

# 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

## D7.1. Dissemination and Communication Plan (M25)

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## Preface

The communication and dissemination plan (M25) is part of WP 7 Dissemination and Communication, but more specifically with Task 7.1 Audience segmentation & Dissemination and communication plan between January 2020 (M1) and January 2022 (M25). One of the project tasks is to communicate and disseminate about the project via different means and to different target audiences (stakeholder groups) throughout the project's lifetime.

This deliverable showcases all of the communication and dissemination plan up until January 2022, which means that this version is an updated one of the 1<sup>st</sup> version created in M6. This deliverable shows the communication and dissemination stakeholder groups, the engagement strategy to get to these groups specifically, and the means that will be used to showcase the information that will interest them. It is important to mention that this deliverable was updated based on D6.3. Inventory of stakeholder groups relevant for BBFs and market uptake.

The communication and dissemination plan was initially proposed by GreenWin, but since it is a work in progress and changes are expected as the project advances, a final version will be submitted by the end of the project (M54).



## Document History

<b>Date</b>	<b>Author</b>	<b>Action</b>	<b>Status</b>
January 24 <sup>th</sup> , 2022	Rodrigo Arandi-Klee	1 <sup>st</sup> draft revision	Draft
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June 28 <sup>th</sup> , 2023	Laia Llenas	Approved by PC	Final

## Summary

The communication and dissemination plan has been created as to provide all of the project partners with a guide of the communication and dissemination activities that will take place and what are the target audiences (stakeholders) that will be interested in the activities mentioned before. The communication and dissemination plan is a mean that will be used throughout the entire duration of the project (M54), and it will be updated, since it is a work in progress.

The Communication plan contains the following:

- A short definition of Communication is shown with the most important questions that the communication activities will respond to. Also the target audiences (stakeholder groups) are showcased (there are 6 different SG).
- Branding: a strong visual identity for the project is crucial, and it must be followed by all of the project partners. This brand includes the use of the logo, the e-mail signature, the power point template, the event template, the deliverable template and the logo guidelines that contain specific information about the colours, font, logo, etc.
- Website: the main communication channel of the FERTIMANURE project, where all of the information, that can be shared with the different stakeholders, will be published.
- Partners websites and social networks: the FERTIMANURE news will be also shared, by the project partners, in their websites and social networks, in order to be able to deliver the information to the target audiences.
- Social networks: they are a way of sharing the FERTIMANURE news, in different ways, but always taking the information from the website, which is the main communication channel.
- Leaflet, poster, and roll-ups: these will be very useful for the conferences, congresses, workshops, etc where the project partners will participate. These contain useful information about the project.
- Video: an explanatory video will be useful to present the project to the different stakeholder groups, in their own language, since the video was subtitles in all of the consortium languages.
- Newsletter: they are a very useful mean to keep the stakeholders informed about the most important news, events, etc. related to FERTIAMNURE.
- Press release: an initial press release covering the specialised and non-specialised journals as to make sure that a general overview of the projects is given to the stakeholders.
- Bio-refine cluster group: a dedicated page in their website and the creation of a community as to exchange knowledge and good practices.

. The Dissemination plan contains the following:

- A short definition of Dissemination is shown with the most important questions that the communication activities will respond to. Also the target audiences (stakeholder groups) are showcased (there are 5 different SG).
- Scientific publications: scientific publications as a mean to disseminate the project results during the project's lifetime.
- Videos: a final video will be coordinated by GreenWin where the most promising results and lessons learnt will be shown.
- EIP practice abstracts: 12 of these will be created as to make sure that farmers will be able to uptake the project results.
- Attendance to main conferences and events: the most important results will be disseminate via the participation of the project partners in important events related to nutrient recycling.
- Webinars with policy makers: 3 of these will be organised, so that the policy makers get educated about BBFs.
- Press release: press releases containing the most important results, milestones will be produced during the lifetime of the project.

- Intermediate events: 4 large-scale events are planned to take place as to engage with different stakeholders and dissemination purposes.
- On-farm experimental pilots visits: the pilot results, technologies, methods, etc, will be shared with the most promising stakeholders face to face or via a video that will be created by each of the pilots.
- Final conference: this event will take place at the end of the project and the stakeholder groups will be invited to attend and to raise questions. Dissemination of results is crucial in this event.

