



D2.3. Clustering with sister projects: outcomes and lessons learnt



Deliverable Information Sheet

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List of Acronyms

CSA	Coordination and Support Action
C&D	Communication and Dissemination
DoA	Description of the Action
EC	European Commission
EU	European Union
KPI	Key Performance Indicators
LCA	Life Cycle Assessment
TRL	Technology Readiness Level

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Keywords list

- Agriculture
- Circular fertilisers
- Life cycle assessment

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- Networking
- Clustering
- Dissemination
- Exploitation
- Organic by-products
- Resource efficiency
- Sewage sludge
- Wastewater

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Executive summary

[FER-PLAY](#) is working to protect ecosystems, decrease EU dependence on fertiliser imports, and improve resource efficiency through the promotion of alternative fertilisers. The project maps and assesses alternative (circular) fertilisers made from secondary raw materials and highlight and disseminate their multiple benefits to foster their wide-scale production and application. To these purposes, it is crucial to cluster with related projects to both capitalize on past projects' results and maximize the communication and dissemination of project outcomes.

This deliverable reports about the outcomes and lessons learnt from the many activities carried out in the first two years of the project with i) the *sister project* NOVAFERT, funded under the same HORIZON-CL6-2021-ZEROPOLLUTION-01-09 topic as FER-PLAY, and ii) other *fellow projects* which scope is aligned to FER-PLAY's one and which results are relevant to our project development. This report is a sequel of [D2.4 "Clustering with sister projects: first outcomes"](#), where we expose our strategy to map fellow projects, identify collaboration opportunities and the first outcomes of these activities.

The FER-PLAY coordination Team created a protocol that allowed to identify **74 fellow and sister projects**, and carry out a total of **79** clustering actions: **31** with NOVAFERT (*sister project*) and **48** with the *fellow projects*. Moreover, we currently foresee at least other **12** clustering activities from September 2024 to February 2025 (end of the project): **6** with NOVAFERT and **6** with the fellow projects. These activities with *fellow* and *sister projects* span from mutually disseminating projects' results, surveys and announcements of events, to the participation in each other's surveys, open days, workshops, advisory boards, working groups and general assembly meetings.

From the deployment of this extensive program of clustering activities, we extrapolate 12 main lessons learnt, that we present hoping they will be of help to any reader willing to set a networking/clustering task. The most remarkable insight gained are: i) the collaboration with *sister* and *fellow* projects is time consuming but feasible and fruitful, especially if structured in the Description of Action of the Grant Agreement and provided with enough resources, iii) we recommend the creation and follow-up of a roadmap for conjoined activities; iii) the dissemination of sound results/opportunities is a necessary condition to attract the audience, iv) Conjoined deliverables can be foreseen only if the projects count on a perfect chronological overlap of the corresponding tasks and v) policy recommendations are the most preferred conjoined dissemination and exploitation activities, followed by peer-review papers (dissemination) and exploitation strategies for newly developed circular fertiliser formulations (exploitation).

In the last six months of FER-PLAY implementation, networking efforts will be directed towards the dissemination of project results.

1. Introduction and background

FER-PLAY is a Horizon Europe project facilitating the uptake of alternative fertilisers, to protect ecosystems, decrease EU dependence on fertiliser imports, foster circularity and improve soil health. The project mapped and is assessing alternative fertilisers made from secondary raw materials, such as manure or biowaste, and highlight their multiple benefits in order to promote their wide-scale production and use on field.

The FER-PLAY project is a coordination and support action (CSA), to which category belong projects “consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of strategic planning, networking and coordination between programmes in different countries”¹.

Due to its nature, FER-PLAY is expected to extensively cluster with other projects to exchange information, share methodologies, generate synergies, strengthen relations and enrich project scope. Especially with projects funded under the same funding topic, like the *sister project* NOVAFERT, but also with other projects and initiatives (i.e. networks or platforms) which results are relevant for and/or aligned with FER-PLAY results, from now on simply called the *fellow projects*.

From the early months of the project development, the coordinator and task leader [CETENMA](#), kicked-off the identification of fellow projects and of possible collaboration fields. This was achieved through the selection of ongoing or recently concluded projects and initiatives which results and activities are relevant for and/or aligned to FER-PLAY. Selected projects belong to a bigger group of projects either appointed by our REA project officer, or affiliated to the [European Biorefine Cluster](#) under the topics “nutrient recovery” and “value chain assessment”, or suggested by FER-PLAY Consortium partners, or got to know through dissemination, communication and networking activities.

The methodologies for project mapping and selection, and the identification of possible collaboration fields are schematized in Figure 1 and more details can be found in [D2.4 “Clustering with sister projects: first outcomes”](#), chapter 3. This aforementioned deliverable includes two valuable tools for users that are looking for collaborating projects: i) *Annex 1: List of projects for*

¹ ref. General Annexes of the Main Work Programme
https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf

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clustering activities and ii) *Annex 2: Summary of identified collaboration opportunities*. The former has been updated and included in this report, bringing the addition of **26** new *fellow projects* to the list.

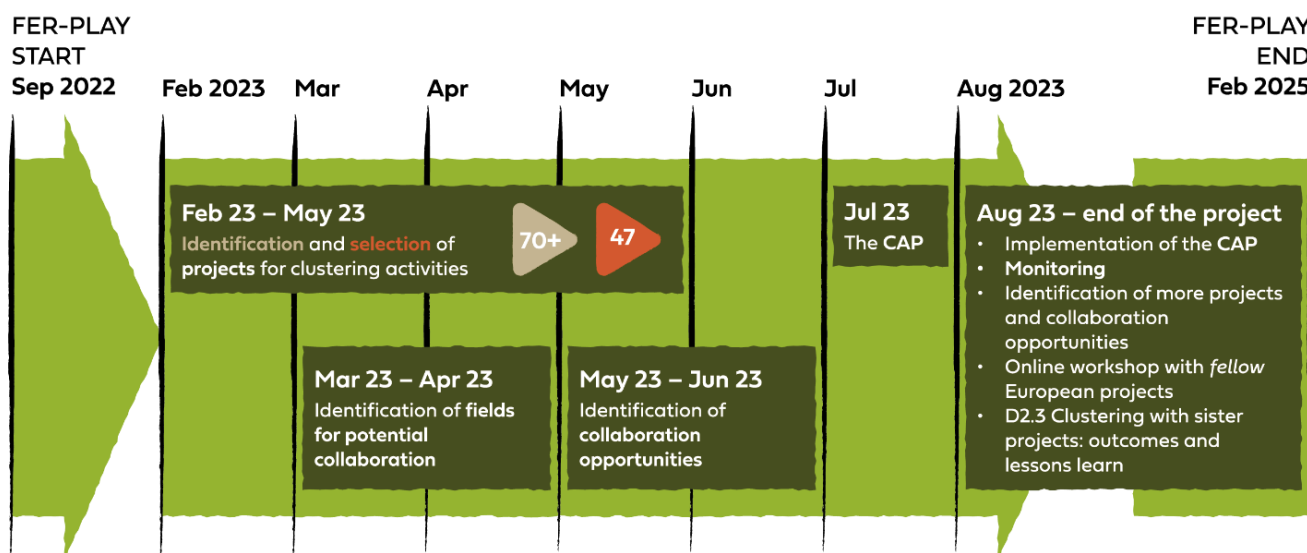


Figure 1. The Clustering Strategy

In D2.4 we also set a work ahead plan with 6 actions to be carried out in the second year of project development (Sep 23 – Aug 24). In Table 1, we resume the status of those actions.

Table 1. Status of the pending actions identified in D2.4 “Clustering with sister projects: first outcomes”

Action	Status	Comments
FER-PLAY partners to implement the Clustering Action Plan	✓	
FER-PLAY coordination team to monitor the implementation of Task 2.8 “Clustering with other projects”	✓	
Sep 2023. Targeted planning of conjoined activities with fellow and the sister projects	✓	Special efforts were made with NOVAFERT
Mar 2024. A new mapping phase will be launched to intercept new fellow projects for the aforementioned workshop	✓	This task was carried out from Sep 23 (M13) to Mar 24 (M19)
Apr 2024. As written in the Work Package description, there will be an online workshop with fellow European projects to share FER-PLAY results	✓	See Chapter 3 of this report
Aug 2024. Release an updated version of this deliverable: D2.3 “Clustering with sister projects: outcomes and lessons learn” to report on all clustering activities for the first 2 years of development of the FER-PLAY project	✓	

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Currently, hitting 80% of the FER-PLAY project lifespan, we present in this report, that is the continuation of D2.4:

- an updated list of all activities carried out with the *sister* and **73 fellow** projects from M1 (Sep 22) to M24 (Aug 24),
- a short report on the workshop with other EU projects scheduled for M30 (Apr 24) in the frame of task “4.2.4. Dissemination to other EU projects” and its most remarkable take-away messages,
- a summary of the outcomes of the networking/clustering activities,
- lesson learnt, conclusions and work ahead for the networking/clustering activities.

Shall the reader note that the clustering task officially ends with the publication of this deliverable (August 2024) but, as seen in Figure 1, it will continue until FER-PLAY conclusion (Feb 25), with the aim to maximise the impact of the dissemination of project results, being the most relevant expected from M25 (Sep 24) to M30 (Feb 25).

