancements, many fundamental issues are beyond the scope of existing legislation.

The main objective of NUTRITIVE is to develop a decision-making tool (DSS, decision support system) able to define the most efficient and sustainable (in its three pillars: environmental, economic, and social) manure management strategies for a given livestock farm limiting manure air emissions as well as soil and water contaminants. This will allow for the formulation of technical guidelines and recommendations that will support policy makers with enhanced knowledge to establish requirements for future European policies.

To fulfil this objective, the project is divided into six work packages (WP): WP1 Up-to-date inventory; WP2 Novel management strategies/technologies investigation; WP3 Modelling and Life Cycle Assessment (LCA); and WP4 Guidelines formulation; WP5 Communication, dissemination, and exploitation; WP6 Management (Figure 1).

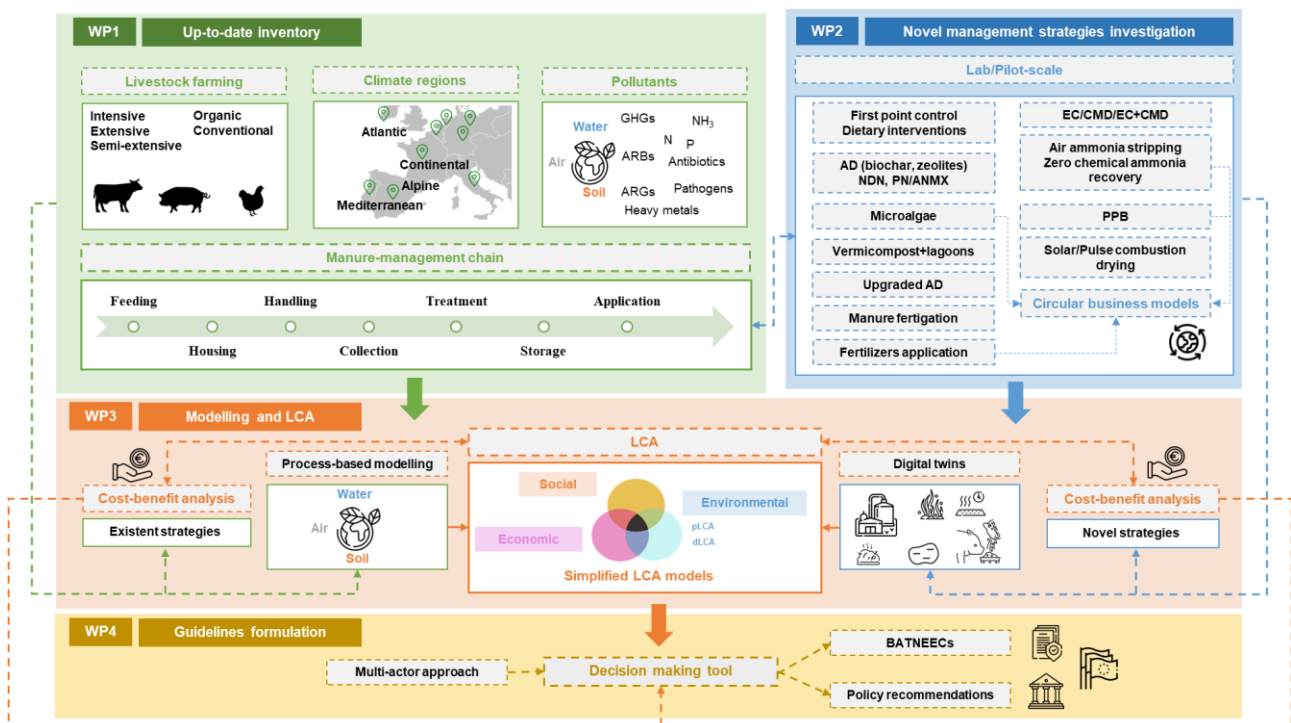


Figure 1. NUTRITIVE methodology.

NUTRITIVE anticipates a wide spread of the project outcomes, with the synthesis of the consortium as a baseline: 22 partners (4 Chinese) from 8 different countries across Europe, covering 6 climatic regions (2 Chinese ones), representing the whole supply chain experts, from animal feed to soil application.

