

# Optimisation of nutrient budget in agriculture



# D6.2 Dissemination and Exploitation Plan



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# **Cover Delivery Report**

Project Information			
Acronym	NutriBudget		
Title Optimisation of nutrient budget in agriculture			
Project no. 101060455			
Type of Action	RIA		
Website	https://www.nutribudget.eu/		
	Deliverable Information		
Title	Dissemination and Exploitation Plan		
WP number and title	WP6 – Communication, dissemination, exploitation and co-creation		
Lead Beneficiary	RISE		
Authors	Giulia Piomponi (RISE), Laura Green (RISE)		
Reviewers	All partners		
Description	The dissemination and exploitation plan set out the broad strategy to increase the impact of the project results. It includes the identification, analysis and the segmentation of the target audience for dissemination, the selection of the dissemination techniques, and how to best channel the relevant results to the Nutri-actor groups.		
Type R – Document, report			
Dissemination Level	PU - Public		
Status	Final		
Submission due date	28 <sup>th</sup> February, 2023		
	History of Changes		
Version 0.1	Draft created by RISE - 09/01/2023		
Version 0.2	Update based on feedback by Ivona Sigurnjak (UGent) - 09/02/2023		
Version 0.3 Update based on feedback by Maria Toledo Pérez, Marina Ettl (YAI Evi Michels (UGent), Gabriele Sacchettini (RISE) - 23/02/23			
Version 1.0	Final Version based on feedback by Ivona Sigurnjak, Katrien Windels (UGent) - 28/02/23		
Version 1.1	Draft of changes created by RISE - 05/06/2024 upon the request of the PO and reviewers: - Update on the preliminary exploitation plan, along with links to the FAST Platform, is added to Chapter 8		
Version 2.0	Final version submitted (21/06/2024)		



## Preface

In line with the Zero Pollution Action Plan and the Farm to Fork Strategy, the Horizon Europe NutriBudget project aims to help agriculture to intensify sustainably in order to meet the demands of optimising yields without compromising environmental integrity or public health. This will be achieved by developing the prototype of a first-of-its-kind integrated nutrient management platform, called NutriPlatform, in various regions across Europe.

Under Horizon Europe, beneficiaries of the programme must engage in **dissemination** and **exploitation** activities to maximise the uptake of the project results amongst relevant stakeholders during and beyond the end of the project. WP6, led by RISE Foundation, has as its main objective to carry out the communication, dissemination and exploitation activities, including the Deliverable 6.1 (D6.1) "Communication Plan" and the Deliverable 6.2 (D6.2) "Dissemination and Exploitation Plan". D6.1 was concluded by M3 and it is available on the project <u>Sharepoint</u> as a guide for conducting NutriBudget communication activities.

The present document concerns the D6.2 "Dissemination and Exploitation Plan" which includes the identification, analysis and segmentation of the target audience for dissemination, the selection of the dissemination and exploitation measures, and how to best channel the relevant results to the Nutri-Actor groups. This version will be updated in its final form at M48.



## Summary

The **Dissemination and Exploitation plan (D&E Plan)** is a strategic document that sets up the objectives, channels, activities and strategies to foster dissemination and long-term uptake of project results. With this aim, a detailed stakeholder analysis is conducted, identifying the needs for each group and the NutriBudget impacts. This plan serves as a guidebook for the project partners in regard to the dissemination and exploitation activities to be implemented from the beginning of the project and beyond. This includes:

- The methodology that was followed to set the D&E Plan (Chapter 2)
- Main and specific objectives of the deliverable 6.2 (Chapter 3)
- The key outputs of NutriBudget project (Chapter 4)
- A deeper stakeholder analysis, building on the initial one outlined in the Communication Plan (D6.1) (Chapter 5)
- Dissemination strategy, including channels, activities and expected impacts (Chapter 6)
- The channels to implement dissemination activities (Chapter 7)
- A preliminary approach for the Exploitation Plan (Chapter 8).



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## 1. Introduction

NutriBudget is a project funded by the European Commission under the Horizon Europe - Research and Innovation programme, under Grant Agreement N. 101060455. NutriBudget aims to address some of the greatest environmental and climate challenges that agriculture faces today, supporting Europe to achieve Farm to Fork objectives to reduce nutrients losses in agriculture by 2030. To do so, NutriBudget will develop and implement a prototype of an integrated nutrient management platform, called NutriPlatform, in various regions across Europe, as a decision-support tool (DST) for farmers, advisors, European policy makers and regional authorities. The development of NutriPlatform will be based on knowledge from existing and new field-tested agronomic mitigation measures, linked to advanced NutriModels that integrate various nutrient models, common data standards and relevant monitoring indicators. Thereby, NutriBudget will contribute to systemically optimise nutrient flow and budget across different agricultural production systems and regions in the EU to limit and reduce pollution due to the excessive use of nutrients and nutrient losses to the environment.