2. Activities and outcomes

In the first year of project development (Sep 22 - Aug 23), as reported in [D2.4](#), we performed 19 clustering actions and set the goal to carry out at least other 30 activities that fall within the scope of Task 2.8 “Clustering with other project” by August 2024, for a total of around 50 activities. May the reader note that this forecast has been largely exceeded.

In this section, we provide a summary of these activities for the timeframe September 2022 (M1) – August 2024 (M24), dividing the content in two sections: one strictly dedicated to the *sister project* and another dedicated to the *fellow projects*.

2.1. Activities with the sister project NOVAFERT

FER-PLAY was expected to frame a collaboration with the project funded under the same topic HORIZON-CL6-2021-ZEROPOLLUTION-01-09, the *sister project* NOVAFERT, to **exchange information, share methodologies, generate synergies and enrich project scope**.

The collaboration with the NOVAFERT started ahead of schedule, in M1 (Sep 2022), and was framed since the beginning of the projects to promote the highest level of interaction possible. The [FER-PLAY Communication, Dissemination and Exploitation Plan](#), released in February 23, already included a draft plan of these actions in Section 4.5, also confirmed in the update by November 2023.

In Table 2, we report all conjoined activities both already carried out and foreseen by the end of the project (next 6 months):

Table 2. Activities in the frame of the collaboration of FER-PLAY and NOVAFERT projects

#	date	type of activity	short description
Activities carried out from Sep 22 to Aug 24			
1	13/09/2022	General assembly	FER-PLAY participates in NOVAFERT general Assembly (13 and 14 Sept).
2	26/09/2022	KOM	Participation in NOVAFERT kick-off meeting, with a presentation on our project.
3	08/11/2022	Conjoined KOM	Kick-off for the NOVAFERT and FER-PLAY collaboration, with proposals for conjoined activities and feedbacks from REA officers.
4	17/11/2022	WP2-related meeting	Meeting to debate on the most appropriate LCA methodology.

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#	date	type of activity	short description
5	20/04/2023	Follow-up meeting	Follow-up meeting between FER-PLAY and NOVAFERT ex-coordinator to define work ahead and brainstorm on future collaborations.
6	24/04/2023	WP2-related meeting	Meeting to debate on the most appropriate LCA methodology.
7	23/05/2023	1 st Newsletter release	Release of the 1 st issue of FER-PLAY newsletter, that includes a section dedicated to news from NOVAFERT. The same did NOVAFERT team in their first release (late May 2023). See https://fer-play.eu/the-alternative/ Newsletter #1.
8	25/05/2023	Advisory Board	FER-PLAY coordinator participates in NOVAFERT Advisory Board meeting.
9	20/06/2023	Stakeholder workshop	During an event of the Flemish Nutrient Platform 'Nutricycle Vlaanderen', both FER-PLAY and NOVAFERT were shortly presented as sister projects.
10	23/06/2023	Follow-up meeting	Meeting on the conjoined organization of the ESNI conference (Sept 23).
11	20/07/2023	BioAzul (NOVAFERT partner) visits FER-PLAY coordinator	Discussion of FER-PLAY & NOVAFERT conjoined actions in the South of Spain (Andalucía and Murcia).
12	14/09/2023	2nd issue of FER-PLAY newsletter, featuring NOVAFERT	See https://fer-play.eu/the-alternative/ Newsletter #2.
13	14/09/2023	Advisory Board	FER-PLAY coordinator participates in NOVAFERT Advisory Board meeting held during their General Assembly.
14	20/09/2023	Participation as keynote speaker at ESNI Conference	Participation as key-note speaker at ESNI Conference, during a session organized by NOFAVERT.
15	20/09/2023	ESNI Conference, co-organized workshop	Participation of FER-PLAY experts to one of the workshops organized by NOVAFERT partner University of Ghent at the ESNI Conference 2023.
16	19/10/2023	FER-PLAY 4th in-person GA	NOVAFERT partners UVic & Bioazul participated in the second day event organized by CETENMA with local stakeholders: "Circular fertilizers: present and future of agriculture".
17	02/11/2023	meeting to evaluate the feasibility of a conjoined workshop at NERM 2024 conference	CETENMA and the University of Vic meet to evaluate the possibility to carry out a conjoined workshop or any other activity at NERM 2024. This conversation led to the Networking Workshop exposed in Section 2.3 of this deliverable.
18	07/11/2023	WP3 Working group to discuss best practices regarding alternative fertilisers	NOVAFERT's region IPZ Konzalting, Croatia participates as invited speaker at ACR+ workshop. More info here .
19	16/01/2024	Attendance at the webinar on Biogenic Carbon organized by NOVAFERT	2nd webinar: Biogenic Carbon accounting modelling: State of the art, limitations, and global trends towards the integration of realistic modelling in LCA.

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#	date	type of activity	short description
20	23/01/2024	3rd issue of FER-PLAY newsletter, featuring NOVAFERT	See https://fer-play.eu/the-alternative/ Newsletter #3.
21	06/02/2024	participation in one of T3.2 second focus group on environmental issues (BETA institute)	On the 6th February CIC organised the second focus group within task 3.2, discussing about the proper balance of the cost and benefits in environmental terms when using circular fertilisers and what are the acceptable risks we are willing to assume.
22	21/03/2024	Joint session inside an event	Co-creation event within WP3 inside the ManuResource Conference dedicated to collect feedback on challenges and opportunities linked to circular fertilisers.
23	21/03/2024	MANURESOURCE conference	conjoined participation at the parallel session of Day 2, with a speech on the topic " Regulatory barriers and incentives for manure-based circular fertilisers". More info here .
24	Apr 2024	spread of FER-PLAY surveys for producers	BioAzul shared the link of FER-PLAY survey for producers to NOVAFERT C&D partner to launch a social media call
25	04/04/2024	Advisory Board	FER-PLAY coordination team participated in NOVAFERT advisory board
26	09/04/2024	update on LCAs execution and possibility for conjoined exploitation	CETENMA met with UVIC (Jorge Senan) to discuss the latest news about the E-LCA of both projects. Moreover, both entities discuss the possibility of performing a joint document (paper, database...).
27	16/04/2024	Participation at NERM24 with 2 abstracts. Event organized by NOVAFERT partners	FER-PLAY presented two abstracts, one regarding the preliminary analysis of the social acceptance of circular fertilisers and another on real cases of circular fertiliser uptake in EU cities.
28	08/05/2024	promotion of NOVAFERT survey at a FER-PLAY event	During the living lab organized in partnership with SOILUTIONS (see entry in Table 2) we shared a survey for producers launched by NOVAFERT.
29	14/05/2024	feedback gathering on CETENMA's methodology for S-LCA	CETENMA, UVIC and MEERI met to discuss the S-LCA perspective. CETENMA presented its methodology, which was only feedback by UVIC as MEERI had connection issues and had to leave the meeting. The methodology to be used by MEERI was presented in another meeting on 20 th May.
30	20/05/2024	Discussion of S-LCA methodology tackling possible synergies and common strategies for possible shared C&D activities.	CETENMA meets NOVAFERT's P9 MEERI (MEERI = INSTYTUT GOSPODARKI SUROWCAMI MINERALNYMI I ENERGIA PAN).

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#	date	type of activity	short description
31	20/06/2024	promotion of FER-PLAY survey (social acceptance from fertiliser producers) at a NOVAFERT / P2Green event	NOVAFERT partner BioAzul organised a co-creation event in Málaga Province on medium term perspectives for the use regenerated residual waters containing nutrient in agriculture. P2Green project was co-organising the session and during the session the FER-PLAY survey for producers was spread among the participants.
Activities already foreseen for the last 6 months of project implementation			
1	Sep 2024	Advisory Board	FER-PLAY Coordinator will join the foreseen AB meeting.
2	Sep 2024	4 th issue of FER-PLAY newsletter, featuring NOVAFERT	See https://fer-play.eu/the-alternative/ Newsletter #4.
3	Oct 2024	Conjoined publication	Sister projects will work on a conjoined publication on the main lessons/outputs learnt by both projects (focus on guidelines, policy recommendations).
4	Jan 25	5 th (last) issue of FER-PLAY newsletter, featuring NOVAFERT	See https://fer-play.eu/the-alternative/ Newsletter #5.
5	Jan 25 – Feb 25	Conjoined publication	Either a scientific paper or non-peer-reviewed article to compare the two LCAs methodologies.
6	Feb 2025	NOVAFERT participation at FER-PLAY final event	NOVAFERT will contribute by sharing their main results and lessons learnt; they will have the opportunity to interact with stakeholder groups invited to the final event, to both gather eventually needed feedbacks and share their results.

2.2. Collaboration activities held with fellow projects

Table 3 summarizes the activities carried out with the *fellow* projects and also includes those that are already scheduled for last 6 months of project implementation.

Table 3. Activities in the frame of the collaboration with the *fellow* projects

#	Project name	date	type of activity	short description
Activities carried out from Sep 22 to Aug 24				
1	Boost pocketvergisting en nabewerking	02/03/2023	C&D activity	Oral Presentation of FER-PLAY. More info here .
2	Boost pocketvergisting en nabewerking	09/03/2023	C&D activity	Oral Presentation of FER-PLAY. More info here .