Communication and dissemination obligations:

A description of the obligations is described; these include:

1. EU funding phrase and flat
2. EU disclaimer
3. Partner obligation and protection data

Decision and publication process and management of the External Communication and Dissemination material to be produced:

A description of how the publication process will take place is described. The management organisation is comprised of:

- Project Coordinator (PC),
- Work Package Teams (WPT), and
- Communication and Dissemination WP leader (C&DWPL)

## Content

Preface.....	0
Document History .....	1
Summary .....	2
1. Introduction .....	9
2. Methodologies and Organisation .....	10
3. Management of FERTIMANURE’s project communication activities .....	11
3.1. Definition and Main Objective .....	11
3.2. Target audience .....	11
3.3. Key Messages .....	13
3.4. Communication channels .....	14
3.4.1. Branding.....	14
3.4.2. Website .....	15
3.4.3. Partners websites and social networks .....	16
3.4.4. Social Networks .....	17
3.4.5. Leaflet, Poster and Roll-ups: .....	18
3.4.6. Video.....	19
3.4.7. Newsletter .....	19
3.4.8. Press release .....	20
3.4.9. Bio-refine Cluster Community Group.....	21
4. Management of FERTIMANURE’s dissemination activities .....	21
4.1. Definition and Main Objective .....	21
4.2. Target Audience .....	21
4.3. Dissemination activities .....	23
4.3.1. Scientific publications .....	23
4.3.2. Video(s).....	24
4.3.3. EIP Practice abstracts .....	24
4.3.4. Attendance to the main events and conferences .....	24
4.3.5. Webinars with policy makers .....	25
4.3.6. Press release .....	25
4.3.7. Intermediate events .....	26
4.3.8. On-farm experimental pilot visits .....	26
4.3.9. Final conference .....	27
5. Communication and Dissemination obligations.....	27
5.1. European Union funding phrase and European Union flag.....	27
5.2. Disclaimer European Union funding phrase and European Union flag .....	27
5.3. Partner obligation and protection of data.....	27



## FERTIMANURE

6. Decision and publication process and management of the External Communication and Dissemination material to be produced .....	28
6.1. Communication and Dissemination WP leader .....	28
6.2. Project Coordinator .....	28
6.3. Work Package Teams .....	28
1. Discussion.....	30
2. Conclusions .....	31
3. Recommendations .....	31
Annexes .....	32
1.1. Logo Guidelines .....	32
1.2. Power Point template.....	54
1.3. Event Report Template.....	55
1.4. Deliverable Template.....	57
1.5. Scientific journals.....	30
1.6. Magazines and sectorial articles .....	35
1.7. List of Journalists .....	81
References .....	83
Brief project summary.....	85

## List of Tables

Table 1 Potential level of influence of relevant stakeholders .....	11
Table 2 The target audiences identified for the FERTIMANURE project communication activities.....	12
Table 3 Potential level of influence of relevant stakeholders .....	21
Table 4 Target audience for Dissemination activities .....	22



## List of Figures

Figure 1 Decision and publication process and management for WP7 .....	29
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## List of Abbreviations

<b>BBF</b>	Bio-based Fertiliser
<b>TMF</b>	Tailor-made Fertiliser
<b>EU</b>	European Union
<b>WPL</b>	Work Package Leaders
<b>PTM</b>	Project Technical Committee meetings
<b>CELAC</b>	Community of Latin American and Caribbean States
<b>SG</b>	Stakeholder Group
<b>C&amp;DWPL</b>	Communication and Dissemination WP leader

## 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.

A plan for communication and dissemination via different types of activities is essential to make sure that the impact of the project goes beyond the project borders. Creating a roadmap is essential so that every activity, that will be carried out, has already identified the group of stakeholders that should be involved.

One of the objectives of WP 7 is to produce the communication and dissemination plan (M25), which is part of WP 7 Dissemination and Communication, but more specifically with Task 7.1 Audience segmentation & Dissemination and communication plan. This plan revolves around the following:

- Identifying the most important stakeholder groups (the target audience)
- The branding, the project website and social networks; including those of the project partners
- The communication and dissemination material (leaflet, roll-up, videos, newsletter, press release)
- The biorefined cluster community group
- The scientific publications
- EIP-practice abstracts
- Conferences and events
- Webinars
- Intermediate events
- On-farm experimental pilot visits
- Final conference

Some of these activities have already taken place, since the beginning of the project (M1). This deliverable is an updated version of the one submitted in M6.

