

Mid-term Report on C&D Activities

Deliverable D5.11

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 D5.10 – Initial Report on C&D activities			
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Version:	1.1		

History of change			
Version:	Author:	Date:	Comments:
1.0	MEDRAR	10/11/2024	Incomplete Draft Version
1.1	ASAJA	15/11/2024	Complete Draft Version
1.2	MEDRAR	28/11/2024	Final Version
1.3	MEDRAR	27/03/2026	Reopened deliverable. To reply to comments from experts during the first review it was updated the content of Section 3 according to continuous reporting module (Publications) and periodic report (RP1).

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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 (NH₃, NO_x) 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).

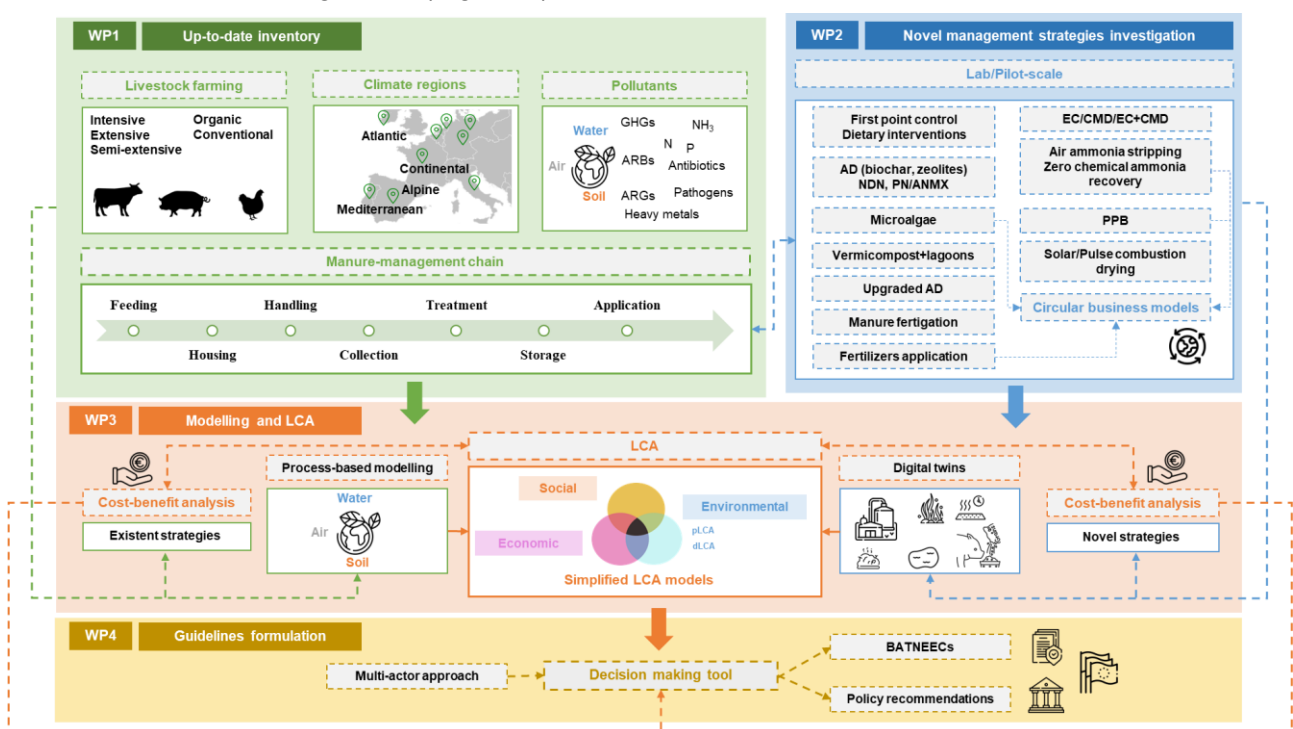


Figure 1. NUTRITIVE methodology.

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.

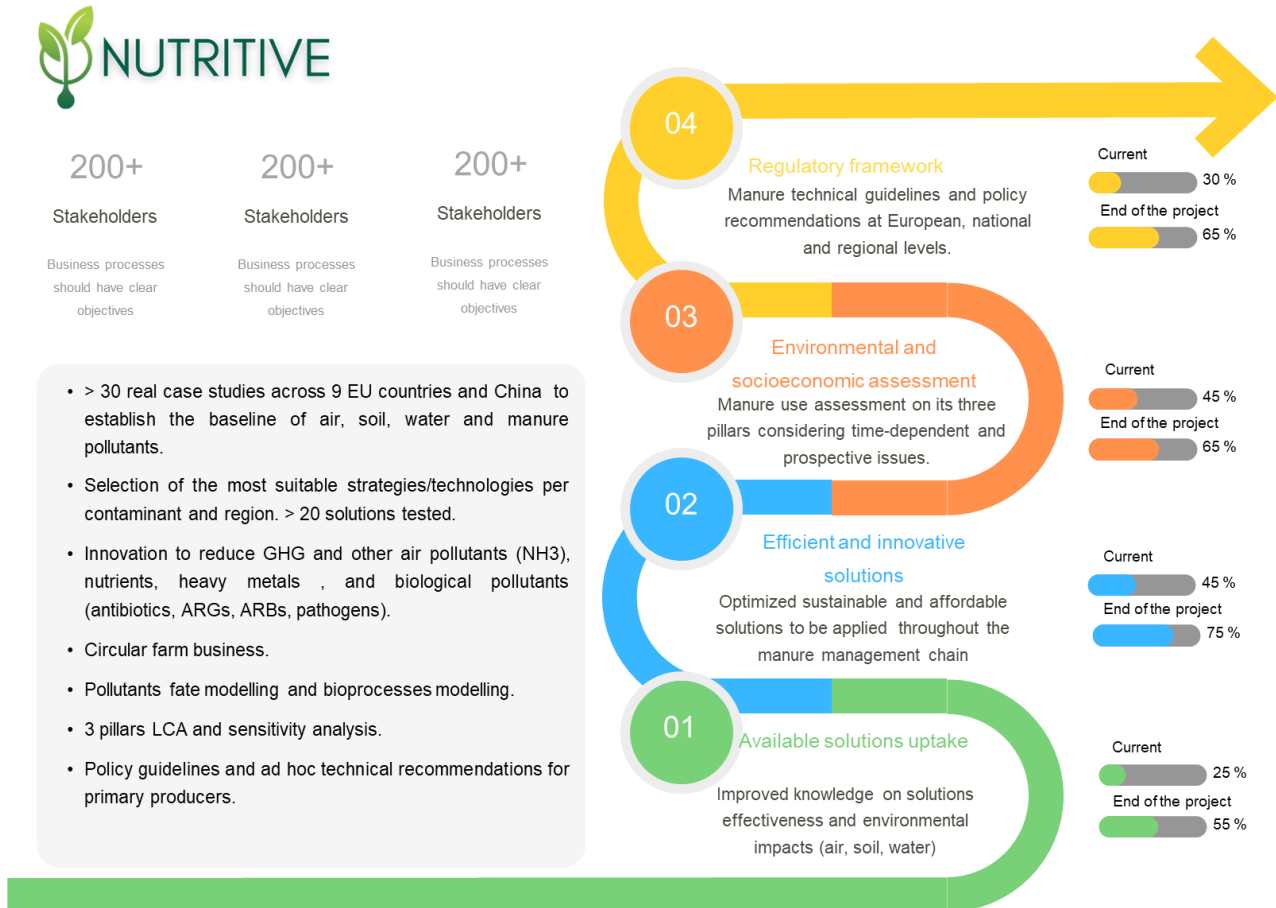


Figure 2. NUTRITIVE overview.

2. INITIAL REPORT ON C&D ACTIVITIES

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

C&D actions are related with all the project WPs, tasks, and subtasks. Thus, this document describes the different activities carried out to communicate and disseminate the NUTRITIVE project.

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 in this document along with ASAJA with the support of all NUTRITIVE partners.

3. OVERVIEW OF PROGRESS AND IMPACT

3.1. DELIVERABLES AND MILESTONES

During the first 18 months of project execution, the planned C&D actions have been carried out. Table 1 and Table 2 list the status of the deliverables and milestones related to C&D actions.

Table 1. Deliverables related to C&D activities.

Deliverable	Lead beneficiary	Due	Status by M36
D5.1. IPR Management Plan	MEDRAR	M18	Delivered
D5.2. Initial Plan for Communication and Dissemination	MEDRAR	M3	Delivered
D5.3. Final Plan for Communication and Dissemination	MEDRAR	M6	Delivered
D5.4. Initial version for the Exploitation Strategy Plan	MEDRAR	M24	To be delivered
D5.5. Final version for the Exploitation Strategy Plan	MEDRAR	M48	To be delivered
D5.6. Project website	MEDRAR	M6	Delivered
D5.7. Graphic communication materials (both online and printed)	MEDRAR	M6	Delivered
D5.8. Mid-term non-technical self-explicative project video	MEDRAR	M24	To be delivered
D5.9. Final non-technical self-explicative project video	MEDRAR	M24	To be delivered
D5.10. Initial report on C&D activities	MEDRAR	M6	Delivered
D5.11. Mid-term report on C&D activities	MEDRAR	M36	To be delivered
D5.12. Final report on C&D activities	MEDRAR	M48	To be delivered
D5.13. Practice Abstracts batch 1	MEDRAR	M16	Delivered
D5.14. Practice Abstracts batch 2	MEDRAR	M48	To be delivered

Table 2. Milestones related to C&D activities.

Milestone	Lead beneficiary	Due	Status by M36
MS11. NUTRITIVE website	MEDRAR	8	Completed
MS12. Project videos	MEDRAR	48	To be completed
MS13. C&D actions finished	MEDRAR	48	To be completed

3.2. C&D ACTIVITIES AND IMPACT

Table 3 and Table 4 summarises communication and dissemination activities, respectively that have been performed from M1 to M18 along with the KPIs established in the final Plan for C&D activities (D5.3). Further details will be provided in the upcoming versions of this deliverable.

3.2.1. Communication actions

Table 3. Communication actions and KPIs status at M36.

Channels	KPIs targets	Status by M18
Scientific professional and social networking tools	≥ 10 publications with > 50 views each	-
Magazines and platforms	≥ 4 publications	1
Factsheets and newsletters	≥ 5 factsheets, ≥ 5 newsletters with > 50 subscribers each	2 factsheets NUTRITIVE project newsletter designed and 1 newsletter published
Press releases (online/printed)	≥ 4 press releases in English or other languages	11
Info-pack	1 general info-pack produced in M6-M18.	1
Identity kit	1 project identity kit	1 project identity kit
Communication materials (online/printed)	≥ 2,000 copies (updated in the second half of the project)	1 st version distributed online and printed (+1,000)
Videos	≥ 3 video with > 2.500 views each	Under development the 1 st video
Project website	> 50 visits per month; at least 1 interactive quiz	> 50 visits per month
Social media	> 20 posts with > 500 views each	> 120 posts with > 500 views each
Dedicated meetings	≥ 5 presentations in dedicated meetings	-
Practice abstracts	≥ 25 practice abstracts	10 practice abstracts

3.2.2. Dissemination actions

Table 4. Dissemination actions and KPIs status at M36.

Channels	KPIs targets	Status by M18
Scientific publications	≥ 10 scientific publications	1
Sectorial publications	≥ 6 sectorial publications (≥ 3 international)	1
Policy briefs	≥ 4 policy briefs	-

External events	≥ 6 external events with ≥ 12 contributions	14 external events, 14 contributions
Networking events	≥ 4 networking events	2 networking events
NUTRITIVE events	≥ 4 workshops with ≥ 50 participants each	1 workshop in Spain with 75 participants 1 workshop in Italy with 60 participants
Clustering activities	≥ 1 meeting per year and 1 joint activity	2 meetings
Training sessions	≥ 3 meetings at primary events replication plans for other regions	-

3.3. DESCRIPTION OF COMMUNICATION ACTIVITIES

The following is a description of the actions carried out from M1 to M18 in connection with each of the communication and dissemination channels.

3.1.1. Scientific professional and social networking

The activities planned in WP1, WP2, WP3 and WP4 have already started and partners started making use of scientific professional and social networking tools to publish non-technical reports, graphical summaries and abstracts on the activities and results on the NUTRITIVE project. These will be detailed in the updated version of this report (D5.11) that is going to be delivered on M36.

3.1.2. Magazines and platforms

Following the indicated in the previous subsection, 1 non-technical article was published in the and additional ones are expected to be published in the upcoming months. These will be detailed in the updated version of this report (D5.11) that is going to be delivered on M36.

3.1.3. Factsheets and newsletters

Factsheets

During the first months of project implementation, the following CORDIS and Horizon Europe Fact Sheets with key NUTRITIVE project information were produced and distributed by NUTRITIVE partners. This was done through the distribution lists of both the different entities that form part of the consortium and the project itself.

Horizon Europe fact sheet

Link: [Horizon Europe fact sheet](#)

The screenshot shows the 'EU Funding & Tenders Portal' interface. The main heading is 'INNOVATIVE DECISION-MAKING TOOL FOR DEFINING THE MOST SUITABLE MANURE MANAGEMENT STRATEGIES TO ACHIEVE A SUSTAINABLE LIVESTOCK FARMING SYSTEM DURING THE WHOLE VALUE CHAIN (NUTRITIVE)'. The project ID is 101135400. The page is divided into sections: 'Internal navigation' (General information, Abstract, Participants), 'General information' (Call: HORIZON-CL6-2023-ZEROPOLLUTION-02, Programme: HORIZON, DG/Agency: REA), 'Activity' (No activity available), and 'Keywords' (circular farm model, cost/benefit analysis, decision-making tool, digital twins, fate models, life cycle assessment, policy recommendations). An 'Abstract' section follows, detailing the project's objectives and consortium.

Figure 3. HE fact sheet.

CORDIS fact sheet

Link: [CORDIS fact sheet](#)

The screenshot shows the 'CORDIS - EU research results' page. The main heading is 'INNOVATIVE DECISION-MAKING TOOL FOR DEFINING THE MOST SUITABLE MANURE MANAGEMENT STRATEGIES TO ACHIEVE A SUSTAINABLE LIVESTOCK FARMING SYSTEM DURING THE WHOLE VALUE CHAIN'. The page includes a 'Fact Sheet' tab and a 'Project description' section. The 'Project description' section is titled 'Innovative strategies for sustainable livestock farming' and contains text about the project's goals and impact. A 'Project Information' sidebar on the right provides details: NUTRITIVE, Grant agreement ID: 101135400, DOI: 10.3030/101135400, EC signature date: 7 May 2024, Start date: 1 June 2024, and End date: 31 May 2028.

partners from eight countries, ensuring a comprehensive approach across diverse climatic regions and supply chain expertise. This initiative promises to provide policymakers with vital insights for future European agricultural policies.

Show the project objective

Fields of science

[engineering and technology](#) > [environmental engineering](#) > [air pollution engineering](#)
[natural sciences](#) > [earth and related environmental sciences](#) > [environmental sciences](#) > [pollution](#)
[agricultural sciences](#) > [agriculture, forestry and fisheries](#) > [agriculture](#)
[agricultural sciences](#) > [animal and dairy science](#) > [domestic animals](#) > [animal husbandry](#) > [animal feed](#)

Keywords

- [circular farm model](#)
- [cost](#)
- [benefit analysis](#)
- [decision-making tool](#)
- [digital twins](#)
- [fate models](#)
- [life cycle assessment](#)
- [policy recommendations](#)

Programme(s)

[HORIZON 2.6 - Food, Bioeconomy Natural Resources, Agriculture and Environment](#) MAIN PROGRAMME

Topic(s)

[HORIZON-CL6-2023-ZEROPOLLUTION-02-1-two-stage - Optimisation of manure use along the management chain to mitigate GHG emissions and minimize nutrients/contaminants dispersion in the environment](#)

Call for proposal

[HORIZON-CL6-2023-ZEROPOLLUTION-02](#)

[See other projects for this call](#)

Funding Scheme

[HORIZON-RIA - HORIZON Research and Innovation Actions](#)

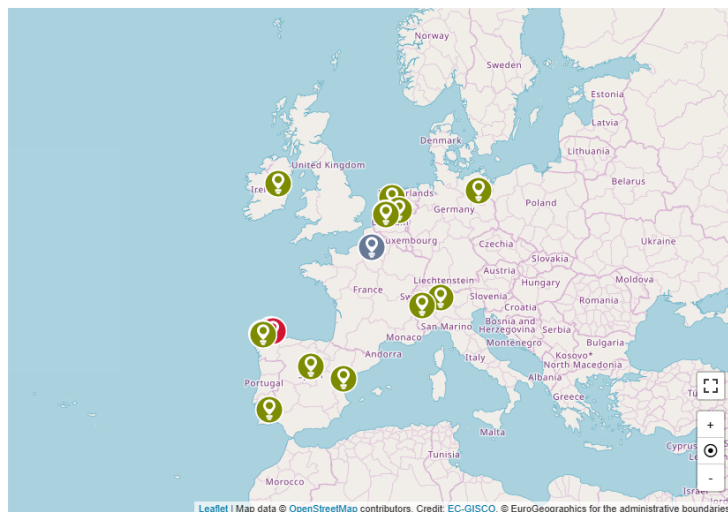
Funded under
Food, Bioeconomy Natural Resources, Agriculture and Environment

Total cost
€ 6 996 507,50








EU contribution
€ 6 996 507,50

Coordinated by
MEDRAR SMART SOLUTIONS SL



Spain






Coordinator



 <p>MEDRAR SMART SOLUTIONS SL</p> <p>Address</p> <p>C CASTINEIRO SN E 1 - POLIGONO IDUS TRIAL DE SETE VENTOS VILALBA 27800 LUGO</p> <p> Spain </p> <p>SME </p> <p>Yes</p> <p>Region</p> <p>Noroeste > Galicia > Lugo</p> <p>Activity type</p> <p>Private for-profit entities (excluding Higher or Secondary Education Establishments)</p> <p>Links</p> <p>Contact the organisation </p> <p>Participation in EU R&I programmes </p> <p>HORIZON collaboration network </p>	<p>Net EU contribution</p> <p>€ 487 750,00</p> <p>Total cost</p> <p>€ 487 750,00</p>
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Participants (17)

Sort alphabetically 	Sort by Net EU contribution 	Expand all
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 <p>AINIA</p> <p> Spain</p>	<p>Net EU contribution</p> <p>€ 622 921,25</p>	
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 <p>UNIVERSIDAD DE SANTIAGO DE COMPOSTELA</p> <p> Spain</p>	<p>Net EU contribution</p> <p>€ 919 218,75</p>	
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 <p>ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS</p> <p> France</p>	<p>Net EU contribution</p> <p>€ 220 435,00</p>	
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 THIRD-PARTY	ECOLE NATIONALE SUPERIEURE DES MINES DE PARIS France	Net EU contribution € 76 485,00	▼
	EIGEN VERMOGEN VAN HET INSTITUUT VOOR LANDBOUW- EN VISSERIJONDERZOEK Belgium	Net EU contribution € 1 029 650,00	▼
	LEIBNIZ-INSTITUT FUR AGRARTECHNIK UND BIOKONOMIE EV Germany	Net EU contribution € 449 711,25	▼
	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V. Belgium	Net EU contribution € 233 380,00	▼
	TECHNISCHE UNIVERSITEIT DELFT Netherlands	Net EU contribution € 406 575,00	▼
	A4F ALGAFUEL SA Portugal	Net EU contribution € 400 301,25	▼
	DETRICON Belgium	Net EU contribution € 308 750,00	▼
	ALVARO RODRIGUEZ EIRAS SL Spain	Net EU contribution € 285 012,50	▼
 THIRD-PARTY	CECOAGRO CENTRAL DE COMPRAS SL Spain	Net EU contribution € 393 750,00	▼

	STA ENGINEERING SRL SIGLABILE STA SRL Italy	Net EU contribution € 201 500,00	▼
	AGENCIA GALLEGA DE LA CALIDAD ALIMENTARIA Spain	Net EU contribution € 197 500,00	▼
	REGIONE LOMBARDIA Italy	Net EU contribution € 58 750,00	▼
	TEAGASC - AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY Ireland	Net EU contribution € 538 317,50	▼
	ASOCIACIÓN AGRARIA DE JÓVENES AGRICULTORES Spain	Net EU contribution € 166 500,00	▼

Partners (4)

Sort alphabetically ↕

Sort by Net EU contribution ↕

Expand all


	Xihua University China PARTNER 	Net EU contribution € 0,00	▼
	Sichuan Qinghe Technology Co., Ltd China PARTNER 	Net EU contribution € 0,00	▼
	Institute of Urban Agriculture, Chinese Academy of Agricultural Sciences China PARTNER 	Net EU contribution € 0,00	▼
	Chengdu Jiye Environmental Engineering Co., Ltd. China PARTNER 	Net EU contribution € 0,00	▼

Figure 4. CORDIS fact sheet.

Newsletter

The design of the NUTRITIVE project newsletter has already been completed, and the distribution was scheduled to start by the end of M6 (see Figure 5). This will provide key project updates, aligning with the planned dissemination activities and contributing to the project's commitment to transparency and ongoing communication.

Advertisement
If you have trouble reading this e-mail, please [click here](#).



Our Aims

innovative decision-making tool for defining the most sUitable manure management sTRategies to achieve a sustaInable livestock farming sysTem during the whole ValuE chain

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.

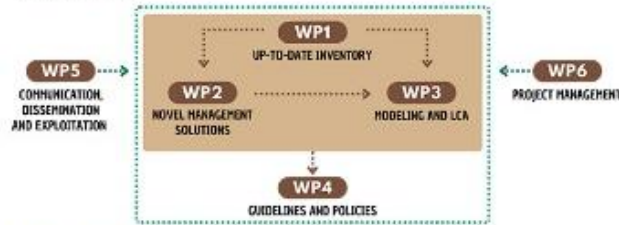
Our Aims

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.