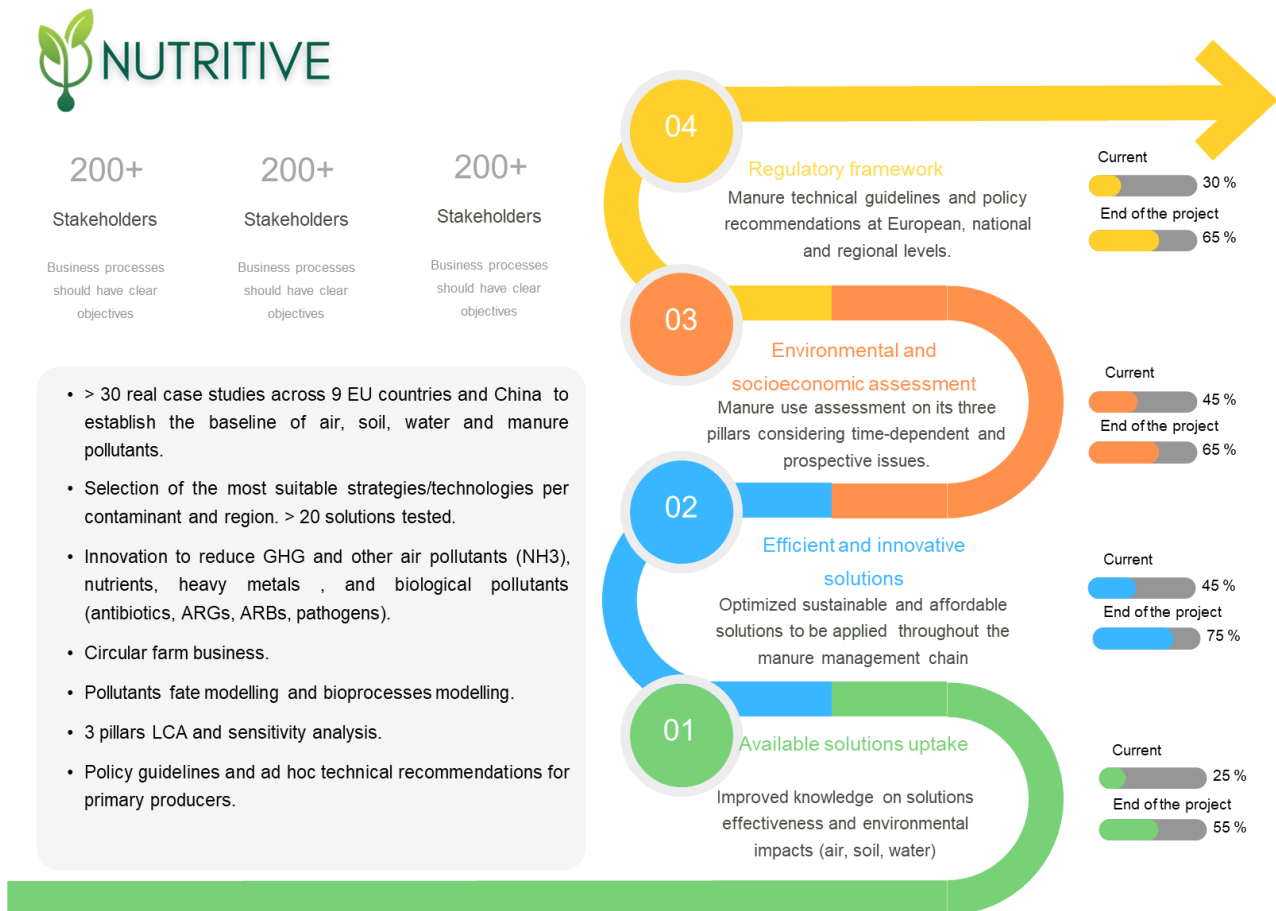


Figure 2. NUTRITIVE overview.

