FERTIMANURE

Deliverable

Project Acronym: FERTIMANURE

Project full name: Innovative nutrient recovery from secondary sources – Production of high-added value Fertilizers' from animal MANURE

Grant Agreement No. 862849

D7.3. Communication and Dissemination material

Project start date	January 1st, 2020
Duration in months	48
Deliverable due date	December 31th, 2021
Actual submission date	December 31st, 2021
Work package concerned	7
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Contributor(s)	Greenwin

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Preface

The communication and dissemination of material deliverable (M24) is part of WP 7 Dissemination and Communication, but more specifically with Task 7.2 Dissemination and Communication activities between January 2020 (M1) and December 2023 (M48). One of the project tasks is to communicate and disseminate about the project via different materials that should be created throughout the project's lifetime.

This deliverable showcases all of the communication and dissemination material that has been created during 2021, which means between January 2021 (M13) to December 2021 (M24). This deliverable shows the different material with the description of what each of them includes and the links where you can find the information.

The communication and dissemination material was created with the help of all WPL, since they were giving the Communication and Dissemination manager all of the details so as to make sure that the information was precise.

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FERTIMANURE

Document History

Date	Author	Action	Status
November 10th, 2021	Rodrigo Arandi-Klee	1st draft revision	Draft
December 14th, 2021	Yael Brusca Gil	2nd draft revision	Draft
December 15th, 2021	Laia Llenas Argelaguet	Approved by UVIC	Approved by the PC

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Summary

Communication and dissemination material has been created as to provide all of the project partners with the means to promote the project during the different events, conferences, workshops, etc. The material that was created during 2021, from January 2021 (M23) to December 2021 (M24) was the following:

- 2nd e-newsletter: it was launched on January 2021, and it contained all of the project advancements, the most important events, activities carried out, communication and dissemination material that was uploaded on the website, etc. The 2nd e-newsletter contained all of the project advancements from July 2020 (M7) to December 2020 (M12).

- Project website: a database of 163 projects was compiled by Leitat as part of Task 1.5 Capitalisation of relevant project results. It was published on March 2021 and it was done in a way to avoid 0 results. This is why specific fields were added on the website as to make the search more accurate.

- Region cards: 7 region cards were created as part of the work developed in Deliverable 1.1 Flow assessment, logistics and characterisation of animal manure and by-products led by Leitat. The purpose of these regions cards is to summarise the most important information of each region.

- Explanatory video: In order to communicate better about the FERTIMANURE project it was decided to produce the English version of the video with subtitles in the 6 consortium languages: Catalan, Croatian, Dutch, French, German and Italian. These were published during the months of May (M17), June (M18) and July 2021 (M19).

- 3rd e-newsletter: it was launched on July 2021, and it contained all of the project advancements, the most important events, activities carried out, communication and dissemination material that was uploaded on the website, etc. The 3nd e-newsletter contained all of the project advancements from January 2021 (M13) to June 2021 (M18).

- On-farm pilot infographics: at the beginning of the project 5 infographics, that represent and explain each of the on-farm pilot infographics, were created. 3 of these pilot plants suffered some changes during the last year, and this is why they were updated according to the real scenario.

For the following years, more communication and dissemination material will be created.

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Content

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List of Abbreviations

BBF	Bio-based Fertiliser
TMF	Tailor-made Fertiliser
EU	European Union
WPL	Work Package Leaders
PTM	Project Technical Committee meetings
CELAC	Community of Latin American and Caribbean States

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1. Introduction

FERTIMANURE is a European project funded by the H2020 programme under Grant Agreement No. 862849. The mission of the FERTIMANURE project is to provide innovative solutions (technology, end-products, and business models) that solve real issues, ie the manure challenge, and help farmers with the challenges that they are currently facing. FERTIMANURE will develop, integrate, test and validate innovative nutrient management strategies so as to efficiently recover and reuse nutrients and other products with agronomic value from manure, to ultimately obtain reliable and safe fertilisers that can compete in the EU fertiliser market.

Communicating and Disseminating the project results via different types of materials is essential to make sure that the impact of the project goes beyond the project borders. Creating a visual identity and using it to create the material is a way of giving the project its own image and that is why you will be able to see that all the project's materials follow the same guidelines.