<p>KO #1</p> <p>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.</p>	<p>KO #2</p> <p>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.</p>	<p>KO #3</p> <p>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.</p>
<p>KO #4</p> <p>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.</p>	<p>KO #5</p> <p>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.</p>	<p>KO #6</p> <p>To integrate all the generated knowledge into a decision-making tool (DSS tool).</p>
<p>KO #7</p> <p>To formulate technical guidelines and recommendations for manure management based on multi-actor approach engagement.</p>	<div style="background-color: #f0e68c; padding: 10px; border: 1px solid #ccc;"> <p><i>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.</i></p> </div>	

Work Plan

WP1: Global inventory of current manure management practices in Europe.
WP2: Analysis of manure-derived pollutants and their impact on biodiversity.
WP3: Development of circular strategies and life cycle assessment models.
WP4: Creation of a decision-making tool to implement technical and policy recommendations.



Our Partners



Our Next Steps | Upcoming Events

IWA YOUNG WATER PROFESSIONALS **4ª IWA-YWP CONFERENCIA NACIONAL ESPAÑOLA**
 From October 29 to 31, 2024, and will be held in Bilbao.
[More info >](#)

Essentially, all life depends upon the soil.
 There can be no life without soil and no soil without life; they have evolved together.
 Charles Keeling

Funded by the European Union
 #HorizonEU
 Grant agreement No. 10113540

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If you don't want to receive these emails in the future, please [unsubscribe here](#).

Figure 5. Newsletter 1 (M6).

It has been also added a subscription button in the project website to make it easy to sign up for the NUTRITIVE newsletter (Figures 6, 7). Now, all visitors can subscribe and receive the latest project updates directly in their inbox. Additionally, it will be promoted this subscription option through our social media channels, ensuring our community stays informed about the project's progress and news. Don't miss out—join the NUTRITIVE community!

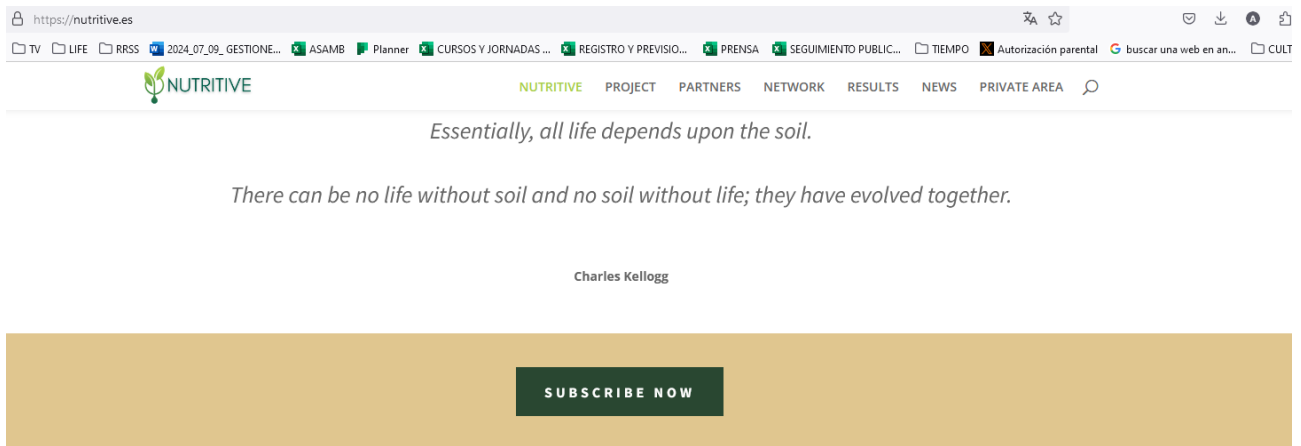


Figure 6. Subscription button in the NUTRITIVE website.

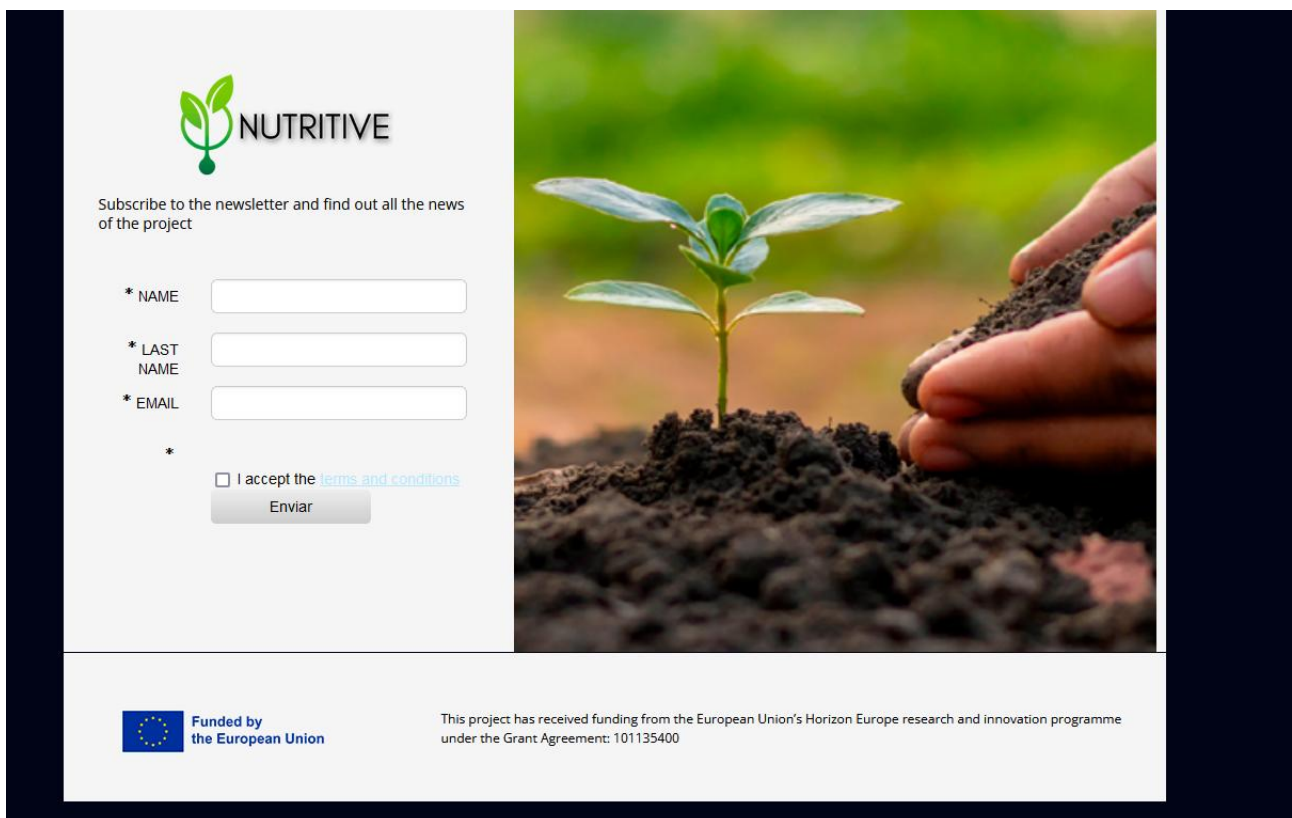


Figure 7. Newsletter subscription in the NUTRITIVE website.

The first newsletter, shown below) was released in M12.



Our Aims

iNnovative decision-making tool for defining the most sUitable manure management sTRategies to achieve a sustaInable livestock farming sysTem durIng the whole ValuE chain

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.

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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).

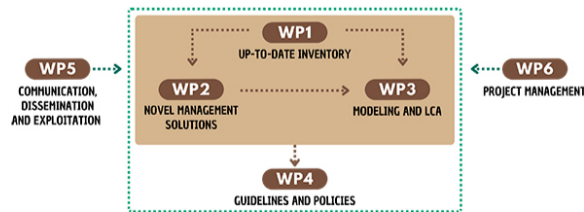
KO #7

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

WP1: Global inventory of current manure management practices in Europe.
WP2: Analysis of manure-derived pollutants and their impact on biodiversity.
WP3: Development of circular strategies and life cycle assessment models.
WP4: Creation of a decision-making tool to implement technical and policy recommendations.



Our Partners



Our participation in,...



Assamblea Meeting

Turin, 12-13 June NUTRITIVE partners meet this week in Turin to review progress on food system sustainability, emissions & EU case studies. Two days of intense work for a more competitive & sustainable agri-food sector

Prague, 29-30 April 2025

EU CAP Network Brokerage Event: two days to boost cooperation among rural innovators, researchers and policymakers across Europe. Spotlight on sustainable agriculture and bioeconomy projects.

Spain, February-March 2025

BioCircular Summit & State Awards on Biocircularity will highlight advances in bio-based innovation, valorisation of agri-food residues, and excellence in circular economy strategies.

22 November 2024

The Ibero-American Recircula Network hosts a session on *Circular Economy of Water: Industrial Symbiosis and Urban Sector*. Focus will be on cross-sector solutions for sustainable water use.

Bilbao, 13 November 2024

The 4th IWA-YWP Spain National Conference brings together young water professionals to discuss innovation, sustainability and future challenges in the water sector.

TU Delft, 11 November 2024

ECMTB 2024 gathers experts in mathematical biology & biotechnology. TU Delft hosts key discussions on modelling tools and applied research in agri-food and health sectors.

Santiago de Compostela, oct-24

Collaboration with CRETUS (USC) will kick off this October in Santiago de Compostela to explore new pathways for joint research on sustainable agri-food and environmental solutions.

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

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Follow us:

Figure 8. NUTRITIVE M12 newsletter content.

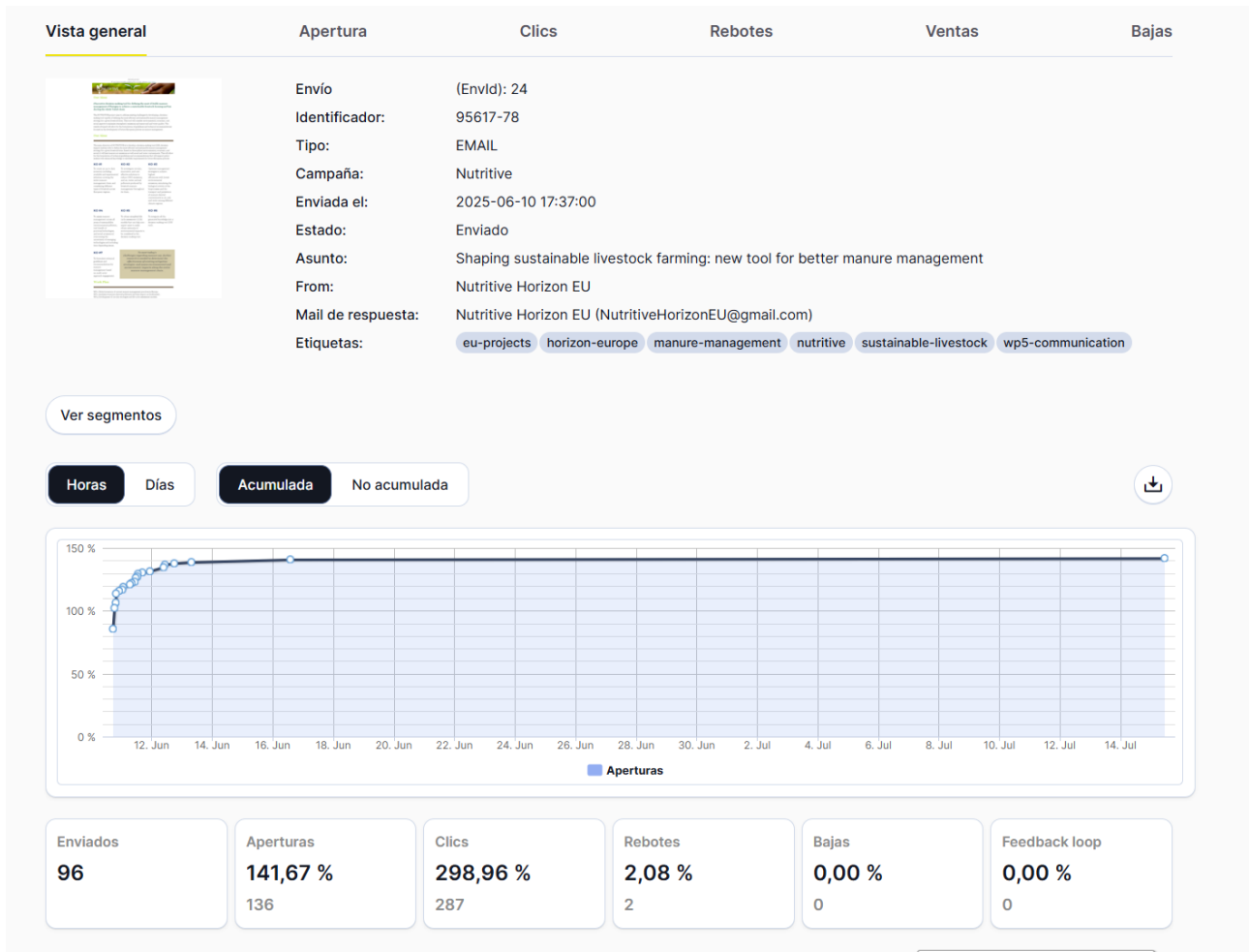


Figure 9. NUTRITIVE M12 newsletter analytics.

3.1.4. Press releases

It were published different press releases from M1 to M18 communicating project challenges, main objectives, the consortium, etc. These are summarized in Table 5.

Table 5. NUTRITIVE press releases.

Media	Date	Country and language	Title and link	Partner
Campo Galego digital (Journal)	16 th June 2024	Spain (Spanish)	El Centro de Investigaciones Agrarias de Mabegondo contará con una planta piloto de gestión de purines	AGACAL
El Progreso (Journal)	17 th June 2024	Spain (Spanish)	La Xunta pondrá en marcha una planta piloto de gestión de purines en el Ciam	AGACAL
Xunta de Galicia (Communication)	17 th June 2024	Spain (Spanish and Galician)	La Xunta pondrá en marcha una planta piloto de gestión de purines en el Centro de Investigaciones Agrarias de Mabegondo	AGACAL
GOV clipping (Website)	17 th June 2024	Spain (Spanish and Galician)	A Xunta porá en marcha unha planta piloto de xestión de xurros no Centro de Investigacións Agrarias de Mabegondo	AGACAL
El Progreso (Journal)	18 th June 2024	Spain (Spanish)	Presentado en Vilalba un proxecto a nivel europeo sobre gestión de purines	MEDRAR
Foro Agro-Ganadero (Journal)	18 th June 2024	Spain (Spanish)	La Xunta pondrá en marcha una planta piloto de gestión de purín en el centro de investigaciones agrarias de Mabegondo	AGACAL
Cárnica (Journal)	18 th June 2024	Spain (Spanish)	Galicia da un paso adelante en la gestión sostenible de los purines con la creación de una planta piloto en el CIAM de Mabegondo	AGACAL
Diario de Santiago (Journal)	18 th June 2024	Spain (Galician)	O proxecto europeo Nutritive, no que participan investigadores da USC, aborda a xestión eficiente e sostible dos xurros	USC

USC journal (Journal)	19 th June 2024	Spain (Galician)	Investigadoras do CRETUS da USC participan no proxecto europeo NUTRITIVE, de xestión eficiente e sostible dos xurros	USC
Vaca Gallega Buey Gallego (Website)	19 th June 2024	Spain (Galician)	O CIAM contará cunha planta piloto de xestión de xurros	AGACAL
La Voz de Galicia (Journal)	26 th June 2024	Spain (Spanish)	Buscan fórmulas para liberar el purín de antibióticos y metales pesados para rebajar la dependencia de fertilizantes inorgánicos	AGACAL

3.1.5. Info-pack

A digital information pack with general data providing facts about the challenges and benefits of NUTRITIVE technologies was produced and published in the project website in “Results” section: <https://nutritive.es/results/> “Info pack-Novel manure management strategies and technologies”.

3.1.6. Identity kit

MEDRAR has developed a visual identity for the NUTRITIVE project with the aim of helping partner to communicate more effectively with all target groups. The project identity kit includes the logo, key visual design, brand identity, general templates, website design, and designs for other materials and guidelines for partners.

It was created a document and distributed among partners (Figure 8) with guidelines that are also considered in the NUTRITIVE project Communication and Dissemination Plan (D5.2 and D5.3, initial and final versions).

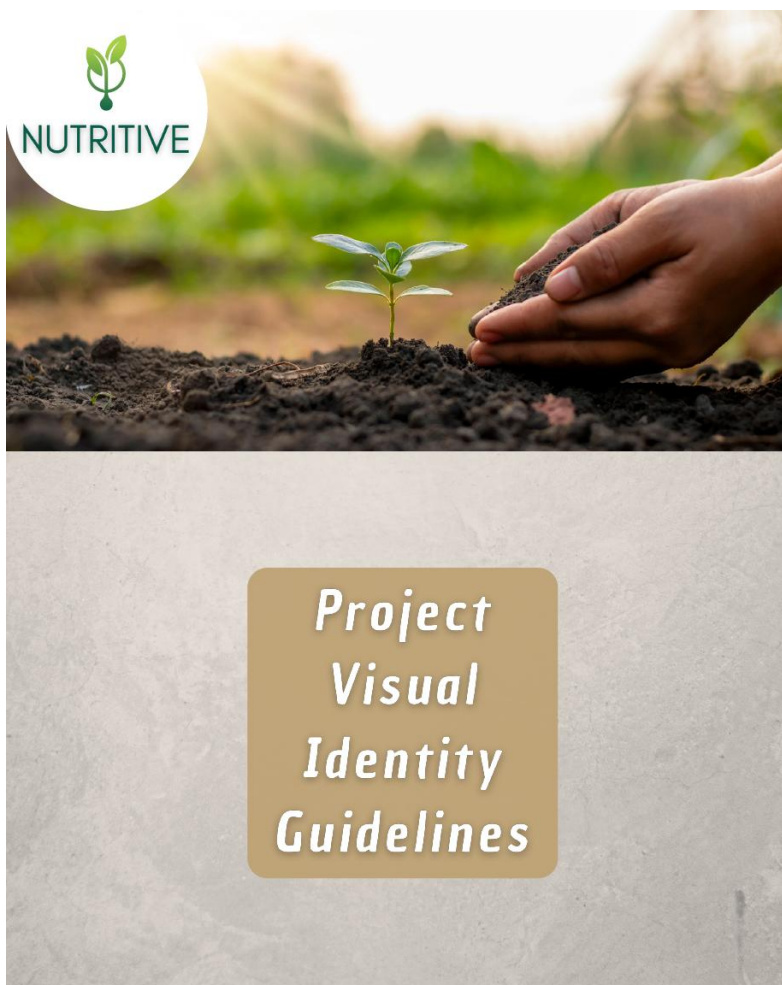


Figure 10. Project visual identity guidelines.

This document includes the different logo versions (see Figure 9), the colour palette, typographies, and partners logos (see Figures 10, 11, 12).

NUTRITIVE project logo cannot be used with other colours, the proportions will never be altered and any use on a coloured background should never alter its visibility. The use of the NUTRITIVE logo will always be in full colour on a solid background. If partners opt for the green version of the NUTRITIVE logo, they should ideally use a white, light or light background. Conversely, if partners opt for the white version of the NUTRITIVE logo, they should choose a dark background (see examples in Figure 9).



Figure 11. NUTRITIVE project logo.



Figure 12. NUTRITIVE colour palette.

Glacial Indifference

Chau Philomene

League Spartan

Montserrat

Libre Baskerville

Figure 13. NUTRITIVE typographies.



Figure 14. NUTRITIVE partners logos.

Also, it includes how partners must acknowledge Horizon Europe funding programme following the Article 17 of the Grant Agreement.

Besides, the text template and logos to be used are included (see the text below and Figure 13).

NUTRITIVE Project - This project has received funding from the European Union's Horizon Europe research and innovation programme under the Grant Agreement: 101135400



Figure 15. EU emblem with the funding statement.

Finally, templates were created to ensure the transmission of a unified corporate image. Specifically, there are different templates already available (shared within NUTRITIVE private cloud along with all other relevant information): deliverables, presentations, and posters (Figures 14, 15, 16, 17) . The use of these templates is restricted to consortium members and must be used in any deliverable or presentation made.

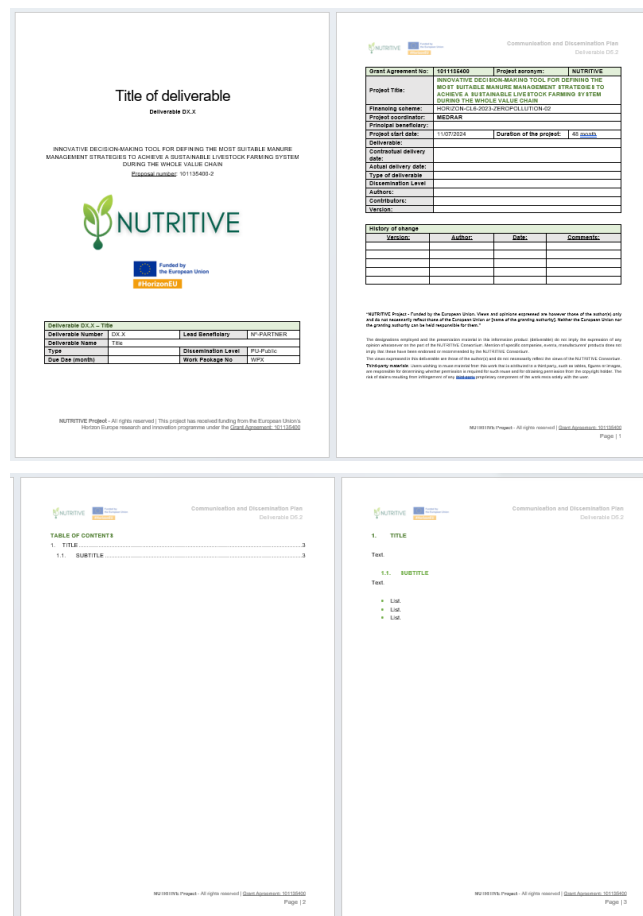


Figure 16. Deliverables template.