## 2. Methodologies and Organisation

In order to produce the communication and dissemination plan, GreenWin proposed the initial version in M6, and it was closely revised by the different project partners. Their feedback is very important to know if the information that deliverable contains is in line with the activities that they were expecting to carry throughout the project's lifetime.

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 information, like for example the types of stakeholders that attended the specific events where the project partners presented FERTIMANURE, the amount of people that attended, newsletter translation to their local language so that it can get to the targeted stakeholders, etc. The General Assembly 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 the communication and dissemination plan. GreenWin has performed several meeting with WP6 leader (IPS), as to discuss the information of D.6.3 and the communication and dissemination plan.

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 the planning of the communication and dissemination.

### 3. Management of FERTIMANURE’s project communication activities

#### 3.1. Definition and Main Objective

According to the EC Research and Innovation Participant Portal Glossary Terms, we can define Communication as follows: “Communication on projects is a strategically planned process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possible engaging in a two-way exchange”.

***Increasing the public awareness and improving the knowledge of stakeholders on the current challenges that manufactured fertilisers pose, as well as the benefits of waste stream valorisation for obtaining bio-based fertilisers (BBFs), and tailor-made fertilisers (TMFs) is the main communication objective of the FERTIMANURE project.***

To achieve this objective it is very important to communicate and to make the different stakeholders understand:

- What are the main impacts of the current dependency of EU agriculture on fossil-based mineral fertilisers and scarce resources?
- What are the main benefits for all the stakeholders in the value chain when valorizing the manure from the livestock sector to obtain bio-based fertilisers and tailor-made fertilisers?
- What are the main environmental impacts when using bio-based fertilisers and tailor-made fertilisers in agricultural soils?
- What are the main opportunities that FERTIMANURE can offer to those facing challenges related to inefficient use and management of animal manure?

#### 3.2. Target audience

As stated in D.6.3. Inventory of stakeholder groups relevant for BBFs and market uptake it is necessary to identify the different stakeholders and analyse the effects that these might have in the FERTIMANURE project. The inventory of stakeholder groups was covered through 2 different approaches:

- **A literature review for a methodology** to map stakeholder groups (Quadruple Helix Model)
- An **overview of stakeholder groups** in the FERTIMANURE project (six main groups were initially identified)

It is important to mention that the stakeholder groups were analysed according to the influence they might have in the project, as well as the impact that the project has for them in their business activities.





Table 1 Potential level of influence of relevant stakeholders



Degree	Description
Low	Stakeholders possess little capacity to influence project development
Medium	Stakeholders possess a medium level of capacity for influence on project development
High	Stakeholders possess a high level of capacity for influence on project development

The FERTIMANURE stakeholders with a high influence in the project will be actively engaged since the beginning of the project and they will be regularly contacted and informed about the project advancements and outcomes.

The target audience for the Communication activities can be seen in Table 1 below:

Table 2 The target audiences identified for the FERTIMANURE project communication activities

	<p><b>STAKEHOLDER GROUP 1 (SG1)</b></p>	<p><b>Agricultural producers</b></p>	<ol style="list-style-type: none"> <li>1. <b>livestock farmers</b> (high impact-high influence)</li> <li>2. <b>arable farmers, crop growers</b> (high impact-high influence)</li> <li>3. <b>agro SME's</b> (high impact-high influence)</li> <li>4. <b>agro associations</b> (medium impact-medium influence)</li> <li>5. <b>sustainable agriculture associations</b> (medium impact-medium influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 2 (SG2)</b></p>	<p><b>Fertilisers processing industry</b></p>	<ol style="list-style-type: none"> <li>1. <b>fertiliser companies</b> (high impact – high influence)</li> <li>2. <b>chemical industry</b> (medium impact – medium influence)</li> <li>3. <b>manure processors</b> (high impact – high influence)</li> <li>4. <b>public investors in bioeconomy</b> (high impact – medium influence)</li> <li>5. <b>private investors in bioeconomy</b> (high impact – medium influence)</li> <li>6. <b>technology providers</b> (medium impact – medium influence)</li> <li>7. <b>fertiliser association</b> (high impact – high influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 3 (SG3)</b></p>	<p><b>Academia and research</b></p>	<ol style="list-style-type: none"> <li>1. <b>research institutions</b> (medium impact – medium influence)</li> <li>2. <b>EU subject related networks and clusters</b> (medium impact – medium influence)</li> <li>3. <b>EU R&amp;D neighbouring projects and consortiums</b> (medium impact – medium influence)</li> <li>4. <b>nutrient recycling research community</b> (high impact – medium influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 4 (SG4)</b></p>	<p><b>Business and financial advisors</b></p>	<ol style="list-style-type: none"> <li>1. <b>business consultants</b> (low impact – medium influence)</li> <li>2. <b>financial institutions</b> (low impact – high influence)</li> <li>3. <b>agricultural banks</b> (low impact – high influence)</li> <li>4. <b>funding agencies</b> (low impact – high influence)</li> </ol>