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#	Project name	date	type of activity	short description
3	All mapped projects	May-June 2023	Invitation to subscribe to the newsletter	In the welcome message of the survey sent to identify opportunities for collaborations, users are invited to subscribe to FER-PLAY newsletter: "The Alternative"
4	CLEVERFOOD	26/05/2023	Survey	FER-PLAY completed the survey to join the FOOD 2030 Project Collaboration network
5	ProBio	06/06/2023	Joint co-creation workshop (DE)	German project about compost. Co-creation activity with farmers held within the WP3. The survey on social acceptance elaborated in WP2 was provided.
6	Nutricycle Vlaanderen platform	20/06/2023	C&D activity + co-creation activity + social acceptance survey (BE)	Co-creation activity with farmers in which FER-PLAY flyer (that included a QR to FER-PLAY survey on social acceptance) was delivered. More info here .
7	ALFA	28/06/2023	Co-creation workshop (BE)	Online workshop with Belgian alternative fertilisers end-users, to co-create tailored support services to tackle barriers, improvement areas, and needs for biogas system uptake. Participants were invited to participate in the social acceptance survey from WP2. More info here .
8	IPMworks project	30/06/2023	Participation in one of FER-PLAY open days + co-creation activity (BE)	Interactive on-field session with farmers organised by INAGRO (task 4.2.1) with an opportunity of co-creation to identify technical and legislative bottlenecks that most hinder their activities.
9	Agro2Circular	07/07/2023	Participation of FER-PLAY experts to a workshop	The in-person workshop was targeting local stakeholders from Murcia Region and named "Agro2Circular: escenarios de futuro" / "Agro2Circular: scenarios for the future"
10	Bioschamp	22/08/2023	Meeting	WP2 leaders called a meeting with Bioschamp Project to gather data on champost (spent mushroom substrate).
11	Boost pocketvergisting en nabewerking	07/09/2023	Participation in one of FER-PLAY open days + co-creation activity (BE)	Interactive company visit at Aquafin (Antwerpen (BE)), an anaerobic digestion treatment plant for sewage sludge treatment. This included a co-creation activity within WP3
12	ProBio	12/09/2023	Conjoined workshop	Second workshop together with ProBio project (in person) in North of Germany as part of WP3 co-creation activities with farmers.
13	HoPEAT / Agro2Circular	12/09/2023	FER-PLAY letter of Support to A2C partner	CETENMA writes a support letter to Agro2Circular project coordinator this project proposal HORIZON-MISS-2023-SOIL-01-05

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#	Project name	date	type of activity	short description
14	Boost pocketvergisting en nabewerking	15/09/2023	Participation in one of FER-PLAY open days + co-creation activity (BE)	INAGRO organised a company visit to a manure treatment plant with ammonia stripper in which FER-PLAY results were discussed with participants as part of WP3 co-creation activity. Attendees were particularly interested in ammonia stripping.
15	Ferticycle	20/09/2023	Joint co-creation activity	Workshop "New bio-based fertilisers from secondary raw material upcycling – technical, commercial and regulatory implications"; Discussing technical, commercial and regulatory implications for circular fertilisers at EU regulatory level within WP3 co-creation activity
16	CLEVERFOOD / FOOD 2030	20/09/2023	Attendance to a workshop	Common Online Workshop for the FOOD 2030 Project Collaboration Network.
17	CCRI	19/10/2023	CCRI pilot territory at FER-PLAY GA	CCRI Castilla and León representatives deliver a keynote speech on "Castilla y León: a Circular Systemic Solution approach for the Food-Water-Nutrients value chain".
18	Biorefine Cluster Europe (ESNI)	06/11/2023	FER-PLAY is featured in the Bulletin - Nov 23	FER-PLAY database is promoted in the Biorefine Cluster Europe Bulletin of November 23. See the entry here .
19	CCRI and HOOP	07/11/2023	Participation in working group	Castilla y Leon Region and HOOP participated in the WP3 co-creation working group with public administrations to show their best practice case and foster similar initiatives in other territories.
20	GOCHAMPLAST & BIOSCHAMP	20/11/2023	gather data for the LCAs	FER-PLAY contacted with ASOCHAMP (partner in both projects) to gather details on the production of SMS that are helpful to create LCAs inventories for the SMS value chains.
21	UNLOCK	24/11/2023	gather data for the LCAs	DRAXIS contacted UNLOCK project to gather information about the industries/companies utilize feather meal.
22	LIFE Biobest	28/11/2023	Advisory Board	FER-PLAY coordinator participates in Biobest Advisory Board meeting.
23	Refresh	29/11/2023	Using the LCC methodological approach contained in their D5.2	Refresh developed a methodology for evaluating LCC of food waste, which was reviewed during T2.4 activities. Their guidelines on avoiding double counting and how to address environmental costs in LCCs were adopted by FER-PLAY.
24	P2greeN	14/12/2023	Participation in FER-PLAY Focus Group (T3.2)	Focus group organised within WP3 to discuss with external stakeholders the social acceptance barriers that are hindering the use of circular

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#	Project name	date	type of activity	short description
				fertilisers at wide scale in EU. P2greeN project was invited to provide the results gathered during a survey to the citizens tackling this issue.
25	UNLOCK	19/12/2023	request of data for WP2	Draxis contacted the UNLOCK project to get data for WP2 tasks (feather meal).
26	Bin2Bean	23/01/2024	FER-PLAY becomes member of Bin2Bean Stakeholder Forum	BIN2BEAN Stakeholder Forum (StaFo) aims to gather experts, advisors and stakeholders whose expertise or experience could help maximise the effectiveness of bio-waste collection and recycling in soil.
27	ECOBREED	24/01/2024	Joint co-creation event	Co-creation activity addressing farmers organised within WP3 and organised jointly with ECOBREED project
28	Bioboost	Jan 24	data mining from deliverables	WP2 partners used data related to waste management costs for compost, SMS and digestate. Data is from their D1.1 and relevant to FER-PLAY's D2.1.
29	Agrocycle	Jan 24	data mining from deliverables	WP2 partners used data related to the modelling of the end-of-waste, for LCC of the 7 value chains. Data are from their D6.4 and relevant to FER-PLAY's D2.1.
30	Treasure	13/02/2024	Participation in one of their workshops	Workshop on the regulatory drivers and barriers for the circular economy of biobased side and waste streams. Web article here .
31	Renu2Cycle and HERMEST	26/02/2024	Participation in co-creation activity	Co-creation activity carried out within WP3 and focusing on end-users in which these 2 projects were also mentioned
32	Biorefine Cluster Europe (ESNI)	March 24	Biorefine Cluster Bulletin	Biorefine Cluster Bulletin includes a news on FER-PLAY's pre-NERM2024 event. Read the bulletin here , entry about the NERM 2024.
33	HOOP	April 2024	spread of FER-PLAY surveys for local administration	HOOP Hub registered users, mainly local administrations, were reached to gather more inputs to the survey.
34	LIFE BIOBEST	10/04/2024	Participation in multi-topic seminar	Results from the BIOBEST project study were shown inside the multi-topic seminar organised with WP3 addressing fertiliser producers
35	various projects	15/04/2024	Activity foreseen in T4.2.4	In the frame of the NERM 24 Conference (Brussels), FER-PLAY organized a networking workshop with other projects focused on nutrient

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#	Project name	date	type of activity	short description
				recovery and sustainable agriculture, as one of pre-NERM events. More info here .
36	Treasure	08/05/2024	meeting on conjoined C&D activities	meeting with Coordinators and C&D partners of both projects to evaluate the possibility of common explanatory videos.
37	SOILUTIONS	08/05/2024	participation in SOILUTIONS living lab in Murcia	FER-PLAY participates in SOILUTIONS living lab bringing valuable content to the audience: the database, struvite samples, premise on the assessment report.
38	SOILUTIONS	09/05/2024	Web article on FER-PLAY and SOILUTIONS synergies	Web Article on CETENMA website on the living lab that took place on the 08/05/2024, where FER-PLAY and SOILUTIONS' results were presented. Full article here .
39	Walnut	30/05/2024-02/06/2024	Participation in a fair	At 2024 edition of Semana Verde de Galicia (International fair), FER-PLAY and Walnut set-up a stand to promote the projects. See post here .
40	Biorefine Cluster Europe	June 2024	Biorefine Cluster Bulletin	Description of the FER-PLAY project and activities for publication in the Biorefine Cluster Bulletin. See entry here .
41	various projects	17/06/2024	follow-up material and call for actions	All 48 participants to the networking workshop (T 4.2.4) receive a follow-up report with the identified most relevant opportunities for collaboration and a call for action.
42	NextGen Water	N.A.	Capitalizing on project results	NextGen Water deliverables D2.1, D5.2, D4.3 and D4.4 here are of interest for FER-PLAY WP2 and WP3 partners. Find the deliverables here .
43	RecaP	11/07/2024	CETENMA participates in a survey created by RecaP – phase 1	RecaP study aims at contributing to the CBAM (Carbon Border Adjustment Mechanism), a WTO-compliant carbon leakage instrument and own resource (Case C366/10, CJEU).
44	All projects registered to activity in line #35	11/07/2024	projects are reached to propose them to co-organise and/or participate in a policy session	FER-PLAY policy/regulatory framework session at ESNI 2024 is looking for more insights and participants. Most engaged fellow projects are invited to become co-organisers or just participants.
45	Waste4Soil	12/07/2024	Meeting to explore collaboration opportunities	CETENMA and Leitat Technological centre met to design collaboration actions: dissemination of FER-PLAY key deliverables at Waste4Soil Consortium Meeting in Nov 24