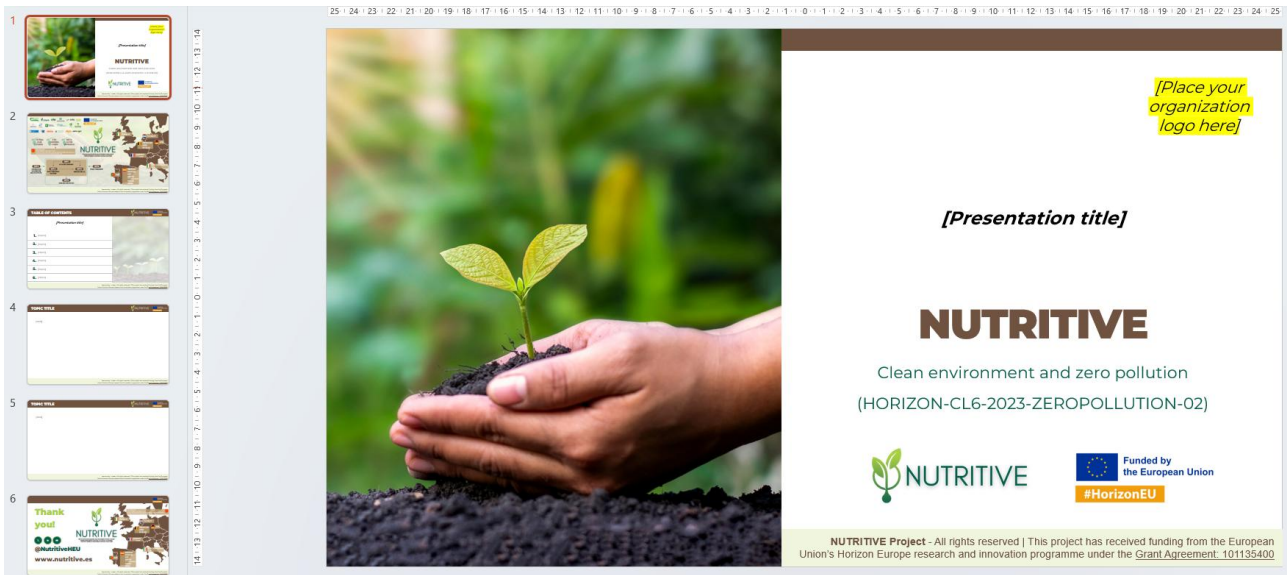


Figure 17. Presentation template.

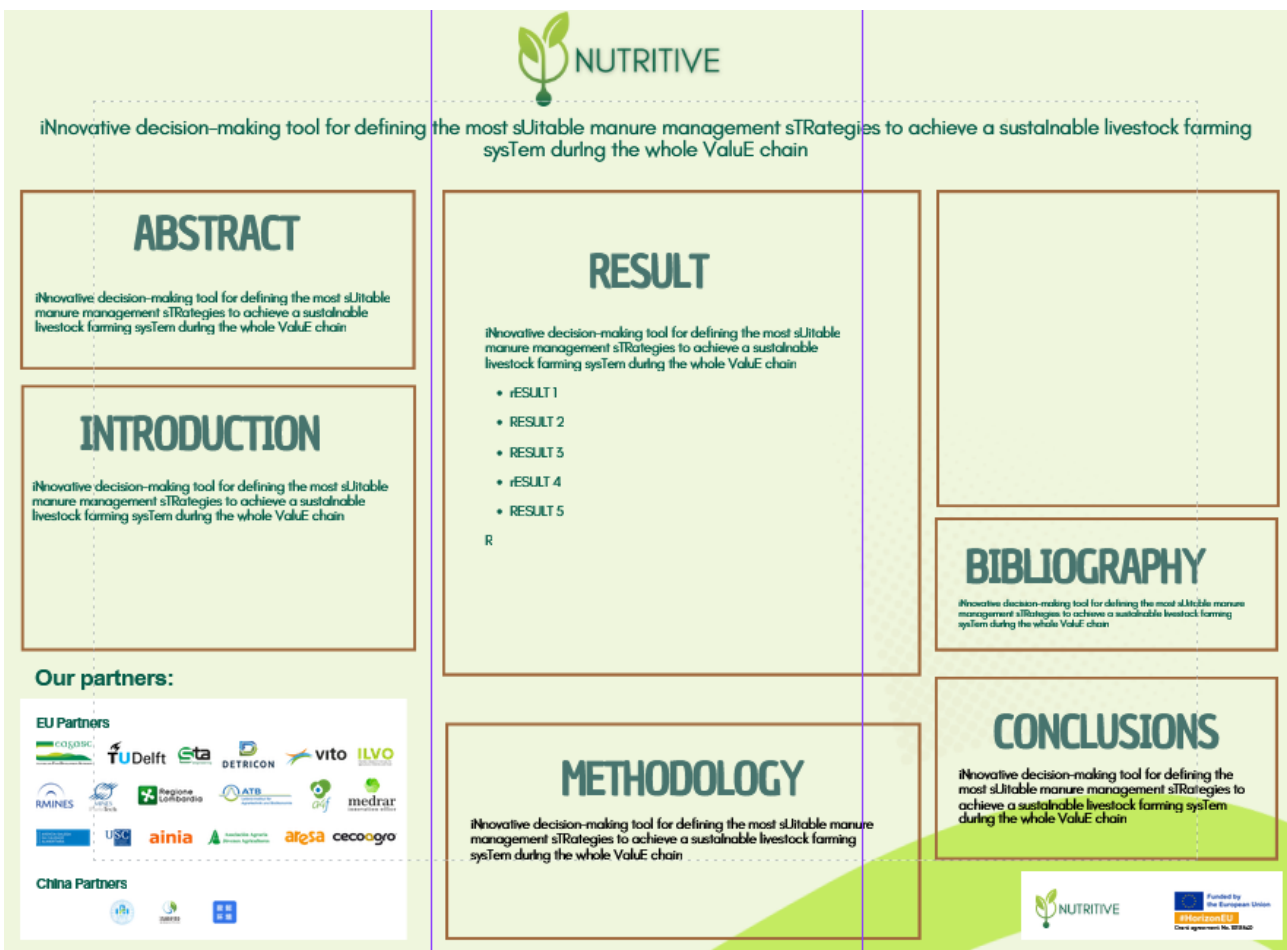


Figure 18. Poster template.

3.1.7. Communication materials (online/printed)

Communication materials containing specific information about the project were developed (Figures 18, 19, 20, 21, 22). These materials will be distributed at events and through relevant channels to reach diverse audiences.



Figure 19. NUTRITIVE roll-up.

Objective

Development of a decision support tool (DSS) to define efficient and sustainable manure management strategies.

KO #1
Create an updated inventory of manure management solutions.

KO #2
Investigate innovative and circular solutions to reduce emissions.

KO #3
Optimise management strategies to minimise environmental emissions.

KO #4
Assess the sustainability of manure management in environmental, economic and social aspects.

KO #5
Develop simplified life cycle assessment (LCA) models.

KO #6
Integrate knowledge into a decision making tool (DSS).

KO #7
Formulate technical guidelines and policy recommendations.

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.

Our partners:

EU Partners

China Partners

www.nutritive.es

Follow us on our social networks:

NUTRITIVE

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

www.nutritive.es

Figure 20. NUTRITIVE brochure 1.

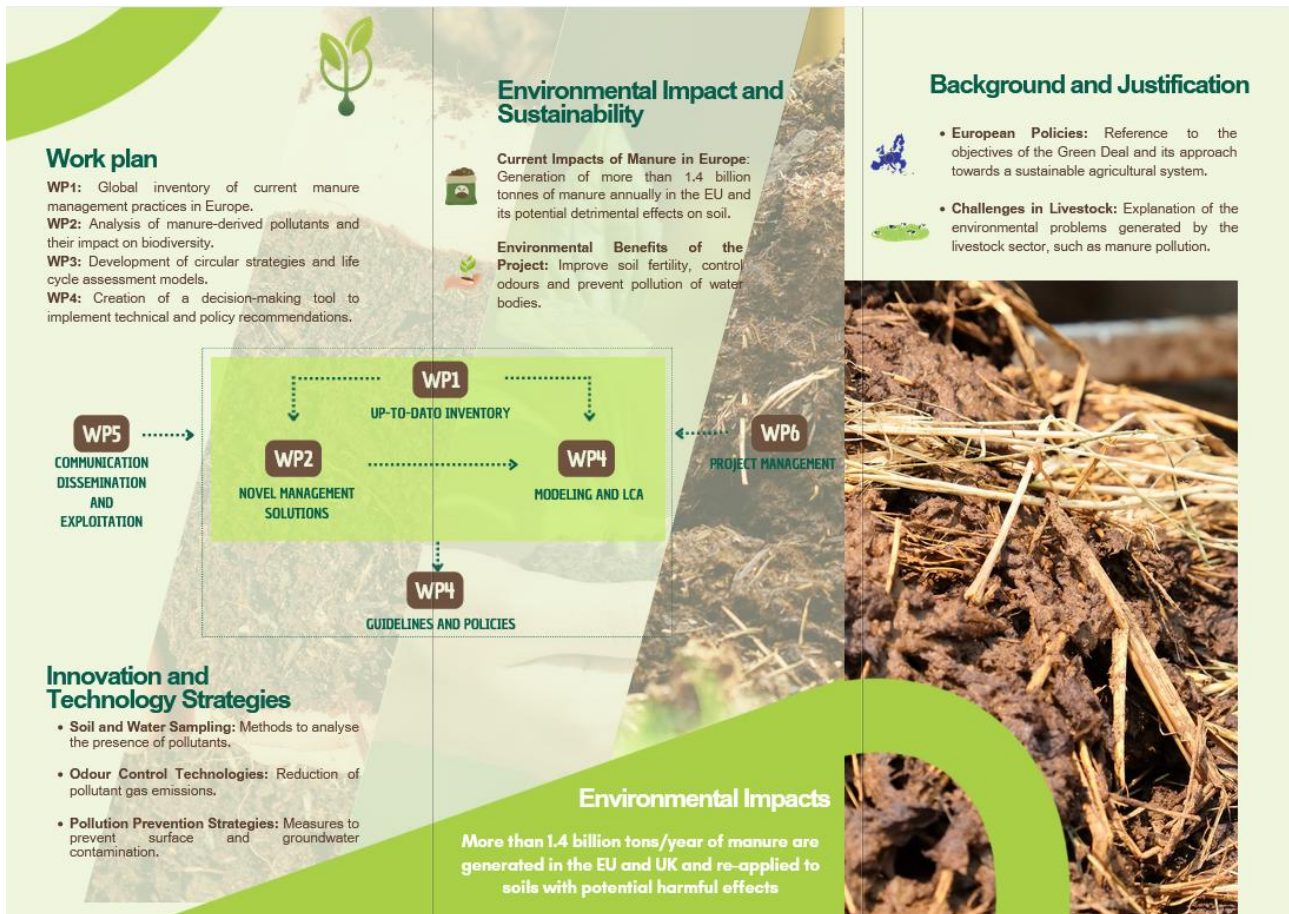


Figure 21. NUTRITIVE brochure 2.



Figure 22. NUTRITIVE poster 1.



Figure 23. NURTRITIVE poster 2.

3.1.8. Videos

During this period the **NUTRITIVE project has reinforced the visibility and dissemination of its audiovisual materials** through the official YouTube channel — [Nutritive Horizon EU](#).

The channel has become a key tool to communicate project objectives, highlight partner institutions, and present sustainable innovations in manure management to a broad audience of researchers, policymakers, and professionals in the agri-food sector.

Between **November 2024 and October 2025**, all videos produced during the first reporting period continued to be actively disseminated through **social media platforms (Facebook, LinkedIn, X)** and at **international conferences and events** (e.g. RAMIRAN 2025, Summit Biofuturo, TRACES, and WSF11).

This cross-platform promotion has significantly increased audience engagement and strengthened the project’s digital presence.

As of **October 2025**, the YouTube channel hosts **five videos** that collectively exceed **6,900 views** and has reached **301 subscribers**, demonstrating the growing interest of the scientific and professional community in NUTRITIVE’s activities.

The channel was created on **29 August 2024**, and all videos remain available in English to ensure accessibility to an international audience.

Video title	Duration	Partner featured	Views	Publication date
<i>Nutritive EU: Cretus – USC</i>	0:40	Universidade de Santiago de Compostela	1,000	Nov 2024
<i>Nutritive EU: TEAGASC</i>	0:41	Teagasc	2,800	Nov 2024
<i>Nutritive EU: AINIA, partner of the project</i>	0:52	AINIA	2,800	Nov 2024
<i>Nutritive EU: Medrar, by Leticia Regueiro</i>	0:51	MEDRAR	562	Nov 2024
<i>Nutritive (overview video)</i>	3:56	General presentation	3,000	Nov 2024

The most-watched videos are *Nutritive EU: AINIA, partner of the project* and *Nutritive EU: TEAGASC*, both exceeding **2,800 views**, highlighting the value of partner-focused communication. The channel’s total **watch time and subscriber growth (+300)** indicate a consistent engagement trend and the establishment of an active audience interested in sustainable innovation and manure management technologies.

Ongoing and future work

New audiovisual materials are currently being planned for the upcoming months.

These upcoming productions aim to further expand the project’s outreach and strengthen the visibility of NUTRITIVE as a reference initiative within the Horizon Europe framework.

3.1.9. Project website

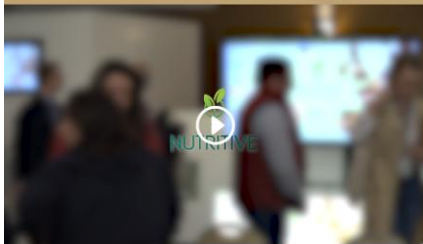
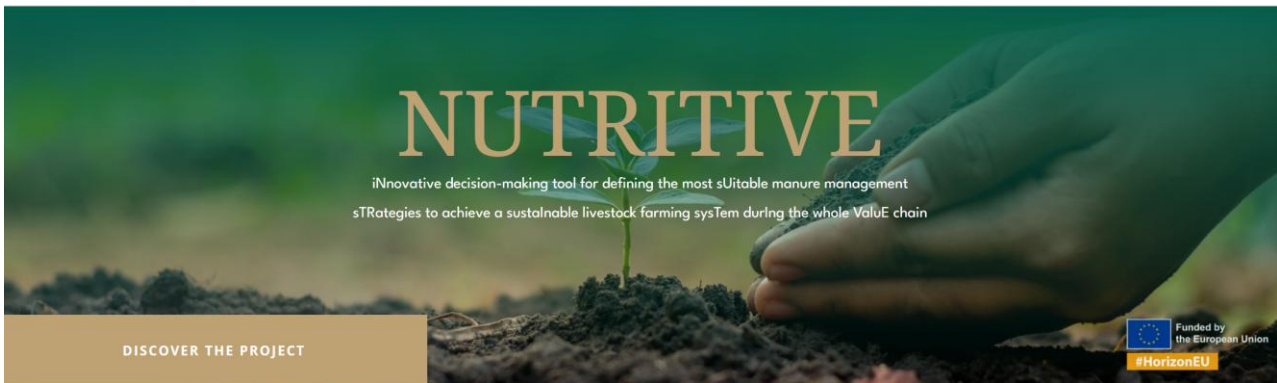
During the first 6 months of the project, a full version of the NUTRITIVE website was developed (see www.NUTRITIVE.es). This launch of the website marked the delivery of D5.3 (M6) and the completion of MS11 (M8). It provides general information about the project and was designed to be an effective tool 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.

Structure of the website

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.



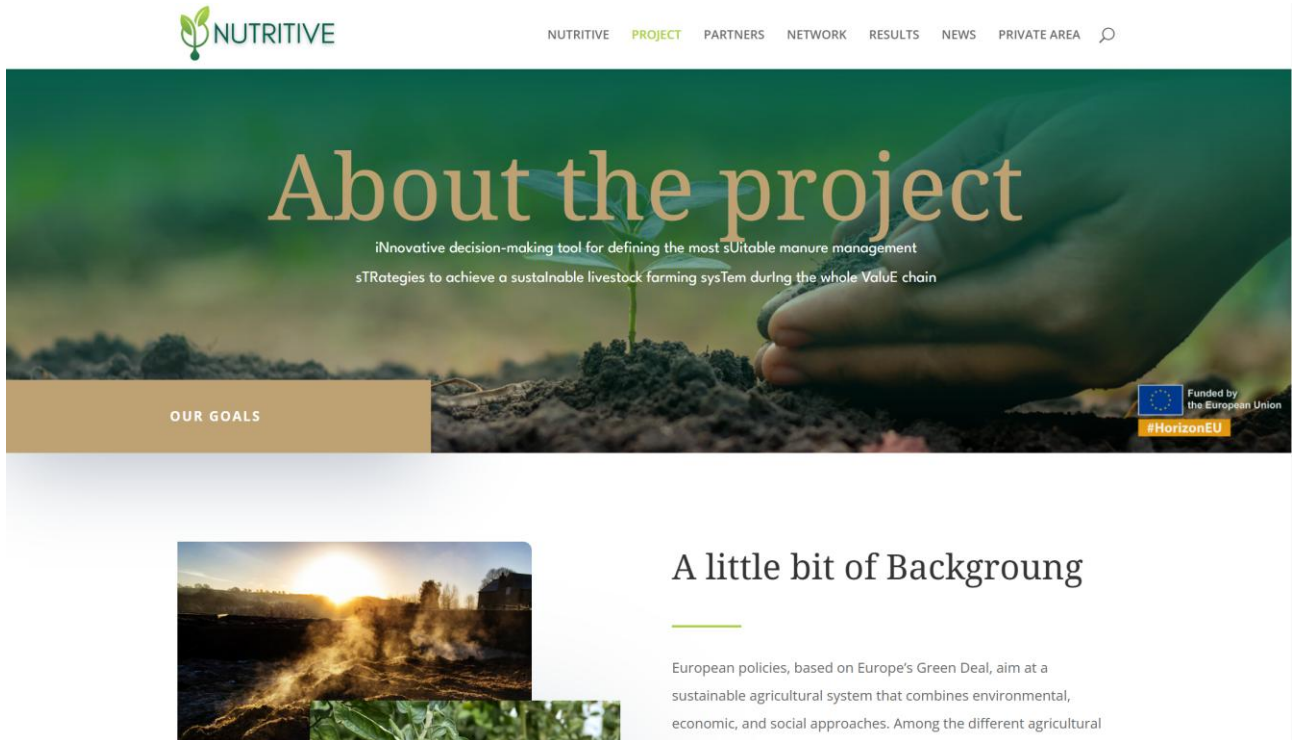
22

PARTNERS

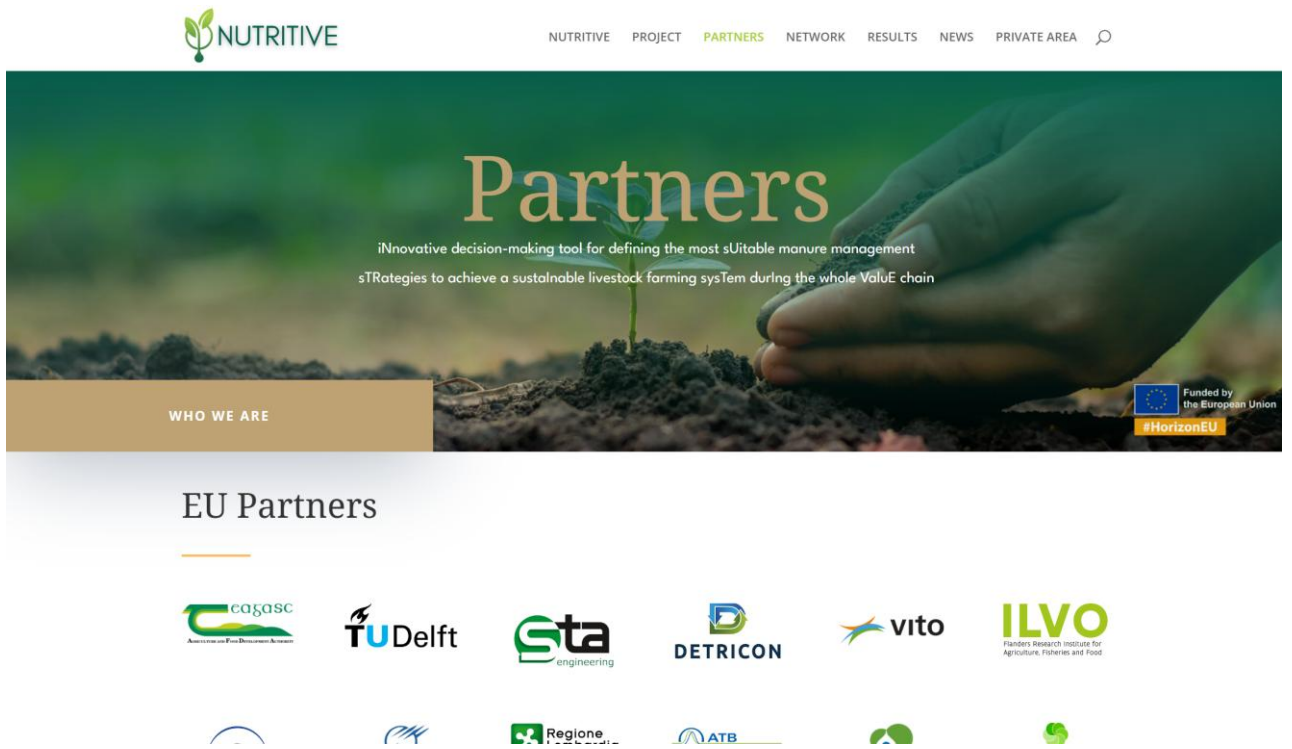
9

COUNTRIES

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



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



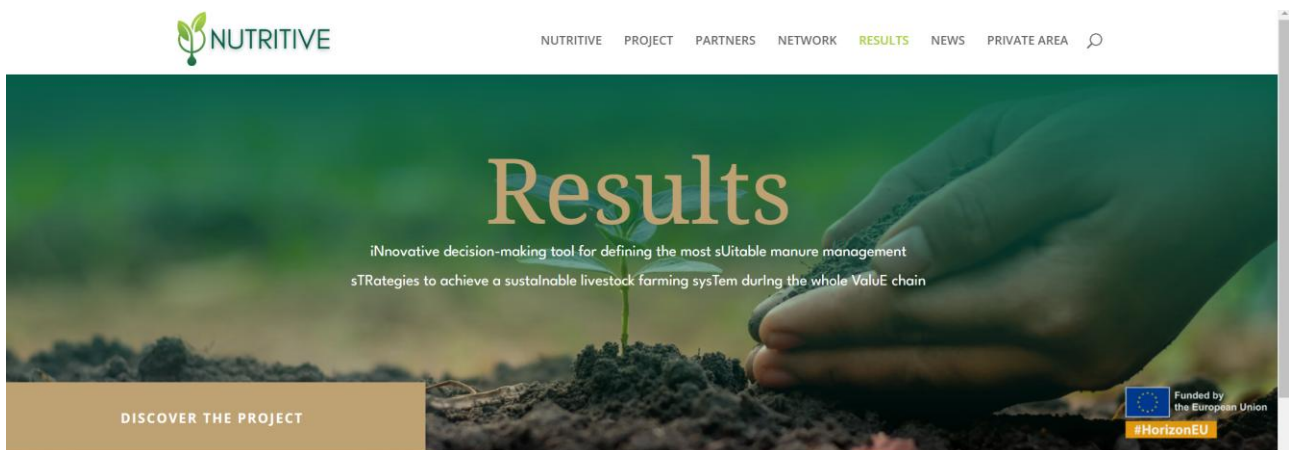
- **Network:** other related projects, and a channel to subscribe and join the NUTRITIVE community getting involved in the project.