One of the objectives of WP 7 is to create the dissemination and communication material as to make sure that the different stakeholders understand the project via:

- Its mission
- Its objectives
- Its circular economy strategy
- The 5 on-farm experimental pilots
- The technologies used in these 5 pilots
- What it aims to achieve
- The project partners
- The benefits for farmers
- The tests carried out
- The results obtained – BBFs and TMFs
- The business models

Some of these are already showcased in the dissemination and communication material presented in this deliverable and some others, like the results, will be showcased as soon as the project advances more and we get results that are public.

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2. Methodologies and Organisation

In order to produce all of the Communication and Dissemination material, GreenWin has to be in close contact with the different project partners. Their feedback is very important to know if the information that is going to be published in the different communication and dissemination material is correct and for public usage.

This is why every time that material is created GreenWin works closely with the WPL, as to make sure that the information is correct and precise. GreenWin takes advantage of the PTM, that take place once a month, to discuss about the different activities that are being carried out, and to get feedback from their side. Also, GreenWin takes advantage of these meetings to ask for specific material, like for example pictures related to the project that can be published on the social media. The GA are usually another way in which GreenWin gets feedback from the different project partners and they are usually a channel to discuss about the needs for WP7 in terms of communication and dissemination material.

If there is a specific issue that needs to be discussed in more details and with a stricter deadline, then a Teams meeting is performed. During this meeting and with the partner involved in the activity, we discuss about the issue, as to get the expected results in terms of communication and dissemination.

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3. FERTIMANURE 2nd e-newsletter

The 2nd e-newsletter was launched on January 22nd 2021 to the stakeholders that have subscribed to the newsletter via the website. GreenWin, with the feedback from all the WPL, created the 2nd newsletter that showed the project highlights for the past 6 months, from July 2020 to December 2020. It was shared by the project partners in their own social media (website, Twitter, facebook and LinkedIn accounts) as to achieve the expected impact and making sure that this newsletter got to many other stakeholders that are not aware of the FERTIMANURE project.

The contents of this newsletter were:

- Brief summary of the project
- FERTIMANURE explanatory videos in 3 different versions - English with Spanish subtitles, English with English subtitles, and English without subtitles
- FERTIMANURE website now available in Spanish
- FERTIMANURE holds 1st General Assembly
- Activities carried out
    - Advancement of on-farm experimental pilots
    - FERTIMANURE participates in 2nd edition of ESNI 2020 Conference
    - FERTIMANURE participates in HEPH Condorcet course programme
- Article about FERTIMANURE published in the Open Access Government
- FERTIMANURE will participate in the manuREsource 2021 International conference on manure management and valorisation
- FERTIMANURE partners
- EU funding phrase
- Disclaimer
- Entry into force of the General Data Protection Regulation

The purpose of the newsletter is to keep informed the different groups of stakeholders about the project advancements, results, communication activities carried out, intermediate events to be organised, important milestones, etc.

If you want to read the sent e-newsletter, please check out the following link:
https://www.fertimanure.eu/en/news/consult/24

4. FERTIMANURE project website

A database of 163 projects, with great relevance and capitalisation of their results, was created as part of Task 1.5 Capitalisation of relevant project results, developed by Leitat. There are 38% of these projects that are implemented at national level, 55% at European level and 7% at international level. The most common funding programmes are LIFE, FP7, Interreg, and BBI-JU. From these 163 projects, 45 are currently on-going and 106 are finished.

This database was published on the project website on March 22, 2021. To do this the creation of a new section in the main page was needed, and it was called RELATED PROJECTS. The information that you can find about each project is:

- Title of the project
- Acronym
- Current status

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- Type of project
- Categories
- Keywords
- Budget
- Type of funding
- End year
- Relevant information
- Coordinator
- Contact name
- Contact e-mail

GreenWin worked with the website developers before uploading all of the projects information, because they wanted to make sure that the search would not allow to give NO RESULTS after the search. This is why finally only 5 fields were added to the section. The fields are:

- Keywords (scrolling menu with specific options)
- Categories (scrolling menu with specific options)
- Status (scrolling menu with specific options)
- Type (scrolling menu with specific options)
- Customised request (this is the only field where you can write down any word or phrase)

If you want to check out the database related to these 163 project that have a strong like with FERTIAMNURE, click on the following link:
https://www.fertimanure.eu/en/related_projects

5. FERTIMANURE region cards

7 region cards were created as part of the work developed in Deliverable 1.1 Flow assessment, logistics and characterisation of animal manure and by-products led by Leitat. The purpose of these regions cards is to summarise the following points, so that the stakeholders can understand better the study carried out regarding the flow assessment, logistics and characterisation of manure.