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#	Project name	date	type of activity	short description
46	SecureFood	16/07/2024	Adhesion to the Secure Food Extended Stakeholder Group	FER-PLAY coordinator formalized his adhesion to the SecureFood working group, composed of experts, practitioners, and key actors from various sectors involved in the food supply chain and fellow projects.
47	ReNu2Cycle, Walnut, Nutri- KNOW, NOVAFERT	13/08/2024	Field trial visit	Joint field trial visit of multiple projects in the Flemish nutrient platform 'Nutricycle Vlaanderen', including FER-PLAY, on the use, yield, impact and legislation of circular fertilisers for a wide audience.
48	RecaP	20/08/2024	CETENMA participates in a survey created by RecaP – phase 2	RecaP study aims at contributing to the CBAM (Carbon Border Adjustment Mechanism), a WTO-compliant carbon leakage instrument and own resource (Case C366/10, CJEU).
Activities already foreseen for the last 6 months of project implementation				
1	TREASoURcE	04/09/24	Participation to FER-PLAY working group	Working group for Task 3.3 – co-creation activities with Public Authorities.
2	All fellow projects	Mid-Sep 2024	Dissemination of FER-PLAY's D2.2	D2.2 "Multi-assessment of impacts, trade-offs and framework conditions" is one of the main outcomes of the whole project and its publication on the website will be communicated to all fellow projects and initiatives.
3	All fellow projects	Oct 2024	Dissemination of FER-PLAY's guidelines	The publication of D3.1, D3.2 and D3.3 (guidelines and recommendations) on the website will be communicated to all fellow projects and initiatives.
4	NutriNet	Oct 2024	Dissemination of FER-PLAY results	Dissemination on the project's website https://www.nutrinet.agrarpraxisforschung.de/
5	Waste4Soil	Nov 24	Dissemination of FER-PLAY's key deliverables at their General Assembly	D2.2 (multitopic assessment), guidelines and recommendations (D3.1, D3.2 and D3.3) will be disseminated at Waste4Soil General Assembly, for the attendees to build upon the presented results.
6	All fellow projects	Nov 24	Invitation to attend FER-PLAY final event	All fellow projects are invited to discover FER-PLAY results and to bring theirs at our final event, scheduled for Feb 2025 in Brussels (BE).

3. The networking workshop “Have your say with FER-PLAY!” [Apr 24 – M20]

Many of the aforementioned extensive networking efforts have been a mean to strengthen relations with other projects and so help their commitment with the networking workshop scheduled by M30 [Apr 24] as per Task 4.2.4 “Dissemination with other EU projects”.

The workshop was carried out at the EU’s Committee of the Regions, in Brussels, at the room JDE 2253, as one of the two pre-NERM 2024 events and titled “Have your say with FER-PLAY!”. Even though the Grant Agreement sets this workshop in Murcia (ES), thanks to the mediation of the sister project NOVAFERT, P1 CETENMA contacted the European Sustainable Phosphorus Platform to embed the workshop in the NERM 2024 conference. The workshop was organized with the support of Murcia Region’s office in Brussels, who processed the reservation of the venue.

The targeted audience was coordinators or other relevant representatives of *fellow projects*. The main aim was to strengthen relations between FER-PLAY’s *fellow* projects, share relevant project results from FER-PLAY and the *fellow* project HOOP and open the door to planning mutual actions. The activity was structured as follow:

Table 4. Agenda of the pre-NERM 2024 networking workshop “Have your say with FER-PLAY”

AGENDA	
15:30 - 16:00	Strengthen relations (over a coffee): Who is who? Who is doing what?
16:00 - 16:15	Knowing FER-PLAY: main results shared and expected + Q&A.
16:15 - 16:30	Business opportunities for successful circular fertilisers value chains: the HOOP view + Q&A.
16:30 - 16:50	Avenues for mutual dissemination and/or exploitation.
16:50 - 17:10	Maximising impact: conjoined future events and C&D activities.
17:10 - 17:30	Closing words and suggestions by keynote speaker Ludwig Hermann, former ESPP president and current senior consultant at <u>Proman Consulting</u>

The hybrid activity counted on 48 registered people, that in the end resulted in 22 attendees, 16 in-person and 6 online, representing 18 projects and initiatives. Moreover 8 projects registered to the activity but, although did not attend, participated in the survey launched before the event with the aim to better know each other and our fields of action, gather information about their activity and suggestions to foster the uptake of circular fertilisers. We therefore account for **30** participants, achieving the set KPI set in the description of Tas 4.2.4.

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To maximise the event impact, all 48 registered participants received the follow-up material with takeaways messages and inputs for collaboration opportunities.

The following figures highlight the key takeaways from the workshop, including the attendees' expertise, preferred options for combined dissemination and exploitation, strategies to enhance the market uptake of circular fertilizers, and future events where participation from *fellow* projects would be welcome.

Figure 2. What role does your company/association covers in the EU project(s) that you represent?

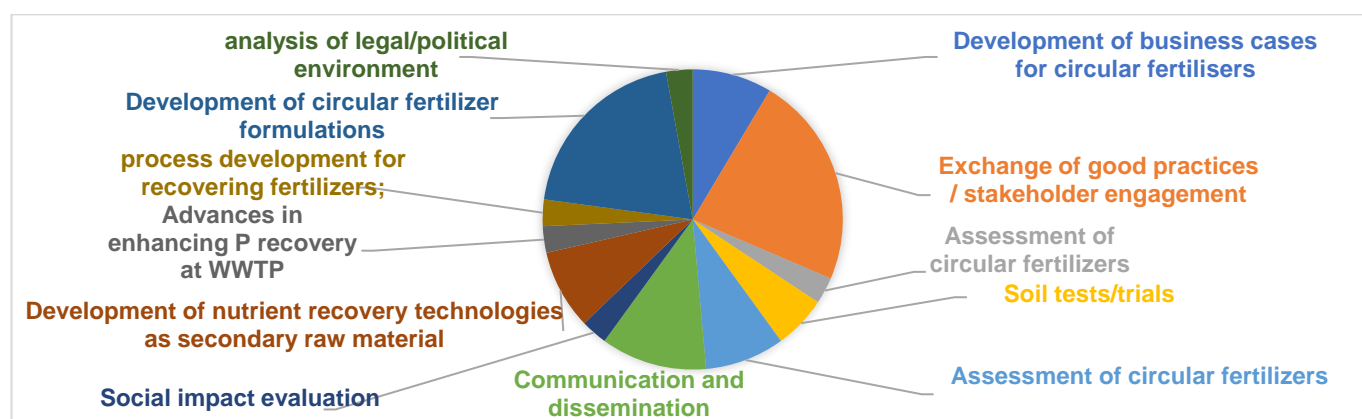
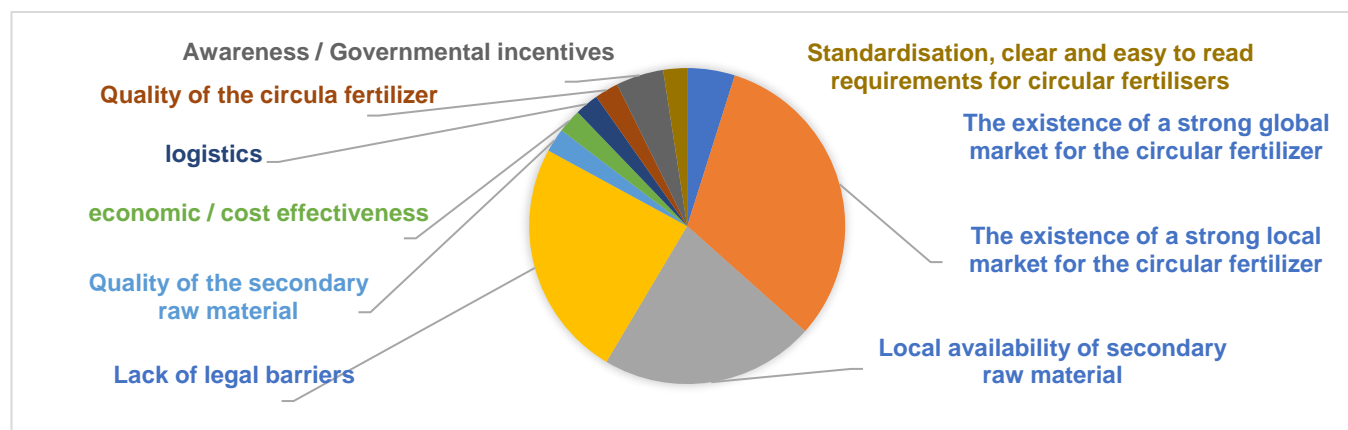


Figure 3. According to your experience, on the short-medium term, what is the most relevant driver(s) for a successful business model for circular fertilizers?



Besides these answers, one respondent highlighted that, according to their experience, the most important driver for a successful business model for circular fertilizers is the availability of true value and a robust technology readiness (technology readiness level (TRL) 9); meaning that a *sine qua non* condition is the existence of a full-scale industrial production model for a market competitive and lawful circular fertilizer production system, that is proven and demonstrated under real life and real market demand conditions.

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Participants also expressed their opinion on the most impactful dissemination and exploitation activities to be carried out with other projects. Results are showcased in Figure 4 and Figure 5.

Figure 4. In terms of conjoined dissemination with other projects, what kind of activities you think are the most impactful?