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

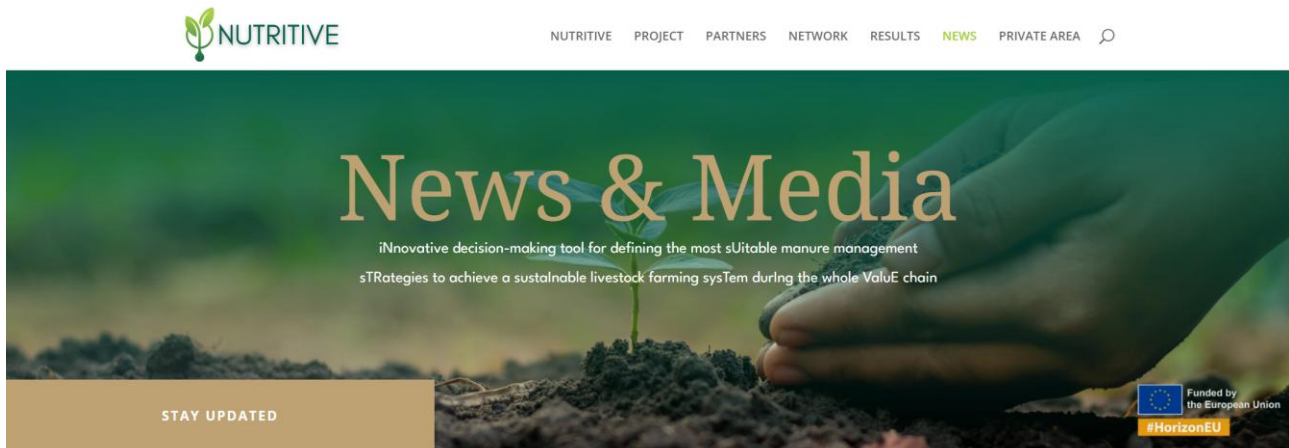


- **Results:** publicly available project outcomes. It includes Communication and Dissemination results, Project Deliverables and other information generated during the project like for example public datasets.



Scientific Publications

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



Latest News & Upcoming Events

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



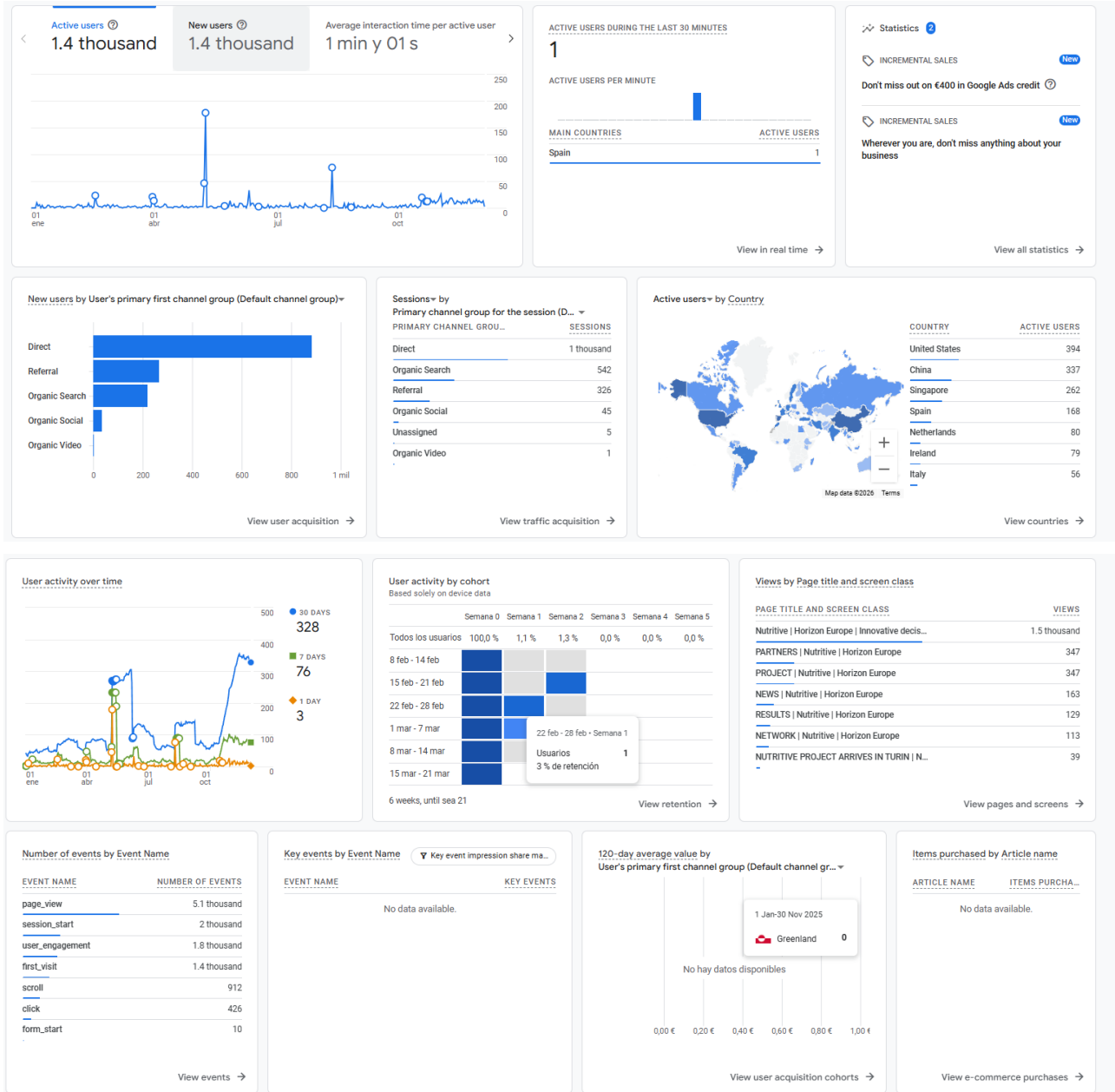
Website features

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

In M6, the Google analytics was implemented to measure and record users activity on the NUTRITIVE website. Statistics from M6-M18 are shown below.



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.).

3.1.10. Social media

Between December 2024 and October 2025, the NUTRITIVE project maintained an active presence across Facebook, X (formerly Twitter), and LinkedIn, reinforcing its visibility and communication with stakeholders.

Overall, more than 120 posts were published across all channels, covering project progress, participation in international conferences, partner highlights, and milestones such as the RAMIRAN 2025 Conference or the Summit Biofuturo in Chile.

X (Twitter)

The project's X account (@NutritiveH_EU) remained highly active during this reporting period, with **more than 40 tweets** combining news updates, event coverage, partner highlights, and dissemination of project achievements (Table 6).

Interaction rates showed a steady growth throughout 2025, reaching peak visibility during key international events such as the **Turin project meeting in June** (up to **37.5% engagement rate**) and the **Biocircular Summit** (February 2025).

Posts featuring visuals and event photos consistently achieved the highest engagement, with an **average rate of 12%** across the year. The account recorded particularly strong performance in tweets linked to scientific conferences and EU-supported initiatives — notably **#Cyprus2025**, **#RAMIRAN2025**, and **#WSF11** — confirming the platform's effectiveness in reaching both scientific audiences and policy stakeholders.

KPIs (Nov 2024-Oct 2025):

- Average engagement rate: 12.7% (notably high for a scientific project profile).
- Posts with visual content (photos from events or infographics) reached the highest interaction, up to 0.35 engagement rate (Dec 2024 post).
- Highest-performing tweet: "Great day with #NUTRITIVE partners, working on sustainability, knowledge transfer & agri policies" (June 2025).

Main thematic categories:

- Project meetings and field visits (Turin, Vilalba, Wageningen, Cyprus).
- Presentations at scientific conferences (WSF11, CIB25).
- Achievements by consortium partners (AINIA, USC, Teagasc).
- Highlights from the EU Green Deal, sustainability and circular economy.



Figure 24. X 🌐🤝 NUTRITIVE partners meet this week in Turin IT to review progress on food system sustainability, emissions & EU case studies. Two days of intense work for a more competitive & sustainable agri-food sector 🇪🇺 #NutritiveProject #SustainableFarming #EUProjects https://twitter.com/NutritiveH_EU/status/1931986711011107066/photo/1



Figure 25. X 🌱🐄 The NUTRITIVE project, promoting sustainability in the livestock sector, has won the Sustainability and Social Inclusion Award at the 1st National Biocircularity Awards. A step forward for a more sustainable agricultural future! 🌐🇪🇺 #BiocircularSummit #Livestock https://twitter.com/NutritiveH_EU/status/1891523352524628123/photo/1



Figure 26. X. 🚀 @ainiatecnologia is in Bilbao sharing innovations in sustainable waste management at the 4th IWA-YWP Spain National Conference. 🌱 The Nutritive project promotes solutions for a responsible agricultural and environmental future. #Nutritive #SustainableInnovation #YWPSpain2024
https://twitter.com/NutritiveH_EU/status/1856611977109348749/photo/1

Table 6. Posts in X.

Date (GMT)	Post ID	Post Message	Impressions	Engagements	Engagement Rate
2025-06-13 09:43:22	1933460177618915365	🇪🇺 Great day with #NUTRITIVE partners, working on sustainability, knowledge transfer & agri policies eu Each WP is key to zero-pollution farming 🌱 Thanks for making it happen! #HorizonEurope #AsajaWithEurope @HorizonEU @EU_Commission #HorizonEurope #SustainableFarming https://twitter.com/NutritiveH_EU/status/1933460177618915365/photo/1	16	6	0,375
2024-12-02 12:11:31	1863556602541773076	👉 The #Nutritive partners meet to assess progress and plan upcoming actions. 🌱 We are developing an innovative tool to optimize manure management, promoting sustainable livestock practices across the entire value chain. #SustainableLivestock @EUScienceInnov @EU_Commission https://twitter.com/NutritiveH_EU/status/1863556602541773076/photo/1	20	7	0,35
2024-12-04 15:40:15	1864333904372539637	👉 🌱 #NUTRITIVE is developing technical guidelines and recommendations to meet 2030 reduction targets, expand current legislation, and support future EU agricultural policies. #HorizonEU @HorizonteEuropa https://nutritive.es/about-project/ https://twitter.com/NutritiveH_EU/status/1864333904372539637/photo/1	18	6	0,333333

2025-02-17 16:21:24	1891523352524628123	🌱🏆 The NUTRITIVE project, promoting sustainability in the livestock sector, has won the Sustainability and Social Inclusion Award at the 1st National Biocircularity Awards. A step forward for a more sustainable agricultural future! 🌍🐄 #BiocircularSummit #Livestock https://twitter.com/NutritiveH_EU/status/1891523352524628123/photo/1	21	5	0,238095
2025-06-12 12:24:15	1933138275490726230	🌱 First day of the #NutritiveProject in #Turin. We're discussing sustainable manure management, EU regulations and innovative tools to support more climate-friendly farming 🌍 #ASAJA #ZeroPollution #SustainableFarming https://twitter.com/NutritiveH_EU/status/1933138275490726230/photo/1	45	10	0,222222
2025-06-05 10:43:08	1930576113241096318	On this #WorldEnvironmentDay, the NUTRITIVE project is developing a smart decision-support tool to help livestock farms manage manure in a more efficient, sustainable and cost-effective way. 🌱 Reduced atmospheric emissions 💧 Protection of soils and water resources https://twitter.com/NutritiveH_EU/status/1930576113241096318/photo/1	25	5	0,2
2025-03-19 12:35:11	1902338056868524275	🌱🔧 Meet @ainiatecnologia Bringing technology solutions to address key challenges. At #Nutritive, he leads WP2, evaluating innovations in slurry treatment and the reduction of GHGs, nutrients, heavy metals and emerging pollutants. 🌱🌱 https://ow.ly/yBm750VjGon	16	3	0,1875
2025-06-19 12:01:41	1935669311638487251	🌟 International spotlight for the #Nutritive project! USC takes part in #Cyprus2025 with a presentation on how livestock waste can drive sustainable hydrogen production. 🌱 Science supporting rural development. 🇪🇺 Supported by the EU. https://cyprus2025.uest.gr/ https://twitter.com/NutritiveH_EU/status/1935669311638487251/photo/1	12	2	0,166667
2024-11-20 15:40:15	1859260476636483892	🔍📁 Discover our #NUTRITIVE work plan! See how we're transforming manure management in Europe with sustainable solutions and innovative practices. #HorizonEU @HorizonteEuropa https://nutritive.es/about-project/ https://twitter.com/NutritiveH_EU/status/1859260476636483892/photo/1	18	3	0,166667
2025-01-14 12:52:16	1879149532111344024	🌱💡 Did you know that the NUTRITIVE project is driving innovation in manure management? 💡 Medrar, as coordinator, leads two key areas: 📣 Communication and dissemination, in collaboration with experts like Asaja. https://youtu.be/-XkH3_vorrM	26	4	0,153846
2024-11-13 08:16:04	1856611977109348749	🚀 @ainiatecnologia is in Bilbao sharing innovations in sustainable waste management at the 4th IWA-YWP Spain National Conference. 🌱 The Nutritive project promotes solutions for a responsible agricultural and environmental future. #Nutritive #SustainableInnovation #YWPSpain2024 https://twitter.com/NutritiveH_EU/status/1856611977109348749/photo/1	20	3	0,15
2024-11-19 15:40:11	1858898072786305147	🌍🐄 #NUTRITIVE brings together 22 partners from 9 countries to transform manure management across Europe. @HorizonteEuropa https://ow.ly/pq7p50TTmEu	14	2	0,142857
2025-09-29 09:13:43	1972590604962988035	Our #WorkPlan drives sustainable manure management: 📊 Data & impacts 🌱 Innovative strategies 🌱 Sustainability assessment 🛠️ Decision-support tool 📖 Discover more at: https://nutritive.es/ #Sustainability #CircularEconomy #Agrilnnovation #EUGreenDeal https://twitter.com/NutritiveH_EU/status/1972590604962988035/photo/1	15	2	0,133333

2025-06-23 08:00:29	1937058161380180053	<p>🌍 The #Nutritive project brings European agricultural innovation to the global stage 📺 From June 25 to 27 the University of Santiago de Compostela will present research on manure waste and purple hydrogen at #Cyprus2025. Co-funded by the European Union https://cyprus2025.uest.gr/ https://twitter.com/NutritiveH_EU/status/1937058161380180053/photo/1</p>	23	3	0,130435
2025-06-17 20:01:08	1935065194444583065	<p>♻️ Local innovation with global impact. The University of Santiago de Compostela will present #Nutritive findings on manure management and purple hydrogen at #Cyprus2025. 📺 June 25–27 EU Action funded by the European Union. https://cyprus2025.uest.gr/ https://twitter.com/NutritiveH_EU/status/1935065194444583065/photo/1</p>	16	2	0,125
2025-10-03 08:43:35	1974032570846253060	<p>🗣️ The #Nutritive project joins #WSF11 with a keynote + 2 posters: 📌 Loops of Change: How Dairy Waste Can Power the Circular Bioeconomy – Dr. Sara González (USC) @biogroup_usc 🇪🇺 Innovation in circular bioeconomy & waste valorization. 📌 https://sciforum.net/event/WSF-11?section=#day1 https://twitter.com/NutritiveH_EU/status/1974032570846253060/photo/1</p>	17	2	0,117647
2025-04-02 08:57:15	1907356643349660053	<p>NUTRITIVE will develop a smart tool to help livestock farms make better decisions on manure management. Less pollution, more sustainability. https://ow.ly/2CGr50VjGxR https://twitter.com/NutritiveH_EU/status/1907356643349660053/photo/1</p>	18	2	0,111111
2025-03-25 08:45:12	1904454507821678846	<p>🗣️ #MEDRAR, entidad coordinadora de #Nutritive 💡 WP5 → Comunicación y difusión, junto a @AsajaNacional y jóvenes agricultores. 📌 WP 6 → Coordinación y seguimiento de hitos, entregables y objetivos clave. 🇪🇺 https://ow.ly/2CGr50VjGxR</p>	18	2	0,111111
2024-11-11 11:10:26	1855931081717109076	<p>🌱 At #Nutritive, we are developing tools for efficient and sustainable management of livestock farms across Europe. Our goal: to reduce environmental impact and optimize manure management. 📌 Learn more in the latest edition of #RevistaAsaja! https://www.calameo.com/read/00285942208b169b93b6a?page=36 https://twitter.com/NutritiveH_EU/status/1855931081717109076/photo/1</p>	18	2	0,111111
2025-07-24 16:16:15	1948416951497163258	<p>🌱 NUTRITIVE at #SummitBiofuturo! 📺 Masterclass by Dr. Sara González (@UniversidadeUSC) on LCA and manure management 📺 Circular solutions for sustainable farming https://nutritive.es/ #CircularEconomy #ManureManagement #LivestockFarming #AgriInnovation #EUGreenDeal https://twitter.com/NutritiveH_EU/status/1948416951497163258/photo/1</p>	19	2	0,105263
2025-03-19 11:19:49	1902319092897566774	<p>Poster presentation of the project on sustainable strategies for livestock manure management. 🌱💡 Innovation to reduce emissions and improve the sustainability of the sector. 📌 Find out here! 📌 https://twitter.com/NutritiveH_EU/status/1902319092897566774/photo/1</p>	19	2	0,105263
2025-06-12 09:06:46	1933088578092855485	<p>Everything is ready in Turin! #NUTRITIVE project assembly is about to start Over the next two days, partners from across Europe will share progress and challenges on how to improve manure management, protect biodiversity, and meet the 2030 climate goals #ZeroPollution https://twitter.com/NutritiveH_EU/status/1933088578092855485/photo/1</p>	220	23	0,104545

2025-06-09 08:08:21	1931986711011107066	🌍👥 NUTRITIVE partners meet this week in Turin to review progress on food system sustainability, emissions & EU case studies. Two days of intense work for a more competitive & sustainable agri-food sector 🇪🇺 #NutritiveProject #SustainableFarming #EUProjects https://twitter.com/NutritiveH_EU/status/1931986711011107066/photo/1	30	3	0,1
2024-12-17 15:40:15	1869044949737464179	Want to know why? 🌱 It's urgent to research, develop, and model innovative, circular strategies to optimize efficiency and reduce environmental impacts in livestock management. #NUTRITIVE #HorizonEU https://nutritive.es/ https://twitter.com/NutritiveH_EU/status/1869044949737464179/photo/1	30	3	0,1
2025-06-18 10:45:15	1935287690318041430	Today, our project is participating in RAMIRAN 2025 (📍 Wageningen, Netherlands) Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value chain https://www.ramiran2025.nl/home https://twitter.com/NutritiveH_EU/status/1935287690318041430/photo/1	22	2	0,090909
2025-06-19 11:40:10	1935663897219912039	The University of Santiago de Compostela will present the NUTRITIVE project's latest advances at the "Cyprus 2025: Environmental Engineering & Management" conference. 📅 25-27 📍 Cyprus	25	2	0,08
2024-11-04 15:40:11	1853462255234400560	🌍👥 #NUTRITIVE brings together 22 partners from 9 countries to transform manure management across Europe. @HorizonteEuropa https://ow.ly/pq7p50TTmEu	25	2	0,08
2025-02-13 17:45:14	1890094897056694418	Congratulations! @ainiatecnologia AINIA participated in the #BiocircularSummit with a bioeconomy poster and an innovative project that won a Circularity Award. 🌱💡 #Bioeconomy #Circularity #Innovation https://twitter.com/NutritiveH_EU/status/1890094897056694418/photo/1	154	12	0,077922
2024-11-11 12:15:16	1855947397509124320	🌱🔬 Exploring the future of biotechnology and mathematical biology! At #Nutritive, we're collaborating with #TUDelft for #ECMTB2024, discussing mathematical modeling of microbial ecosystems. Another step towards sustainable and efficient agricultural management! 🌱🌍	29	2	0,068966
2025-04-28 07:33:42	1916757700907516127	This week, #NUTRITIVE is at the #BrokerageEvent hosted by the EU CAP Network in Prague, boosting sustainable innovation in agriculture and rural areas. 🌍📅 April 29-30, 2025 🔗 https://eu-cap-network.ec.europa.eu/events/eu-cap-network-brokerage-event-partnering-innovation-impact-agriculture-and-rural-areas_en #EUAgr #HorizonEurope @eucapnetwork https://twitter.com/NutritiveH_EU/status/1916757700907516127/photo/1	33	2	0,060606
2025-04-22 07:55:12	1914588785645416498	🌱🔬 @cretus_usc en el proyecto #Nutritive Trabajan en soluciones tecnológicas medioambientales para una agricultura más sostenible, siempre bajo el enfoque de economía circular 🌱🌍 #Nutritive #Sostenibilidad #EconomíaCircular #Innovación https://ow.ly/Le5t50VjGMA	42	2	0,047619
2025-05-20 20:24:05	1924924109617574355	🌱 Turning Manure into Green Gold 🌱 Discover how the NUTRITIVE project is revolutionizing manure management! 🌱💡 With innovative and sustainable solutions, we're reducing emissions and protecting our planet 🌍🌱 @teagasc @TUDelftDaily @ainiatecnologia https://nutritive.es/ https://twitter.com/NutritiveH_EU/status/1924924109617574355/photo/1	148	7	0,047297