The regions cards contain the following information:

- Number of animals (census) per animal type (LSU) per county (NUTS-3)
- Total quantities of nutrients (N and P) generated per animal type
- Manure management
- Manure transport costs
- Project partners
- Project website and social networks
- EU funding phrase
- Disclaimer

A region card was developed for the following countries:

- 1 for Belgium
- 1 for Germany
- 1 for Italy
- 1 for The Netherlands
- 1 for Spain
- 2 for France (Brittany and Grand Est regions)

Leitat created these regions cards by using the template given to all project partners, and GreenWIn made sure that all of the Communication and Dissemination guidelines were correctly applied.

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If you want to read these regions cards, please check out the following link:
https://www.fertimanure.eu/en/publication/consult/17

6. FERTIMANURE explanatory video

As explained in Deliverable 7.3 Communication and Dissemination material M12, an explanatory video was launched on the 15th of September 2020 in 3 different versions: English version with Spanish subtitles, English version with English subtitles, and English version with no subtitles.

In order to communicate better about the FERTIMANURE project it was decided to produce the English version of the video with subtitles in the 6 consortium languages:

- Catalan – it went live on June 24th, 2021- https://www.youtube.com/watch?v=4CXKsXsufKI
- Croatian – it went live on June 15th, 2021 - https://www.youtube.com/watch?v=R-YTiDBY1M4
- Dutch – it went live on July 6th, 2021 - https://www.youtube.com/watch?v=Dy6VFe97USU
- French – it went live on July 14th, 2021 - https://www.youtube.com/watch?v=x4Dv3w5DliE
- German – it went live on June 4th, 2021 - https://www.youtube.com/watch?v=VZIp8-I5WYI
- Italian – it went live on May 19th, 2021 - https://www.youtube.com/watch?v=LSkuObmCk_Q

A script was prepared with the English version of the original video so that the partners could translate directly the phrases/sentences shown in the different video screens. An example of a script section below:

Partners translation to their country's language

Meet Ana.

In each of these boxes write the translation of the text on top ⬆, so ***Meet Ana*** in this case

She is a farmer who is extremely concerned about the impact of her activities on the environment,

the quality of her products and the sustainability of the agricultural and food system as a whole.

The EU livestock sector is the largest in the world.

Manure is by far the largest nutrient-rich residual biomass flow generated by this sector.

This important biomass stream needs to be upgraded into tailor-made organic and mineral fertilisers

that can better comply with the nutrient requirements of different crops

to minimise losses to the environment.

Europe's livestock industry generates around 1400 million tonnes of manure annually.

Manure is rich in nitrogen, phosphorus, potassium, and also in micronutrients,

Figure 1 Video script in all of the consortium languages

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7. FERTIMANURE 3rd e-newsletter

The 3nd e-newsletter was launched on July 29th, 2021 to the stakeholders that have subscribed to the newsletter via the website. GreenWin, with the feedback from all the WPL, created the 3nd newsletter that showed the project highlights for the past 6 months, from January 2021 to June 2021. It was shared by the project partners in their own social media (website, Twitter, FaceBook and LinkedIn accounts) as to achieve the expected impact and making sure that this newsletter got to many other stakeholders that are not aware of the FERTIMANURE project.

The contents of this newsletter were:

- Brief summary of the project
- Definition of Bio-based and Tailor-made fertilisers
- FERTIMANURE holds 2nd General Assembly
- FERTIMANURE on-farm experimental pilots are ready
- FERTIMANURE on-farm application of TMF
- FERTIMANURE Dutch pilot site visit
- FERTIMANURE on-going field trials
- FERTIMANURE will participate in the manuREsource conference
- An explanatory video subtitled in all of the consortium languages
- FERTIMANURE public deliverables
- FERTIMANURE participated in 5 international events and conferences
- FERTIMANURE partners
- EU funding phrase
- Disclaimer
- Entry into force of the General Data Protection Regulation

The purpose of the newsletter is to keep informed the different groups of stakeholders about the project advancements, results, communication activities carried out, intermediate events to be organised, important milestones, etc.

