



Novafert

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D6.5 – Networking and synergies – interim version

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List of abbreviations

Abbreviation	Meaning
BBF	Bio based fertilisers
BBI JU	Bio-based Industries Joint Undertaking
BCE	Biorefine Cluster Europe
CAP	Common Agricultural Policy
CSA	Coordination and Support Action
D	Deliverable
D&C	Dissemination and Communication
EBA	European Biogas Association
EC	European Commission
EIP-AGRI	Agricultural European Innovation Partnership
ESNI	European Sustainable Nutrient Initiative
ESPP	European Sustainable Phosphorus Platform
IAB	International Advisory Board
M	Month
NERM	Nutrients in Europe Research Meeting
OG	Operational Group
PO	Project Officer
RWG	Regional Working Group
SWOT	Strengths, Weaknesses, Opportunities and Threats
WP	Work Package
SOFIE3	3rd Summit of the Organic and organo-mineral Fertilisers Industries in Europe
T	Task



Executive Summary

NOVAFERT aims to orientate the production and the application of alternative fertilising products according to the best environmental performances by establishing methodological guidelines for the assessment of alternative fertilising products' production, storage, distribution, and application. Therefore, it will focus on boosting both the supply and the demand side of alternative fertilising products. At the same time, NOVAFERT aims to bring together the necessary information for the efficient and safe use of fertilising products to help make decisions about the valorization used in nutrient recovery, based on real needs at regional level and on the EU-wide market.

To accomplish this, creating strong links with EU-funded nutrient-related projects, clustering activities and synergies are crucial to capitalise on existing results and expand the NOVAFERT network. Consequently, the consortium has formed a dedicated task (T6.2) as part of the WP6 '*Communication and dissemination, networking and synergies with other EU projects and international organizations*' which specifically focuses on '*Networking and synergies with other EU projects and local OGs*'.

This deliverable presents the clustering activities that the NOVAFERT consortium has carried out in the first 15 months. These activities include collaboration with the FER-PLAY sister project, as well as several key European organizations such as ESPP, EIP-AGRI, BBI-JU, and other related multi-actor R&D projects, national organizations, and smaller regional networks. The aim of these collaborations is to increase the dissemination and communication of project outcomes.

Partners identified areas of collaboration with local projects and stakeholders, and contacted them to explore concrete opportunities for setting up synergies. A list of initial interactions and outcomes are reported in the deliverable, serving as a baseline for regular knowledge exchange.

Biorefine Cluster Europe, a platform led by University of Gent, deserves special attention as it brings together projects focused on bio-based resource recovery, with the aim of facilitating inter-project exchange, outreach, dissemination, and network building. NOVAFERT's involvement in this network facilitates the establishment of synergies with other nutrient-related projects and gives NOVAFERT greater visibility thanks to its active involvement in the European Sustainable Nutrient Initiative (ESNI community).



1. Introduction

Being a CSA (Coordination and Support Action), NOVAFERT focuses on the improvement of cooperation among the EU and Associated Countries, to strengthen the European Research Area. The project targets a range of activities, such as standardisation, dissemination, awareness-raising, communication, networking, policy dialogues, mutual learning, and studies.

Since its beginning, NOVAFERT envisages synergies with existing nutrient-related projects and international and national platform and/or initiatives in order to expand its community.

These collaborations are based on reciprocal benefits in terms of:

- Exchanging technical information between projects
- Maximising the impact of communication and dissemination
- Avoiding overlapping

The NOVAFERT consortium already enjoys a deep-rooted involvement in relevant EU projects, such as [Fertimanure](#), [Nutri2Cycle](#), [Nutriman](#), [Lex4Bio](#), [Suwanu Europe](#), [ReNu2Farm](#), [P2Green](#) among others, whose data and results are also relevant for the development of project activities planned in NOVAFERT and specifically in WP1 '*Mapping nutrient recycling technologies and products*'. Building upon the existing contacts, NOVAFERT aims to create synergies with other projects. to have effective knowledge sharing and evaluate the possibility of organising joint activities aimed at raising awareness of the benefits of alternative fertilising products. To achieve this, the consortium also capitalises on its BCE membership, the linkage with European associations, such as ESPP, EBA and European CAP Network (formerly known as EIP-AGRI) as well as regional, national and European governments and public bodies.