2025-04-08 07:50:10	1909514089484714272	🇮🇪🇵🇹 @teagasc en el proyecto #Nutritive Mejora de la gestión de purines y el impacto ambiental en Irlanda → Estudio de políticas públicas, barreras y motivaciones para la adopción de nuevas tecnologías. 🏢🚗 https://nutritive.es/wp-content/uploads/2024/08/medrar__presentacion_proyecto_nutritive__lorraine_balain-1080p.mp4	43	2	0,046512
2024-11-22 09:29:58	1859892066123186212	💧🌊 #a4f, our partner participated in the “Circular Economy of Water: Industrial Symbiosis and Urban Sector,” organized by the Ibero-American Recircula Network. 🚀 Together, we are building a more sustainable future for water and industry 🔗 More: http://nutritive.es	23	1	0,043478
2025-07-09 11:07:30	1942903433716961688	🇨🇾 At Cyprus Congress, @UniversidadeUSC showed how manure waste can produce turquoise hydrogen – turning farm waste into clean energy and reducing pollution. Farming powering the future! 🌱💡 #NutritiveProject #SustainableFarming #EUProjects #Cyprus2025 https://twitter.com/NutritiveH_EU/status/1942903433716961688/photo/1	207	7	0,033816
2025-10-09 07:42:48	1976191604214952165	Can simple additives like biochar and zeolites double biogas production? 💡 Promising results from the #HorizonEurope project #NUTRITIVE, presented by Adriana Pacherras (@ainiatecnologia) at #CIB25. 📺 Watch the interview: https://ow.ly/bfgo50X8X7a 🌐 https://ow.ly/T9GJ50X8X7b	201	5	0,024876
2025-07-22 11:19:35	1947617516655697973	NUTRITIVE is driving change in agri-innovation: A step forward in sustainable manure management. #CircularEconomy #SustainableFarming #EUgreendeal #ManureManagement #AgriInnovation https://nutritive.es/ https://twitter.com/NutritiveH_EU/status/1947617516655697973/photo/1	148	2	0,013514
2025-08-22 12:42:27	1958872392542892164	Healthy soils, cleaner air, safer water 💧 NUTRITIVE tackles manure management with 3 priorities: Soil Fertility, Odor Control, Prevent Pollution. https://nutritive.es/ #Sustainability #CircularEconomy #LivestockFarming #EUGreenDeal https://twitter.com/NutritiveH_EU/status/1958872392542892164/photo/1	469	5	0,010661
2025-10-24 10:10:10	1981664508335599699	🇳🇱 At #RAMIRAN2025 in Wageningen NL, the #NUTRITIVEProject presented its innovative tool for sustainable manure management and emission reduction in livestock systems — supporting #CircularEconomy goals under the #EUGreenDeal. #AgriResearch @HorizonEU @ainiatecnologia	2	0	0
2025-10-22 07:30:16	1980899488488120487	🔬 Researchers from @ILVOvlaanderen, partners of the #Nutritive project, presented at the #TRACES Conference (Ghent): 🌿 Antibiotic residues and resistance in aquatic environments 🌊 Science for a sustainable future 🌍🔄 @ainiatecnologia 📺 https://ow.ly/MHSN50XeLZj https://twitter.com/NutritiveH_EU/status/1980899488488120487/photo/1	10	0	0
2025-10-21 06:50:15	1980527030350352474	♻️ The #Nutritive took part in the 12th International Conference on Sustainable Solid Waste Management in 🇨🇾 Cyprus 📺 #cRESTUS presented research on hydrogen production from manure using pyrolysis and steam methane reforming, with a full life cycle assessment https://twitter.com/NutritiveH_EU/status/1980527030350352474/photo/1	16	0	0

2025-03-18 12:17:38	1901971253713424567	🏆🌱🌿 @ainiatecnologia has participated in the #BiocircularSummit presenting the #Nutritive project, which promotes the decarbonisation of the livestock sector and the efficient management of manure. Congratulations to the whole team for this achievement #Innovation https://twitter.com/NutritiveH_EU/status/1901971253713424567/photo/1	12	0	0
2025-03-18 08:18:13	1901911003950199148	🌱🌿 Conoce a @ainiatecnologia Aporta soluciones tecnológicas para afrontar retos clave. En #Nutritive, lidera el WP2, evaluando innovaciones en el tratamiento de purines y la reducción de GEI, nutrientes, metales pesados y contaminantes emergentes.  https://ow.ly/Bm750VjGon	11	0	0
2024-11-05 09:55:11	1853737820533227783	Meet AINIA 🌱🌿 One of our partners, AINIA is a leading technology center focused on innovation in agrifood and environmental sustainability. With their expertise, #NUTRITIVE aims to drive sustainable solutions for manure management @ainiatecnologia https://ow.ly/oYyx50TTnVr	23	0	0

Facebook

The NUTRITIVE Facebook page published over 40 posts, achieving variable reach depending on the content type (Table 7).

Posts related to international events and recognition achieved the highest visibility — e.g., Summit Biofuturo (Chile) with 155 reach and Biocircular Summit (Madrid) with 170 reach.

Average engagement rate stood at 1.5%, and publications with photos and event visuals performed significantly better than links or text-only updates.

Most relevant topics included:

- Participation in European scientific conferences (RAMIRAN, TRACES, Cyprus2025).
- Introduction of partners such as CRETUS, TEAGASC, MEDRAR, and AINIA.
- Awards and recognitions (Biocircular Summit Prize).
- Development of the decision-support tool for sustainable manure management.

Total reach (Jan–Oct 2025): >2,300 users

Total engagement: ~30 interactions

Best performing format: Photo posts with event highlights.

Most engaging publication: “NUTRITIVE wins the Sustainability and Social Inclusion Prize at Biocircular Summit” (Feb 2025).

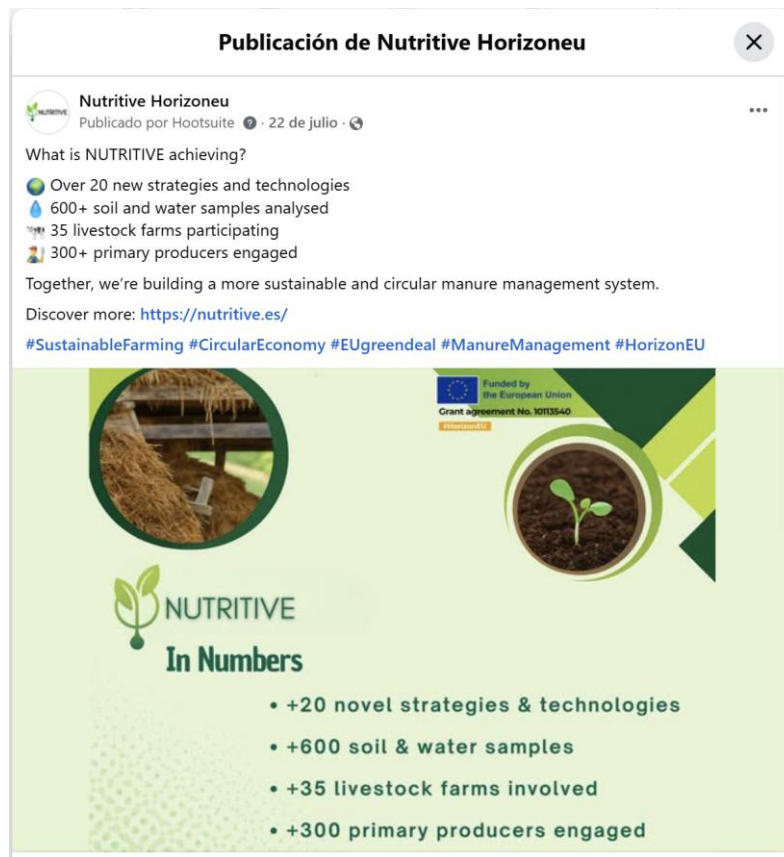


Figure 27. Facebook.- 📷 The NUTRITIVE project moves forward with over 20 new strategies and technologies, more than 600 soil and water samples analysed, and the participation of 35 livestock farms and over 300 primary producers — a clear step toward sustainable



Figure 28. Facebook.- Dr. Sara González, Professor at the University of Santiago de Compostela, delivered a masterclass at the Summit Biofuturo in Chile on sustainable manure and organic waste management through Life Cycle Assessment — a key contribution to th

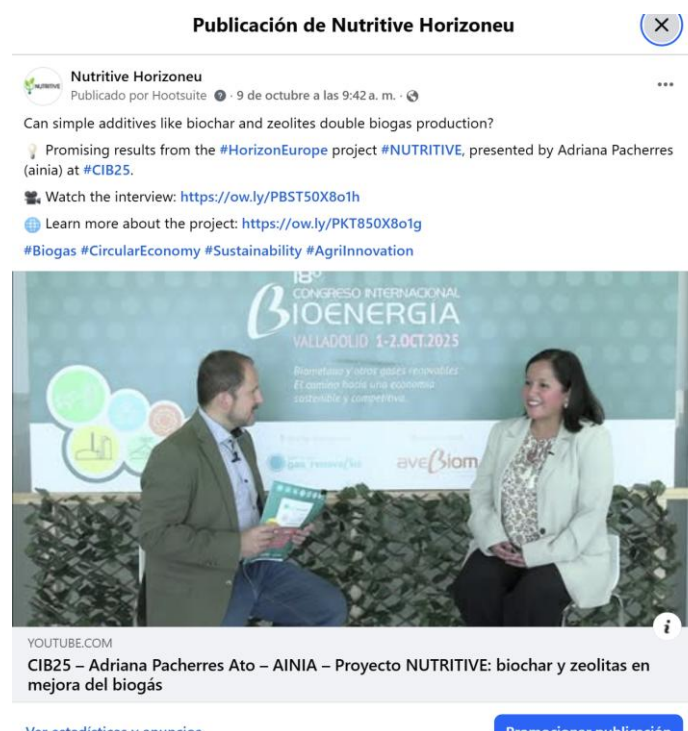


Figure 29.. Facebook Interview with Adriana Pacherras (AINIA) at the International Bioenergy Congress (CIB25) in Valladolid, presenting NUTRITIVE project results on the use of biochar and zeolites to enhance biogas production in livestock systems.

Table 7. Posts in Facebook.

Date (GMT)	Post ID	Post Type	Post Message	Reach	Reactions	Engagement rate
2025-10-09 07:42:49	369150149619536_122167963838427450	Video	Can simple additives like biochar and zeolites double biogas production? 💡 Promising results from the #HorizonEurope project #NUTRITIVE, presented by Adriana Pacherres (ainia) at #CIB25. 🎥 Watch the interview: https://ow.ly/PBST50X8o1h 🌐 Learn more about the project: https://ow.ly/PKT850X8o1g #Biogas #CircularEconomy #Sustainability #AgrilInnovation	12	0	0,166667
2025-06-13 12:10:59	369150149619536_122154168386427450	Link	Seguimos avanzando 🌱	34	1	0,088235
2024-11-13 08:16:03	369150149619536_122125730264427450	Photo	🚀 #ainia is in Bilbao sharing innovations in sustainable waste management at the 4th IWA-YWP Spain National Conference. 🌱 The Nutritive project promotes solutions for a responsible agricultural and environmental future. Huge thanks to our partners and the team for making it possible! #Nutritive #SustainableInnovation #YWPSpain2024	65	1	0,046154
2024-11-04 12:41:59	369150149619536_122124463886427450	Video	🇪🇺 🇷🇺 #NUTRITIVE works to reduce pollution caused by manure management, a major environmental concern for the livestock sector. Did you know that manure contributes to 12-17% of greenhouse gas emissions in Europe #HorizonEU	77	1	0,038961
2025-06-18 10:45:15	369150149619536_122154757214427450	Photo	Today, our project is participating in RAMIRAN 2025 (📍 Wageningen, Netherlands) Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value chain https://www.ramiran2025.nl/home	56	0	0,035714
2025-06-19 12:01:38	369150149619536_122154882716427450	Photo	👏 International spotlight for the #Nutritive project! USC takes part in #Cyprus2025 with a presentation on how livestock waste can drive sustainable hydrogen production. ♻️ Science supporting rural development. 🇪🇺 Supported by the EU. 🌐 https://cyprus2025.uest.gr/	59	1	0,033898
2025-01-14 12:52:16	369150149619536_122134602962427450	Video	🌱 ✨ Did you know that the NUTRITIVE project is driving innovation in manure management? 💡 Medrar, as coordinator, leads two key areas: 📢 Communication and dissemination, in collaboration with experts like Asaja. 📄 Deliverable management and ensuring objectives are met. 🌱 We tackle challenges, mitigate risks, and develop sustainable solutions for the livestock sector. The future of sustainable farming is here! 🌱🌍 #AgriculturalInnovation	60	1	0,033333

			#NutritiveProject #SustainableFarming #ManureManagement			
2025-06-12 09:06:48	369150149619536_12215400929_0427450	Album	Everything is ready in Turin! The #NUTRITIVE project assembly is about to start. Over the next two days, partners from across Europe will share progress and challenges on how to improve manure management, protect biodiversity, and meet the 2030 climate goals. #NutritiveProject #ZeroPollution #SustainableFarming #TurinMeeting	70	1	0,028571
2024-11-11 11:10:25	369150149619536_12212548103_6427450	Photo	At #Nutritive, we are developing tools for efficient and sustainable management of livestock farms across Europe. Our goal: to reduce environmental impact and optimize manure management. Learn more in the latest edition of #RevistaAsaja! #SustainableLivestock #HorizonEU https://www.calameo.com/read/00285942208b169b93b6a?page=36	256	2	0,027344
2025-07-09 11:07:30	369150149619536_12215748372_8427450	Photo	Universidade de Santiago de Compostela presented their research at the Cyprus Congress on turning manure waste into turquoise hydrogen. A brilliant way to reduce farm pollution and create clean energy for a sustainable future. What's your opinion on this innovation? #NutritiveProject #SustainableFarming #EUProjects #Cyprus2025	124	1	0,024194
2025-06-13 09:43:22	369150149619536_12215415420_8427450	Photo	Group photo to wrap up a full day of work on the #NUTRITIVE project! Today we've walked through the core pillars of the project with all partners: from mapping the most sustainable farming and livestock solutions (WP2), to knowledge transfer (WP4) and bridging the gap between policy and real impact (WP5). Each WP is a key piece to move towards zero-pollution farming and more opportunities for European farmers Thanks to everyone making this path possible. European Commission #HorizonEurope #SustainableFarming	84	1	0,02381
2024-11-22 09:29:58	369150149619536_12212693499_2427450	Link	#a4f, our partner participated in the workshop "Circular Economy of Water: Industrial Symbiosis and Urban Sector," organized by the Ibero-American Recircula Network. Together, we are building a more sustainable future for water and industry. More info:	43	0	0,023256

2025-06-09 08:08:20	369150149619536_12215361615_2427450	Photo	This week, partners of the European project #NUTRITIVE meet in Turin IT to review progress on food system sustainability, emissions modelling, and ongoing EU case studies. Two full days of intense work to advance real solutions towards a more sustainable, competitive and resilient agri-food system aligned with EU objectives. 🇪🇺 June 12-13, 2025 📍 Starhotels Majestic, Turin #NutritiveProject #EUProjects #FoodSustainability #AgriFoodInnovation #ASAJA #SustainableFarming #EmissionsModelling #EUAgriFood #EuropeWorks	45	1	0,022222
2025-10-20 08:33:20	369150149619536_12216908916_2427450	Photo	Researchers from ILVO, partners of the Nutritive Project, took part in the TRACES Conference (Ghent, 3–6 June 2025) with the presentation: 📄 “Antibiotic residues and resistance in aquatic environments: manure application and marine sediments increase antibiotic residues and drive resistance in aquatic environments.” The session concluded with an introduction to the Nutritive project’s framework and objectives, aimed at promoting sustainable solutions and reducing environmental impact in the agri-food sector. 🌱 Science and policy working together for a greener, healthier future. 🌍♻️👉 https://ow.ly/MHSN50XeLZj	50	0	0,02
2025-03-19 12:35:12	369150149619536_12214309949_6427450	Link	🌱 Meet #ainiatecnologia in the #Nutritive project. Bringing technology solutions to address key challenges. In #Nutritive, he leads work package 2, evaluating innovations in slurry treatment and the reduction of GHGs, nutrients, heavy metals and emerging pollutants. 🚗♻️ #Innovation #Sustainability #CircularAgriculture	52	0	0,019231
2025-02-13 17:45:16	369150149619536_12213834840_8427450	Album	Congratulations! #ainia AINIA participated in the #BiocircularSummit with a bioeconomy poster and an innovative project that won a Circularity Award. ♻️💡 #Bioeconomy #Circularity #Innovation	107	0	0,018692
2025-02-17 16:21:24	369150149619536_12213887495_0427450	Photo	🌱♻️ On February 11th, at the Biocircular Summit in Madrid, the NUTRITIVE project was awarded the Sustainability and Social Inclusion Prize at the 1st National Biocircularity Awards. NUTRITIVE aims to decarbonize the livestock sector by optimizing manure management and ensuring a positive impact on the environment and rural communities. A proud moment for the agricultural sector and a boost towards a sustainable future. 🇪🇺❤️ #BiocircularSummit #SustainableLivestock	170	1	0,017647

2025-07-22 11:19:34	369150149619536_12215902089_8427450	Photo	<p>What is NUTRITIVE achieving? 🌱 Over 20 new strategies and technologies 💧 600+ soil and water samples analysed 🐄 35 livestock farms participating 🧑‍🌾 300+ primary producers engaged Together, we're building a more sustainable and circular manure management system. Discover more: https://nutritive.es/ #SustainableFarming #CircularEconomy #EUgreendeal #ManureManagement #HorizonEU</p>	174	1	0,017241
2025-07-24 16:16:15	369150149619536_12215929002_2427450	Photo	<p>🌱🌿 NUTRITIVE is present at the #SummitBiofuturo in Chile! 🇨🇱 Dr. Sara González, Professor at the Universidade de Santiago de Compostela (Spain), shared her expertise through a masterclass on manure and organic waste management using life cycle assessment (LCA). 💡 A key contribution to the future of sustainable, circular livestock farming! #Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgrilInnovation #EUGreenDeal 🔗 https://nutritive.es/</p>	155	0	0,012903
2025-08-22 12:42:26	369150149619536_12216309978_8427450	Photo	<p>Did you know that smarter manure management can help protect our environment? 🌱 NUTRITIVE focuses on 3 key priorities: 🌱 Improve soil fertility with vital nutrients 🌱 Reduce emissions with odor control 💧 Safeguard our water by preventing pollution Discover how we are building a more sustainable future for agriculture 🙌 https://nutritive.es/ #Sustainability #CircularEconomy #LivestockFarming #EUGreenDeal</p>	87	0	0,011494
2025-06-12 12:24:16	369150149619536_12215402643_2427450	Album	<p>🌱 Kicking off the first day of the NUTRITIVE project in Turin This morning's session focused on key topics such as sustainable manure management, EU regulatory frameworks, farmer perceptions, and the development of innovative tools to support more environmentally friendly agricultural practices. A productive exchange between researchers, farmer organizations, and policymakers from across Europe 🤝🌱 #NutritiveProject #ASAJA #SustainableFarming #ZeroPollution #TurinMeeting</p>	97	1	0,010309
2025-04-02 08:56:45	369150149619536_12214492127_0427450	Photo	<p>NUTRITIVE will develop a smart tool to help livestock farms make better decisions on manure management. Less pollution, more sustainability. https://ow.ly/e30M50VjGyj</p>	104	1	0,009615

<p>2025-04-28 07:36:01</p>	<p><u>369150149619536_122148551054427450</u></p>	<p>Photo</p>	<p>The European project #NUTRITIVE will be presented on April 29-30 in Prague during the Brokerage Event 'Partnering for Innovation with Impact', organised by the EU CAP Network An international platform to foster innovation, sustainability, and impact in agriculture and rural areas. We are proud to showcase the progress of NUTRITIVE, offering sustainable manure management strategies to support a more efficient and environmentally friendly farming model. 🙌 More information about the event: https://ow.ly/uxnv50VIEsL #SustainableAgriculture #HorizonEurope #ZeroPollution #Innovation #EUAgri #Sustainability</p>	<p>110</p>	<p>0</p>	<p>0,009091</p>
<p>2025-10-03 08:43:35</p>	<p><u>369150149619536_122167442366427450</u></p>	<p>Photo</p>	<p>Today, the Nutritive Project takes part in the World Sustainability Forum (WSF11) with a strong presence from Dr. Sara González (USC): 🗣️ Keynote: Loops of Change: How Dairy Waste Can Power the Circular Bioeconomy 🇮🇹 Posters: 1️⃣ Closing the loop in Farming. Life cycle assessment of manure to Hydrogen and Biofertilizer 2️⃣ Contributions from #Nutritive and #Combaro on circular bioeconomy solutions. Universidade de Santiago de Compostela A great opportunity to showcase innovation and research driving a more sustainable future 🌱 🙌 https://sciforum.net/event/WSF-11?section=#day1</p>	<p>112</p>	<p>0</p>	<p>0,008929</p>
<p>2025-10-24 10:10:11</p>	<p><u>369150149619536_122169449294427450</u></p>	<p>Link</p>	<p>🌍 The NUTRITIVE project took part in the RAMIRAN 2025 Conference (Wageningen, The Netherlands), where ATB Potsdam presented a new decision-making tool for sustainable manure management in livestock farming. This innovation helps to reduce air pollutants and greenhouse gas emissions, supporting a more sustainable and circular agri-food system aligned with the EU Green Deal. 🔗 Learn more: https://ow.ly/2kMp50Xfr3R #NUTRITIVEProject #RAMIRAN2025 #CircularEconomy #Sustainability #ManureManagement #LivestockInnovation #EUGreenDeal</p>	<p>8</p>	<p>0</p>	<p>0</p>