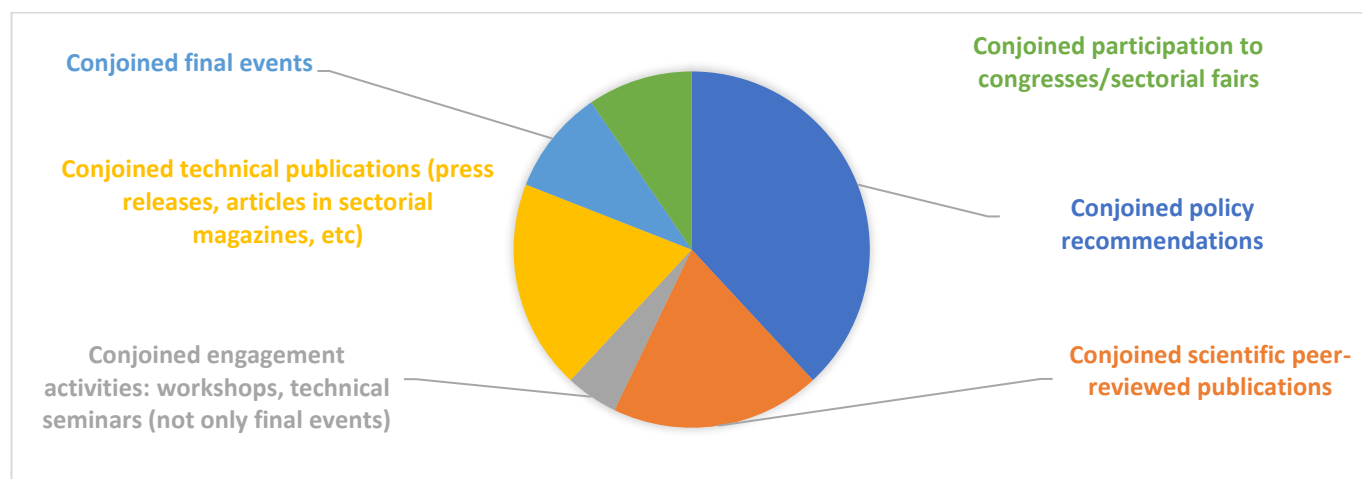
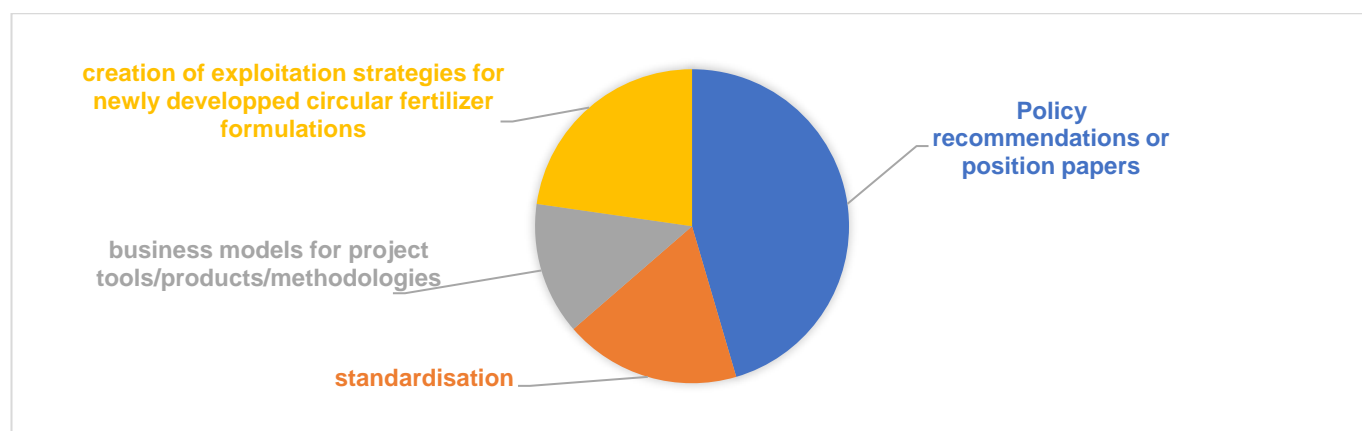


Figure 5. In terms of conjoined exploitation activities, what are the most impactful?

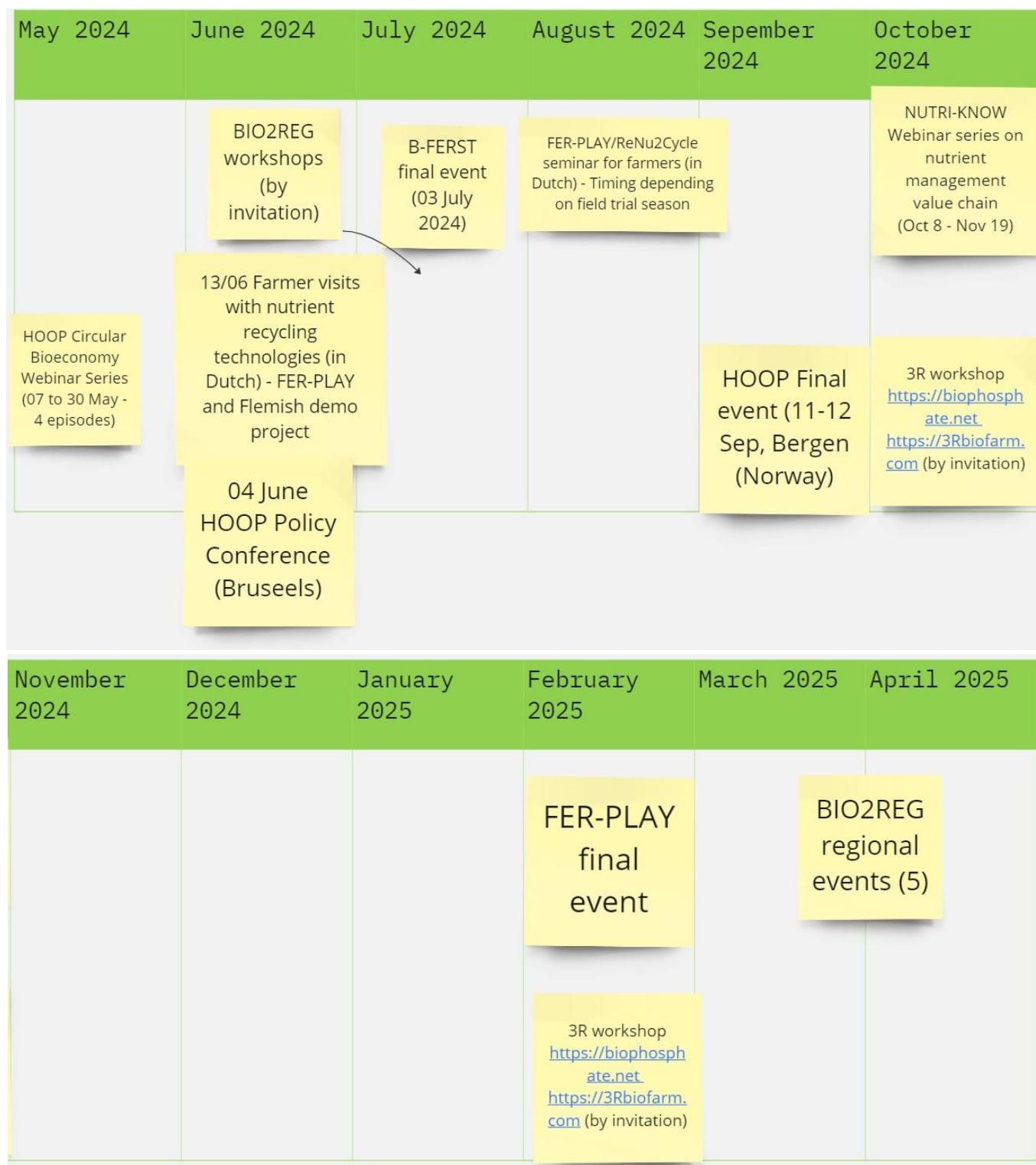


One respondent also wished to highlight that the dissemination activity should be chosen depending on the results to be disseminated. Low TRL research results are more connected to conference dissemination, while high TRL technology/products, proven and demonstrated under real life commercial production conditions are of interest for final users and producers (sectorial fairs).

Finally, a calendar to identify conjoined future collaboration opportunities was made available. Participants could add relevant projects event that would benefit from fellow projects' participation. This calendar was open to contribution until the end of June 2024, shared with all registered participants and finally presented here below in Figure 6.

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Figure 6. The Calendar - Most relevant events by fellow projects from Apr 24 to Apr 25



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All registered 48 people, either participants or not, received the follow-up short report with the following **call for actions**:

1. There are already several main events scheduled from now to Apr 2025, check the Calendar presented above and contact the promoting project, if interested to join or co-organise the event.
2. The most quoted conjoined **dissemination** activities are **policy recommendations** and **peer-reviewed papers**. To find partners for these and other dissemination activities, please check the *Summary of identified collaboration opportunities* in Annex 2 of [D2.4. "Clustering with sister projects: first outcomes"](#).
3. The most quoted conjoined **exploitation** activities are conjoined **policy recommendations** and **exploitation strategies for newly developed circular fertiliser formulations**. To find partners for these and other collaboration opportunities, we invite you to explore the *Summary of identified collaboration opportunities* with almost 50 projects, in Annex 2 of [D2.4. "Clustering with sister projects: first outcomes"](#).
4. If, as result of your registration to this pre-NERM workshop, you organise any conjoined activity or participate to other projects' activities, please notify us.