The present deliverable outlines the strategy to establish synergies and collaborations with key stakeholders and is divided into two main parts. The first part is dedicated to the collaboration with the sister project FER-PLAY funded under the same call (HORIZON-CL6-2021-ZEROPOLLUTION-01- 09), while the second part details the clustering activities carried out by project partners to engage key stakeholders at local level and give a wider visibility to the project itself. After performing a stakeholder mapping, to which we refer in D5.1 '*Stakeholder mapping and engagement strategy*', clustering activities, tailored to project priorities, were identified to define the next steps and the way of monitoring synergies, which will favour the tracking of the activities ahead.



2. Collaboration with the FER-PLAY project

NOVAFERT will collaborate closely with the sister project FER-PLAY, which is funded under the same call 'HORIZON-CL6-2021-ZEROPOLLUTION-01-09'. In September 2022, NOVAFERT held its kick-off meeting in Ghent, where also FER-PLAY, represented by David Gutierrez from CETENMA, gave an online presentation of the project as well as its specific aims and impacts. This first interaction was then followed by a joint kick-off meeting in November 2022 at the presence of the Project Officer (PO). The purpose of this meeting was to identify similarities between both projects and find a common ground for collaborative efforts in order to maximise projects' efficiency and impact while avoiding overlap or duplication of activities.

FER-PLAY & Novafert

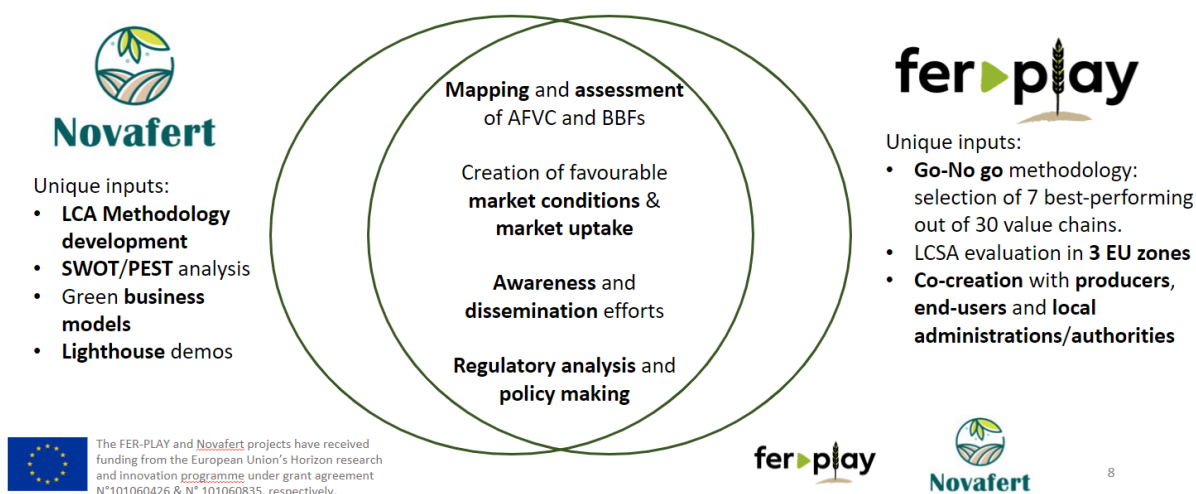


Figure 1. Possible synergies between NOVAFERT and FER-PLAY

Some joint actions were identified to start the collaboration, as listed below, and were also reported in the D6.1 'Communication and dissemination plan' in par.11.1.

Technical aspects:

- Mapping of value chains and mapping innovative nutrient-oriented living labs
 - ✓ Data collection
 - ✓ Lighthouse demos
- Environmental assessment
 - ✓ Data collection
 - ✓ Methodology development and discussion
- Exploitation strategies
 - ✓ Action plans

- ✓ Co-creation of guidelines

Policy and Dissemination:

- Awareness and dissemination
 - ✓ Joint dissemination plan: awareness campaigns, events, conferences (ESNI, ManuREsource) workshops, etc.
- Policy making
 - ✓ Joint policy briefing with inputs from both projects
 - ✓ Regulatory framework analysis and joint recommendations list
- Advisory board
 - ✓ The coordinator of each project is a member of the other project's advisory board.