If you want to read the sent e-newsletter, please check out the following link: https://www.fertimanure.eu/en/news/consult/42

This newsletter was translated to many of the different project languages, since we want to communicate the project advancements to the different stakeholders in their own language. This will allow the information to be easily accepted in the regions covered by the project. In order to so, a word script was created in which the project partners needed to translate the sections of the newsletter to their own language. These script was then saved in a pdf format and sent to the different stakeholders in the different regions. Please see a part of the script below:

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FERTIMANURE's eNewsletter #3 is now out: find out the project latest news

PDF VERSION

NEWSLETTER # 3 > JULY 2021

FERTIMANURE

The mission of the FERTIMANURE project is to provide innovative solutions (technology, end-products, and business models) that solve real issues, i.e., the manure challenge, and help farmers address the challenges that they are currently facing. FERTIMANURE will set up 5 on-farm pilots in 5 different EU countries. Valorising manure from 3 different types of feedstocks, FERTIMANURE will develop, integrate, test, and validate innovative nutrient management strategies to efficiently recover and reuse nutrients and other products with agronomic value from manure, to ultimately obtain reliable and safe fertilisers able to compete in the EU fertiliser market

The FERTIMANURE project will cover both technological and nutrient management approaches:
> The technological aspect will be addressed with the implementation of 5 innovative & integrated on-farm experimental pilots for nutrient recovery in the most relevant European countries in terms of livestock production (Spain, France, Germany, Belgium, The Netherlands) - see ON-FARM EXPERIMENTAL PILOTS ARE READY.
> The nutrient management side will be addressed through 3 different strategies adapted to mixed and specialised farming systems: Strategy #1 with on-farm production and use of bio-based fertilisers (BBF)[1] , Strategy #2 with on-farm BBF production and centralised tailor-made fertilisers (TMF)[2] production, and Strategy #3 with on-farm TMF production and use.

(1) Bio-based fertilisers (BBF): Fertiliser products derived from renewable biomass-related resources. FERTIMANURE BBF products are fertilisers obtained directly on farm from the innovative technologies for treating animal slurries and manures.
(2) Tailor-made fertilisers (TMF): Customised fertiliser formulations adapted to specific crop/soil needs. FERTIMANURE TMF will be produced by combining (i) FERTIMANURE BBF and, if necessary, (ii) supplementary products (mineral nutrients, micro, and macro elements, biostimulants, etc.) directly provided by the fertiliser companies.

Figure 2 Script of the newsletter No. 3

The newsletter was translated to:

- Catalan
- Croatian
- German
- Italian
- Spanish
- French

If you want to know more about the translated newsletter, click on the following link: https://www.fertimanure.eu/en/news/consult/44

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8. FERTIMANURE on-farm pilot infographics