<p>2025-10-22 07:30: 17</p>	<p><u>369150149619536_12216926549</u> <u>6427450</u></p>	<p>Album</p>	<p>Researchers from ILVO, partners of the Nutritive Project, took part in the TRACES Conference (Ghent, 3–6 June 2025) with the oral presentation: 🗨️ “Antibiotic residues and resistance in aquatic environments: manure application and marine sediments increase antibiotic residues and drive resistance in aquatic environments.” The session concluded with an introduction to the Nutritive project’s framework and objectives, aimed at promoting sustainable solutions and reducing environmental impact in the agri-food sector. 🌱 Science and policy working together for a greener, healthier future. 🌍♻️👉 https://ow.ly/MHSN50XeLZj Teagasc Galway/Clare TU Delft VITO Instituut voor Landbouw-, Visserij- en Voedingsonderzoek Ceoagro - Contabilidade Para o Agronegocio</p>	<p>43</p>	<p>0</p>	<p>0</p>
<p>2025-10-21 06:50: 14</p>	<p><u>369150149619536_12216917229</u> <u>8427450</u></p>	<p>Photo</p>	<p>♻️ The #Nutritive project took part in the 12th International Conference on Sustainable Solid Waste Management in 🇨🇵 Cyprus. 🗨️ #cretus presented research on hydrogen production from manure using pyrolysis and steam methane reforming, with a full life cycle assessment. 👉 https://ow.ly/Q4se50XeOLS . Teagasc Galway/Clare TU Delft VITO Instituut voor Landbouw-, Visserij- en Voedingsonderzoek Ceoagro - Contabilidade Para o Agronegocio</p>	<p>33</p>	<p>0</p>	<p>0</p>
<p>2025-09-29 09:13: 43</p>	<p><u>369150149619536_12216706169</u> <u>6427450</u></p>	<p>Photo</p>	<p>The NUTRITIVE Project is shaping the future of sustainable manure management in Europe 🌍. Our Work Plan focuses on: 📊 Collecting data & assessing environmental impacts. 🌱 Developing innovative and circular strategies. 🔄 Improving sustainability assessment with updated LCA methods. 🛠️ Creating a decision-support tool for farmers, policymakers & stakeholders. With these actions, we aim to reduce environmental risks, protect biodiversity, and support EU agricultural policies for 2030 and beyond. 👉 Discover more at: https://nutritive.es/ #Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgrInnovation #EUGreenDeal</p>	<p>45</p>	<p>0</p>	<p>0</p>
<p>2025-06-23 08:00: 30</p>	<p><u>369150149619536_12215535120</u> <u>8427450</u></p>	<p>Photo</p>	<p>🌍 The #Nutritive project brings European agricultural innovation to the global stage. 📅 From June 25 to 27, the University of Santiago de Compostela will present research on manure waste and purple hydrogen at #Cyprus2025. 🔗 https://cyprus2025.uest.gr/ EU Co-funded by the European Union.</p>	<p>73</p>	<p>0</p>	<p>0</p>

			#HorizonEurope #Asaja #SustainableAgriculture			
2025-06-19 11:40:10	369150149619536_12215488143_8427450	Status	The University of Santiago de Compostela will present the NUTRITIVE project's latest advances at the "Cyprus 2025: Environmental Engineering & Management" conference. 📅 June 25–27 🇨🇾 Cyprus 🎓 Presentation: "Assessing the environmental implications of manure waste management and its application in purple hydrogen production" 🌱 Science applied to the field. From manure management to clean hydrogen. #HorizonEurope #NutritiveProject #ZeroPollution	58	0	0
2025-06-17 20:01:14	369150149619536_12215469475_4427450	Photo	♻️ Local innovation with global impact. The University of Santiago de Compostela will present #Nutritive findings on manure management and purple hydrogen at #Cyprus2025. 📅 June 25–27 EU Action funded by the European Union. 🔗 https://cyprus2025.uest.gr/	59	0	0
2025-06-05 10:43:08	369150149619536_12215313407_0427450	Photo	On this #WorldEnvironmentDay, the NUTRITIVE project is developing a smart decision-support tool to help livestock farms manage manure in a more efficient, sustainable and cost-effective way. 🌱 Reduced atmospheric emissions 💧 Protection of soils and water resources	50	0	0
2025-05-20 20:24:07	369150149619536_12215138110_4427450	Album	🌱 Turning Manure into Green Gold 🌱 Discover how the NUTRITIVE project is revolutionizing manure management! 🌱💡 With innovative and sustainable solutions, we're reducing emissions and protecting our planet. 🇮🇪🇮🇪 Teagasc Galway/Clare https://nutritive.es/	103	0	0
2025-04-22 07:55:15	369150149619536_12214772260_4427450	Link	🇮🇪🌱 #CRETUS en el proyecto #Nutritive Desde CRETUS, trabajan en soluciones tecnológicas medioambientales para una agricultura más sostenible, siempre bajo el enfoque de economía circular. 💡 Gestión y recuperación de nutrientes → Tratamiento de aguas residuales para optimizar recursos. 💧♻️💡 Análisis de sostenibilidad → Evaluación del impacto ambiental, social y económico del proyecto. 🇮🇪🇮🇪💡 Innovación para transformar los desafíos ambientales en oportunidades para el sector agroganadero. 🌱🌱 #Nutritive #Sostenibilidad #EconomíaCircular #Innovación	54	0	0

2025-04-08 07:50: 12	369150149619536_12214576320_8427450	Link	<p>🇮🇪🇸🇯 Teagasc Waterford Kilkenny en el proyecto #Nutritive Desde TEAGASC, trabajamos para mejorar la gestión de purines y el impacto ambiental en Irlanda, además de analizar las políticas públicas clave para el sector agroganadero. ♦ Paquete de Trabajo 1 → Casos de estudio en Irlanda: análisis de purines y factores ambientales. 🇮🇪🇸</p> <p>♦ Paquete de Trabajo 4 → Estudio de políticas públicas, barreras y motivaciones para la adopción de nuevas tecnologías. 🏠🚗💡 Buscamos soluciones basadas en ciencia para un futuro agrícola más sostenible. 🌱♻️ #Nutritive #Innovación #Sostenibilidad #Agricultura</p>	48	0	0
2025-03-25 08:45: 13	369150149619536_12214385969_0427450	Link	<p>🇮🇪🇸🇯 #MEDRAR, entidad coordinadora de #Nutritive ♦ Paquete de Trabajo 5 → Comunicación y difusión, junto a Asaja Nacional y jóvenes agricultores. 🗣️👥 ♦ Paquete de Trabajo 6 → Coordinación y seguimiento de hitos, entregables y objetivos clave. 📅✅ ¡trabajan para que #Nutritive sea un éxito en innovación y sostenibilidad agroganadera! 🚗♻️ #Gestión #Divulgación #Impacto</p>	41	0	0
2025-03-19 11:19: 48	369150149619536_12214309489_4427450	Photo	<p>Poster presentation of the project on sustainable strategies for livestock manure management. 🌱💡 Innovation to reduce emissions and improve the sustainability of the sector. 📍 Find out here! 🗣️🇮🇪🇸 #Sustainability #NutritiveProject #Bioeconomics #CircularFarming</p>	94	0	0
2025-03-18 12:17: 37	369150149619536_12214297207_4427450	Status	<p>🏆👏 Recognition for sustainable innovation! 🌱🇮🇪🇸 #AINIA has participated in the #BiocircularSummit presenting the #Nutritive project, which promotes the decarbonisation of the livestock sector and the efficient management of manure. Congratulations to the whole team for this achievement. We continue to innovate for a more sustainable agriculture and livestock farming. 🚗💚 #Innovation #Circularity #Sustainability #Ainia #Biocircular #NutritiveProject</p>	95	0	0
2025-03-18 08:18: 13	369150149619536_12214295205_2427450	Link	<p>🇮🇪🇸🇯 Conoce a #ainiatecnologia en el proyecto #Nutritive Aporta soluciones tecnológicas para afrontar retos clave. En #Nutritive, lidera el paquete de trabajo 2, evaluando innovaciones en el tratamiento de purines y la reducción de GEI, nutrientes, metales pesados y contaminantes emergentes. 🚗♻️ #Innovación #Sostenibilidad #AgriculturaCircular</p>	42	0	0

2024-12-02 12:11: 32	369150149619536_12212884746_2427450	Album	The #Nutritive partners meet to assess progress and plan upcoming actions. We are developing an innovative tool to optimize manure management, promoting sustainable livestock practices across the entire value chain. #Innovation #SustainableLivestock #EUScienceInnov #EU_Commission	72	0	0
2024-11-11 12:15: 16	369150149619536_12212548752_8427450	Status	Exploring the future of biotechnology and mathematical biology! At #Nutritive, we're collaborating with #TUDelft for #ECMTB2024, discussing mathematical modeling of microbial ecosystems. Another step towards sustainable and efficient agricultural management! Stay tuned for our upcoming webinar in December. #AgroInnovation #MathematicalBiology #Sustainability	45	0	0

LinkedIn

During this reporting period the NUTRITIVE LinkedIn page consolidated its position as a key professional network for scientific dissemination and stakeholder engagement. Between November 2024 and October 2025, a total of 35 posts were published, combining project updates, partner highlights, event participation, and technical insights (Table 8).

The platform achieved an average engagement rate of 10.5%, clearly above the Horizon Europe benchmark for research and innovation projects (typically 3–5%). Posts with photos, clear technical outcomes, and partner mentions generated the strongest reactions, confirming LinkedIn’s role as the most effective channel for reaching professional and institutional audiences.

Performance overview

- Top-performing posts:
 - *Kick-off meeting in Turin (June 2025)* – 42.7% engagement rate, marking the highest interaction of the period.
 - *Turning manure into green gold (May 2025)* – 22% engagement rate, highlighting the project’s innovation in circular manure management.
 - *Participation in the Summit Biofuturo (Chile, July 2025)* – 12.2% engagement rate, with wide international reach.
 - *TRACES Conference (Ghent, October 2025)* – 16.3% engagement rate, showing growing interest in NUTRITIVE’s environmental research on antibiotic resistance.
 - *Biocircular Summit Award (February 2025)* – 14.2% engagement rate, celebrating project recognition for sustainability and social inclusion.
- Strong engagement peaks were also observed during:
 - *RAMIRAN 2025 Conference (October 2025)* – 8.6% engagement.
 - *World Sustainability Forum (October 2025)* – 7% engagement.
 - *Presentation at Cyprus Congress (July 2025)* – 10.5% engagement.

Content strategy and reach

Photo posts accounted for nearly 75% of total publications and consistently outperformed link-only updates. Visual content featuring researchers, project meetings, and partner activities — particularly USC, AINIA, and TEAGASC — was key to driving engagement. Event-related posts (RAMIRAN, TRACES, CIB25, and WSF11) and award recognitions reinforced the project’s credibility and boosted interactions within the research and policy communities.

By October 2025, the NUTRITIVE LinkedIn page reached over 250 followers, including professionals from universities, research centres, EU institutions, and industry stakeholders in sustainable farming and environmental innovation.

Summary of impact

LinkedIn proved to be the most impactful platform for professional communication, with:

- 35 posts shared between Nov 2024–Oct 2025
- Average engagement rate: 10.5%
- Highest engagement: 42.7% (Kick-off in Turin)
- Main audience: researchers, engineers, policymakers, and agri-tech professionals
- Most effective formats: photo posts with partner tags and concise, outcome-focused messaging

Overall impact

Social media analytics indicate a steady growth in visibility and interaction across all platforms.

Content strategy aligned with the C&D Plan objectives has allowed NUTRITIVE to reach diverse audiences — from policy stakeholders to researchers and practitioners — with engaging and scientifically sound messages.

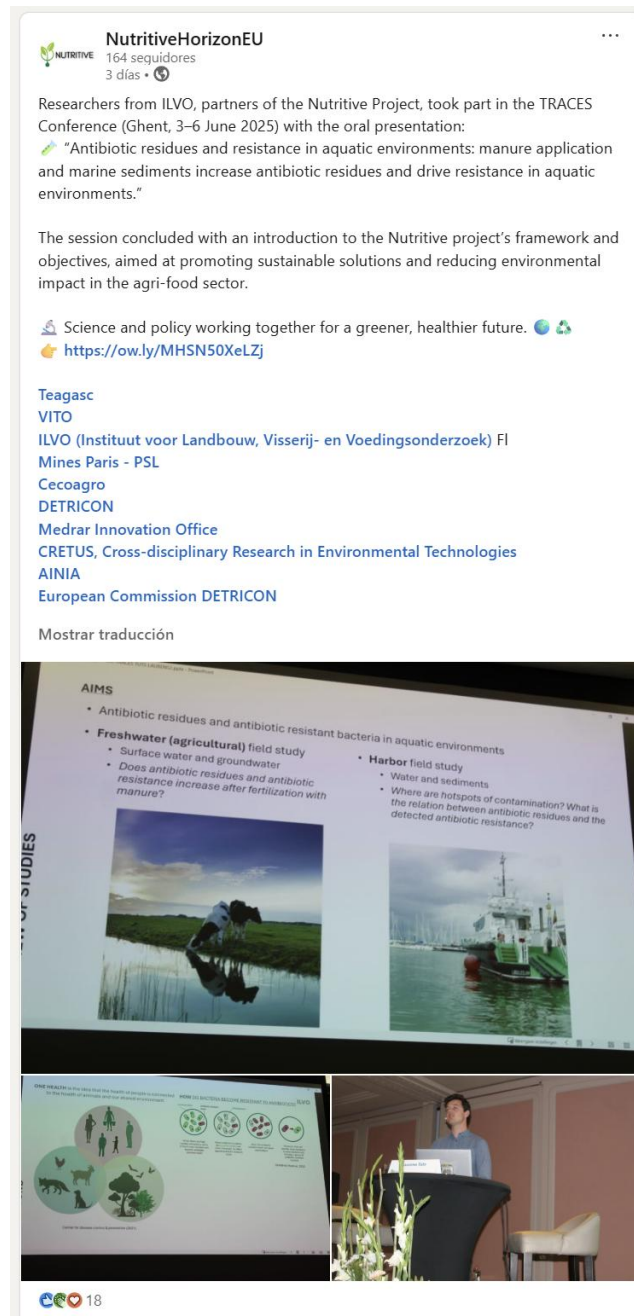


Figure 30. LinkedIn.- NUTRITIVE project partners during a working meeting focused on assessing progress and planning next steps, developing innovative tools to optimise manure management and promote sustainable livestock practices across the entire value chain



Figure 31. LinkedIn.- 📺 Researcher Aرسال Tehseen from the University of Santiago de Compostela presenting at the Cyprus 2025 Congress an innovative study on turquoise hydrogen production from livestock waste, showcasing NUTRITIVE's contribution to turning manure

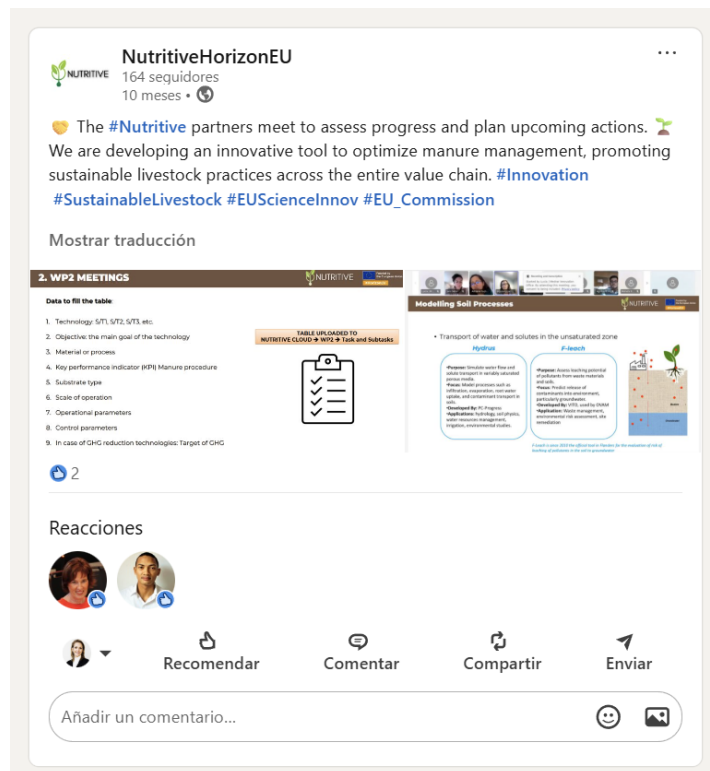


Figure 32. LinkedIn.- Researchers from ILVO presenting NUTRITIVE project findings at the TRACES Conference (Ghent) on antibiotic residues and antimicrobial resistance in aquatic environments, highlighting the importance of sustainable solutions to reduce envi

Table 8. LinkedIn posts.

Date (GMT)	Post ID	Post Type	Post Message	Engagement Rate	Reactions	Shares
2025-10-22 07:30:15	urn:li:ugcPost:7386665174633533440	Photo	<p>Researchers from ILVO, partners of the Nutritive Project, took part in the TRACES Conference (Ghent, 3–6 June 2025) with the oral presentation: 🌱 “Antibiotic residues and resistance in aquatic environments: manure application and marine sediments increase antibiotic residues and drive resistance in aquatic environments.” The session concluded with an introduction to the Nutritive project’s framework and objectives, aimed at promoting sustainable solutions and reducing environmental impact in the agri-food sector. 🌍</p> <p>Science and policy working together for a greener, healthier future. 🌱🌿👉 https://ow.ly/MHSN50XeLZj Teagasc VITO ILVO (Instituut voor Landbouw, Visserij- en Voedingsonderzoek) FI Mines Paris - PSL Cecaagro DETRICON Medrar Innovation</p>	0,163842	18	0

			Office CRETUS, Cross-disciplinary Research in Environmental Technologies AINIA European Commission DETRICON			
2025-06-13 09:43:23	7339225868319260672	Photo	📸 Group photo to wrap up a full day of work on the #NUTRITIVE project! Today we've walked through the core pillars of the project with all partners: from mapping the most sustainable farming and livestock solutions (WP2), to knowledge transfer (WP4) and bridging the gap between policy and real impact (WP5). Each WP is a key piece to move towards zero-pollution farming and more opportunities for European farmers 🌱 European Commission Thanks to everyone making this path possible. #HorizonEurope #SustainableFarming	0,144038	52	5
2025-07-24 16:16:16	7354182642679918592	Photo	🇨🇱 NUTRITIVE is proud to participate in the #SummitBiofuturo in Valparaíso, Chile — contributing to the transition towards circular and sustainable agriculture. 🇪🇺 Dr. Sara González, Professor at the Universidade de Santiago de Compostela (Spain), delivered a masterclass on life cycle assessment (LCA) and organic waste management, focused on livestock manure and agri-industry challenges. We keep driving forward agri-innovation with climate-smart strategies made in Galicia 🌿 #Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgriInnovation #EUGreenDeal 🔗 https://nutritive.es/	0,122727	11	1
2025-06-17 20:01:22	7340830939029106688	Photo	♻️ Local innovation with global impact. The University of Santiago de Compostela will present #Nutritive findings on manure management and purple hydrogen at #Cyprus2025. 📅 June 25–27 EU Action funded by the European Union. 🔗 https://lnkd.in/d/TuPVMF	0,116883	7	0
2025-06-18 10:45:18	7341053380905033729	Photo	Today, our project is participating in RAMIRAN 2025 (📍 Wageningen, Netherlands) Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value	0,109756	4	0

			chain https://lnkd.in/ewZ8SYDK			
2025-07-09 11:07:30	7348669123335225344	Photo	<p>Universidade de Santiago de Compostela presented at the Cyprus Congress of their innovative study on using manure waste to produce turquoise hydrogen. 🌱💧</p> <p>This solution turns farm waste into clean energy and solid carbon, helping reduce emissions and create value on farms. A big step for sustainable farming in Europe! What do you think?</p> <p>#NutritiveProject #SustainableFarming #EUProjects #Cyprus2025</p>	0,105519	26	1
2025-10-21 07:45:14	7386306555140354048	Photo	<p>The Nutritive Project participated in the 12th International Conference on Sustainable Solid Waste Management (Paphos, Cyprus, 25–28 June 2025). Researchers from the University of Santiago de Compostela presented: 📄</p> <p>“Assessing the environmental implications of manure waste management and its application in purple H₂ production.” The presentation explored hydrogen production from manure through pyrolysis and steam methane reforming, combined with a life cycle assessment to evaluate its environmental performance. 🌍</p> <p>A contribution that highlights the project’s commitment to sustainability, circular bioeconomy and responsible innovation. 🙌</p> <p>https://ow.ly/wl4850XeOEE Teagasc @STAEngineering S.r.l. VITO ILVO (Instituut voor Landbouw, Visserij- en Voedingsonderzoek) Mines Paris - PSL Paris - PSL @AESSREGIONELOMBARDI A Cecoagro DETRICON Medrar Innovation Office CRETUS, Cross-disciplinary Research in Environmental Technologies AINIA #GrupoAresa European Commission DETRICON</p>	0,0961	16	1

<p>2025-10-24 10:10:11</p>	<p>7387430198247342080</p>	<p>Link</p>	<p>● NUTRITIVE was present at the RAMIRAN 2025 Conference in Wageningen, The Netherlands NL, where ATB Potsdam presented an innovative decision-making tool designed to identify the most suitable manure management strategies across the livestock value chain. This tool integrates emission data from case study farms and the DATAMAN database, enabling detailed modelling of ammonia (NH₃) and greenhouse gas (GHG) emissions. Its goal: to support cost-effective mitigation strategies and contribute to policy recommendations aligned with the EU Green Deal. 📄 Learn more about the project: https://ow.ly/c7WA50Xfr6K #NUTRITIVEProject #RAMIRAN2025 #CircularEconomy #Sustainability #ManureManagement #LivestockInnovation #GHGMitigation #EUGreenDeal AINIA</p>	<p>0,086207</p>	<p>2</p>	<p>1</p>
<p>2025-07-22 11:19:37</p>	<p>7353383206659796993</p>	<p>Photo</p>	<p>🔍 The NUTRITIVE project is translating research into impact: ✅ +20 innovative strategies & technologies ✅ +600 soil & water samples analysed ✅ +35 livestock farms involved ✅ +300 primary producers engaged This data-driven approach supports smarter, circular manure management aligned with the #EUGreenDeal. 🌱 Learn more: https://nutritive.es/ #SustainableFarming #CircularEconomy #ManureManagement #AgrilInnovation #HorizonEU</p>	<p>0,085714</p>	<p>10</p>	<p>1</p>
<p>2025-08-22 12:42:28</p>	<p>7364638082861543424</p>	<p>Photo</p>	<p>NUTRITIVE is addressing manure management challenges with three clear priorities: ✅ Enhancing soil fertility by recycling essential nutrients. ✅ Reducing harmful emissions through odor control. ✅ Protecting ecosystems by preventing water pollution. Together, these actions support sustainable livestock farming and align with the #EUGreenDeal. Learn more 📄 https://nutritive.es/ #Sustainability #CircularEconomy #ManureManagement #AgrilInnovation</p>	<p>0,070652</p>	<p>8</p>	<p>1</p>