Based on these activities, several meetings between NOVAFERT and FER-PLAY were organised to define the strategy ahead and the future collaboration.

From a technical point of view, several meetings between NOVAFERT and BETA Technology Center were arranged to have an exchange of knowledge on the Life Cycle Assessment (LCA), which is addressed in WP2 '*Mapping current LCAs methods, Risk assessment + LCA of selected P/T: Environmental criteria.*' This activity was and is also part of the leading role that NOVAFERT plays within the European Sustainable Nutrient Initiative (ESNI Community), the former Nutrient Recycling Community (NRC). In March 2023, NOVAFERT was appointed as coordinator of the Working Group on Sustainability Assessment of fertilising products of the ESNI Community, whose scope is to cooperate towards finding common approaches for assessing sustainability aspects of the technologies and recovered nutrients. Details on the activities performed by NOVAFERT and related to the ESNI Community are duly reported in part.3.

Along with the knowledge exchange on the LCA methodologies and research activities, NOVAFERT and FER-PLAY also defined cross-promotion actions, such as the mentioning in each other's **project newsletters**, where updates and achievements of both projects are reported to maximise the impact of the dissemination and communication activities. The 1st NOVAFERT Bulletin, where FER-PLAY was featured, is available at the following link [Novafert-1st-newsletter.pdf](#) and can be downloaded from the 'Resources' section on the NOVAFERT website.

In addition, joint undertaking initiatives, such as policy recommendations, aimed at raising awareness of the benefits of alternative fertilising products, were identified and will result in the publication of joint **policy briefings**. The first one '*Unlocking the safe use of RENURE products in the INMAP: an opportunity for nutrients recycling and on-farm circularity*' was already published last June in collaboration with Nutri2Cycle, Fertimanure, NUTRI-KNOW, the European Biogas Association (EBA), FER-PLAY partner and COPA-COGECA.



Recently, NOVAFERT and FER-PLAY welcomed the **proposal for a Soil Monitoring Law** published on the 5th of July. It's the first step towards achieving the goal of having all European soils in a healthy condition by 2050. In this context, FER-PLAY and NOVAFERT proposed a set of nine recommendations based on research evidence to be included in the Soil Monitoring Law. The policy briefing is available on the NOVAFERT website in the 'Resources' section at the following link: [The two European sister projects FER-PLAY and NOVAFERT welcome the proposal for a Soil Monitoring Law | Novafert](#).

With the aim to align activities performed by both projects, NOVAFERT and FER-PLAY agreed to join each other's **International Advisory Board (IAB)** online meetings. The NOVAFERT Board is currently composed of 5 experts who have committed themselves to discuss and give advice on the major topics addressed in the Work Packages (WPs). As project coordinator of FER-PLAY, Dr. Martin Soriano, joined the NOVAFERT IAB and participated in the initial meetings organized by NOVAFERT. Similarly, Prof. Erik Meers, the NOVAFERT coordinator, serves on the FER-PLAY Advisory Board. This increased interaction between projects adds value by enhancing collaboration and refining joint actions.

Finally, but not less important, on 20 September 2023 NOVAFERT and FER-PLAY participated in the **ESNI Conference**, an international event on recycling nutrients, where EU projects meet and engage with EU policymakers and other relevant stakeholders in Brussels. Specifically, NOVAFERT invited FER-PLAY partners to give a keynote speech during their parallel session titled '*Towards a harmonised approach on sustainability assessment of nutrient recovery pathways: setting LCA methodological priorities*' organised in the Policy perspective session.

Details of NOVAFERT's involvement in the ESNI Conference can be found in paragraph 3, which is dedicated to the Biorefine Cluster Europe.



3. NOVAFERT involvement in European Platforms

3.1 Biorefine Cluster Europe

Since September 2022, NOVAFERT has joined the [Biorefine Cluster Europe](#) platform, a network of EU projects working on the field of bio-based resource recovery, which is managed and coordinated by Ghent University. [Nutrient recycling](#) is one of the cornerstones of this network to promote research and innovation. Given its scope, the Biorefine Cluster is one of the major tools through which NOVAFERT can actively collaborate with European and national research projects.