## 2. PROJECT WEBSITE

### 2.1. CONTEXT

The Communication and Dissemination Plan (C&D Plan), initial version delivered on M3 (D5.2) and updated on M6 (D5.3) provides a framework and timeline for all actions that support the dissemination efforts needed to inform, promote and communicate activities and results to citizens, stakeholders and media; and to make knowledge publicly and freely available to those who can learn and benefit from the results (e.g. scientists, industry, public authorities, policy makers, civil society, etc.). It also supports the uptake and engagement of stakeholders in relevant project activities (e.g. clustering activities or training sessions). This document describes the main communication channels and activities planned during the implementation of the NUTRITIVE project, identifying the target groups and specifying the roles and responsibilities of the project partners. The Plan will be a living document. Specific activities will be regularly updated by the WP leader (MEDRAR), and the Communication and Dissemination Plan will be reviewed and updated regularly (at least every 6 months). Key Performance Indicators (KPIs) have been created to monitor the impacts of the communication and dissemination actions. This document describes the different activities carried out during the first 6 months of project execution in line with the C&D Plan.

### 2.2. RELATION OF C&D ACTIONS WITH OTHER ACTIVITIES IN THE PROJECT

The project website is related with all the project WPs including specific sections regarding an overall overview of the project, the consortium, the project network, results, upcoming events and other news; along with an specific area for partners.

### 2.3. CONTRIBUTION OF PARTNERS

MEDRAR, as the coordinator entity, and WP5 Communication, Dissemination and Exploitation leader is the main contributor of the content provided with the support of all NUTRITIVE partners.

### 3. NUTRITIVE WEBSITE

During the first 6 months of the project, a full version of the NUTRITIVE website was developed:

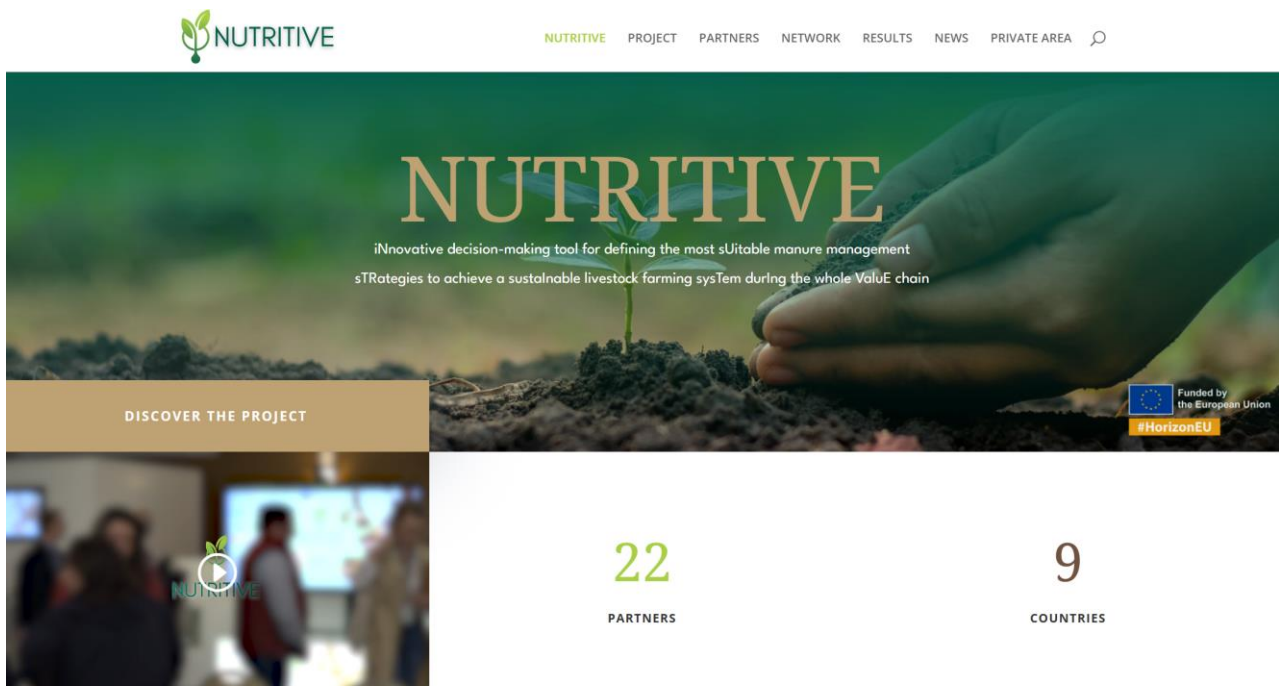
Link: <https://nutritive.es/>

NUTRITIVE project website provides general information about the project and was designed to be an effective tool for communication, dissemination, and delivery of relevant materials generated.