The success of the project will be ensured by an efficient and planned communication, dissemination and exploitation strategy of the results. While the Communication Plan, including key messages, visual identity and main channels, has been developed in D6.1, the following Deliverable 6.2 (D6.2) concerns the "Dissemination & Exploitation plan". Although terms dissemination and exploitation may seem similar and the strategies to implement these components may partly overlap, significant differences exist between these two activities. **Dissemination** focuses on making the action's results public by any means and the process starts only after these become available. Dissemination aims to transfer and circulate knowledge to the ones who can make the best use of it and further build on the project's results to maximise the impact. **Exploitation** relates to the use of results in further research and innovation activities, including commercial exploitation such as developing, creating and marketing a product, or creating, process and providing a service. Exploitation activities start at the end and beyond a project, when results will be available.

The "Dissemination & Exploitation plan" of NutriBudget project focuses specifically on the dissemination and exploitation channels, measures and activities that will be implemented to share and maximise the project results and ensure the uptake of project outputs by appropriate target groups throughout and beyond the project's lifetime. D6.2 will be delivered by M6, and it will be updated by M48, therefore a more detailed "Dissemination & Exploitation plan" will be presented, in order to compile the efforts of the previous period and identify upcoming challenges and opportunities, as well as monitoring indicators.



## 2. Methodology

This D&E Plan has been developed and set out answering to the following questions:

- Why? (Chapter 3 "Objectives")
- What? (Chapter 4 "Key outputs of the D&E Plan")
- To whom? (Chapter 5 "Stakeholders analysis")
- How? Which channels and activities? (Chapter 6 "Dissemination measures to generate impact", Chapter 7 Dissemination Channels and Chapter 8 Preliminary Exploitation Plan).

As established in the Grant Agreement, RISE leads Work Package 6 (WP6) "Communication, Dissemination, Exploitation and Co-creation", and has the responsibility to elaborate on the Dissemination and Exploitation plan by M6, with the contribution of all partners. A first initial version was proposed at the beginning of February 2023 to the coordinators of the project and to the relevant communication experts of the Consortium to get their views. The partner's feedback is very important to guarantee full cooperation and to all be in agreement on the actions that will be taken during the project's lifetime.

For the implementation of the communication, dissemination and exploitation activities, RISE takes advantage of the Project Steering Group (PSG), a monthly meeting of the work packages leaders, dedicated to the updating of the project's progress. The PSG represents an opportunity for partners to discuss about the different activities that are being carried out, and to get feedback from their side. Moreover, two General Assembly meetings are scheduled per year to ensure that all partners can meet each other and be updated on the activities of each Work Package in greater detail. The General Assembly is an opportunity for WP6 to present and explain how to use the communication, dissemination and exploitation materials and tools. Moreover, if there is a specific issue that needs to be discussed in more detail and with a stricter deadline, then a MS Teams meeting is arranged.



## 3. Objectives

In this chapter, the main and specific objectives of the Dissemination and Exploitation Plan are outlined.

## 3.1. Main Objective

The main objective of WP6 is to create the Nutri-Actor network and involve various actors to maximise the co-creation, exploitation and final impact of the NutriBudget results. This includes the production of D6.2 "Dissemination and Exploitation Plan", which will set up the basis to guarantee effective uptake of the projects results. This will allow project results to be used and implemented by relevant stakeholders and turn them into concrete value and impact for society. D6.2 will serve as a guideline for the project's partners regarding their dissemination and exploitation activities both individually and as a collective.

## 3.2. Specific Objectives

The specific objectives of D6.2 are:

- Further develop the analyses and segmentation of the target audience as already identified in the Communication Plan (D6.1).
- Identify the key results and outputs NutriBudget will generate.
- Identify the right channels and measures to guarantee the uptake of the results amongst the relevant stakeholders.
- Set up the preliminary dissemination and exploitation strategy, including the innovative outputs and expected impacts.



## 4. Key Outputs of the Dissemination Plan

NutriBudget will contribute to systemically optimise nutrient flow and budget across different agricultural production systems and regions in the EU, to limit and reduce pollution due to the excessive use of nutrients and nutrient losses to the environment. To achieve this important goal, NutriBudget expects to produce the outputs described in the sections below.

## 4.1. Scientific Knowledge

#### 4.1.1 Agronomic Mitigation Measures Catalogue

NutriBudget will co-create one effective and exhaustive Mitigation Measures Catalogue (D1.1), comprising of at least 50 of the best region-specific agronomic practices to optimise nutrient cycling and flow across different farming systems: linking livestock to processing technologies and arable farming according to the Nutri-Actor approach by capitalising available results from previous EU projects, including projects on closing nutrient cycles such as Fertimanure, Lex4Bio, Rustica, Nutri2Cycle and Sea2land.

#### 4.1.2 Integrated multi-scale NutriModels

Two integrated first-of-its-kind NutriModels will be developed to improve upon existing models on nutrient budgets and flows across different scales. This will be comprised of one top-down approach to model nutrient flow from Europe to the regional farm scale, and one bottom-up approach to model soil dynamics to the farm scale. The models will integrate various key nutrients and trace elements: carbon and nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, zinc and copper (C, N, P, K, S, Mg, Ca, Zn and Cu).