The link with the Biorefine Cluster Europe allowed NOVAFERT to establish closer synergies with already identified nutrient-related projects (such as NUTRIMAN, NUTRI2CYCLE, LEX4BIO, FERTIMANURE – cfr supra) through regular contacts and exchanges, sharing of information and dissemination of results. In doing so, the BCE network acted as a starting point to interconnect with existing and closed EU-funded projects for data collection as planned in Task 1.1 *Data collection of fertilising products derived from secondary raw materials*.

As part of the BCE network, NOVAFERT is also a member of the European Sustainable Nutrient Initiative – ESNi Community, formerly known as the Nutrient Recycling Community. The ESNi Community is a network that aims to exchange knowledge and good practices and foster collaboration between initiatives and projects around nutrient recycling in Europe. As core part of this initiative, the ESNi community established 4 Working groups, led by European projects, discussing major challenges with an impact on nutrient recycling and recovery.

NOVAFERT already participated in several research-oriented webinars organised by the Community, but it also takes up a leading role in the ESNi Working Group on the Sustainability Assessment of fertilizing products, which is led by BETA Technology Center. BETA is also the leader of WP2 on the Life Cycle Assessment of the project.

A first workshop was organised in the framework of the ESNi Conference, the annual event launched by the BCE to keep nutrient management high on the EU agenda and to bring together EU projects, stakeholders and EU officials. NOVAFERT co-organised the event with 11 EU-funded projects and held a workshop on the state of the art of the LCA of Bio-Based Fertilisers (BBF) modelling, which was followed by a discussion of the priorities in the environmental impact assessment methods. As already reported, on that occasion, NOVAFERT collaborated with FER-PLAY which also gave a keynote speech, presenting the vision of the project and the potential collaboration with NOVAFERT to find a common ground for the development of LCA methodologies.

In December 2023, the Working Group 'Technologies on Nutrient Recovery' of the ESNi Community organised the international webinar on the "Manure Innovation Agenda". As part of this webinar, the objectives and methodology of the NOVAFERT project were presented by Professor Erik Meers (UGent), in conjunction with the FERTIMANURE and the [ALFA project](#).



Synergies created within the Biorefine Cluster also had an impact on the NOVAFERT dissemination activities. The project has been featured in several issues of the bi-monthly BCE Bulletin, where all the achieved results and the upcoming activities were promoted and enjoyed a greater outreach of key stakeholders potentially interested in the project outcomes.

Below are the issues of the Bulletin in which NOVAFERT was promoted:

- [Biorefine Cluster Bulletin 'September - October 2023' - Cluster Europe | Biorefine](#)
- [Biorefine News Bulletin 'June-July 2023' - Cluster Europe | Biorefine](#)
- [Biorefine News Bulletin 'April-May 2023' - Cluster Europe | Biorefine](#)
- [Biorefine Cluster News Bulletin 'February - March 2023' - Cluster Europe | Biorefine](#)
- [Biorefine Cluster News Bulletin 'September 2022' - Cluster Europe | Biorefine](#)

Furthermore, the BCE Twitter / X and LinkedIn accounts were used to boost the **project's social media presence**. Examples of the BCE activities are reported below:



Figure 2. NOVAFERT promotion on the Biorefine channels

3.2 European Sustainable Phosphorus Platform

Next to its BCE membership, the NOVAFERT consortium planned more clustering actions involving major European platforms active in the field of nutrient recycling. These were based on immediate connections, participations, and relationships that the project partners have in their network.

One of these platforms is the [European Sustainable Phosphorus Platform \(ESPP\)](#), which gathers companies, scientists and stakeholders to discuss sustainable phosphorus management and nutrient recycling. Thanks to the existing interlinkages with the ESPP, NOVAFERT was presented at the SOFIE 2 Conference (Summit of the Organic and organo-mineral Fertilisers Industries in Europe), where Teagasc promoted the project with a poster presentation outlining its main objectives and expected outcomes for the duration of the project. This was an important



event for knowledge exchange for the project as the conference brought together many public and private stakeholders and EU projects within the space of nutrient recovery and the use of alternative fertilisers. Currently, NOVAFERT regularly communicates with ESPP and participates in their present and upcoming activities, such as [SOFIE 3](#) and [NERM](#) (Nutrients in Europe Research Meeting), scheduled in 2024.