The website follows a modern, innovative and interactive design in NUTRITIVE green colours according to the visual identity guidelines. The website is actively maintained and is regularly updated with new content.

The website is organised as follows:

- **Home:** summary including a short project video of the partners, partners and countries involved, top project priorities, its main objectives, main impact, and a subscription button.



## Our Top Priorities

Understand manure management practices and their environmental impacts in different countries.

### SOIL FERTILITY

Provides essential nutrients avoiding biodiversity soil problems.

[LEARN MORE →](#)

### ODOR CONTROL

Reduction of harmful gas contaminants emissions.

[LEARN MORE →](#)

### PREVENT POLLUTION

Avoid contamination of surface and groundwater.

[LEARN MORE →](#)

## Main Objectives

**Proper manure management is crucial for agricultural sustainability and environmental protection.**

The NUTRITIVE project aims to address existing challenges by developing a decision-making tool capable of defining the most efficient and sustainable manure management strategy for a given livestock farm. This tool will consider environmental, economic, and social aspects to minimise atmospheric emissions and ensure soil and water quality. The results obtained will allow for the formulation of guidelines and technical recommendations focused on the development of future European policies on manure management.





*Essentially, all life depends upon the soil.*

*There can be no life without soil and no soil without life; they have evolved together.*

Charles Kellogg



## EU Partners



## Chinese Partners



- **Project:** project background, main goal and key objectives, work plan.

**About the project**  
iNnovative decision-making tool for defining the most sUitable manure management  
sTRategies to achieve a sustainable livestock farming sysTem during the whole ValuE chain

OUR GOALS

**A little bit of Background**

European policies, based on Europe's Green Deal, aim at a sustainable agricultural system that combines environmental, economic, and social approaches. Among the different agricultural

## Our Aims

NUTRITIVE project will address existing gaps translating current challenges associated with manure management into policy recommendations and technical guidelines towards the implementation of sustainable and cost-effective ad hoc solutions for livestock farming systems.

**The main objective of NUTRITIVE is to develop a decision-making tool (DSS, decision support system) able to define the most efficient and sustainable manure management strategy for a given livestock farm. Based on three pillars (environmental, economic, and social) it will limit manure air emissions as well as soil and water contaminants. This will allow for the formulation of technical guidelines and recommendations that will support policy makers with enhanced knowledge to establish requirements for future European policies.**

### KO#1

To create an up-to-date inventory including available and experimental solutions covering the entire manure management chain and considering different types of livestock across European regions.

### KO#2

To investigate circular, innovative, and cost-effective solutions to reduce GHG emissions, and air, water and soil pollutants produced by livestock manure management throughout its chain.

### KO#3

Optimize management strategies to achieve highest efficiencies with lowest environmental emissions; simulating the biological activity of the bioprocesses and the transport and persistence of manure-derived contaminants in air, soil, and water among different climate regions.

### KO#4

To assess manure management across all areas of sustainability (environmental pollution, cost-benefit of practices/technologies, and social acceptance) overcoming the uncertainty of emerging technologies and including time-dependent issues.

**KO#5**

To obtain simplified life cycle assessment (LCA) models that can help non-expert users to easily obtain estimates of environmental impacts to be considered in the decision-making tool.

**KO#6**

To integrate all the generated knowledge into a decision-making tool (DSS tool).

**KO#7**

To formulate technical guidelines and recommendations for manure management based on multi-actor approach engagement.