	<p><b>STAKEHOLDER GROUP 5 (SG5)</b></p>	<p><b>Policy makers &amp; authorities</b></p>	<ol style="list-style-type: none"> <li>1. <b>ministries of agriculture</b> (low impact – high influence)</li> <li>2. <b>paying agencies for agriculture</b> (low impact – medium influence)</li> <li>3. <b>agro-connected intermediaries established by government</b> (medium impact – medium influence)</li> <li>4. <b>local council</b> (low impact – low influence)</li> <li>5. <b>regional government</b> (low impact – medium influence)</li> <li>6. <b>waterboards</b> (low impact – low influence)</li> <li>7. <b>standardization body</b> (low impact – high influence)</li> <li>8. <b>EU policy makers</b> (high impact – high influence)</li> <li>9. <b>CELAC policy maker</b> (high impact – high influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 6 (SG6)</b></p>	<p><b>Public entities &amp; general public</b></p>	<ol style="list-style-type: none"> <li>1. <b>non- governmental organisations</b> (medium impact – medium influence)</li> <li>2. <b>media</b> (low impact – medium influence)</li> <li>3. <b>general public</b> – rural communities (medium impact – medium influence)</li> </ol>

### 3.3. Key Messages

The first thing that needs to be done before designing the communication activities is to know what are the main issues that will be addressed, as well as who will be the beneficiaries and the impact FERTIMANURE will have on these individuals. The following questions will be addressed in the communication materials:

- What are the main objectives/goals of FERTIMANURE?
- What are the main opportunities FERTIMANURE offers?
- Why is the European Added value of FERTIMANURE?
- Why is FERTIMANURE important for the farming industry?
- What are FERTIMANURE's expected impacts?
- What are going to be FERTIMANURE's outputs?
- Who are the partners involved in FERTIMANURE?
- Who should you contact if you have any question regarding FERTIMANURE?
- What are the most important pilots advancements ?
- How many pilots are there in the project ?
- What are the most important events where FERTIMANURE has participated ?
- What is the role of each project partner in the project ?
- What is the role of the CELAC region countries in the project ?
- How will the general public benefit from the use of BBFs and TMFs ?
- What are the different FERTIMANURE communication channels that the beneficiaries can follow to get more information about it?
- What is the Organization that has funded the FERTIMANURE project?
- Etc

#### Related EU Projects:

- ETN-REFLOW (2019-2022): Novel technologies for P recovery from dairy wastes. Obtaining fertilizers from dairy industry wastes and testing their efficiency.
- H2020-SMART PLANT (2016-2020): Novel technologies for nutrient recovery from wastewater treatment plants. Process and plant testing at TRL 6-7.
- H2020-SYSTEMIC (2017-2021): Set up of new technologies to recover nutrients from organic wastes and manure. Process and plant testing at high TRL (>7). Full field scale agronomic performance measuring environmental impacts.
- H2020-Nutri2Cycle (2018-2022): Recovering on nutrient and carbon from manure/digestate proposing new farm management including new technologies and agriculture practice able to close N,P,C cycle.
- H2020-SABANA (2016-2020): Biofertilizer and bio-pesticides production from algae grown on manure/digestate.
- BBI-AgriChemWhey (2018-2021): Connection with the project stakeholder communities, especially farmers.
- H2020-RUN4LIFE (2017-2021): Recovery of nutrients from wastewater treatment plants.
- H2020-Water2Return (2017-2020): REcovery and REcycling of nutrients TURNing wasteWATER into added-value products for a circular economy in agriculture (different industries including slaughtering, waste water treatment)
- H2020-NUTRIMAN (2018-2021): Compilation and analysis of current recovered bio-based fertiliser products, technologies, applications and practices: this work reflects the state of the art and the best practices on this topic.
- BBI-AGRIMAX (2016-2020): Biofertilizer production from valorization of side streams from the horticultural culture and food processing industry to be used in a cooperative approach by local stakeholders.
- H2020 To-Syn-Fuel (2017-2021): TCR upscaling for treatment of sewage sludge and digestate for energy production and phosphorous recovery.
- H2020 – SUSFERT (2018-2023): Sustainable multifunctional fertilizer – combining bio-coatings, probiotics and struvite for phosphorus and iron supply.
- H2020 – BIOTA (2019-2020) The organic fertilizer for genuine, high yield pesticide and chemical free organic farming.
- H2020 – INTERFUTURE (2016-2021) From microbial interactions to new-concept biopesticides and biofertilisers.
- LIFE – AGRICLOSE (2028-2022) Improvement and disclosure of efficient techniques for manure management towards a circular and sustainable agriculture.