3.3 European Biogas Association

Relationships were also strengthened with the [European Biogas Association \(EBA\)](#), already partner in the FER-PLAY project, with which joint activities at policy level were discussed and carried out to provide recommendations based on research-evidence. Examples of the joint initiatives carried out have been reported in par.2 on the interaction with the FER-PLAY project.

3.4 Other platforms

Nutricycle Vlaanderen is a Flemish network of stakeholders in the biobased community that was created as part of Nutri2Cycle, another Horizon Europe Project. As Nutri2Cycle came to an end in September 2023, this regional cluster will continue running in the framework of the NOVAFERT project, including the organisation of additional Regional Working Group activities.

NOVAFERT also has access to the EIT Food network, through its regional representative for Southern Europe (EIT Food South, partner in this initiative). Through the EIT Food communication channels, NOVAFERT outcomes and queries were distributed, always looking at creating synergies with ongoing initiatives and EIT Food's partners actions. On top of that, the main NOVAFERT activities or events have been promoted in the EIT Food newsletter.



4. NOVAFERT clustering activities at local level

In general, clustering activities serve to find new ways to engage with the quadruple helix actors, based on a common interest. Being part of a cluster increases the impact of individual actions in a specific field and promotes the regional research and innovation. By exchanging ideas and setting up joint efforts, these actors build bridges across Europe's ecosystems.

As described in D5.1 '*Stakeholders mapping and engagement strategy*', at the initial stage, the NOVAFERT consortium identified the most relevant projects and platforms addressing the nutrient-recycling issues with the aim to exchange knowledge and disseminate its activities and results. NOVAFERT partners also conducted local clustering activities in addition to centralized action. The latter were aimed at identifying fields for collaboration which can contribute to NOVAFERT priorities and ensure a long-term impact of the project.

In order to do so, project partners mapped the key stakeholders to engage at local level with the aim to define key profiles that can provide an added value to the different activities carried out by partners at local level, specifically the establishment of Regional Working Groups (RWG) and the Regional Action Plans.

This mapping exercise relied on different channels, as below:

- Projects, EU platforms and Associations already identified in the Grant Agreement
- Project members of the Biorefine Cluster Europe (both open and closed projects)
- Regional sectorial Operational Groups (EIP-AGRI)

Below are reported the activities carried out from September 2022 to November 2023 by partners at local level, which also include interaction with projects, participation to events as well as meetings held in the framework of the Regional Working Groups.

The first outcomes achieved are also reported as well as the following up activities and synergies that can be built afterwards.



4.1 List of Clustering activities at local level

SPAIN – CATALONIA

Partner	Institute/project/platform	Date & Location	Type of collaboration	Attendees	Outcome
BETA - UVIC	CETENMA (FER-PLAY)	Several dates, online	Regular meetings on LCA	Researchers	The meetings are oriented to coordinate timelines and methodologies to have comparable LCA results.
BETA - UVIC	LEX4BIO	26.04.2023, online	LEX4BIO -NOVAFERT LCA meeting	Researchers	The meeting was an exchange of ideas about the LCA application in the BBFs analysis. They provided a valuable experience from LEX4BIO project (literature review). The feasibility of achieving a methodological consensus was discussed.
BETA - UVIC	SETAC Dublin Topical Discussion	3.05.2023, Dublin (IE)	Ecoinvent	Researchers	Discussion about different methodological hotspots in the BBF modelling.
BETA - UVIC	SETAC DUBLIN	1.5.2023, Dublin (IE)	Platform	Researchers	Presentation of the state of the art of the LCA of BBFs modelling and the main challenges faced to create a consensual method.
BETA - UVIC	ESNI CONFERENCE	20.09.2023, Brussels (BE)	Joint event	Researchers, private sector, farmers and policymakers	Presentation of the state of the art of the LCA of BBFs modelling as well as discussion of the priorities in the environmental impact assessment methods.
BETA - UVIC	PATT journey at Vic	18.10.2023, Vic (SP)	Joint event	Researchers, policymakers, private sector	SWOT analysis and reach out to farmers and companies as case studies for the LCA.
BETA - UVIC	FER-PLAY (GA in Cartagena)	19.10.2023, Cartagena (SP)	FER_PLAY Journeys	Researchers, private sector, farmers	NOVAFERT was invited to the event organised by FER-PLAY in Cartagena. Several experiences from different actors and perspectives about the BBFs were shared.
BETA - UVIC	ALIGNED project	26.10.2023, online	Online meeting	Researchers	ALIGNED and NOVAFERT shares relevant methodological aspects of LCA such as the carbon accounting or the biodiversity. Currently working on common webinars and information exchanges.