2025-09-29 09:13:43	7378356293532712960	Photo	<p>The NUTRITIVE Project is shaping the future of sustainable manure management in Europe 🌍. Our Work Plan focuses on: 🇫🇮 Collecting data & assessing environmental impacts. 🐛 Developing innovative and circular strategies. 🔄 Improving sustainability assessment with updated LCA methods. 🛠️ Creating a decision-support tool for farmers, policymakers & stakeholders. With these actions, we aim to reduce environmental risks, protect biodiversity, and support EU agricultural policies for 2030 and beyond. 📖 Discover more at: https://nutritive.es/</p> <p>#Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgrInnovation #EUGreenDeal</p>	0,060403	7	0
2025-06-19 11:40:10	7341429587198771203	Status	<p>The University of Santiago de Compostela will present the NUTRITIVE project's latest advances at the "Cyprus 2025: Environmental Engineering & Management" conference. 🇨🇵 June 25–27 📅 Cyprus 🎓 Presentation: "Assessing the environmental implications of manure waste management and its application in purple hydrogen production" 🌱 Science applied to the field. From manure management to clean hydrogen.</p> <p>#HorizonEurope #NutritiveProject #ZeroPollution</p>	0,059603	4	0
2025-06-19 12:01:47	7341435025713737730	Photo	<p>📢 International spotlight for the #Nutritive project! USC takes part in #Cyprus2025 with a presentation on how livestock waste can drive sustainable hydrogen production. 🌱 Science supporting rural development. EU Supported by the EU. 📄 https://lnkd.in/diTUPVMF</p>	0,054795	3	0
2025-06-23 08:00:30	7342823857193398272	Photo	<p>🌍 The #Nutritive project brings European agricultural innovation to the global stage. 📅 From June 25 to 27, the University of Santiago de Compostela will present research on manure waste and purple hydrogen at #Cyprus2025. 📄 https://lnkd.in/diTUPVMF EU Co-funded by the European Union. #HorizonEurope #Asaja #SustainableAgriculture</p>	0,052632	3	0

2025-10-09 07:42:49	7381957294110109698	Link	<p>Can simple additives like biochar and zeolites double biogas production? 💡</p> <p>Promising results from the #HorizonEurope project #NUTRITIVE, presented by Adriana Pacherras (AINIA) at #CIB25. 🗣️ Watch the interview: https://ow.ly/3HmK50X8o1i 🌐 Learn more about the project: https://ow.ly/gtTM50X8o1k #Biogas #CircularEconomy #Sustainability #AgrInnovation</p>	0,023952	9	2
2025-10-03 08:43:35	7379798261865455616	Photo	<p>The Nutritive Project is proud to participate in the World Sustainability Forum (WSF11), sharing cutting-edge research on circular bioeconomy: 💎</p> <p>Keynote: Loops of Change: How Dairy Waste Can Power the Circular Bioeconomy – Dr. Sara González (USC) 💎</p> <p>Posters: Closing the loop in Farming. Life cycle assessment of manure to Hydrogen and Biofertilizer + further contributions from #Nutritive and #Combaro. An international stage to demonstrate how agri-food waste valorization can foster sustainability and innovation 🌍♻️👉 https://lnkd.in/d4mCXJQ7</p>	0,022727	2	0
2025-06-12 12:24:15	urn:li:ugcPost:7338903964496580608	Photo	<p>🌱 Kicking off the first day of the NUTRITIVE project in Turin This morning's session focused on key topics such as sustainable manure management, EU regulatory frameworks, farmer perceptions, and the development of innovative tools to support more environmentally friendly agricultural practices. A productive exchange between researchers, farmer organizations, and policymakers from across Europe 🇪🇺🌍</p> <p>#NutritiveProject #ASAJA #SustainableFarming #ZeroPollution #TurinMeeting</p>	0,426752	9	0
2025-06-12 09:06:47	urn:li:ugcPost:7338854269049102339	Photo	<p>Everything is ready in Turin! The #NUTRITIVE project assembly is about to start. Over the next two days, partners from across Europe will share progress and challenges on how to improve manure management, protect biodiversity, and meet the 2030 climate goals.</p> <p>#NutritiveProject #ZeroPollution #SustainableFarming #TurinMeeting</p>	0,3	15	2

<p>2025-03-18 12:17:38</p>	<p>urn:li:ugcPost:7307736943759429633</p>	<p>Photo</p>	<p>🏆👏 Recognition for sustainable innovation! 🌱🔄 AINIA has participated in the #BiocircularSummit presenting the #Nutritive project, which promotes the decarbonisation of the livestock sector and the efficient management of manure. The result: Nutritive has been awarded in the Sustainability and Social Inclusion category! 🌱🔄 A recognition for their work in reducing emissions, pollutants and improving waste management in the sector. Congratulations to the whole team for this achievement. We continue to innovate for a more sustainable agriculture and livestock farming. 🌱❤️ #Innovation #Circularity #Sustainability #Ainia #Biocircular #NutritiveProject</p>	<p>0,258824</p>	<p>8</p>	<p>0</p>
<p>2025-05-20 20:24:06</p>	<p>urn:li:ugcPost:7330689800372424704</p>	<p>Photo</p>	<p>🏆 Turning Manure into Green Gold 🌱 Discover how the NUTRITIVE project is revolutionizing manure management! 🌱💡 With innovative and sustainable solutions, we're reducing emissions and protecting our planet. 🌱🌟 Teagasc AINIA https://nutritive.es/</p>	<p>0,220588</p>	<p>7</p>	<p>1</p>
<p>2025-04-02 08:57:34</p>	<p>7313122412483506176</p>	<p>Photo</p>	<p>NUTRITIVE will develop a smart tool to help livestock farms make better decisions on manure management. Less pollution, more sustainability. https://ow.ly/3suT50VjGxY</p>	<p>0,173913</p>	<p>8</p>	<p>0</p>
<p>2025-10-22 07:30:15</p>	<p>urn:li:ugcPost:7386665174633533440</p>	<p>Photo</p>	<p>Researchers from ILVO, partners of the Nutritive Project, took part in the TRACES Conference (Ghent, 3–6 June 2025) with the oral presentation: 🌱 “Antibiotic residues and resistance in aquatic environments: manure application and marine sediments increase antibiotic residues and drive resistance in aquatic environments.” The session concluded with an introduction to the Nutritive project’s framework and objectives, aimed at promoting sustainable solutions and reducing environmental impact in the agri-food sector. 🌱 Science and policy working together for a greener, healthier future. 🌱🔄👉 https://ow.ly/MHSN50XeLZj Teagasc VITO ILVO (Instituut voor Landbouw, Visserij- en Voedingsonderzoek) FI Mines Paris - PSL Cécagro DETRICON Medrar Innovation Office CRETUS, Cross-disciplinary Research in Environmental Technologies</p>	<p>0,163842</p>	<p>18</p>	<p>0</p>















			AINIA European Commission DETRICON			
2024-12-02 12:11:32	urn:li:ugcPost:7269322295737765888	Photo	<p>👏 The #Nutritive partners meet to assess progress and plan upcoming actions. 🌱 We are developing an innovative tool to optimize manure management, promoting sustainable livestock practices across the entire value chain.</p> <p>#Innovation #SustainableLivestock #EUScienceInnov {hashtag # EU Commission}</p>	0,15	2	0
2024-11-19 15:40:12	7264663762765299714	Link	<p>🌍 🇪🇺 #NUTRITIVE brings together 22 partners from 9 countries to transform manure management across Europe.</p> <p>@HorizonteEuropa https://ow.ly/pq7p50TTmEu</p>	0,144928	4	0
2025-06-13 09:43:23	7339225868319260672	Photo	<p>📸 Group photo to wrap up a full day of work on the #NUTRITIVE project! Today we've walked through the core pillars of the project with all partners: from mapping the most sustainable farming and livestock solutions (WP2), to knowledge transfer (WP4) and bridging the gap between policy and real impact (WP5). Each WP is a key piece to move towards zero-pollution farming and more opportunities for European farmers 🌱 European Commission Thanks to everyone making this path possible. #HorizonEurope #SustainableFarming</p>	0,144038	52	5
2025-02-17 16:21:24	7297289040490323969	Photo	<p>🌱 ♻️ On February 11th, at the Biocircular Summit in Madrid, the NUTRITIVE project was awarded the Sustainability and Social Inclusion Prize at the 1st National Biocircularity Awards. NUTRITIVE aims to decarbonize the livestock sector by optimizing manure management and ensuring a positive impact on the environment and rural communities. A proud moment for the agricultural sector and a boost towards a sustainable future. 🇪🇺 ❤️</p> <p>#BiocircularSummit #SustainableLivestock</p>	0,142857	7	0

2025-07-24 16:16:16	7354182642679918592	Photo	<p>CL NUTRITIVE is proud to participate in the #SummitBiofuturo in Valparaíso, Chile — contributing to the transition towards circular and sustainable agriculture. 🌱</p> <p>Dr. Sara González, Professor at the Universidade de Santiago de Compostela (Spain), delivered a masterclass on life cycle assessment (LCA) and organic waste management, focused on livestock manure and agri-industry challenges. We keep driving forward agri-innovation with climate-smart strategies made in Galicia 🌿</p> <p>#Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgriInnovation #EUGreenDeal 🔗 https://nutritive.es/</p>	0,122727	11	1
2025-06-17 20:01:22	7340830939029106688	Photo	<p>♻️ Local innovation with global impact. The University of Santiago de Compostela will present #Nutritive findings on manure management and purple hydrogen at #Cyprus2025. 📅 June 25–27</p> <p>EU Action funded by the European Union. 🔗 https://lnkd.in/diTuPVMF</p>	0,116883	7	0
2024-11-13 08:16:33	7262377665414750208	Photo	<p>🚀 AINIA is in Bilbao sharing innovations in sustainable waste management at the 4th IWA-YWP Spain National Conference. 🌱 The Nutritive project promotes solutions for a responsible agricultural and environmental future. Huge thanks to our partners and the team for making it possible!</p> <p>#Nutritive #SustainableInnovation #YWPSpain2024</p>	0,114286	4	0
2025-06-18 10:45:18	7341053380905033729	Photo	<p>Today, our project is participating in RAMIRAN 2025 (📍 Wageningen, Netherlands) Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value chain</p> <p>https://lnkd.in/ewZ8SYDK</p>	0,109756	4	0
2024-11-05 09:55:13	7259503514735759360	Link	<p>Meet AINIA 🌱 ✨ One of our partners, AINIA is a leading technology center focused on innovation in agrifood and environmental sustainability. With their expertise, #NUTRITIVE aims to drive sustainable solutions for manure management in</p>	0,106383	2	0

			Europe. #HorizonEU AINIA https://ow.ly/H2QA50TTnVs			
2025-03-19 12:35:12	7308103750726934529	Link	🌱 Meet AINIA in the #Nutritive project. It provides technological solutions to address key challenges. In #Nutritive, it leads work package 2, evaluating innovations in slurry treatment and the reduction of GHGs, nutrients, heavy metals and emerging pollutants. 🌱♻️ #Innovation #Sustainability #CircularAgriculture https://ow.ly/hcRP50VjGox	0,105691	7	0
2025-07-09 11:07:30	7348669123335225344	Photo	Universidade de Santiago de Compostela presented at the Cyprus Congress cv their innovative study on using manure waste to produce turquoise hydrogen. 🌱💧 This solution turns farm waste into clean energy and solid carbon, helping reduce emissions and create value on farms. A big step for sustainable farming in Europe! What do you think? #NutritiveProject #SustainableFarming #EUProjects #Cyprus2025	0,105519	26	1
2025-02-13 17:45:14	urn:li:ugcPost:7295860587253698560	Photo	Congratulations! AINIA AINIA participated in the #BiocircularSummit with a bioeconomy poster and an innovative project that won a Circularity Award. ♻️💡 #Bioeconomy #Circularity #Innovation	0,101266	4	1
2024-11-20 15:40:16	7265026166435008512	Photo	🔍📁 Discover our #NUTRITIVE work plan! See how we're transforming manure management in Europe with sustainable solutions and innovative practices. #HorizonEU #HorizonteEuropa https://lnkd.in/dkrXXJ7g	0,1	2	0
2025-10-21 07:45:14	7386306555140354048	Photo	The Nutritive Project participated in the 12th International Conference on Sustainable Solid Waste Management (Paphos, Cyprus, 25–28 June 2025). Researchers from the University of Santiago de Compostela presented: 🗣️ “Assessing the environmental implications of manure waste management and its application in purple H ₂ production.” The presentation explored hydrogen production from manure through pyrolysis and steam methane reforming, combined with a life cycle assessment to evaluate its environmental performance. 🌱 A contribution that highlights the project's commitment to sustainability,	0,0961	16	1

			<p>circular bioeconomy and responsible innovation. 🙌 https://ow.ly/w4850XeOEE Teagasc @STAEngineering S.r.l. VITO ILVO (Instituut voor Landbouw, Visserij- en Voedingsonderzoek) Mines Paris - PSL Paris - PSL @AESSREGIONELOMBARDI A Cecoagro DETRICON Medrar Innovation Office CRETUS, Cross-disciplinary Research in Environmental Technologies AINIA #GrupoAresa European Commission DETRICON</p>			
2025-06-05 10:43:08	7336341802892808195	Photo	<p>On this #WorldEnvironmentDay, the NUTRITIVE project is developing a smart decision-support tool to help livestock farms manage manure in a more efficient, sustainable and cost-effective way. 🌱 Reduced atmospheric emissions 💧 Protection of soils and water resources</p>	0,093407	14	0
2025-01-14 12:52:16	7284915221872209921	Link	<p>🌱🌟 Did you know that the NUTRITIVE project is driving innovation in manure management? 💡 Medrar, as coordinator, leads two key areas: 🗣️ Communication and dissemination, in collaboration with experts like Asaja. 📄 Deliverable management and ensuring objectives are met. 🏡 We tackle challenges, mitigate risks, and develop sustainable solutions for the livestock sector. The future of sustainable farming is here! 🌱🌟 #AgriculturalInnovation #NutritiveProject #SustainableFarming #ManureManagement https://lnkd.in/d2PG2Cc5</p>	0,090909	7	0
2025-10-24 10:10:11	7387430198247342080	Link	<p>🌱 NUTRITIVE was present at the RAMIRAN 2025 Conference in Wageningen, The Netherlands NL, where ATB Potsdam presented an innovative decision-making tool designed to identify the most suitable manure management strategies across the livestock value chain. This tool integrates emission data from case study farms and the DATAMAN database, enabling detailed modelling of ammonia (NH₃) and greenhouse gas (GHG) emissions. Its goal: to support cost-effective mitigation strategies and contribute to policy recommendations aligned with the EU Green Deal. 🌱 Learn more about the project: https://ow.ly/c7WA50Xfr6K</p>	0,086207	2	1



			<p>#NUTRITIVEProject #RAMIRAN2025 #CircularEconomy #Sustainability #ManureManagement #LivestockInnovation #GHGMitigation #EUGreenDeal AINIA</p>			
2025-07-22 11:19:37	7353383206659796993	Photo	<p>🔍 The NUTRITIVE project is translating research into impact: ✅ +20 innovative strategies & technologies ✅ +600 soil & water samples analysed ✅ +35 livestock farms involved ✅ +300 primary producers engaged This data-driven approach supports smarter, circular manure management aligned with the #EUGreenDeal. 🌱 Learn more: https://nutritive.es/ #SustainableFarming #CircularEconomy #ManureManagement #AgriInnovation #HorizonEU</p>	0,085714	10	1
2025-03-19 11:19:51	7308084782800728064	Photo	<p>Poster presentation of the project on sustainable strategies for livestock manure management. 🌱💡 Innovation to reduce emissions and improve the sustainability of the sector. 📌 Find out here! 🗣️📺 #Sustainability #NutritiveProject #Bioeconomics #CircularFarming</p>	0,082206	23	2
2025-03-25 08:45:12	7310220197594853376	Link	<p>📌🌱 Medrar Innovation Office coordinating entity of #Nutritive ♦ Work Package 5 → Communication and dissemination, together with ASAJA (Asociación Agraria-Jóvenes Agricultores) and young farmers. 🗣️👥♦ Work Package 6 → Coordination and monitoring of milestones, deliverables and key objectives. 📊✅ working to make #Nutritive a success in agri-livestock innovation and sustainability! 🌱♻️ #Management #Dissemination #Impact https://ow.ly/3suT50VjGxY</p>	0,081633	4	0
2024-12-17 15:40:18	7274810650063765504	Photo	<p>Want to know why? 🌱 It's urgent to research, develop, and model innovative, circular strategies to optimize efficiency and reduce environmental impacts in livestock management. #NUTRITIVE #HorizonEU https://nutritive.es/</p>	0,079137	8	1
2024-11-04 15:40:13	7259227949172711425	Link	<p>🌍👥 #NUTRITIVE brings together 22 partners from 9 countries to transform manure management across Europe. #HorizonteEuropa Get to</p>	0,076923	2	0

			<p>know our project https://ow.ly/o8I950TTmEv</p>			
2025-08-22 12:42:28	7364638082861543424	Photo	<p>NUTRITIVE is addressing manure management challenges with three clear priorities:  Enhancing soil fertility by recycling essential nutrients.  Reducing harmful emissions through odor control.  Protecting ecosystems by preventing water pollution. Together, these actions support sustainable livestock farming and align with the #EUGreenDeal. Learn more  https://nutritive.es/ #Sustainability #CircularEconomy #ManureManagement #AgrilInnovation</p>	0,070652	8	1
2025-09-29 09:13:43	7378356293532712960	Photo	<p>The NUTRITIVE Project is shaping the future of sustainable manure management in Europe  . Our Work Plan focuses on:  Collecting data & assessing environmental impacts.  Developing innovative and circular strategies.  Improving sustainability assessment with updated LCA methods.  Creating a decision-support tool for farmers, policymakers & stakeholders. With these actions, we aim to reduce environmental risks, protect biodiversity, and support EU agricultural policies for 2030 and beyond.  Discover more at: https://nutritive.es/ #Sustainability #CircularEconomy #ManureManagement #LivestockFarming #AgrilInnovation #EUGreenDeal</p>	0,060403	7	0
2025-06-19 11:40:10	7341429587198771203	Status	<p>The University of Santiago de Compostela will present the NUTRITIVE project's latest advances at the "Cyprus 2025: Environmental Engineering & Management" conference.  June 25–27  Cyprus  Presentation: "Assessing the environmental implications of manure waste management and its application in purple hydrogen production"  Science applied to the field. From manure management to clean hydrogen. #HorizonEurope #NutritiveProject #ZeroPollution</p>	0,059603	4	0

2025-06-09 08:08:21	7337752400004317184	Photo	<p>This week, partners of the European project #NUTRITIVE meet in Turin IT to review progress on food system sustainability, emissions modelling, and ongoing EU case studies. Two full days of intense work to advance real solutions towards a more sustainable, competitive and resilient agri-food system aligned with EU objectives. 🌱🇪🇺📅 June 12-13, 2025 📍 Starhotels Majestic, Turin</p> <p>#NutritiveProject #EUProjects #FoodSustainability #AgriFoodInnovation #ASAJA #SustainableFarming #EmissionsModelling #EUAgriFood #EuropeWorks</p>	0,057778	10	1
2025-03-18 08:18:13	7307676693664620545	Link	<p>🌱🇪🇺 Conoce a AINIA en el proyecto #Nutritive Aporta soluciones tecnológicas para afrontar retos clave. En #Nutritive, lidera el paquete de trabajo 2, evaluando innovaciones en el tratamiento de purines y la reducción de GEI, nutrientes, metales pesados y contaminantes emergentes. 🌱♻️</p> <p>{hashtag}#Innovación} #Sostenibilidad #AgriculturaCircular</p> <p>https://ow.ly/hcRP50VjGox</p>	0,056	6	1
2025-06-19 12:01:47	7341435025713737730	Photo	<p>👏 International spotlight for the #Nutritive project! USC takes part in #Cyprus2025 with a presentation on how livestock waste can drive sustainable hydrogen production. ♻️ Science supporting rural development. eu Supported by the EU. 🔗</p> <p>https://lnkd.in/diTUPVMF</p>	0,054795	3	0
2025-06-23 08:00:30	7342823857193398272	Photo	<p>🌍 The #Nutritive project brings European agricultural innovation to the global stage. 📅 From June 25 to 27, the University of Santiago de Compostela will present research on manure waste and purple hydrogen at #Cyprus2025. 🔗</p> <p>https://lnkd.in/diTUPVMF eu Co-funded by the European Union. #HorizonEurope #Asaja #SustainableAgriculture</p>	0,052632	3	0
2024-11-11 12:15:13	7261713077782401025	Status	<p>🌱🇪🇺 Exploring the future of biotechnology and mathematical biology! At #Nutritive, we're collaborating with #TUDelft for #ECMTB2024, discussing mathematical modeling of microbial ecosystems. Another step towards sustainable and efficient agricultural</p>	0,048611	3	0

			management! 🌱🌍 Stay tuned for our upcoming webinar in December. #AgroInnovation #MathematicalBiology #Sustainability			
2025-04-08 07:50:10	7315279779350380544	Link	🇮🇪🇮🇪 Teagasc en el proyecto #Nutritive Desde TEAGASC, trabajan para mejorar la gestión de purines y el impacto ambiental en Irlanda, además de analizar las políticas públicas clave para el sector agroganadero. 💡 Paquete de Trabajo 1 → Casos de estudio en Irlanda: análisis de purines y factores ambientales. IE 🇮🇪 💡 Paquete de Trabajo 4 → Estudio de políticas públicas, barreras y motivaciones para la adopción de nuevas tecnologías. 🏢🌱💡 Buscan soluciones basadas en ciencia para un futuro agrícola más sostenible. 🌱♻️ #Nutritive {hashtag #Innovación} #Sostenibilidad #Agricultura https://ow.ly/s0tG50VjGGS	0,043478	2	0
2024-11-22 09:29:58	7265657756089548801	Link	💧🌊 #a4f, our partner participated in the workshop "Circular Economy of Water: Industrial Symbiosis and Urban Sector," organized by the Ibero-American Recircula Network. 🚀 Together, we are building a more sustainable future for water and industry. 🔗 More info: nutritive.es	0,041667	1	0
2024-12-04 15:40:15	7270099596419158016	Photo	🌱🌱 #NUTRITIVE is developing technical guidelines and recommendations to meet 2030 reduction targets, expand current legislation, and support future EU agricultural policies. #HorizonEU #HorizonteEuropa https://lnkd.in/dkrXXJ7g	0,04	2	0
2025-04-28 07:36:02	7322523976839118849	Photo	The European project #NUTRITIVE will be presented on April 29-30 in Prague during the Brokerage Event 'Partnering for Innovation with Impact', organised by the #EUCapNetwork An international platform to foster innovation, sustainability, and impact in agriculture and rural areas. We are proud to showcase the progress of NUTRITIVE, offering sustainable manure management strategies to support a more efficient and environmentally friendly farming model. 🙌 More information about the event: https://ow.ly/v1sG50VIEsK #SustainableAgriculture	0,035714	1	0