This list of projects is linked to “Task 1.5 Capitalisation of relevant project results” in which an extensive search of projects (finished and on-going) and related with manure is to be done as to take advantage of all the previous work done in the field of nutrient recycling and manure management. The list of 163 related-projects can be found in the project website - [https://www.fertimanure.eu/en/related\\_projects](https://www.fertimanure.eu/en/related_projects)

### 3.4. Communication channels

The communication activities of the FERTIMANURE project will take place through the following activities/channels:

#### 3.4.1. Branding

It is crucial to create a strong visual identity of the project that will be used by all project partners in the different communication materials/activities.

The branding includes:

- The design of the **logo** that will be used in all the communication and dissemination material of the project to make sure that the project is identifiable. The logo is divided in four figures

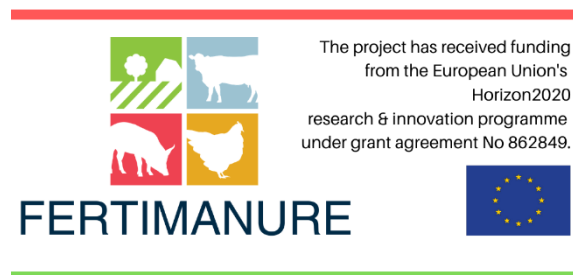


which represent the 5 on-farm experimental pilots, and the livestock sector (poultry, cattle and pig),



Guidelines for the logo were created and these include the different logo versions, the colours, the logo size, the font, etc. See Annex I: Logo Guidelines

- A common **e-mail signature** was created for all partners involved in the project's execution and they will use it in order to reach other stakeholders that might be interested in the project,



- A common **power point template** that will be used in all the related presentations that the different partners will be performing in the events/conferences that they plan to attend – see Annex I Power Point Template.
- A common **event template** that needs to be filled by each partner after they have attended an event/conference so that it can be kept and used to create publications for the different social media profiles – see Annex I Event Report Template
- A common **deliverable template** that will be used by all partners so that there are no differences in the type of font, the place of the logo, the EU funding phrase, etc. – see Annex I Deliverable Template (the first version of the deliverable template was updated in April 2021)

### 3.4.2. Website

FERTIMANURE's website has been designed in an easy and friendly way and also in both languages – English and Spanish - to make sure that the interested stakeholders will find the information they are looking for. The website was launched on May 8<sup>th</sup>, 2020 and its domain is [www.fertimanure.eu](http://www.fertimanure.eu)

The FERTIMANURE website showcases a description of what is at stake, a description of what the project is about, the list of the partners involved in the project, the publications, and an explaining video of the main concept of the project.

The website will be the main channel to keep all the stakeholders and the FERTIMANURE followers informed about the advancements in the project via regular posts and updates of the different activities the different partners have been carrying out, publications of articles, and news related to the project.

Other than that there is the possibility of downloading press releases, leaflets, posters, videos, public deliverables and EIP Practice abstracts directly from the website. Also, there is a section related to events in which a calendar will show all the events that the different partners from FERTIMANURE are planning to attend to present the project.

The website structure is as follows:

The HOMEPAGE has the following menus and submenus:

- Logo
- What is at stake?
- The project's response
- Partners involved
- Publications
  - Press releases
  - Project leaflet(s)
  - Posters
  - Videos
  - Available deliverables
  - Related papers
- Contact us
- Stay tuned
  - All news
  - FERTIMANURE
  - Project-relate
  - Events
- Widgets
  - Facebook, Twitter, LinkedIn and YouTube
- Short explaining video
- Map
  - Interactive map showing the partners around Europe and the CELAC region – Argentina
- Partners
- Legal European Union funding + European Union flag

*Key Performance Indicator for FERTIMANURE's website:*

- It is estimated that the project website will receive 8,000 visits by the end of the project.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers processing industry
- SG6 Public entities and General public

Engagement strategy: The communication of the project in a user-friendly way and on a regular basis will be done through the website; the main communication channel.