EIT- FOOD	Sea2Land	14.09.2023	Meeting	NOVAFERT's partners Sea2Land's project managers	Synergies between NOVAFERT & Sea2Land have been explored, as both projects aim at promoting the use of alternative fertilisers. Contact has been established for future opportunities if arise.
EIT- FOOD	ETSIAAB – UPM, Department of Chemistry	19.06.2023	Meeting	Researcher	Interview with an Associated professor, to exchange information and identify attributes for SWOT analysis
EIT-FOOD	ItaCyl	16.06.2023	Meeting	Researcher	Interview with researchers from ItaCyl, to exchange information and identify attributes for SWOT analysis
EIT-FOOD	CEBAS-CSIC	20.06.2023	Meeting	Researcher	Interview with the CEBAS-CSIC expert. Potential interest in Regional Working Group (Andalusia). Presentation of BioAzul as WP and RWG leader.
BIOAZUL	Regional Working Group	24.05.2023	Interactive workshop	Water management and regeneration sector and the agronomic sector	A presentation of the P2Green project, several lectures and a presentation of the NOVAFERT project, followed by 4 interactive sessions with stakeholders. The information gathered will be useful to perform the SWOT analysis on the use of fertilisers produced using wastewater and sewage sludge as secondary raw materials.
BIOAZUL	Extension of the Regional Working Group	20/06/202	Online meeting	BIOAZUL and CETENMA	The meeting was devoted to discuss possible synergies and potential joint activities between projects in which CETENMA and BIOAZUL are involved, more specifically FER-PLAY and NOVAFERT., HOOP, VALUEWASTE, P2Green and BONE
BIOAZUL	Extension of the Regional Working Group	28.06.2023	Online meeting	Research organisations	The meeting was devoted to introduce NOVAFERT project, explain the main outcomes expected and the potential activities in which they could collaborate and enlarge the RWG with the participation of this relevant research centre from the neighbouring Murcian region.
BIOAZUL	Cartagena, Murcia	20.07.2023	Meeting	Technology Centre	Joint potential future activities were discussed; with CETENMA being the project coordinator of the FER-PLAY project: participation in an open session of the



upcoming FER-PLAY annual meeting and possible
collaboration on stakeholder engagement activities.



CROATIA – IPS KONZALTING

Partner	Institute/project/platform	Date & Location	Type of collaboration	Attendees	Outcome
IPS Konzalting	58 th Croatian & 18 th International Symposium on Agriculture	15.02.2023, Dubrovnik (HR)	Participation in the event	Scientific community, policymakers, farmers, industry, SMEs (fertiliser producers), general audience	Promotion of the project through a presentation and a short video. A comprehensive presentation will be delivered at the symposium for agronomists that has been arranged for February next year.
IPS Konzalting	1 st RWG meeting	31.08.2023, Sisak (HR)	meeting	Business – SME, private sector	The NOVAFERT project is briefly presented as well as activities related to the SWOT analysis. Members of RWG discussed and scored the statements related to three second raw materials (animal manure, digestate, and bio-waste) in Continental Croatia. The following step is to present the findings of the SWOT analysis and engage the RWG groups in other activities.
IPS Konzalting	1 st Living Lab meeting	31.08.2023, online meeting	meeting/cross promotion	Industry/farmer (OPG Dario Cenger; Bioel d.o.o. – Ecodig)	The purpose of the meeting was to introduce farmers/industry to the project's activities, and to obtain relevant information about nutrient-oriented labs in Continental Croatia. As we have chosen OPG Cenger as a lighthouse demonstration, the next step is to collaborate with farmers to showcase the best use of alternative fertilisers.
IPS Konzalting	2 nd Living Lab meeting	29.09.2023, online meeting	meeting/cross promotion	processing company (Vinka plus d.o.o.)	The purpose of the meeting was to introduce farmers/industry to the project's activities, and to obtain relevant information about nutrient-oriented labs in Continental Croatia. Next step is to involve industry in other project activities, such as the Regional Working Group, while promoting knowledge exchange for the use of alternative fertilisers.
IPS Konzalting	3 rd Living Lab meeting	13.10.2023, online meeting	meeting/cross promotion	Farmer (OPG Marija Mesić Tuškanec)	The purpose of the meeting was to introduce farmers/industry to the project's activities, and to



obtain relevant information about nutrient-oriented labs in Continental Croatia. Next step is to include farmers in other project activities, such as the Regional Working Group, while promoting knowledge exchange for the use of alternative fertilisers.