From these integrated NutriModels, combined with the Mitigation Measures Catalogue, at least **ten roadmaps to optimise the nutrient management plans** will be determined. These will match effective management measures (based on two technology levels: precision agriculture and nature-based solutions) to site-specific conditions and existing agronomic and environmental aims (based on five targets: soil quality, water quality, GHG emission, biodiversity, and agricultural production).

#### 4.1.3 Developing the NutriKPI monitoring system

NutriBudget will design a framework that integrates agri-environmental indicators and productivity metrics into a comprehensive set of critical performance indicators reflecting farm performance on both environmental and agronomic aspects. It includes the selection of indicators, the integration of indices in relation to multiple targets (for carbon and nutrient budgets, and accounting for synergies and trade-offs) as well as possible additional impacts on environment. A framework will be designed to address complex stock-service-function relationships, scale (field, farm, region, country) and context dependencies (arising from climate, topography, soil, surrounding landscape and management factors) and uncertainties on relationships between sustainability and resilience (including synergies and trade-offs among indicators).



#### 4.1.4 Test and implementation of innovative mitigation measures in five pilots.

Based on D4.1 "Results of focus groups and explanation of final selection of mitigation measures", some target measures are prioritised to optimise nutrients flow or budget in five NutriBudget pilot regions in five different European countries (Belgium, Spain, Italy, Finland, Switzerland) distributed across four different climate zones (Boreal, Atlantic, Continental and Mediterranean), for the most important agri-typologies in conventional, organic and agroecological agriculture. The main objective of implementing these measures is to provide experimental based evidence, to identify and quantify results of the most innovative mitigation measures that show high potential, but for which sufficient data do not exist.

#### 4.1.5 NutriData

A common database of new data collected from pilot farms, and other experimental work on selected innovative mitigation measures, will be developed to be used by policy makers and researchers as a starting point for further actions.

## 4.2. NutriBudget Platform

The main objective of NutriBudget is to build a prototype NutriPlatform, as a decision support tool (DST) that assists multiple end users (e.g. farmers, farm advisors, food companies, local authorities, researchers, and citizens) across various spatial scales (from farm to EU level), by giving insights into the current and desired status for related nutrient budgets and most suitable measures to bridge the gap between current and desired status. The NutriPlatform will enable "scenario evaluation" for a series of measures affected by market developments / policy implementations; and monitoring of changes (in soil fertility and C and nutrient budgets) over time.

## 4.3. Policy Contribution

Policy recommendations on the legal and economic aspects of nutrient management will be proposed between month 12 and month 48, in at least 3 policy areas: the Common Agricultural Policy (CAP), Environmental regulations and/or directives, and carbon farming/ EU ETS (European Trading System). The recommendations will focus on the removal of regulatory and financial barriers and rewarding farmers with incentives for the public goods they provide, derived from transiting to efficient nutrient management.

#### 4.4. Other outputs

#### 4.4.1 Increase citizens' awareness on the role of nutrients in agriculture

Optimising farm management is most effective when embedded in a Food System where the connections between farmers and all actors in the agri-food value chains are restored. Therefore, consumers also play a fundamental role in achieving a more sustainable agriculture, through their daily behaviours. In order to make positive and informed choices, consumers must be guided to be able to identify the best environmental practices in agriculture. This includes understanding how optimal nutrient management contributes to sustainable food production and climate change mitigation. To address this need, NutriBudget will engage with NGOs, consumer representatives and Media to help increase citizens' knowledge on the important role and function of nutrients in agriculture, as well as the



negative impacts that their excessive and inappropriate application can have on healthy soil, air, water sources, biodiversity, food security and human health. NutriBudget will also show how innovation can provide an answer to some of these agricultural and climate challenges.

#### 4.4.2 NutriBudget project itself

The NutriBudget project itself, as deliverables, milestones, tasks, sub-tasks, etc., are to be considered as outputs of the project and therefore objects of the dissemination channels and activities. All the project products that are considered public and not sensitive will be published and shared on NutriBudget communication channels and other relevant networks, as outlined in further detail in the following chapters.



## 5. Stakeholder Analysis

A first analysis of the relevant stakeholders has been presented in D6.1 "Communication Plan" and 6 different groups have been identified as shown in Table 1.