All of the project partners will be involved. The Biorefine cluster will publish all of the project news in their website.

### 3.4.3. Partners websites and social networks

Partners' websites and social networks will be used to share the publications and important communication and dissemination material related to the project to allow a greater audience reach.

Also, all partners will be encouraged to create a FERTIMANURE description in their websites with the links to the official website of FERTIMANURE and its different social networks.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG6 Public entities and general public:

Engagement strategy: The communication of the project in a user-friendly way and on a regular basis will be done through the website; the main communication channel. The communication of the project will always come from the project website, as said before, but then this will be shared in the partners websites as to make sure we reach most of the target audiences from the stakeholder groups mentioned before.

All of the project partners will be involved. The Biorefine cluster will publish all of the project news in their social networks.

### 3.4.4. Social Networks

The different social networks, that are described below, will be useful to bring awareness about the progress of the project to two different types of stakeholders following the following principle:

1. Communication to skilled stakeholders (policy makers, PhD students, industry, standardisation bodies, etc):
  - LinkedIn, as the most popular social network focused on enterprises, businesses, and employment and with more than 260 million users all over the world, will be the adequate network to support the exploitation of the commercial results since it is a tool that companies and people use to build relationships.



@FERTIMANURE

<https://www.linkedin.com/company/64863294/admin/>

- Twitter, as the most popular social network with the main characteristic that it allows short sentences, called tweets, will be the one used to publish short news, events, conferences, workshops, meetings, and progress of the FERTIMANURE project to keep the stakeholders informed. This social network will be updated on a regular basis.



@fertimanure

<https://twitter.com/fertimanure>

2. Communication to non-skilled stakeholders (students, general public and civil society)
  - Facebook, as the most popular social media platform today, with more than 2.3 billion users, will be used to raise awareness about the FERTIMANURE project, mostly among students and the general public interested in farming and related topics. This social media will be updated on a regular bases as well.



@fertimanure

<https://www.facebook.com/fertimanure/>

- YouTube, as the most popular platform for sharing videos, will be playing a very important role in the FERTIMANURE communication activities since it will showcase different videos about what the project is about and what has been achieved so far during the project. There will be a specific YouTube channel for FERTIMANURE and it will be accessible for everyone as soon as the showcasing video is done.

The social networks and the website will be under the responsibility of GreenWin, but with input from the rest of the partners regarding the information that can be shared on the communication channels.

*Key Performance Indicator for FERTIMANURE's social networks:*

- Twitter, Facebook and LinkedIn: 400 followers

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG6 Public entities and general public:

Engagement strategy: The communication of the project in a user-friendly way and on a regular basis will be done through the website; the main communication channel. The communication of the project will always come from the project website, as said before, but then this will be shared on the partners social media as to make sure we reach most of the target audiences from the stakeholder groups mentioned before.

All of the project partners will be involved.

### 3.4.5. Leaflet, Poster and Roll-ups:

The first leaflet will be completed in M6 of the project and it will include general information about the project like the objectives, the expected impacts, the outputs, the partners, the value of the project, contact information and the EU phrase regarding the funding. The main objective of the project leaflet is to provide our audiences with an attractive and written project overview and a summary of the main project objectives and characteristics. To assist the dissemination effort, the attractive and professionally made leaflet, prepared by GreenWin, is published on the project website. The leaflet presents the goals of the project and the main (expected) findings. The text is designed taking into account not only experts, but also an interested non-specialist. It introduces the main idea, the approach and the goals of the FERTIMANURE project. Furthermore, it includes the website address and provides basic information on FERTIMANURE Consortium. All partners' logos are also displayed.

This leaflet (1,000 leaflets to be printed) will be given to all the partners so that they can distribute them during the FERTIMANURE's presentations in different conferences, workshops, congresses, events, etc. It will also be downloadable on the website.