			<p>#HorizonEurope #ZeroPollution #Innovation #EUAgrri #Sustainability</p> <p>🇪🇺🌱 CRETUS, Cross-disciplinary Research in Environmental Technologies en el proyecto #Nutritive Desde CRETUS, trabajan en soluciones tecnológicas medioambientales para una agricultura más sostenible, siempre bajo el enfoque de economía circular. ♦ Gestión y recuperación de nutrientes → Tratamiento de aguas residuales para optimizar recursos. 💧♻️♦ Análisis de sostenibilidad → Evaluación del impacto ambiental, social y económico del proyecto. 🌍🇪🇺💡 Innovación para transformar los desafíos ambientales en oportunidades para el sector agroganadero. 🚜🌱 #Nutritive #Sostenibilidad {hashtag# EconomíaCircular} {hashtag# Innovación} https://ow.ly/C2Yi50VjGmb</p>	0,034091	1	0
2025-04-22 07:55:13	7320354479403335681	Link				
2024-11-11 11:10:26	7261696770227765250	Photo	<p>🌱🌍 At #Nutritive, we are developing tools for efficient and sustainable management of livestock farms across Europe. Our goal: to reduce environmental impact and optimize manure management. 🌍👨🔬 Learn more in the latest edition of #RevistaAsaja! #SustainableLivestock #HorizonEU https://lnkd.in/dmYjMqrk</p>	0,027027	1	0
2025-10-09 07:42:49	7381957294110109698	Link	<p>Can simple additives like biochar and zeolites double biogas production? 💡 Promising results from the #HorizonEurope project #NUTRITIVE, presented by Adriana Pacherras (AINIA) at #CIB25. 🎥 Watch the interview: https://ow.ly/3HmK50X8o1i 🌐 Learn more about the project: https://ow.ly/gtTM50X8o1k #Biogas #CircularEconomy #Sustainability #AgrilInnovation</p>	0,023952	9	2
2025-10-03 08:43:35	7379798261865455616	Photo	<p>The Nutritive Project is proud to participate in the World Sustainability Forum (WSF11), sharing cutting-edge research on circular bioeconomy: ♦ Keynote: Loops of Change: How Dairy Waste Can Power the Circular Bioeconomy – Dr. Sara González (USC) ♦ Posters: Closing the loop in Farming. Life cycle assessment of manure to Hydrogen and Biofertilizer +</p>	0,022727	2	0

			<p>further contributions from #Nutritive and #Combaro. An international stage to demonstrate how agri-food waste valorization can foster sustainability and innovation</p> <p> </p> <p>https://lnkd.in/d4mCXJQ7</p>		
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3.1.11. Dedicated meetings

Dedicated meetings will be organised during the upcoming months to discuss summary reports and roadmaps on the challenges addressed and the main results of the project. Additional information will be detailed in the updated version of this report (D5.11) that is going to be delivered on M36.

3.1.12. Practice abstracts

MEDRAR, as project coordinator, created the Horizon project profile and is coordinating the drafting of the practice abstracts to be prepared by all project partners in the coming months (at least one practice abstract per partner). So far, one practice abstract containing general information about the project has already been uploaded. In addition, 10 further practice abstracts have been prepared (Deliverable 5.13 Practice Abstracts Batch 1, M16), although they have not yet been published, pending approval of the deliverable. By the end of the project at least 15 additional practice abstracts will be prepared (Deliverable 5.14 Practice Abstracts Batch 2, M48).

Link: [EIP-AGRI Project Database - NUTRITIVE](#)

3.4. DESCRIPTION OF DISSEMINATION ACTIVITIES

3.4.1. Scientific publications

From M1 to M18, the activities planned under WP1, WP2, WP3 and WP4 were launched as scheduled. While the maturity of the results obtained during this reporting period was still limited to produce numerous scientific publications, the preparation of several scientific papers was initiated. Furthermore, during the first 18 months of the project, one manuscript was submitted to Science of The Total Environment: “Closing the loop in agriculture: life cycle assessment from manure to hydrogen and biofertilizer” (Arsal Tehseen, Leticia Regueiro, Gumersindo Feijoo and Sara González-García).

3.4.2. Sectorial publications

It have been done different publications in the sectorial magazine of Asaja (October 2025, November 2025) (see the publication in Figure 27).

Link October 2025: **Herramienta para la gestión eficiente y sostenible de explotaciones ganaderas**

Link November 2025: **NUTRITIVE avanza en la mejora tecnológica para una gestión sostenible del estiércol**

Ganadería

Herramientas para la gestión eficiente y sostenible de explotaciones ganaderas

La Unión Europea a través del programa Horizon Europe acaba de financiar con 7 millones de euros el proyecto NUTRITIVE (Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value chain), coordinado por MEDIAL.

Necesidad del Proyecto NUTRITIVE

Las políticas europeas tienen como objetivo lograr un sistema agrícola sostenible en sus tres pilares: ambiental, económico, y social. Entre las sectores agrícolas, la ganadería desempeña un papel esencial en el suministro de alimentos a nivel mundial. Pasa, el 34 % de la proteína comunitaria procede de la carne, los huevos y el leche; y desde el punto de vista económico el 40 % del PIB mundial está relacionado con la ganadería, la cual representa el 49 % de la actividad agrícola total en Europa suponiendo un valor total para los productos de la UE-28 equivalente a 170.000 millones de euros. Sin embargo, la actividad ganadera supone una preocupación ambiental cada vez mayor ya que es una fuente importante de contaminantes del aire, el suelo y el agua, siendo responsable de más del 15 % de las emisiones totales de gases de efecto invernadero de la UE y un factor clave de la pérdida de biodiversidad en Europa.

Durante el periodo 2016-2019, la ganadería generó más de 1.600 millones de toneladas/año de purines en la UE-28, los cuales conducen a emisiones significativas de gases de efecto invernadero (CH₄, N₂O) y otros contaminantes del aire (NH₃, NO_x). También provocan daños sobre el suelo y las masas del agua debido a la presencia de compuestos como metales pesados, residuos de antibióticos, bacterias y genes resistentes a los antibióticos, o patógenos asociados al ganado. Es por ello por lo que uno de los aspectos que causan una mayor preocupación es la gestión de los purines y la falta de medidas y políticas específicas.

Objetivo del Proyecto NUTRITIVE

El proyecto NUTRITIVE busca hacer frente a los retos existentes a nivel europeo mediante el desarrollo de una herramienta de toma de decisiones capaz de definir la estrategia de gestión del estiércol más eficiente y sostenible para una determinada explotación ganadera. Esta tendrá en cuenta aspectos medioambientales, económicos y sociales de cara a minimizar las emisiones atmosféricas y garantizar la calidad del suelo y del agua.

Los resultados obtenidos permitirán formular directrices y recomendaciones técnicas enfocadas al desarrollo de las próximas políticas europeas en materia de gestión de purines.

Consortio del Proyecto NUTRITIVE
Participan un total de 18 entidades europeas y 4 chinas.

Funded by the European Union
#HorizonEU
Grant Agreement No. 10113540

NUTRITIVE

Revista ASAJA 9 Octubre 2025 **26**

Ganadería

Herramientas para la gestión eficiente y sostenible de explotaciones ganaderas

Funded by the European Union
#HorizonEU
Grant Agreement No. 10113540

NUTRITIVE

Revista ASAJA 9 Octubre 2025 **27**

NUTRITIVE avanza en la mejora tecnológica para una gestión sostenible del estiércol

El proyecto europeo NUTRITIVE, en el que participa ASAJA, ha celebrado su segundo gran encuentro operativo tras un año de trabajo conjunto entre socios de toda Europa. La cita, organizada en formato híbrido, ha permitido compartir las avances y resultados obtenidos hasta la fecha en la mejora de las tecnologías destinadas al tratamiento del estiércol.

Durante el evento, los investigadores destacaron la importancia de adaptar las soluciones tecnológicas a las condiciones específicas de cada región europea, teniendo en cuenta factores como el clima, los tipos de explotaciones y los diferentes contaminantes presentes en el suelo. "Aunque todos los países compartimos una misma directiva europea, las realidades agrarias son muy distintas entre Francia, Bélgica, Países Bajos, España, Italia o Alemania. Por eso necesitamos datos concretos: si no medimos, no mejoramos", señalaron los ponentes. El encuentro giró en torno a los principales paquetes de trabajo del proyecto.

- WP1, centrado en la recopilación y análisis de datos.
- WP2, dedicado al desarrollo y optimización de tecnologías.
- WP3, enfocado en la modelización y el análisis del ciclo de vida (LCA).
- WP4, orientado a la colaboración con los agricultores, pieza clave del proyecto.

Tras el primer año de trabajo, NUTRITIVE ya ha obtenido resultados prometedores en diferentes tipos de estiércol –porcino, vacuno y ovicóvic–, y se prepara para una nueva fase de optimización de las tecnologías, con el objetivo de reducir no solo parámetros clásicos como la demanda química de oxígeno o el nitrógeno, sino también otros contaminantes emergentes, como metales pesados, fármacos, genes y bacterias resistentes a antibióticos.

El evento concluyó con un agradecimiento a todos los participantes, tanto presenciales como en línea, y con un mensaje claro: seguir mejorando y colaborando para avanzar hacia una ganadería más sostenible, segura y eficiente de los nutrientes agrícolas.

En este último bloque se insistió en la necesidad de mantener un diálogo constante con el sector productivo, ya que las soluciones desarrolladas están pensadas para ellos y requieren de su retroalimentación directa para mejorar la gestión del estiércol en las explotaciones.

Funded by the European Union
#HorizonEU
Grant Agreement No. 10113540

NUTRITIVE

Revista ASAJA 9 Noviembre 2025 **42**

Funded by the European Union
#HorizonEU
Grant Agreement No. 10113540

NUTRITIVE

Revista ASAJA 9 Noviembre 2025 **43**

Figure 33. Publications about NUTRITIVE project in ASAJA magazine.

3.4.3. Policy briefs

Work on WP4 is at an early stage and planned short policy and practice papers were not still developed. It is expected that the first results can be reported in the updated version of this deliverable (D5.11) scheduled for M36.

3.4.4. External events

Initial project results were presented at recognised scientific events. Contributions are summarized below in Table 6.

Table 9. Participation in external events.

Event	Date and place	Type of contribution	Authors and title	Partner
Galicia Biodays 2024. 2 nd Edition of the Reference Forum of the biotechnology and life sciences industry in the European Atlantic Area.	Vigo (Spain) 12 th -13 th June 2024	Poster presentation	CRETUS. Environmental biotechnology group team including NUTRITIVE researchers Sara González, Anuska Mosquera, and Marta Carballa. Biotechnological Developments for Organic Waste Valorization.	USC
ECMTB24. 13 th European Conference on Mathematical and Theoretical Biology.	Toledo (Spain) 22 nd -26 th July 2024	One-day symposium organization and oral presentation	Havva Yoldas, Rebeca González Cabaleiro. Mathematical modelling of microbial ecological systems: bridging theory and experiments	DELFT
4th IWA-YWP Spain National Conference.	Bilbao (Spain), 29 th -31 st October 2024	Poster presentation	Patricia Ruiz. NUTRITIVE project: Sustainable Strategies for Manure Management.	AINIA
Biocircular SUMMIT	Madrid (Spain) 11 th February 2025	Oral presentation	NUTRITIVE was Awarded for Sustainability and Social Inclusion in Biocircularity	AINIA
TRACES Conference	Ghent (Belgium) 3 rd -6 th June 2025	Oral presentation	Laurens Tuts, Geertrui Rasschaert. Antibiotic Residues And Resistance In Aquatic Environments: Manure application and marine sediments increase antibiotic residues and	ILVO

			drive resistance in aquatic environments	
12 th International Conference On Sustainable Solid Waste Management	Paphos (Cyprus) 25 th -28 th June 2025	Oral presentation	Assessing the environmental implications of manure waste management and its application in purple H ₂ production	USC
XII Young Researchers Meeting	Santiago de Compostela (Spain), 9 th -10 th July 2025	Oral presentation	Espada-Núñez, P., Rial, A., Balboa, S. & Carballa, M. The importance of manure management in the spread of antimicrobial resistance.	USC
Summitt BIOFUTURO	Santiago de Chile (Chile) 22 nd -24 th July 2025	Poster presentation	Victoria Carballeira, Lucía Argiz, Leticia Regueiro, Sara González. Reducing emissions in the Galician dairy sector through the recovery of macroalgae extracts and new sources of protein	MEDRAR, USC
Summitt BIOFUTURO	Santiago de Chile (Chile) 22 nd -24 th July 2025	Master class	Sara González. LCA and organic waste management like manure; and in the agroindustry.	USC
Engineering for a Sustainable World: Summit for Clean Technologies & Brighter Legacy. 15 th European Congress of Chemical Engineering (ECCE) & 8 th European Congress of Applied Biotechnology (ECAB) & 3 rd Iberoamerican Congress on Chemical Engineering (CIBIQ).	Lisbon (Portugal) 8 th -10 th September 2025	Flash Talk	Adriana Pacherras. Description of the anaerobic digestion assays with the addition of zeolite or biochar and its effect over the biogas production and the GHG emissions reduction.	AINIA
18 th International Congress of Bioenergy	Valladolid (Spain) 1 st -2 nd October 2025	Poster presentation and interview about the scope and expected results of the NUTRITIVE project, and in	Adriana Pacherras. Nutritive Project. Sustainable strategies for manure management; additives to enhance anaerobic digestion.	AINIA

		particular, the anaerobic digestion		
11 th World Sustainability Forum- Sustainable and Resilient Cities	Barcelona (Spain), October 2 nd -5 th 2025	Poster presentation	Arsal Tehseen, Gumersindo Feijoo & Sara González-García - Closing the loop in farming. Life cycle assessment of manure to hydrogen and biofertilizer: biorefinery for energy and nutrient self-sufficiency.	USC
11 th World Sustainability Forum- Sustainable and Resilient Cities	Barcelona (Spain), October 2 nd -5 th 2025	Key Note	Sara González – Beyond milk: energy and fertilizers from the heart of the farm	USC
11 th International Conference on Food Chemistry & Technology	Rome (Italy), 15 th -17 th October 2025	Key Note	Sara González. What is Sustainability in the Dairy Industry and How Can It Be Achieved? A Case Study of Premium Cheese Production.	USC
RAMIRAN	Wageningen (The Netherlands) 15 th -17 th October 2025	Poster presentation	Wajid Umand and Barbara Amon. Innovative decision-making tool for defining the most suitable manure management strategies to achieve a sustainable livestock farming system during the whole value chain (NUTRITIVE)	ATB

3.4.5. Networking events

Partners attended different networking events that facilitated knowledge exchange and networking between project partners and other stakeholders (Table 9).

Table 10. Participation in networking events.

Event	Date and place	Type of contribution	Authors and title	Partner
63rd Scientific Meeting of the Spanish Society of Pasture	Lugo (Spain) 23 rd -26 th	Poster presentation	María Dolores Baez, María Isabel García. Root crop fertilization	AGACAL

	September 2025		with fractions derived from manure treatment using a modular vermicompost system.	
Climate Centre Nitrogen Pillar Workshop	Co. Wexford (Ireland) 2 nd October 2025	The Climate Centre Nitrogen Pillar Workshop brought together the latest research on nitrogen emissions from across various Teagasc research centres and programmes. A wide range of research officers, technologists, advisors, postdoctoral researchers, and PhD students attended and presented their work around nitrogen.	Nima Nejadrezaei. Horizon Europe Nutritive Project – Sustainable Manure Management	TEAGASC

3.4.6. NUTRITIVE events

The first event of the NUTRITIVE project, organized by MEDRAR, was held on June 17th 2024 in Vilalba (Spain) to favour the interaction between the consortium and other relevant actors for the co-creation of the main results of the project. Event agenda is shown in Figures 28 and 29.



Figure 34. NUTRITIVE event agenda (Galician version for local stakeholders).

DAY	TIME (CEST)	DURATION (min)	SUBJECT
June 17th	15:30	30	Reception coffee
	16:00	5	Welcome coordinator Hugo Criado, CEO MEDRAR
	16:05	10	Welcome authorities Mª José Gómez, Counselor of rural Affair XUNTA DE GALICIA
	16:15	45	Round table experts Adriana Pacherras, Biogas & Biorefinery AINIA Edgar García, Head of the Pig Development Department TEAGASC Mª José Gómez, Counselor of rural Affair XUNTA DE GALICIA Local Farmer (pending confirmation)
	17:00	20	Key note Leticia Regueiro, CIO MEDRAR
	17:20	60	NUTRITIVE partners presentations
	18:20	40	Networking + Closure
	19:00	60	Pilgrims Way
	20:00	120	Dinner (Vinos&Tapas)

Figure 35. NUTRITIVE event agenda (English version for NUTRITIVE partners)

The event was attended by a total of 75 people, representing all the stakeholders relevant to the project: farmers, members of the public administration, researchers, cooperatives, members of agricultural associations, agricultural service companies, engineering firms, etc. Photographs of the event are shown in Figures 12, 13, and 14.



Figure 36. NUTRITIVE coordinator and authorities welcome.



Figure 37. Experts roundtable.



Figure 38. Expert speech on manure management.



Figure 39. NUTRITIVE partners presentations.



Figure 40. Networking.



Figure 41. NUTRITIVE event materials.

The second event of the NUTRITIVE project, organized by STA with the support of MEDRAR, was held on June 12th 2025 in Turin (Italy) to favour the interaction between the consortium and other relevant actors for the co-creation of the main results of the project.



PROGRAM

The event will be structured around a series of presentations aimed at providing an in-depth overview of the Nutritive project, its objectives, the approach adopted, and the methodologies applied. Special attention will be given to the current situation in Italy, with a focus on the intensive farming system, specifically addressing issues such as waste management and the role of digestate in production processes.

14.30	Welcomes	INTRO
14.30	Introduction Medrar Leticia Regueiro, Lucia Argiz Medrar	
15:00	Institutional greetings Representatives of the Piedmont Region	
15.10	MANURE MANAGEMENT SITUATION Introduction, Farming System in North Italy Andrea Chiabrando STA Engineering	
15:30	Manure Management Monica Bassanino Piedmont Region	
15:50	Manure management and the role of digestate Elio Dinuccio University of Milan/Turin	
16:10	Coffee Break	
16:30	STRATEGIES, POLICIES... AND EXPERIENCES Regional Policies and Strategies Luca Zucchelli Regione Lombardia	
16.45	Critical Issues to Overcome in ManureManagement Gabriele Boccasile	
17.10	Manure management experiences Federico Camisassi Azienda agricola La Gaia S.S.	
16.50	Conclusions and Greetings Hugo Criado / Leticia Medrar	



THE SPEAKERS ATTENDING THE EVENT

Hugo Criado CEO Medrar	Leticia Regueiro PhD CID Head of Sustainability and Circular Economy
Lucia Argiz PhD R&D and Sustainability Manager	Andrea Chiabrando Technical Director at STA with a degree in Agricultural Sciences and a Master's in Environmental Engineering, expert in biogas and biomethane. He specializes in agro-energy, waste management, and rural development.
Fabrizio Adani University of Milan – Full Professor of Soil Chemistry, and the Use and Recycling of Agro-industrial and Agricultural Biomass. He has extensive research experience in the field.	Gabriele Boccasile Lombardy Region – Senior Manager with solid experience in environmental policy management and sustainable development. Specialized in strategic planning and the enhancement of natural resources
Luca Zucchelli Lombardy Region – Organizational Unit for Competitiveness, Investments for Environment and Climate, Agro-energy, Agriculture, Forestry, Hunting and Fishing Service.	

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NUTRITIVE PARTNERS

EU Partners



Chinese Partners



Figure 42. NUTRITIVE event agenda..

The event was attended by a total of 61 people, representing all the stakeholders relevant to the project: farmers, members of the public administration, researchers, cooperatives, members of agricultural associations, agricultural service companies, engineering firms, etc. Photographs of the event are shown in Figures 43, 44, 45.



Figure 43. NUTRITIVE institutional greetings.



Figure 44. Experts presentations.



Figure 45. Networking.

3.4.7. Clustering activities

Clustering activities will be carried out in the upcoming months to foster collaboration and knowledge sharing, broadening the scope of the project.

3.4.8. Training sessions

These sessions will be organized when the degree of progress is more significant, given that these will be focused on disseminating the acquired knowledge and experiences with the DSS tool to carry out replication plans in other regions far away from those considered within NUTRITIVE.