TARGET GROUP	WHAT	CHANNELS
1) Broad Civil society	Awareness about NutriBudget, its objectives and expected impacts	Website Social Media Newsletter Animated Video Brochures
2) Farmers, including farm unions, cooperatives, landowners, young farmers groups	Implementation of mitigation measures tested in WP4, Better understanding of balanced nutrient management through NutriPlatform, Real cost and benefits of transiting to sustainable nutrient management	Website Newsletter Videos Workshops Farmer magazines
3) Biobased community, Biogas plant, technology providers, manures processors	The results, business case, pratical implementation of practices tested in WP4 and analyzed in WP5	Website Newsletter Social Media Workshops Biorefine Cluster Europe network
4) Academics, researchers, modelers	The research results such as mitigation measure catalogue, NutriModels, etc.	Website Social media Webinars Newsletter Peer Review journal
5) Food Industry	Through the NutriPlatform showing the possible emissions savings gained from effective nutrient management	Website Social media Newsletter Meetings
6) Policy makers, and regulatory authorities (local, member states and European level)	The NutriPlatform will be a support for policy decision making, NutriBudget will elaborate policy recommendations to provide farmers with incentives	Webinars Conferences Meetings Policy workshops

Table 1. Stakeholder target groups

From this first identification, a deeper analysis has been undertaken to identify the right actors for each group at the European and national level, in order to set up the dissemination and exploitation measures. An Excel file, which collects names of each entity, their website and their contacts, is available on the SharePoint under <u>NutriActor network</u>. Each partner will help to fill out the table, conducting a national stakeholder analysis for their associated region. The Excel file is a living document which will be updated during the lifespan of the project. This document will help each partner to organise the right dissemination and exploitation activities, such as workshops, webinars, pilot visits etc. Access to collected personal data will be restricted to internal users within the project, under the



consent of the data providers, in full compliance with GDPR rules as outlined in the NutriBudget Data Management Plan (D7.2). Hereinafter, the specific needs of each group are presented:

**Citizens, NGO, Press - Group 1**: Consumer behaviour is really important to allow a transition towards a circular and sustainable food value chain. Therefore, new insights are needed on how optimal nutrient management contributes to sustainable food production and climate change mitigation. NGOs and Media can help to increase global awareness by spreading the word. NutriBudget will involve relevant NGO and consumer representatives in workshops and communication activities to share NutriBudget knowledge and results.

**Farmers - Group 2:** There is a need for a more user friendly and insightful decision support tool to allow farmers to optimise their nutrient management at the farm level. Such a tool should provide fact-based information on the impact of certain mitigation measures, which could help farmers to increase profitability by optimising the use of inputs while maximising outputs. Therefore, farmers will be regularly updated on project developments, as well as being involved in co-creation activities, such as demonstration workshops and visits to the pilot regions. Engagement with farmers will be achieved by working with EU groups such as CEJA, IFOAM, ELO and COPA-COGECA, and at the national level with the relevant groups identified by partners and collected in the <u>Nutri-Actor network</u>.

**Biobased Community - Group 3:** There is a need to obtain a stable supply of quality feedstock across Europe, ensured by optimised agronomic production within safe environmental boundaries. The NutriBudget consortium will keep the biobased community regularly informed to guarantee uptake of the results and knowledge gained from the implementation of tested mitigation measures. Biorefine Cluster Europe will facilitate co-creation with the biobased-community via their communication channels and by hosting co-creation workshops and events. Moreover, partners will be encouraged to participate in conferences such as the Manure Resource Conference, the European Biogas Association, and the Biobased Industry Conference.

**Researchers – Group 4:** There is a need to overcome the lack of harmonisation for the developers and users of nutrient models, as this currently results in data gaps, formatting problems or isolated insights restricted to a specific nutrient in a specific region. In addition, there is a need to bridge the gap between research and practice and to translate the usefulness of the models in a more user-friendly way. Group 4 will be constantly involved in co-creating the various pillars of NutriBudget (Chapter 4) and will be targeted to share data and monitoring results from the project.

**Fertiliser and Food Industry – Group 5:** There is a need for a scientific fact-based framework to quantify the impact of certain agronomic mitigation measures and to translate these impacts into more sustainable products and operations. NutriBudget will periodically engage with fertiliser and food industry actors to increase their understanding of the benefits that can arise from implementing NutriBudget results. Moreover, NutriBudget will actively involve food companies and fertilisers industries through workshops in order to let them actively contribute to the results. Through the NutriPlatform, this group can understand how to save emissions and how to create a healthier and more productive environment by optimisation of nutrient use in agriculture.

**Policy Makers – Group 6:** There is a need for more holistic and user-friendly insights from nutrient models that facilitate more effective and fact-based policy measures to obtain a comprehensive nutrient management plan at the regional level. At the EU level, there is a need for more fact-based insights and roadmaps on how to transition from current to desired nutrient status, as set forward in the Common Agricultural Policy, the Farm to Fork strategy and the Zero Pollution action plan. NutriBudget will target regional authorities in regions using the FaST tool by demonstrating the NutriPlatform, with the aim of adding the NutriPlatform to their own FaST tool. Moreover, NutriBudget will target Policy makers through a Policy Note and Policy workshops based on the main results of the project.



## 6. Dissemination Measures to Generate Impact

This chapter outlines the measures and activities that will be implemented during the lifespan of the project to maximise the uptake of the project results. This is a first version, based on the Grant Agreement signed by all partners. During the course of the project, it will be modified according to the needs and requirements identified, with the strategy updated into its final version by M48.