**To meet today's challenges regarding manure use, further research is needed to determine the effectiveness of existing mitigation strategies and assess environmental and socioeconomic impacts along the entire manure management chain.**



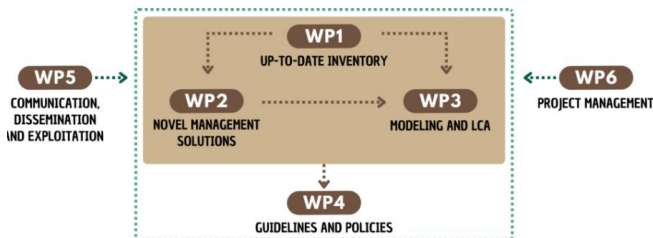
### Work Plan

First, a global data inventory regarding the current full-scale use of available manure management practices in different livestock farming types existent across European climate regions is fundamental (WP1). In addition, the fate, evolution, and persistence of manure-derived pollutants in soil and water bodies needs to be thoroughly quantified, as well as their effects on the loss of native species and harm to biodiversity (WP1, WP2).

Besides, there is an urgent need to investigate, develop, demonstrate, and model innovative, improved, and circular cost-effective management strategies focused on optimizing existent processes effectiveness and reduce impacts (WP2, WP3). Then, once all this information is available, it is needed to improve, update, and adapt existent LCA methodologies and approaches to manure management issues to be able to assess the three sustainability pillars (environmental, economic, and social) (WP3).

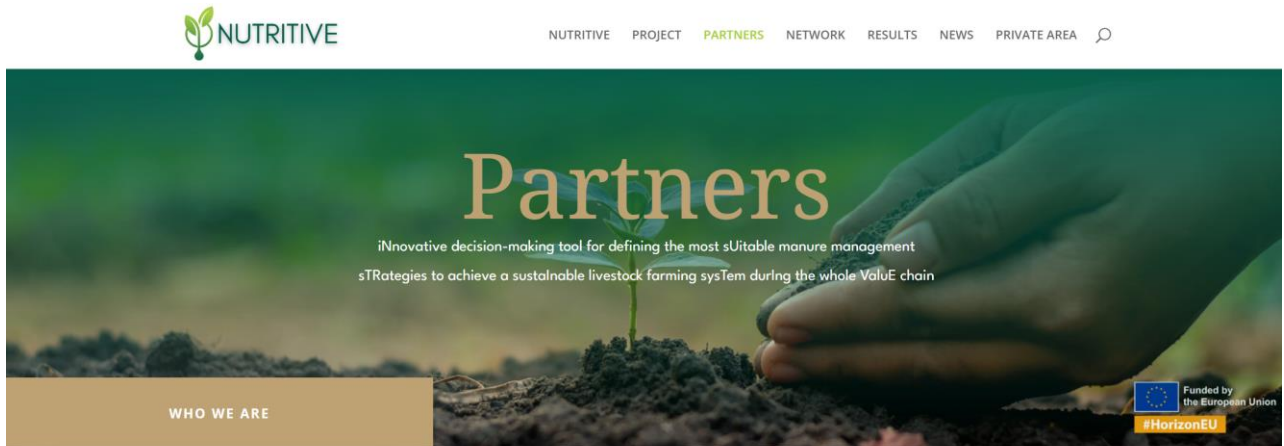
Finally, from all this knowledge, a holistic and prospective decision-making tool able to provide, for a given farm and manure characteristics. It will be the result of a joint commitment and collaboration between the scientific community and policymakers, farmers, and other stakeholders.

Together, NUTRITIVE project pretends the development of technical guidelines and recommendations to achieve reduction targets of 2030 and beyond, expand the scope of current legislation and support future agricultural policies at the EU level (WP4).



<b>+20</b>	<b>+600</b>	<b>+35</b>	<b>+300</b>
NOVEL STRATEGIES / TECHNOLOGIES	SOIL&WATER SAMPLES	LIVESTOCK FARMS	PRIMARY PRODUCERS

- **Partners:** consortium members including locations, video, and link to institutional websites.