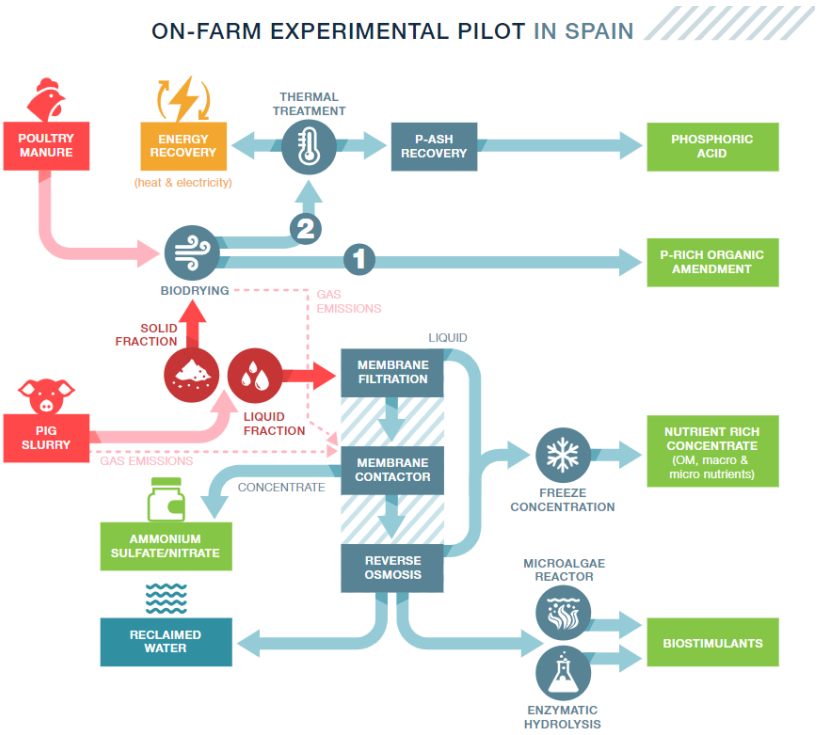

Figure 3 on-farm experimental pilot – Spain

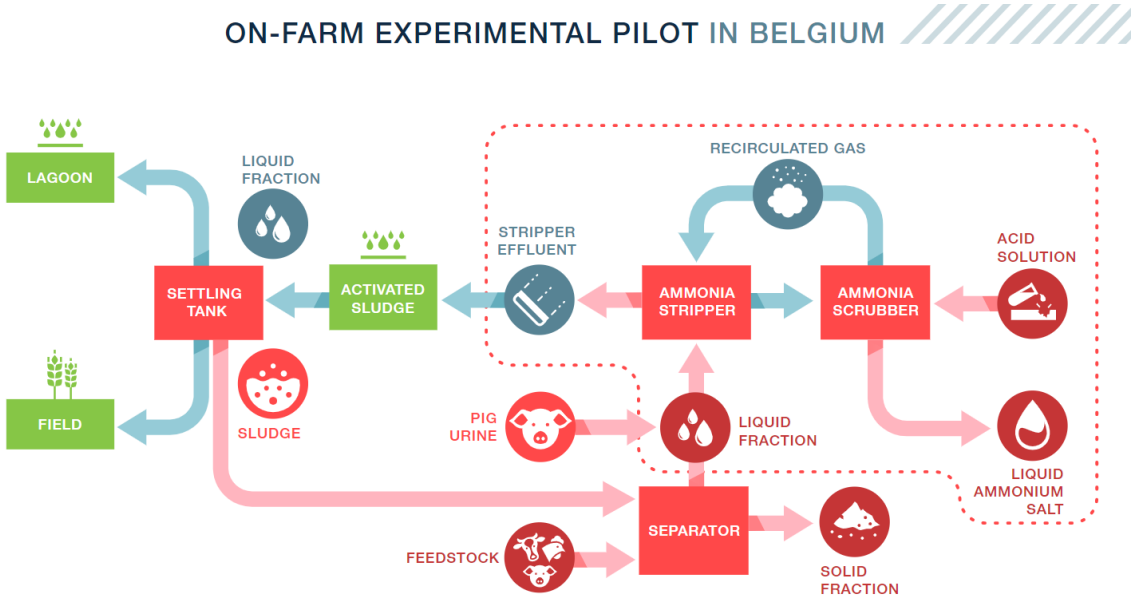

Figure 4 on-farm experimental pilot – Belgium

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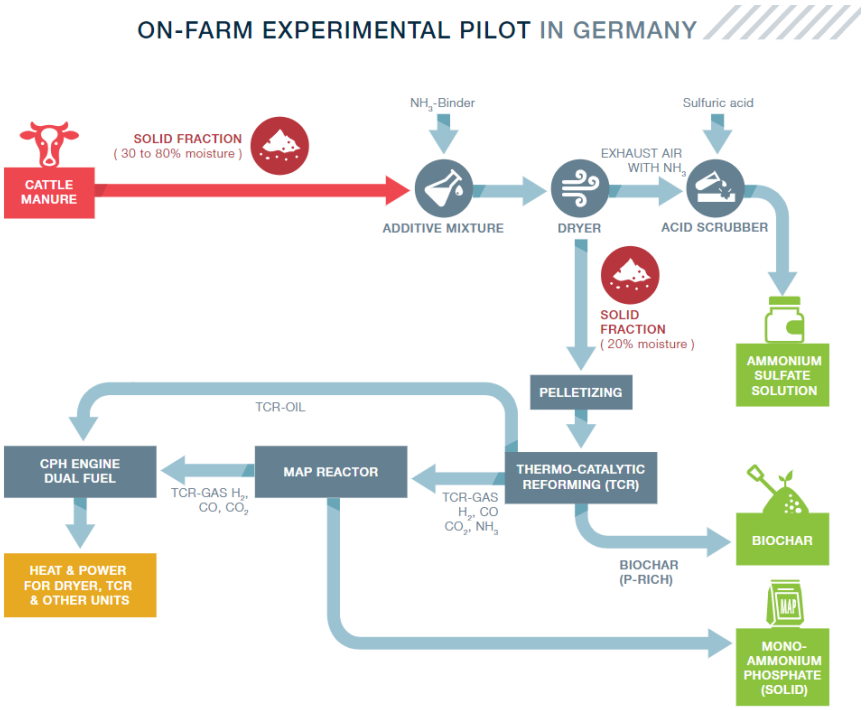