The dissemination measures and activities must follow guidelines set in the common visual identity developed by WP6 (RISE and IMPACT). Different templates, including deliverable templates, PowerPoint presentations and a brochure, have been produced and each partner should use them for their activities. All of these tools, including NutriBudget's logo and pictures, are available for the Consortium on the <u>SharePoint</u> under <u>visual</u> and templates section. Moreover, the WP6 leader presented all of these communication and dissemination tools during the second General Assembly on 14<sup>th</sup> February 2023.

In Table 2, dissemination measures are summarised, including the beneficiaries and the expected impacts, while in the remainder of the chapter, each action is described in more detail.

Target group	Dissemination objects	Dissemination Activities	Expected impacts
1) Broad Civil Society	General knowledge on NutriBudget and role of nutrients in agriculture.	Engagement in events such as Green week, Final Conference, etc.	Increase citizens understanding of the role of nutrients in agriculture and the benefits for an optimisation of nutrient budget.
2) Farmers	Implementation of mitigation measures tested in WP4.	Visit to the pilot regions to demonstrate the tested measures.	Optimised nutrient management at farm level and reduced perceived risks
	Mitigation Measures Catalogue.	Videos showing practical applications of practices.	by using the NutriPlatform and by implementing the
	Better understanding of		top-rated mitigation
	balanced nutrient management.	Workshops to disseminate most relevant mitigation measures.	measures after consulting the practitioner manual, the
	Real costs and benefits of		videos or visiting the pilot
	transiting to sustainable nutrient management.	Articles in magazines.	demos.
	Benefits of NutriPlatform.	Engagement in farmers' conferences.	
3) Bio-based	Results and implementation of	Visit to the pilot regions.	Help promote and support
community	relevant tested mitigation		more sustainable nutrient
	measures.	Demonstration Videos.	management across the entire agri-food value
	Business case studies.	Articles on biobased magazine and network.	chain.
	Practical implementation of		
	practices tested in WP4, as	Engagement in Bio-based community conference.	
	manure management, nutrient recovery and application		
	technique.	Workshops on mitigation measures	
		catalogue.	

#### Table 2. Synthesis of the Dissemination strategy



Tar	get group	Dissemination objects	Dissemination Activities	Expected impacts
4)	Researchers and academics	The NutriData Mitigation Measures Catalogue. Two NutriModels. The NutriKPI framework. New scientific results.	Publication of peer reviewed open access journal articles. Speakers at conferences. Workshops. Webinar on the nutrient tool, the data standards and integration on the models.	Standardised way forward to further improve the integrated NutriModels from a more systemic perspective and to quantify the effect of certain mitigation measures or fill missing data gaps.
5)	Food and Fertilisers Industry	Real costs and benefits of transiting towards sustainable nutrient management. Possible emissions savings by effective nutrient management. Reduction of their emission footprint by adopting sustainable nutrient management measures.	Business case analysis. Testing of the platform – examples. Example Videos. Workshops. Engagement with food processors membership. Articles in food industry newsletters. Bilateral meetings.	Help promote and support more sustainable nutrient management across the entire agri-food value chain
	5) Policy Makers	Policy recommendations.	Demonstration of the NutriPlatform use. Policy Note.	Implement new fact-based legislation to increase the adoption of the mitigation measures, incentivise farmers or update the regional environmental action plans for nutrient budget and flow within and between regions.

## 6.1. The Practitioner Farmers Manual (D6.3)

A manual with at least 15 practice abstracts will be produced by RISE in M36, to achieve the best uptake of the results by farmers. The manual, using the results of the 5 pilot regions, will develop a clear and practical instruction manual for farmers, contractors and those managing manure.

The manual will be produced in English and then translated into the language of each of the NutriBudget pilot regions. It will be disseminated through the Nutri-Actor network, including farmer unions, practice centres, local policy makers, local cooperatives, local trade magazines, as well as European farmer groups such as CEJA, IFOAM, ELO and COPA-COGECA, through the BCE, local manure focused organisations and biogas plant networks.

#### Stakeholders group concerned: G2 (Farmers)

Partners involved: UVIC, LUKE, FIBL, UGENT, UNIMI, YARA + RISE



## 6.2. Five demonstration visits and workshops at pilot project level

At **least five pilot regions events** will be organised to demonstrate the measures being tested in the pilot projects (one demonstration visit per pilot region). Each pilot region will follow this up with a further event (online or in person) to take the audience through the results of the tested practices, and to provide cross dissemination of results between the pilot regions. These events will be targeted toward farmer groups, biobased actors involved in the agri-processing, researchers, innovators and policy makers. The pilot region visits will have a strong emphasis on the practical application and impact of the tested mitigation measures to better target actors (farmers, biobased industry, etc.) who could apply the same methods.