### EU Partners



### Chinese Partners



6

Climatic Regions

9

Countries

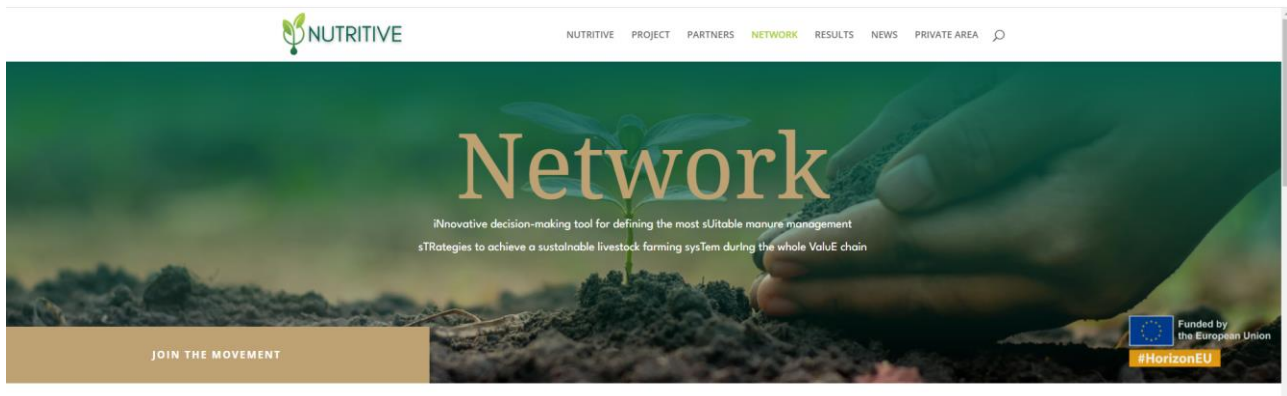
22

Partners



SUBSCRIBE NOW

- **Network:** other related projects, and a channel to subscribe and join the NUTRITIVE community getting involved in the project.



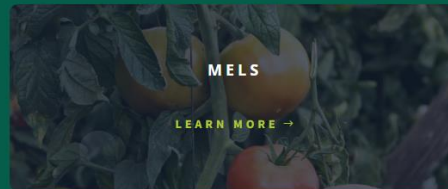
Together we have the power to impact our future, so let's do something about it!

Identifying European Partnerships is an integral part of Horizon Europe's strategic planning process. Our collaborative efforts will focus on creating synergies and boost the relations of NUTRITIVE partners from farmers to technology developers across the value chain stakeholders and the public and private institutions related to it, including the stakeholder network entities.



## Related Projects

Here you can find some other projects that are aligned with our aims and main objectives:

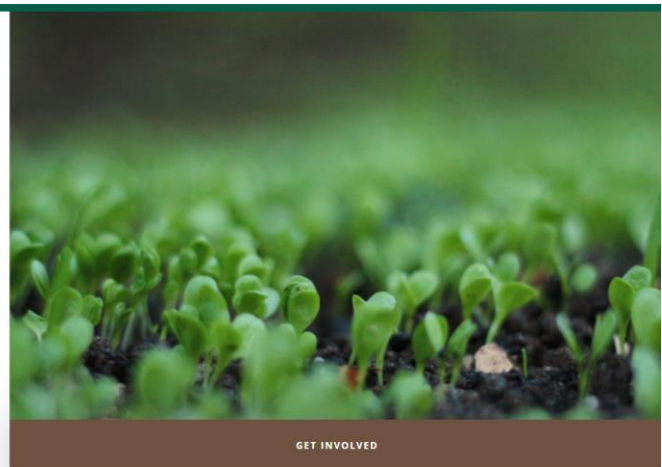


## Stakeholders

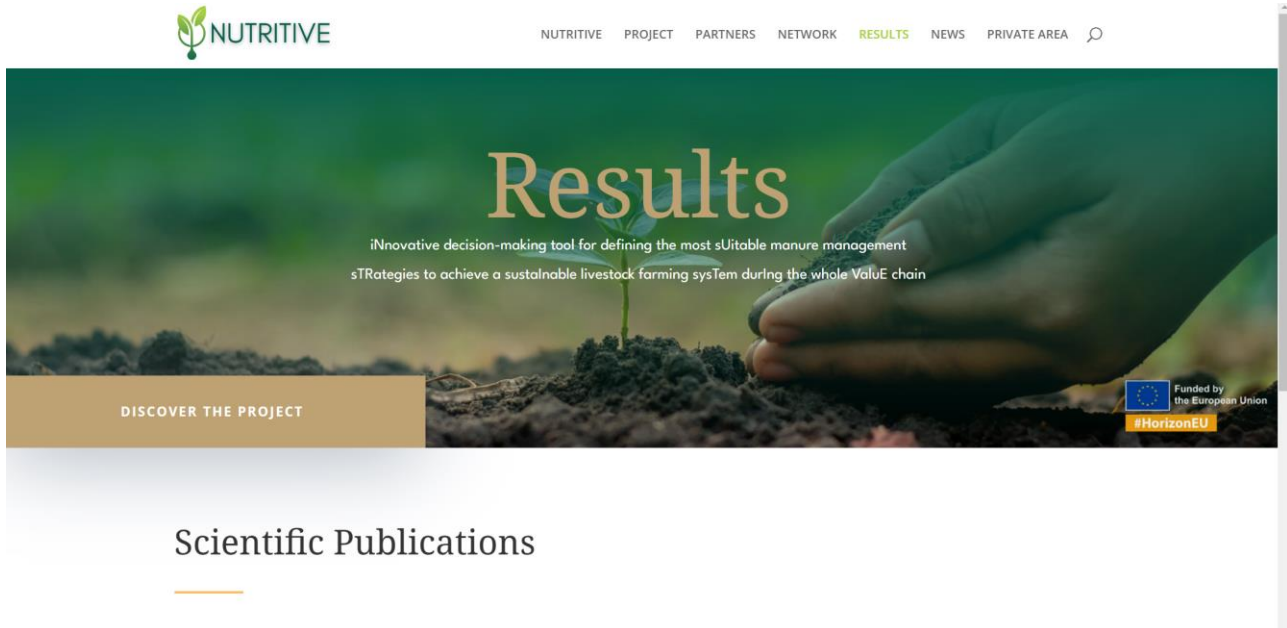
Join our community

Within the framework of NUTRITIVE Project, we have the objective to interact with different stakeholders (livestock farmers, policy makers, scientific community, industry, developers, etc.) who are interested in the project activities and outcomes.

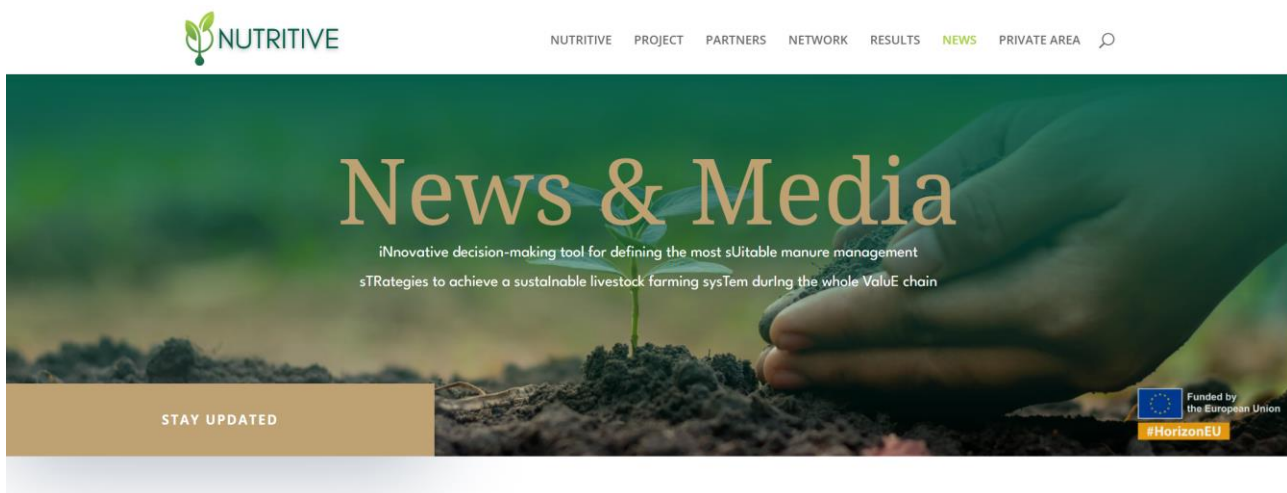
If you want receive all our updates or become a stakeholder, please make us know at [hello@nutrivate.es](mailto:hello@nutrivate.es)



- **Results:** publicly available project outcomes.