POLAND – MEERI

Partner	Institute/project /platform	Date & Location	Type of collaboration	Attendees	Outcome
Meeri	Chamber of Commerce Polish Waterworks	26.06.2023, Krakow (PL) & 06.07.2023 online	Meeting	Researchers, SMEs, NGO, regional authorities	The meeting addressed topics related to the water and wastewater sector, with a focus on fertiliser recovery from sewage sludge. Collaboration will continue as part of the activities of the Regional Working Group in Poland.
Meeri	GreenBack Ltd.	06.07.2023, online	Meeting	Researchers, SMEs, NGO, regional authorities	In the course of the meeting, the subject of fertilisers derived from renewable sources was examined. Subsequent collaboration will be based on the active involvement of GreenBack Ltd. within the Regional Working Group in Poland.
Meeri	Herby Water Treatment Plant, Lisów Municipal Water treatment plant	06.07.2023 online	Meeting	Researchers, SMEs, NGO, regional authorities	Through establishing contact with Łukasz Czaja, who works at the Water Treatment Plant Herby - Lisów Municipal Wastewater Treatment Plant, valuable information regarding sewage, sewage sludge, and the potential for obtaining fertilisers from them was obtained. The established collaboration will be continued as part of the activities of the Regional Working Group in Poland.
Meeri	Optimus Foundation	06.07.2023 online	Meeting	Researchers, SMEs, NGO, regional authorities	During the meeting with the Foundation's representative, Mr. Erik Aruszcjanin, discussions were



					held concerning the promotion of the project, which will be continued.
Meeri	17th Conference of Methods of Disposal of Sewage Sludge	26-29.09.2023 Toruń (PL)	National Conference	Water and sewage industry's experts, Representatives of Research Institutions and Universities	Discussed topics included the current version of the amended municipal sludge application regulations and their impact, recent developments in the sludge management market in other countries, and trends in energy, phosphorus and biogas recovery from sludge.
Meeri	"Eko-tucz" - a group bringing together farmers	31.10.2023	Meeting	Farmers	Eo-tucz is a group of farmers who will use their knowledge and practical skills to support MEERI PAS in the Novafert project. Their representatives will join the Regional Working Group in Poland.

FINLAND – LUKE

Partner	Institute/project/platform	Date & Location	Type of collaboration	Attendees	Outcome
LUKE	YARA	7.11.2023, online	Meeting	Luke's researchers and YARA	During the discussion it was planned how to best utilise nutrients of this BBF and whether there is need for supplementing nutrient during the growing season. Discussion with YARA will continue in coming months and trial will be set-up in spring 2024.

IRELAND – TEAGASC

Partner	Institute/project/platform	Date & Location	Type of collaboration	Attendees	Outcome
TEAGASC	Teagasc regional workshop	10.11.2022	Joint event	Agronomy advisors in both public and private industry	The aim of this workshop was to engage the audience regarding the work of NOVAFERT as a review of the alternative fertiliser area and how it can contribute to the



bio economy in Ireland. This was conducted by organising attendees into smaller break out groups to get their feedback which contributed to T1.1 mapping of nutrient recovery technologies and products. This target group of people were chosen to aid knowledge exchange on the importance of this area and how it can be integrated into Irish systems. The audience was a fair representation of advisors working on the ground with farmers across Ireland which led to fruitful discussions. This event was co-organised with another EU funded project Nutri2cycle which shared findings from trials using these kinds of products throughout the duration of the project.