On the light of this call, the FER-PLAY coordination team took the following actions:

- Informed FER-PLAY policy assessment responsible to promote the writing of a policy paper together with the *fellow* projects that expressed interest in the initiative. The proposal is currently under evaluation by the corresponding partner.
- Track the writing process of the foreseen peer-reviewed paper on LCA methodology, to be written by NOVAFERT and FER-PLAY teams. The writing process is expected to start in M26 (Oct 2024).

4. Summary of the Outcomes

Table 5. Summary of the outcomes

n° of <i>sister</i> projects	1				
n° of <i>fellow</i> projects and initiatives	73				
n° activities with NOVAFERT	31				
n° activities with the <i>fellow</i> projects	48				
Type of activities carried out	<table border="0"> <tr> <td>NOVAFERT</td><td> <ul style="list-style-type: none"> • Mutual participation in key project meetings, like KOMs, webinars and WP meetings on relevant topics, like Life Cycle Assessment (LCA) methodology and C&D. • FER-PLAY coordinator, Dr. Martín Soriano, is part of NOVAFERT advisory board, while NOVAFERT main contact person, Prof. Erik Meers, is part of ours. • Conjoined participation in each other's focus groups and co-creation meetings. • Periodic meetings between the two projects' coordination teams with the main aim to identify and shape opportunities for collaboration and follow-up on the work done. • The two projects' respective newsletter include a section to highlight the main news and achievement of the sister project. • NOVAFERT team received two FER-PLAY interim report, to ensure the project development tracking by the sister project. </td></tr> <tr> <td><i>Fellow</i> projects</td><td> <ul style="list-style-type: none"> • Mutual communication and dissemination of project results, through the participation in open-days, the provision of content for bulletins and the subscription to newsletters, among other activities. • Participation in a <i>fellow project's</i> Advisory Boards. • Mutual participation in surveys and use of communication channel to spread them. • Mutual participation in co-creation activities, like workshops and working groups, or other project events. • Meetings to explore and update the collaboration opportunities. </td></tr> </table>	NOVAFERT	<ul style="list-style-type: none"> • Mutual participation in key project meetings, like KOMs, webinars and WP meetings on relevant topics, like Life Cycle Assessment (LCA) methodology and C&D. • FER-PLAY coordinator, Dr. Martín Soriano, is part of NOVAFERT advisory board, while NOVAFERT main contact person, Prof. Erik Meers, is part of ours. • Conjoined participation in each other's focus groups and co-creation meetings. • Periodic meetings between the two projects' coordination teams with the main aim to identify and shape opportunities for collaboration and follow-up on the work done. • The two projects' respective newsletter include a section to highlight the main news and achievement of the sister project. • NOVAFERT team received two FER-PLAY interim report, to ensure the project development tracking by the sister project. 	<i>Fellow</i> projects	<ul style="list-style-type: none"> • Mutual communication and dissemination of project results, through the participation in open-days, the provision of content for bulletins and the subscription to newsletters, among other activities. • Participation in a <i>fellow project's</i> Advisory Boards. • Mutual participation in surveys and use of communication channel to spread them. • Mutual participation in co-creation activities, like workshops and working groups, or other project events. • Meetings to explore and update the collaboration opportunities.
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n° activities foreseen M25 – M30	12 (6 with NOVAFERT + 6 with the <i>fellow</i> projects)				
Preferred conjoined dissemination activities	policy recommendations and peer-reviewed papers.				
Preferred conjoined exploitation activities	policy recommendations and exploitation strategies for newly developed circular fertiliser formulations.				
Usefulness at Consortium level	WP leaders used the information to involve fellow projects in many activities like data mining (WP1, WP2), co-creation (WP3) and C&D activities (WP4).				

5. Lessons learnt

After two years of intensive clustering activities, we resume the most relevant lessons learnt in terms of mapping and engagement of fellow projects, hoping that they will be useful to project consortia and EC's European Research Executive Agency officers in the definition of networking activities.

1. The collaboration with projects funded under the same topics is feasible and fruitful, especially if foreseen in the Description of Action (DoA) of the Grant Agreement and equipped with the due resources (person months and budget for events).
2. The conjoined Kick-off meeting, organised by our REA project officer, was an effective way to launch the collaboration and to set the expectation of the conjoined activities of the sister projects (i.e. funded under the same topic).
3. We recommend the creation and follow-up of a roadmap for conjoined activities with the sister projects (i.e. funded under the same topic) and, if relevant, with the *fellow* projects.
4. Multi-branch mapping is very effective and allowed to identify and contact with **more than 70** projects.
5. Once projects are mapped, it is convenient to get in contact with the C&D responsables AND the coordinators. Technical contacts are also recommended.
6. We allocated a lot of resources to the identification and connection with **more than 70** *fellow* projects. This effort was paid-off and we recommend to ensure the proper resource allocation for clustering/networking in CSA projects.
7. The dissemination of sound results/opportunities is a necessary condition to attract the audience; actually, the participation to in-person mid-project events is a real challenge, considering that usually few / no bold results are available for the public.
8. Remote / online mid-project (few results available) dissemination activities are to be preferred over in-person events, if the goal is to reach the maximum number of attendees.
9. In-person workshops are very recommended to spark the collaboration between projects and partners.
10. The engagement of *fellow* projects against the volume of invitations to a specific conjoined activity is generally low, but without the networking/clustering activity it would have been null.

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11. Conjoined deliverables can be foreseen only if the projects count on a perfect chronological overlap of the corresponding tasks.
12. Networking/clustering is strategic to keep *fellow* projects informed about topics which are outside one project's scope but that could be covered by others (for example, the assessment of fertilisers that don't fall within FER-PLAY list of 7 selected value chains may be performed by a *fellow* project and be relevant for the whole group).

6. Conclusions and work ahead

Besides the interaction with the *sister project* NOVAFERT, which was expected as per Grant Agreement (DoA), the FER-PLAY coordination team created a protocol that allowed to identify i) **74** *fellow* and *sister* projects, ii) the fields of collaboration relevant to FER-PLAY development and iii) the collaboration opportunities. This protocol was named Clustering Strategy and thoroughly presented in [D2.4 “Clustering with sister projects: first outcomes”](#), chapter 3. The extensive network of projects and collaboration opportunities became fundamental to fulfil the objective of exchanging information, sharing methodologies and generating synergies, thus enriching FER-PLAY scope.

In the first year of the project, we carried out 19 clustering action and set the objective of +30 actions for the second year of project development, ending now (Aug 24). Nonetheless, the effective clustering framework that we developed allowed us to exceed the set KPI and to account for a total of **79** clustering actions carried out during the first two years: **31** with NOVAFERT (*sister* project) and **48** with the *fellow* projects. Moreover, we currently foresee at least **12** clustering activities from September 2024 to February 2025 (end of the project): **6** with NOVAFERT and **6** with the *sister* projects.

Fellow projects and the *sister* project were involved in communication and dissemination activities and in co-creation activities with different stakeholder groups, may they be surveys or meetings, which valuable outcomes shaped the guidelines to foster the production and uptake of alternative fertilisers (guidelines for farmers, local policy makers and fertiliser producers; D3.1, D3.2 and D3.3, respectively, soon available on our [website](#)). In some cases, their results were capitalised and employed in our database (WP1) and for the D2.2 “Multi-assessment of impacts, trade-offs and framework conditions” (also soon available on our [website](#)). WP3 benefited from the conjoined organization of events with various stakeholder groups for topics related to farmers’ needs and interests. Details for each activity are available in chapter 2 and the resume of the outcomes in chapter 4.

We acknowledge that the clustering task has been very valuable to FER-PLAY, especially for:

- the data mining process,
- the creation of an audience to disseminate project results,
- the obtention of a wider perspective at co-creation level,
- to open the door to future exploitation and capitalisation of our project results (database, LCI, etc...).

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In the last 6 months of project implementation, the FER-PLAY Consortium partners will focus their networking efforts to:

- disseminate project results to the fellow projects, like the most relevant FER-PLAY deliverables: D2.2, D3.1, D3.2 and D3.3, inviting to capitalise on and/or disseminate them through their channels.
- The writing of the foreseen peer-reviewed paper on LCA methodology, to be written by NOVAFERT and FER-PLAY teams (mentioned in Section 3).
- The writing of a policy paper together with the *fellow* projects that expressed interest in the initiative (mentioned in Section 3).
- The identification of commercial and regulatory barriers and drivers for alternative fertilizers, accomplishing with Task 4.3 “exploitation”, which results will be included in D4.2 “Exploitation strategies”.
- The creation of a conjoined publication with NOVAFERT partners on the main lessons/outputs learnt by both projects, with a special focus on guidelines and policy recommendations.