During the duration of the project, different posters will be created to give visibility to FERTIMANURE in different events. Each of them will contain different types of information that will be updated accordingly. GreenWin will be in charge of producing the template of the poster and the roll-up that will be used by the project partners. GreenWin will be in charge of producing and printing the leaflets, posters and roll-ups for the 3 European large scale events planned during the entire duration of the project in the Netherlands, Spain, and Poland. It is important to mention that partners will be using the templates for roll-ups and poster, for the events they are planning to attend, but to ensure the same quality over all the communication and dissemination material, these posters and roll-ups will have to be approved by WP7 leader (GreenWin) and the project coordinator (UVIC).

The main purpose of the poster is to catch the audience attention. The content of the poster is clear and easily understandable by the target end users. With regard to the layout and design, the poster shows the FERTIMANURE project's logo and the colors emphasizing the link to the project's graphic

*Key Performance Indicator for FERTIMANURE's Leaflets and Poster:*

- Leaflets: 1000 leaflets in English and Spanish.
- Poster: 1 template for partners to use.
- Roll-up: 1 template for partners to use.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG3 Academia and research
- SG4 Business and financial advisors
- SG5 Policy makers and authorities
- SG6 Public entities and general public:

Engagement strategy: Organisation of workshops/round table discussions during the large scale events that the FERTIMANURE projects will be doing, and also through the active participation in international conferences, congresses, workshops, etc. The FERTIMANURE project partners will participate in many international events, conferences, workshops, etc, where all of the target audiences could be present. The leaflet and the roll-up were created to be distributed during the international activities in which the project partners will be involved, as to communicate about the project and its advancements.

All of the project partners will be involved.

### 3.4.6. Video

GreenWin will coordinate the production of an impacting short video showcasing FERTIMANURE general information to give a short but concise idea of what the project is about, but at the same in a way that everyone with technical and non-technical background can understand. This video will be done in English but with Spanish subtitles.

It is important to mention that all of the FERTIMANURE videos will be uploaded to the YouTube channel mentioned before.

*Key Performance Indicator for FERTIMANURE's video:*

- 1,000 views by the end of the project.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG3 Academia and research
- SG4 Business and financial advisors
- SG5 Policy makers and authorities
- SG6 Public entities and general public:

Engagement strategy: The communication of the project in a user-friendly way and on a regular basis will be done through the different social networks; in this case we are referring to the YouTube channel. This video will then be shared in the FERTIMANURE's social networks and the partners social networks and websites as to make sure we reach most of the target audiences from the stakeholder groups mentioned before. Also, the project partners will be able to showcase the video via the different international events, conferences, workshops, etc.

GreenWin will take the lead with the support and feedback of all of the project partners.

### 3.4.7. Newsletter

Biannual FERTIMANURE newsletters will be performed during the duration of the project and they will provide:

- Project-related news (e.g. launch and meetings)

- Announcements of the project's progress
- Dates, details, comments regarding project related conferences, meetings, events or publications
- Lectures, talks, and trainings opportunities
- Etc.

The newsletter will be uploaded on the website and in order to make sure that the newsletter gets to the relevant stakeholders, all the partners will be deeply involved in sharing the e-newsletter in their social networks and company's website. Also, it will be sent to the contacts in the database that we have compiled through the website; a database of the people that has subscribed to our newsletter. It is important to mention that this e-newsletter will be sent as well to the projects identified and mentioned in section 1.3.

*Key Performance Indicator for FERTIMANURE's newsletter:*

- 400 readers reached by the end of the project.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG3 Academia and research
- SG6 Public entities and general public:

Engagement strategy: The communication of the project in a user-friendly way and on a regular basis will be done through the different social networks and websites, related to the project and its partners. Every 6 months, the FERTIMANURE project produces a newsletter with the main advancements, the latest news, the large scale events in which FERTIMANURE will be represented, etc. What FERTIMANURE wants to achieve is to share the largest amount of information with the website subscribers, but also it wasn't to go far away because the newsletter is shared in the project social media channels, and in the ones of its project partners as well.

All of the project partners will be involved, but advantage of the relevant networks of GreenWin, Biorefine Cluster, APCA, and Fertilizers Europe will be taken. INTA and LEITAT Chile will make the link in the CELAC region.

### 3.4.8. Press release

A first press release briefly describing the project, its objectives and the consortium will be produced (M5) and sent out in all countries involved in the project. This press release will thus be produced in the different partners language.

*Key Performance Indicator for FERTIMANURE's Press release:*

- 1 FERTIMANURE initial press release.