**Stakeholders concerned:** GP2 (farmers), GP3 (Bio-based community), GP4 (Academics), GP6 (Policy makers).

**Partners involved**: UVIC, LUKE, FIBL, UGENT, UNIMI + RISE and IMPACT (Communication and co-creation)

#### 6.3. Videos

As the pilot plant visits will have limits on the number of participants who will be able to join, to extend the scope of influence of the pilot projects, 5 videos will be produced to accompany the practitioner manual and to better disseminate the results of the practices being tested at the pilot projects. These will be disseminated through the same channels as the practitioner manuals (above) and uploaded into a NutriBudget YouTube channel and the NutriBudget website. It will also be possible to present these videos in relevant NutriBudget Conferences and Workshops.

A first animated video to give an overview of the NutriBudget project, has been developed by M4 and it is now available on the <u>website</u>.

## 6.4. Scientific publications

All the partners will be encouraged to disseminate their results and main findings, through scientific publications. At least 5 peer-reviewed articles will be published in Open Research Europe and open access journals, such as Chemosphere, Bioresource Technology, Plant and Soil, Waste Management, etc. The rules for management of this data and stipulations regarding their dissemination are discussed in depth in the Data Management Plan (D7.2), Grant Agreement, and Consortium Agreement. Once a month, RISE will ask partners if they have produced any results or publications that could be disseminated by appropriate channels. An additional tool which will facilitate internal communication and the activities gathering is the <u>continuous reporting templates</u>, available on the SharePoint.

**Stakeholders concerned:** GP4 (Academics), GP3 (Biobased community), GP5 (Industry), GP6 (Policy makers)

Partners involved: UGENT, WU, WR, LUKE, ARVALIS, YARA, UVIC, UNIMI, NMI, SU, AS



## 6.5. Other articles

A main objective of NutriBudget is to increase awareness on the role of nutrients in agriculture as well as increase the uptake of the project results, therefore NutriBudget consortium must use dissemination channels that are familiar to the stakeholders that the project wants to target. For this reason, all partners will work to write articles to be included in local magazines such as those for farmers, newsletters for biogas plant, manure handlers, contractors etc. as well as the Biorefine Cluster Europe (BCE). NutriBudget will also work to cross post articles on other relevant H2020 websites which target similar audiences.

Stakeholders concerned: all GP

Partners involved: all.

## 6.6. Conferences & Exhibitions

NutriBudget consortium will present at conferences, working groups and workshops, as speakers, presenting posters and/or attendance, to introduce the findings generated through the NutriBudget project. This will include conferences such as ManureResource, the European Biogas Association conference, the Biobased Industry (BBI) conference, The Forum for the Future of Agriculture, as well as workshops organised by other H2020 and Horizon Europe projects. For such events, partners are encouraged to bring with them copies of the NutriBudget brochure, as well as to use NutriBudget templates.

## 6.7. Engagement with stakeholder platforms

Through growing consumer awareness, the Farm to Fork strategy and the UN Food Systems Summit, the whole food chain, pre and post farm gate, is being called to take responsibility to transition our food system to a sustainable model. It is therefore crucial to ensure that greater understanding concerning the importance of effective nutrient management, and the resulting impact on reducing emissions and improving food system resilience is part of this growing discourse. NutriBudget will engage with food companies (e.g. Danone, Nestle, Sudzucker, Cargill, Kelloggs, Arla), processors and retailers, through a workshop, bilateral meetings and engagement in stakeholder platforms, such as the Forum for the Future of Agriculture, the Sustainable Food Systems Networks, the Sustainable Agriculture Initiative, Food Drink Europe and engagement in food company debates and workshops. Yara, will be responsible to liaise with the Food Companies in order to ensure the effective reception of NutriBudget communication and invitations.

## 6.8. Policy brief

Whilst recognising the multiple lock-ins that hold farmers and entrepreneurs from taking up new farming practices, the policy section of NutriBudget will address two of those lock-ins – financial and regulatory. It will take learnings from D.1.5. "Regulatory status of agronomic measures to increase farm nutrient budgeting", to identify regulatory bottlenecks, and D5.7 – "The business case for the uptake of measures tested", to identify possible policy incentives to enable farmers to move to a more effective and sustainable nutrient management plan according to the nutrient management tool. The policy workshop will be held in Brussels for policy makers and other policy influencers and show the possible



impacts that certain practices can have on nutrient management via the NutriBudget results. The main messages of the policy brief will be submitted for comments and input at the workshop, and the final version distributed to policy makers in Brussels at the MS and regional levels.

Stakeholders concerned: GP6 (Policy makers)
Partners involved: PROMAN, RISE

## 6.9. Networks and the Co-creation platform

The Co-creation platform, which will be coordinated in WP6 will bring together key experts and different actors-including data analysts, modellers, farmers, researchers, industry, policy makers and food companies to be involved in the co-creation in the project in all levels. They will not only be targeted as key audiences for the outputs of the project, but also involved in the co-creation of dissemination and exploitation materials and messaging to ensure that these materials best target the relevant groups with the most important information.