Figure 5 on-farm experimental pilot – Germany

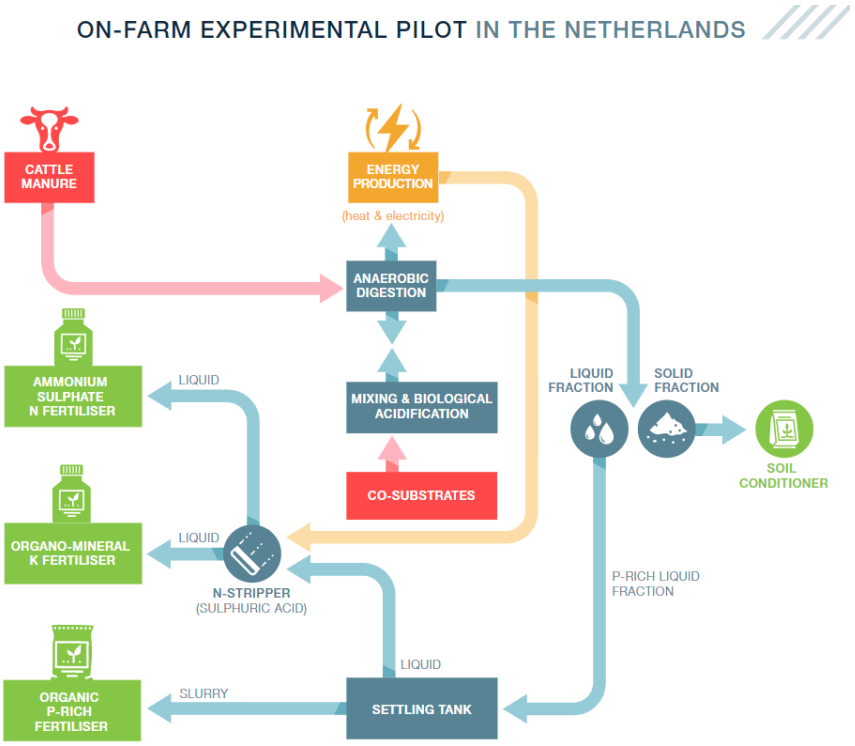

Figure 6 on-farm experimental pilot - The Netherlands

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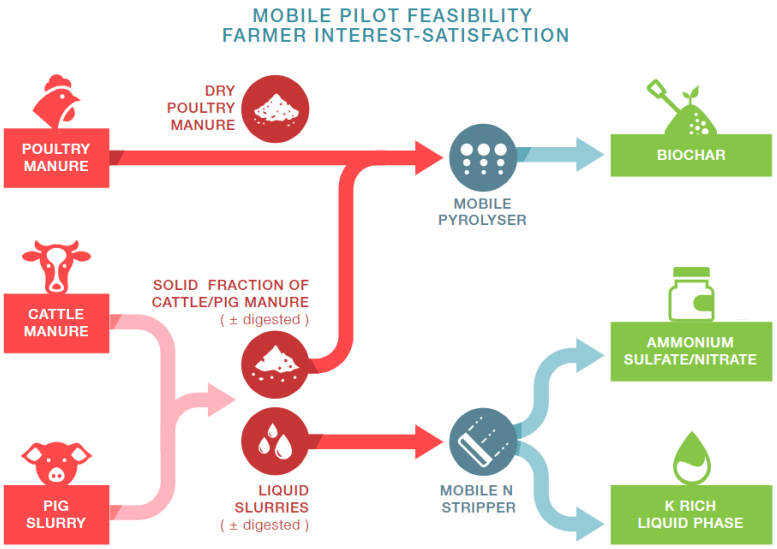