- **News and Events:** blogs and social media, event gallery, publications, project videos and next events.



**Workshop Economia circular da simbiose indústria e indústria-setor urbano Recircula**  
Rede Iberoamericana RECIRCULA  
Lisboa | LNEC | 18 setembro 2024

**NUTRITIVE AT THE WORKSHOP ECONOMIA CIRCULAR DA ÁGUA - SIMBIOSE INDÚSTRIA E INDÚSTRIA-SETOR URBANO - REDE IBEROAMERICANA RECIRCULA**

by lucia@medrarsolutions.es | Nov 21, 2024

The production of microalgae in industrial symbiosesThe NUTRITIVE partner Algae for Fuel (A4F) presented the project in the CYTED - Ibero-American Program of Science and Technology for Development Workshop "Economia circular da água - simbiose indústria e...

[read more](#)

**POSTER AT THE 4TH IWA-YWP**

by lucia@medrarsolutions.es | Nov 15, 2024

Poster presentation at the 4th IWA-YWP conference AINIA presented a poster about the NUTRITIVE project at the 4th IWA-YWP Spanish National Conference. The 4th IWA-YWP Spain National Conference organized by the state network of Young Water Professionals (YWP) Spain in...

[read more](#)

**Project NUTRITIVE - Efficient and sustainable management of livestock farms**

**NUTRITIVE IN THE OCTOBER 2024 ISSUE OF THE SPANISH SECTORIAL MAGAZINE ASAJA**

by lucia@medrarsolutions.es | Nov 14, 2024

Efficient and sustainable management of livestock farmsThe European Union through the Horizon Europe program has just financed with 7 million euros the NUTRITIVE project coordinated by MEDRAR. European policies aim to achieve a sustainable agricultural system in its...

[read more](#)

**ECMTB'24**  
JULY 22-26 | TOLEDO - SPAIN

**NUTRITIVE IN THE ECMTB24**

by lucia@medrarsolutions.es | Nov 14, 2024

Application of mathematical modelling in NUTRITIVEThe Technical University of Delft (TU DELFT) presented the application of mathematical modelling of microbial ecological systems in the framework of the NUTRITIVE project at the 13th European Conference on Mathematical...

[read more](#)

**EU-CHINA PROJECT INITIATIVE**

by marta@medrarsolutions.es | Aug 30, 2024

International cooperationChina and the EU, the two biggest food producers in the world, join their forces in the NUTRITIVE project with the aim of achieving a sustainable agriculture in line with the EU-China Food, Agriculture and Biotechnology (FAB) Flagship...

[read more](#)

- **Private Area:** private/protected cloud only accessible for project partners.



### **Website features**

NUTRITIVE website provides different features:

- Integration of the feedback function.
- Integration of various social media channels (YouTube, LinkedIn, and X) allowing NUTRITIVE to build an established community more quickly, as well as to carry out communication plan activities through online channels.
- Possibility to download available publications in PDF format.
- Ability to share blog content on social media channels directly.
- Compatibility with desktop computers, mobile phones and tablets.

### **Google analytics of the website**

Google analytics was implemented to measure and record users activity on the NUTRITIVE website.

### **Ongoing work**

In the coming months we will be including and updating the content of the website in its different sections. For example, the “Network” section will incorporate new projects of interest in addition to those already included (LUGAZ, MELS, ANTARES, DAIRYMILK) with other initiatives and stakeholder networks (for example COPA COGECA) with the collaboration of the project partners. The results obtained will also be incorporated in the “Results” section, and news will be included in the “News” section (participation/organization of events, news derived from the project itself, etc.).