During the lifetime of the project a relevant <u>Nutri-Actor network</u> will be set up by IMPACT and will include at least 250 key organisations and actors (farmer networks, farm advisors, research institutes, biobased industries, regional authorities, EU policy makers, etc.) involved or interested in nutrient management at the European, regional and local level, including the agrifood hubs, representing 20 regions. Each partner will contribute to the network, suggesting and giving information on relevant actors at national level.

Multiple partners already have a strong network of relevant stakeholders and will use multiple existing databases within different projects to attain maximum reach (complying to GDPR). When possible, partners who have provided contacts of relevant stakeholders and who already have a professional relation with these, will take care of contacting them on behalf of NutriBudget for their involvement in the various dissemination activities. This will allow both to comply with the GDPR and to be more efficient in involving the stakeholders. By connecting all these resources and developing co-creation activities, NutriBudget will build a stronger network. These activities include at least 23 interactive workshops and validation sessions to enhance the uptake of NutriBudget results and achieve more impact involvement in relevant European, Members State and regional working groups and platforms.

IMPACT will develop a <u>toolbox</u> to help the different partners in organising and setting up the workshops. This will include a guiding timeline, legal documents and a general structure on how to set up these events. Dissemination materials as presentation templates, banner, brochure, invitation letter are also available on the SharePoint to co-organise these activities. Specific meeting with the relevant WPs will be planned in order to finalise the activities' organisation.

Stakeholders concerned: all groups Partners involved: IMPACT, RISE + all



	Workshop	Date	Partner, WP
1	National Workshop (First) on co-creation mitigation measures catalogue	M9	UGENT, WP1
2	National Workshop (Second) on co-creation mitigation measures catalogue	M24	UGENT, WP1
3	Co-creation workshop (First) on model framework (international)	M32	WR, WP2
4	Co-creation workshop (Second) on model framework (international)	M42	WR, WP2
5	Co-creation workshop NutriKPI framework to international experts	M32	WU, WP3
6	National workshop with stakeholders to prioritise the KPI's to be tested	M12	PROMAN WP4
7-11	Five national workshops on experimental work and demonstration (one in each pilot region)	M32	UGENT, LUKE, FIBL, UVIC, UNILI- WP4
12-16	Five national workshops to demonstrate the results (one in each pilot region)	M42	UGENT, LUKE, FIBL, UVIC, UNILI- WP4
17	One international workshop to present project approach and interim results	M30	YARA – WP4
18	International workshop 1 for the NutriPlatform	M29	PWC – WP5
19	International workshop 2 for the NutriPlatform	M36	PWC- WP5
20	International workshop 3 for the NutriPlatform	M40	PWC – WP5
21	International workshop 4 for the NutriPlatform	M42	PWC – WP5
22	National workshop to test the acceptances of farmers and stakeholders	M36	PROMAN – WP6
23	National workshop with farmers and stakeholders for knowledge transfer of results	M42	PROMAN – WP6

#### Table 3. List of planned workshops



## 7. Dissemination Channels

In this chapter, concrete channels to implement the dissemination activities and ensure the uptake of outputs are discussed. The channels and materials reflect a common visual identity that was developed in the first months of the NutriBudget project. All materials will be used for the NutriBudget project and furthermore for the network, which will be implemented during the project lifetime and beyond.

## 7.1. NutriBudget website

A project <u>website</u> was created and launched on 1<sup>st</sup> February 2023 (Figure 1). It will be used to increase awareness of the project, communication activities, as well as for dissemination and exploitation of the NutriBudget results. It will be available in English with links to the partners' websites and other platforms as the Biorefine Cluster Europe Network. On the website, a specific section is available for the dissemination of results and deliverables, some of which will also be translated into the languages of the pilot regions, for example the Farmer Practitioner Manual.

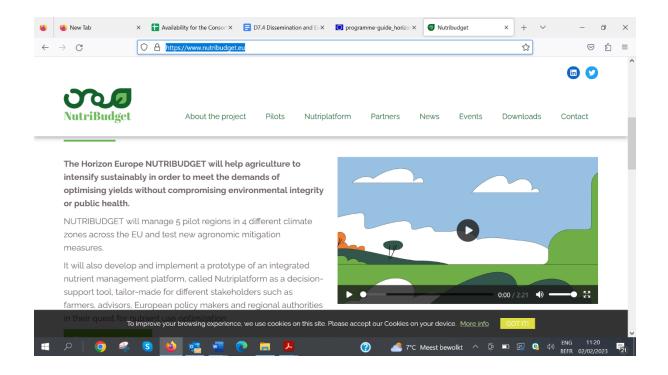


Figure 1. Website homepage



## 7.2. Social media

EU-funded projects mostly use Twitter, Facebook, LinkedIn, Google+, Instagram and Pinterest (with most preferring Twitter). NutriBudget has chosen to use <u>Twitter</u> and <u>LinkedIn</u> to boost the visibility of NutriBudget and the dissemination of the project results. Twitter and LinkedIn will be managed by RISE and IMPACT, but each partner is strongly encouraged to interact with NutriBudget profile by sharing posts, tag #NutriBudget in their own post related to the NutriBudget topics in order to increase the NutriBudget followers and maximise the NutriBudget visibility. Through social media, WP6 will share and disseminate the project results; including publications, deliverables, coming events, etc.