Annex 1: List of projects and initiatives for clustering activities

Table 6. List of fellow (73) and the sister (1) projects

	Project name	Website	Project description
1	Agro2Circular	https://agro2circular.eu/	An EU project boosting the upcycling of agri-food wastes (from F&V and MPF) through innovative routes of valorisation, leading to high extraction yields, bioactives with the purity and stability required to be used for the production of new food, cosmetic and nutraceutical formulation.
2	Agrocycle	https://agrocycle.eu/	An EU-funded initiative explored the best possible use of waste streams associated with the agri-food sector to reduce food waste by 50 % by 2030.
3	ALFA	https://alfa-res.eu	Upscaling the market uptake of renewable energy by unlocking the biogas potential of livestock farming.
4	B-Ferst	https://bferst.eu	B-FERST aims at integrating the valorisation of bio-waste in agriculture by creating new circular and bio-based value chains. The project improves the sustainability of arable land by developing 8 innovative bio-based fertilisers. Our ultimate goal is to enhance the relationships between farmers and bio-based industries.
5	Bin2Bean	https://www.bin2bean.eu/	The project will support European cities by promoting innovations that aim to valorise bio-waste and optimising their recycling into soil improvers through innovative and economically viable value chains.
6	BIOBOOST	https://www.bioboost.eu/	The project addresses the complete value chain from feedstock potential, the investigation of pyrolysis and hydrothermal carbonisation conversion technologies, the optimisation of transport and logistics to the exploitation of the energy carrier and its by-products. The techno/economic and environmental assessment includes the complete supply chain.
7	BIO2REG	https://bio2reg.eu/	BIO2REG is a three-year European project that aims to enable the systemic transformation of greenhouse gas-intensive regions into bioeconomy model regions. Nine partners are committed to developing concrete measures to enable sustainable bioeconomic transitions in European regions.
8	BioDEN	https://www.biogas-e.be/bioden	A biorefinery approach to exploit digestate as key feedstock in the energy – nutrient nexus
9	BioPhosphate	https://biophosphate.net	A spin-off business focused on biochar

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	Project name	Website	Project description
10	BIORADAR	https://www.bioradar.org/	An EU project that aims to help organisations, policymakers and investors have the necessary information to step towards a more sustainable, bio-based economic model by taking a system perspective to fill the indicator gaps in material circularity and evaluating the environmental and social impacts of industrial bio-based systems by developing digital monitoring tools that will provide benchmarks and a self-assessment platform for bio-based industries.
11	Biorefine Cluster	https://www.biorefine.eu/	The Biorefine Cluster Europe interconnects projects and people within the domain of biobased resource recovery, striving to contribute to a more sustainable resource management.
12	Bioschamp	https://bioschamp.eu/	Biostimulant alternative casing for a sustainable and profitable mushroom industry
13	Boost pocketvergisting & nabewerking	https://www.vcm-mestverwerking.be/nl/kenniscentrum/30067/boost-pocketvergisting-en-nabewerking	A network, not a project, aimed at spreading a (renewed) awareness of pocket digestion and post-processing of manure or digestate.
14	byProtVal	http://byprotval.eu/es/networking	This project studies the use of by-products from the meat industry as raw materials for the production of two higher value-added products: retanning agents and fertilizers or biostimulants based on amino acids
15	B-WaterSmart	https://b-watersmart.eu/	Utilizar sub-productos de industria cárnica como materia prima para la producción de dos productos de mayor valor añadido: agentes de recurtición y fertilizantes o bioestimulantes basados en aminoácidos.
16	CCRI	https://circular-cities-and-regions.ec.europa.eu/	Launched and funded by the EU as part of the Circular Economy Action Plan, the Circular Cities and Regions Initiative (CCRI) focuses on implementing the circular economy across Europe's cities and regions. The EU's transition to a circular economy will reduce pressure on natural resources and create sustainable growth and jobs.
17	CIRAWA	https://cirawa.eu/	CIRAWA is working with small-holder farmers in West Africa to improve food nutrition, local livelihoods, and ecosystem health.
18	CIRCULAR BIOCARBON	https://circularbiocarbo n.eu/	CIRCULAR BIOCARBON presents a first-of-a-kind flagship biorefinery designed to valorise the Organic Fraction of Municipal Solid Waste (OFMSW) and Sewage Sludge (SS) into added-value products. Construction will start in 2022 and the biorefinery will operate concurrently for three years in Spain (Zaragoza) and Italy (Sesto San Giovanni)
19	CLEVERFOOD / FOOD 2030	https://food2030.eu/	CLEVERFOOD will mobilise society to transform food systems by establishing and operationalising the FOOD 2030 Project Collaboration Network: https://food2030.eu/

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	Project name	Website	Project description
20	ECOBREED	https://ecobreed.eu/project/	Increasing the efficiency and competitiveness of organic crop breeding
21	EUFA	https://www.efua.eu/	EFUA's objectives are to unlock Urban Agriculture's potential through achieving better networking, better knowledge, better deployment and better policies in the field.
22	EUWAY	https://euway-erasmus.eu/	The project wants to follow a bottom up approach which means learning from practitioners and making their knowledge, patterns and methods in the field of sustainable water management on farming.
23	FARM ELDER	https://farmelder.eu/	The FarmElder project aims to offer farmers the opportunity to engage in <i>social farming</i> , a concept defined in 2009 as 'short or long-term activities that use agricultural resources such as animals and plants to promote and generate social services in rural areas. Examples of these services include rehabilitation, therapy, sheltered employment, life-long education and other activities that contribute to social inclusion.'
24	FENIX	Not available yet.	New Life for Biowaste as a sustainable Soil Improver. Started in June 23, no website available. Horizon Grant Agreement n° 101113002.
25	Ferti-Cycle	https://ferticycle.ku.dk/	This project is a Marie S. Curie ITN (Innovative Training Network) involving 15 PhD students researching in the field of bio-based fertiliser production. Pd.D. programs are finalizing either in 2023 or 2024.
26	Fertimanure	Partners - Fertimanure	More than 90 % of the manure produced by livestock farms in the EU is used for land fertilisation. However, this process is inefficient. The EU-funded FERTIMANURE project intends to develop, test and estimate advanced nutrient management strategies to produce competitive fertilisers that contribute to good yield.
27	Go Microclimatt	https://microclimatt.es/	National (ES) project to endorse and spread awareness on the benefits of biostimulants obtained from microalgae, for a more sustainable agriculture.
28	GOCHAMPLAST	Proyecto GOCHAMPLAST	National (ES) project on the recycling of champost (spent mushroom substrate) and recycle nutrients.
29	HERMEST [Vlaio-LA]	https://inagro.be/projecten/hermest-toepassen-van-herwonnen-meststoffen-het-teeltrecept-niet-grondgebonden-teelten	This project specifically aims to significantly increase and directly disseminate knowledge about the use of recovered fertilizers among growers of tomatoes, strawberries, chicory, bedding plants, and ornamental shrubs. This knowledge increase is implemented within the project on a number of key farms. These farms act as catalysts for the transition of the entire sector. The project aims to remove barriers to the use of recovered fertilizers and to sustainably align supply and demand.

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	Project name	Website	Project description
30	HOOP	https://hooproject.eu/	The HOOP project is working with 8 Lighthouses cities and regions that are shining a light on the path towards a more sustainable and circular future
31	IFOAM	https://www.ifoam.bio/	A global network of organic farming stakeholders, including farmers (i.e.: alternative fertilizer end-users)
32	IPMWORKS	IPMworks	An EU-wide farm network demonstrating and promoting cost-effective IPM strategies.
33	IRTG- AMAIZE-P	https://amaize-p.uni-hohenheim.de/en	Sino-German International Research Training Group "Adaptation of maize-based food-feed-energy systems to limited phosphate resources" DFG 328017493/GRK 2366
34	Lex4Bio	https://www.lex4bio.eu/	Develops a profound knowledge basis and new coherent methods to take full advantage of BBFs. For this purpose, LEX4BIO will focus on the most promising technologies for BBF production and evaluate their fertilisation potential and other properties against national and EU fertilisation requirements.
35	LIFE Biobest	Not available yet, the project recently started.	Aims to identify and validate the Best Practices and current management instruments throughout the biowaste management chain (from generation to treatment) that allow the production of quality compost and digestate and establish a series of Key Reference Performing Indicators (KPIs), based on the analysis of existing databases and experiences.
36	MTK: The Central Union of Agricultural Producers and Forest Owners	https://www.mtk.fi/web/en	MTK has over 316 000 members in local agricultural producers' organisations and regional forest management associations.
37	NextGen Water	https://nextgenwater.eu/	ENDED. https://nextgenwater.eu/results/ are potentially interesting for WP2. Challenging embedded thinking and practices in the water sector by embracing circular economy principles and technological innovation
38	Nitroman	www.nitroman.be	Through two innovative techniques – ammonia stripping and membrane filtration - NITROMAN aimed to recover significant amounts of nitrogen, potassium and water from this liquid fraction of pig and cattle manure. Ended in December 2022, the Consortium is still available to share project results.
39	NOMAD	https://www.projectnomad.eu/	NOMAD's mission is to develop a unique mobile solution for production of high-quality organic fertilisers and soil amenders from anaerobically digested organic waste. [ends in Sep 2023]