Figure 7 on-farm experimental pilot – France

9. Discussion

Communication about the project and dissemination of its results is a very important task, that will allow the different stakeholders around the EU and the CELAC region to know more about the FERTIMANURE project. In order to do that it is good to have high quality communication and dissemination material in an easy to understand way for any type of the stakeholders that are involved in the project.

This is why for this project, it was decided to produce the explanatory video in all of the consortium languages (only subtitles). This is very important because it will allow the different project partners showcase the project in their regional events by using the stakeholders' own language. Of course this is a way to arise interest in the project because the information is being shown in the local language. All of the explanatory videos, in the 6 consortium languages, were uploaded in the YouTube channel, so that the different partners can easily share the YouTube link for the specific video.

2 newsletters per year has allowed FERTIMANURE to keep its stakeholders informed about the project advancements, the most important events, pilots, etc. The 3rd newsletter was the first newsletter that was translated in most of the consortium languages, German, Italian, Croatian, Spanish, Catalan, and French. This translation will make the projects advancements more easy-to understand by the different project stakeholders around the EU and the CELAC region. We will continue to do so, since we expect to have results to be shared next year.

Regarding the website, a database of 163 projects was added and it is a very good way to see what are the projects at regional, local or EU level that are linked to the project. This will also allow the FERTIMANURE stakeholders to know more about other projects under the same subject. It has been put in place in a very easy to understand way as to avoid zero results. Also, the region cards were created by Leitat as a way to summarise the most important information regarding the flow assessment, logistics and characterisation of manure.

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Finally it would be good to mention that 3 of the infographics suffered some changes, so they were changed according to the pilot leaders. Now, we have the 5 pilot infographics in their final versions. These will be used in many of the communication and dissemination material that will be created in the future, so that the different stakeholders can understand what each of the pilots is about.

10. Conclusions

- Communication and dissemination material has been created and has been used throughout the different presentations, conferences, events, workshops, etc that could be done through 2021 (taking into account the COVID pandemic).
- Communication and dissemination material will be used during the following years of FERTIMANURE by all project partners.
- Newsletters are one of the most important ways of keeping our stakeholders informed about the project (the ones that subscribed to our newsletter via the project website)
- Updating the project website in a work in progress, so many changes have occurred since the beginning of the project.
- The infographics are an excellent way to depict what each of the on-farm experimental pilots is about.

11. Recommendations

- It is recommended to showcase as much of the communication and dissemination material at the different events, workshops and presentations.
- It is recommended to keep working closely with the WPL as to continue updating the material that needs to be updated.
- It is recommended to invite the different stakeholders, at the different presentations, events, conferences, etc, to subscrite to our newsletter so that they can be informed about the project.
- It is recommended to always make a reference to the FERTIMANURE website, where they will be able to find not only the communication and dissemination material, but many other information.

Annexes

Not applicable

References

Not applicable

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FERTIMANURE

FERTIMANURE

INNOVATIVE NUTRIENT RECOVERY FROM SECONDARY SOURCES-PRODUCTION OF HIGH-ADDED VALUE FERTILISERS FROM ANIMAL MANURE

PROJECT COORDINATOR

Fundació Universitària Balmes (Spain)

CONSORTIUM

Ghent University (Belgium)
Wageningen Environmental Research (The Netherlands)
University of Milan (Italy)
Leitat (Spain)
GreenWin (Belgium)
European Landowners Organisation (Belgium)
IPS Konzalting (Croatia)
Fraunhofer (Germany)
Dorset Green Machines (The Netherlands)
Prinsen Dairy Company (The Netherlands)
French Chamber of Agriculture (France)
Cooperativa Plana de Vic (Spain)
AlgaEnergy S.A. (Spain)
Fertinagro Biotech (Spain)
RITTMO Agroenvironnement (France)
Agrifutur (Italy)
Departament d'Agricultura, Ramaderia, Pesca I Alimentació (Spain)
Fertilizers Europe (Belgium)
Instituto Nacional de Tecnología Agropecuaria (Argentina)