Monitoring and assessment of the social media accounts will take place each month. Each platform provides data to identify trends and refocus activities if necessary. Using pre-defined criteria, WP6 leader (RISE) will analyse what works and what does not and use this knowledge to adjust the implementation of various strategies across the platforms.

## 7.3. Free-of-charge dissemination and exploitation services

The European Commission offers various free-of-charge services to support dissemination and exploitation activities. WP6 will make use of these platforms and encourage the partners to disseminate their publications on the following open access platforms:

- <u>Open Research Europe platform</u>: An open access, publishing platform for scientific papers for Horizon 2020 and Horizon Europe beneficiaries, including an open peer review and article revision.
- <u>Horizon Results platform</u>: A platform showcasing your research results, finding collaboration opportunities and getting inspired by the results of others.
- <u>Horizon Results Booster</u>: Free consulting services including a portfolio dissemination and exploitation strategy, business plan development and go-to-market support.
- <u>Innovation radar</u>: An initiative that identifies high-potential innovations, based on a data-driven methodology, and assists EU-funded researchers and innovators in reaching the market with their innovation.



## 8. Preliminary Exploitation Plan

The Exploitation Plan will be officially updated by M48 to provide detailed information on how NutriBudget results will be exploited. Between M6 and M48, drawing on both the market analysis and business models, a series of strategic actions for commercialisation will be formulated and implemented taking into account the companies' resources (e.g., partners, infrastructure and organisational structures) and competitive advantages. The final version of the Exploitation plan will be based on the Project's final tasks and development of the main results, due at the end of the project; these include D5.6: "An analysis and a guidance document detailing the vision on the implementation of the DST across EU public and private actors" (M48), and D5.7 "NutriBudget sustainability plan and expected future implementation of the tool across the EU" (M48). Therefore, the section below identifies only preliminary considerations for exploitation activities, which will be developed further within the final version of the Exploitation Plan.

#### NutriPlatform

The NutriPlatform will be developed in WP5, which will become active from M28, during the second reporting period. The WP5 study team aims to develop a sustainable economic model around NutriBudget to ensure the economic viability of the project in the longer term, after Horizon Europe Programme funding has ended, therefore ensuring the long-term sustainability of the project. This analysis will notably characterise how the proposed idea will create value for end users, but also to identify the required inputs, how it would create added value, who would be the target users, etc. The analysis will assess the feasibility of the proposed economic model, taking into account all specific technical and technological elements that could have an economic impact. This exercise will also include a benchmarking exercise with existing economic models of other comparable DSTs, evaluating pros and cos to identify lessons learned relevant for the NutriPlatform sustainability plan and future vision.

The WP5 study team will develop a long-term strategic vision of NutriBudget implementation. The team will specifically look at how, in collaboration with existing (or new) AgTech partners, the DST for on farm optimisation of soil, crop and nutrient management can be designed and maintained, and where the contribution of farmers to ecosystem services can be valorised via various kinds of mechanisms.

In addition to being a standalone tool, integration of the NutriPlatform into the existing Farm Sustainability Tool (FaST) has been planned. FaST, promoted by the European Commission for nutrient management, is an integral part of the NEW CAP (mandatory by the GAEC 5), with its development supported by DG AGRI, DG DEFIS and EU ISA2 Programme (DG DIGIT). Integration with FaST will connect NutriBudget with real farmer's data, with this decision support tool already used by thousands of farmers across the EU. The following 9 regions/countries are already fully integrated in FaST: Piemonte (Italy), Castilla y Leon (Spain), Andalucia (Spain), Estonia, Wallonia (Belgium), Romania, Bulgaria, Greece, Slovakia. The FaST project has the ambition to cover all EU-27 by 2025, therefore additional countries/regions will be covered in future years, offering further potential opportunities for the NutriBudget project.



## 9. Conclusion and Distribution of Responsibilities

All partners of the Consortium must contribute to the dissemination according to their foreseen role and effort and use all available tools, thus for instance by participating and giving presentations at conferences, publishing papers, holding press conferences, networking and similar activities as established in the Grant Agreement.

In order to facilitate the internal communication and the continuous reporting to the European Commission, an excel document is available on the <u>SharePoint</u>. This template helps to collect all the communication and dissemination activities each partner has performed both at individual and at consortium level. Once a month, partners will be encouraged by the WP6 leader to update the table. In this way, it will also be possible to monitor the progress of activities and take action if something is missing.





## **Optimisation of nutrient budget in agriculture**

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