D2.3. CLUSTERING WITH SISTER PROJECTS: OUTCOMES AND LESSONS LEARNT

	Project name	Website	Project description
40	NOVAFERT (the sister project)	https://www.novafert.eu/	With similar objectives to FER-PLAY, 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.
41	Nutri2Cycle	Nutri2Cycle	Nutri2Cycle focusses on closing the nutrients CNP loops to encourage a sustainable agriculture.
42	Nutricycle Vlaanderen platform	Home - Nutricycle	Nutrient platform for stakeholders in Flanders, with the aim on spreading awareness on nutrient recycling.
43	NutriBudget	https://www.nutribudget.eu/	Project working on the optimisation of nutrient budget in agriculture.
44	Nutri-know	https://www.biorefine.eu/projects/nutri-know-broadening-the-impact-of-eip-agri-operational-groups-in-the-field-of-nutrient-management-knowledge-exploitation-and-easy-to-understand-material-for-farmers-and-practitioners/	The EU-funded NUTRI-KNOW project will expand EIP-AGRI Operational Group (outcomes on the issue of nutrient management across borders. The project aims to modernise the agricultural sector by collecting, translating, and sharing easy-to-understand and practice-oriented knowledge. NUTRI-KNOW will support the appropriate adoption of the OG results and experience by relevant end-users through 12 OGs from Spain, Italy, Belgium and Ireland.
45	Nutriman	www.nutriman.net	Ended in March 2021. The Consortium have been contacted in case they wish to share relevant resources.
46	Nutrinet	https://www.nutrinet.agrarpraxisforschung.de/	This is an initiative where farmers, advisors, and scientists work together to improve nutrient management in organic farming. They conduct field trials and regularly host public field days. They are organized into six regional networks nationwide, each with its own research focus.
47	P2Green	https://p2green.eu/	The overall objective is to foster a paradigm shift, from a linearly organised resource and nutrient system within the agri-food supply chain, towards a circular material flow system between urban and rural areas thereby restoring the coupling of the water-agri-food system using a holistic symbiotic resource management approach following the 3R principle "Reduce, Reuse, Recover". To achieve this, P2GreeN will develop new circular governance solutions for the transition from fork to farm to halt and eliminate N & P pollution by connecting blue urban with green rural infrastructure, focusing on circular nutrient flows of nitrogen (N) and phosphorus (P).

D2.3. CLUSTERING WITH SISTER PROJECTS: OUTCOMES AND LESSONS LEARNT

	Project name	Website	Project description
48	PHOSTER	https://phoster-project.eu/	The PHOSTER projects tackles challenges related to supply of critical raw materials in the future and delivers a sustainable, replicable and scalable circular economy solution (TRL 4) for the recovery of secondary minerals and metals from incinerated sewage sludge ashes and mining industry by-products to substitute primary critical raw materials (phosphorus, magnesium) in the manufacturing of fertilisers.
49	ProBio (DE)	www.projekt-probio.de	National (DE) project about compost.
50	PROPAGRI	https://propagri.eu/	PROPAGRI (Professional integration of young people through agriculture) is an Erasmus+ project aiming at providing youth with agricultural skills and training to improve their employability in the farming sector.
51	RecaP	https://www.sdu.dk/da/recap	A project about the capture, recycling and societal management of phosphorus in the environment.
52	Refresh	https://eu-refresh.org/index.html	REFRESH was an EU research project taking action against food waste. It kick-started its national platforms and the online “Community of Experts” though continue after the lifetime of the project.
53	ReLEAF	https://projects.leitat.org/home/releaf/	ReLEAF’s objective is to valorize widespread bio-waste streams across Europe—including sewage sludge, fish processing waste, mixed food waste, and agri-food residues—to produce safe, sustainable, and efficient bio-based fertilizers (BBFs). These BBFs are designed to improve soil health and quality, close nutrient cycles within the food value chain, and reduce dependency on imported mineral fertilizers.
54	ReNu2Cycle	https://renu2cycle.nweurope.eu/	This project is the continuation of ReNu2Farm and wants to recycle nutrients to close the fertiliser cycle.
55	ReNu2Farm	Recycled fertilisers I ReNu2Farm	Interreg projects that aims to increase the reuse of three plant nutrients, i.e., nitrogen (N), phosphorus (P) and potassium (K), through the implementation and exploration of innovative N & P recovery solutions for the utilisation of human sanitary waste from urban settlements and its conversion into safe bio-based fertilisers for agricultural production in three pilot regions (P2Green pilot regions) on a north-south trajectory from the Baltic Sea region via the metropolitan area of Hamburg-Hannover to the region of Axarquía in Southern Spain and by multiplying the impact via four follower regions in Hungary, Italy, France and Greece.
56	REWAISE	http://rewaise.eu/the-project/	REWAISE will create a new “smart water ecosystem”, integrating an intelligent digital framework for decentralised water services and decision-making, involving all relevant stakeholders to embrace the true value of water, reducing freshwater and energy use, and recovering nutrients and materials

D2.3. CLUSTERING WITH SISTER PROJECTS: OUTCOMES AND LESSONS LEARNT

	Project name	Website	Project description
57	Run4Life	https://run4life-project.eu/	From wastewater to fertilizers. Run4Life demonstrates an alternative strategy for improving the recovery of resources from wastewaters, using a decentralised approach where black water (toilet wastewater), grey water (other domestic wastewaters) and organic kitchen waste are collected separately. Each separate flow then receives the treatment needed for efficient resource recovery, for example fertiliser products.
58	Rustica	https://rusticaproject.eu/	The RUSTICA projects provides a technical solution to convert organic residues from the fruit and vegetable sector into novel bio-based fertiliser products of high quality that address the needs of modern (organic) agriculture. The project's ambition goes beyond the simple recovery of nutrients, and also includes the developments of economically viable and environmentally sustainable alternatives to mineral fertilisers with the same or improved agronomic value.
59	SAFEGUARD	https://www.safeguard.biozentrum.uni-wuerzburg.de/	Safeguard brings together world-leading researchers, NGOs, industry and policy experts to substantially contribute to Europe's capacity to reverse the losses of wild pollinators.
60	Sea2Land	https://sea2landproject.eu/	Producing advanced bio-based fertilizers from fisheries wastes.
61	SecureFood	https://secure-food.eu/	SecureFood responds to the need to strengthen food systems and security by adopting an integrated, systems-thinking approach. The project acknowledges the complexity of food systems, treating them as interconnected networks involving various stakeholders, activities, and services related to food production and delivery.
62	SEMPRE-BIO	https://sempre-bio.com/	SEcuring doMestic PRoduction of cost-Effective BIOmethane
63	Soilutions	https://cordis.europa.eu/project/id/101112842	SOILUTIONS will optimise four bio-waste valorisation routes (blood hydrolysate, frass, N-struvite, K-struvite) into advanced bio-waste soil improvers with the aim of enhancing nutrient recovery from bio-waste (e.g. N, P, K, organic matter) thus reducing landfilling and incineration.
64	Stratus	https://stratusproject.eu/	STRATUS, extending over 60 months, aims to connect advisors across Europe for accelerating knowledge creation and sharing on Integrated Fertilization Management, supporting farmers to bring this knowledge into practice to achieve the ambition of the Farm to Fork and Biodiversity Strategies, thus reducing nutrient losses to the environment while maintaining soil fertility.
65	SusFert	https://www.susfert.eu/	SUSFERT develops more sustainable, multifunctional fertilisers for phosphorus and iron supply fitting into existing production processes and EU agricultural practice. It combines bio-based and biodegradable coatings for controlled release, probiotics to increase nutrient availability and the renewable phosphorous source struvite. SUSFERT demonstrates fertiliser efficacy for major crops, evaluates

D2.3. CLUSTERING WITH SISTER PROJECTS: OUTCOMES AND LESSONS LEARNT

Project name	Website	Project description
		the economic potential and sustainability of the tested products, ensures regulatory compliance and finally prepares market entry.
66 TREASoUrcE	https://treasource.eu/	TREASoURcE aims to initiate systemic change by developing systemic circular economy solutions in cities and regions for currently underutilised or unused plastic waste, end-of-life electric vehicle batteries and bio-based waste and side streams. Implementing these solutions together with companies, societies (including citizens, consumers, communities and regional actors) and experts in the field is expected to significantly increase product and material circulation in the Nordic and Baltic Sea Regions.
67 ULTIMATE	https://ultimatewater.eu/	ULTIMATE aims to create economic value and increase sustainability by valorising resources within the water cycle
68 UNLOCK	https://unlock-project.eu/	This projects works to release the potential of feathers to foster circularity in agriculture.
69 WALNUT	https://walnutproject.eu/	WALNUT aims to redesign the value and supply chain of nutrients from wastewater and brine, creating innovative solutions for nutrient recovery while contributing to circular economy and sustainability in the EU agricultural sector.
70 Waste4Soil	https://www.waste4soil.eu/	Waste4Soil project aims at developing applicable recycling technical pathways to transform food processing residues (FPR) into soil improvers, through a circular, systemic and multi actor approach at regional level involving all food chain actors, thereby closing specific loops (nutrients, organic matter, water).
71 Water2REturn	https://water2return.eu/	Water2REturn proposes to use a Circular Economy approach to turn wastewater treatment facilities in slaughterhouses into "bio-refineries".
72 WATER-MINING	https://watermining.eu/	Among WATER-MINING objectives there's the development of innovative solutions for sustainable water management, including tapping into urban and industrial wastewater and seawater desalination to recover nutrients.
73 Wider-Uptake	https://wider-uptake.eu/	WIDER UPTAKE demonstrates innovative solutions that optimize water reuse, resource recovery and energy utilisation. Market utilisation of the recovered resources is achieved through a symbiosis between the utility and industry.
74 WikiLeeks	https://inagro.be/projecten/wikileeks-preciezer-prei-telen-met-precisielandbouw	ended in March 2023, this national (BE) project aimed to make leek cultivation more sustainable through the introduction of site-specific fertilization management.