PROJECT WEBSITE:

https://www.fertimanure.eu

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Brief project summary

The mission of the FERTIMANURE project is to provide innovative solutions (technology, end-products, and business models) that solve real issues, ie the manure challenge, and help farmers with the challenges that they are currently facing. FERTIMANURE will develop, integrate, test and validate innovative nutrient management strategies so as to efficiently recover and reuse nutrients and other products with agronomic value from manure, to ultimately obtain reliable and safe fertilisers that can compete in the EU fertiliser market.

The FERTIMANURE project will cover both technological and nutrient management approaches. The technological side will be addressed with the implementation of 5 innovative & integrated on-farm experimental pilots for nutrient recovery in the most relevant European countries in terms of livestock production (Spain, France, Germany, Belgium, The Netherlands), whereas nutrient management will be addressed through 3 different strategies adapted to mixed and specialised farming systems:

Strategy #1 with on-farm production and use of bio-based fertilisers (BBF)(1) , **Strategy #2** with on-farm BBF production and centralised tailor-made fertilisers (TMF)(2) production, and **Strategy #3** with on-farm TMF production and use.

Definition of Bio-based fertilisers (BBFs): *Bio-based fertilisers (BBFs) are fertilising products or a component to be used in the production of (Tailor-Made) Fertilisers that are derived* ***from biomass-related resources.***

The BBFs of FERTIMANURE are "obtained through a ***physical, thermal/thermo-chemical, chemical, and/or biological processes for the treatment*** *of manure or digestate that result into a change in composition due to a change in concentration of nutrients and their ratios compared to the input material(s) in order to get better marketable products providing farmers with nutrients of sufficient quality".*

However, just separation of manure in a solid and liquid fraction (as first processing step) is excluded. These products are not conceived as a BBF, although they are valuable sources to supply nutrients on agricultural land.

LIST OF BBFs Produced in FERTIMANURE

Number	BBF-code	BBF product description
1	NL-AS	Ammonium sulphate solution
2	NL-LK	Liquid K-fertiliser
3	NL-SC	Soil conditioner
4	NL-WP	Wet organic P-rich fertiliser
5	NL-DP	*90% dried organic P rich fertiliser (calc)*
6	ES-NC	Nutrient-rich concentrate
7	ES-DSC	Bio-dried solid fraction
8	ES-PA	Phosphorous (ashes)
9	ES-AM	Ammonium salts
10	ES-AA	AA-based biostimulants
11	DE-AS	Ammonium sulphate solution (liquid)
12	DE-BC	Biochar (solid)
13	DE-AP	Ammonium phosphate on perlite (solid)
14	BE-AN	Ammonium nitrate
15	BE-AS	Ammonium sulphate
16	BE-AW	Ammonium water
17	FR-BC	Biochar
18*	FR-AS	Ammonium sulphate
19*	FR-AN	Ammonium nitrate
20	FR-LK	Liquid K-fertiliser

*Ammoninium sulphate/nitrate has been split into two BBFs

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Definition of Tailor-Made Fertilisers (TMFs): *A tailor-made fertiliser (TMF) is a customized fertiliser that meets with the nutrient requirements of a specific crop by taking into account the soil type, soil fertility status, and growing conditions and fertilisation practises.*

The TMFs obtained in FERTIMANURE are produced from BBFs (produced from manure or digestate and/or other recovered fertilising products that are available) and/or mineral fertilisers (MF) (and/or biostimulants).

Fully crop specific TMFs can be defined and centrally produced assuming e.g. a sufficient nutrient status of a soil type and no additional fertilisation practice.

However, on farm level the soil-crop requirements will be different due to another nutrient status of the soil and the fact that often manure/digestate will be applied on the fields which has to be taken into account as nutrient supplier. Consequently, the composition of the TMF (combination of BBF and MF) that will be used by the farmer can differ from the one produced in a centralised way.

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