TEAGASC	ESPP - SOFIE 2	17.01.2023	Conference	All types of relevant stakeholders	Teagasc promoted the NOVAFERT project at the SOFIE 2 conference with a poster presentation. This was an important event for knowledge exchange for the project as the conference brought together many public and private stakeholders and EU projects within the space of nutrient recovery and the use of alternative fertilisers.
TEAGASC	Teagasc Soil health event	16.03.2022	Joint event	Broad range of stakeholders	Teagasc presented the work of NOVAFERT at a soil health open day which was part of a soil health conference. The target audience was a broad range of stakeholders interested in soil health, nutrient use efficiency, sustainability etc. A display of alternative fertilisers was available for attendees to observe and also results were shared from a five year grassland trial being ran by Teagasc using alternative fertiliser sources.
TEAGASC	Teagasc ACP conference	07.11.2023	Joint event	N.A.	Teagasc presented a poster outlining the work of NOVAFERT and presenting results from a poultry manure product trial in an agronomic context. This product is commonly used in Ireland in cropping systems and feeds into NOVAFERT goals by supporting and providing knowledge to farmers on the use of alternative fertilisers. This conference brought together people in the field from



around Ireland, the EU and other parts of the world leading to an important event to promote NOVAFERT build synergies and make links with other nutrient-related projects.

BELGIUM – UGENT and IMPACT

Partner	Institute/project/platform	Date & Location	Type of collaboration	Attendees	Outcome
UGent	Regional workshop	14/06/2023	Online meeting	Farmers association	The meeting was held online, with the facilitator of the regional working group providing an introduction to the NOVAFERT project, the regional group members' expectations, and an introduction to the SWOT analysis methodology previously created for the NOVAFERT project. The participants discussed about the next steps and provided preliminary information for completing a SWOT analysis.
UGent and IMPACT	Regional Workshop	20/06/2023, Gent	Interactive workshop	Farmers, policymakers, and farming and environmental organisations	Within the framework of Nutricycle Vlaanderen, UGent and IMPACT organised an event on the future of sustainable farming in Flanders. All participants had a chance to share their perspectives on the subject. The meeting discussed the NOVAFERT project and its activities. During this event, participants provided relevant information at regional level on the main challenges and needs they face.
UGent	Regional Workshop	21/06/2023	Online meeting	Farmer and research institutions	The SWOT analysis methodology that was developed within the NOVAFERT project was introduced. The participants discussed about the next steps and provided preliminary information for completing a SWOT analysis. Participants explained from their own experience the threads/challenges in the use of innovative fertilisers produced from secondary raw materials.
UGENT	ESNI Community Working Group on Technology	05.12.2023	Webinar	Scientific community	Introduction of the Manure Innovation Agenda by local stakeholder VCM, followed by presentations on R&D projects FERTIMANURE, NOVAFERT and ALFA. By using MIRO as digital



tool, participants gave their opinion on innovation opportunities and expected future trends on manure management, during the interactive part of the webinar..



5. Next steps

As responsible for clustering activities, IMPACT, together with the active involvement of the project coordinator and the project partners will keep strengthening and establishing interactions with key stakeholders from the quadruple helix (*D5.1 Stakeholder mapping and engagement plan*), promoting networking activities and collaborations with EU-funded projects, international platforms dealing with nutrient recycling topic as well as Operational Groups.

The clustering actions include (but are not limited to):

- Regular communication with FER-PLAY for knowledge exchange and dissemination activities;
- Regular communication with ESPP, EBA and Operational Groups as well as with EU-funded projects addressing issues related to nutrient recycling and recovery;
- Identification of new projects or initiatives both at international and regional level with which set up fruitful collaborations;
- Organisation of joint activities, such as events, webinars, etc. which have the capacity to engage a broader range of essential participants
- Drafting of collaborative stances and policy recommendations based on the research findings generated by the projects
- Identification of barriers and drivers at the regional level that can influence the market uptake of Bio-based fertilisers.



6. Monitoring activities

To ensure the effectiveness of the clustering activities, IMPACT will send out regular reminders to partners to be informed on the activities conducted at international and local level and promote them timely on the NOVAFERT communication channels.

All the upcoming clustering activities will be discussed in the monthly meetings held by the Work Package leaders as well as in the upcoming General Assembly to define a plan for the next months for the joint activities.

The updates of the clustering activities carried out by the project will be then reported in the final deliverable D6.6 '*Networking and synergies – final version*' due by M34.