Stakeholder group concerned:

SG1 Agricultural producers  
 SG2 Fertilisers processing industry  
 SG3 Academia and research  
 SG6 Public entities & general public

Engagement strategy: FERTIMANURE has already a list of specialized journalists that will serve as a main contact point for each press release that will be launched. Specialised and non-specialised journalists are the ones that interests more the project since we want to reach out to the targeted audiences.

All of the project partners will be involved – a common list of journalist was created.

### 3.4.9. Bio-refine Cluster Community Group

A FERTIMANURE dedicated page was set up on the Biorefine Cluster Europe website, and news will be further spread in the Biorefine monthly newsletter. In order to facilitate knowledge and good practice exchanges between relevant EU initiatives, FERTIMANURE will create a Cluster initiative with projects funded under the same topic and other relevant projects funded in H2020, such as SFS-39-2019, and other EU initiatives. This cluster will be created as a new community group of the already existing and dynamic Biorefine Cluster Europe, and it will be a platform to exchange knowledge and good practices. Consortia of these projects will also be involved in our events as speakers.

*Key Performance Indicator for FERTIMANURE's Biorefine Cluster Europe:*

- 1 FERTIMANURE profile created on the Biorefine Cluster Europe platform.

Stakeholder group concerned:

SG3: Academia and research

Engagement strategy: Technical meetings with other EU-related R&D project, nutrient recycling community and networks/cluster. Technical webinars regarding specific issues of the FERTIMANURE project will be discussed during these technical meetings.

UGent will have a leading role in this, since they are the initiators and the coordinators of it.

## 4. Management of FERTIMANURE's dissemination activities

### 4.1. Definition and Main Objective

According to the EC Research and Innovation Participant Portal Glossary Terms we can define the term as follows "The public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium."

The main dissemination objective of FERTIMANURE is to **transfer the knowledge and results** related to the recovery of mineral nutrients to produce high added value biobased fertilisers and tailor-made fertilisers. Also, to share the results and lessons learnt from the 5 experimental pilots in Spain, France, Germany, Belgium and The Netherlands so that they can be replicated in other regions around the world, taking into and giving importance to the CELAC region.

### 4.2. Target Audience

As stated in D.6.3. Inventory of stakeholder groups relevant for BBFs and market uptake it is necessary to identify the different stakeholders and analyse the effects that these might have in the FERTIMANURE project. The inventory of stakeholder groups was covered through 2 different approaches:

- **A literature review for a methodology** to map stakeholder groups (Quadruple Helix Model)
- An **overview of stakeholder groups** in the FERTIMANURE project (six main groups were initially identified)

It is important to mention that the stakeholder groups were analysed according to the influence they might have in the project, as well as the impact that the project has for them in their business activities.





Table 3 Potential level of influence of relevant stakeholders

Degree	Description
Low	Stakeholders possess little capacity to influence project development
Medium	Stakeholders possess a medium level of capacity for influence on project development
High	Stakeholders possess a high level of capacity for influence on project development


The FERTIMANURE stakeholders with a high influence in the project will be actively engaged since the beginning of the project and they will be regularly contacted and informed about the project advancements and outcomes.

The target audience for the Dissemination activities can be seen in Table 2 below:

Table 4 Target audience for Dissemination activities

	<p><b>STAKEHOLDER GROUP 1 (SG1)</b></p>	<p><b>agricultural producers</b></p>	<ol style="list-style-type: none"> <li>2. <b>livestock farmers</b> (high impact-high influence)</li> <li>3. <b>arable farmers, crop growers</b> (high impact-high influence)</li> <li>4. <b>agro SME's</b> (high impact-high influence)</li> <li>5. <b>agro associations</b> (medium impact-medium influence)</li> <li>6. <b>sustainable agriculture associations</b> (medium impact-medium influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 2 (SG2)</b></p>	<p><b>fertilisers processing industry</b></p>	<ol style="list-style-type: none"> <li>2. <b>fertiliser companies</b> (high impact – high influence)</li> <li>3. <b>chemical industry</b> (medium impact – medium influence)</li> <li>4. <b>manure processors</b> (high impact – high influence)</li> <li>5. <b>public investors in bioeconomy</b> (high impact – medium influence)</li> <li>6. <b>private investors in bioeconomy</b> (high impact – medium influence)</li> <li>7. <b>technology providers</b> (medium impact – medium influence)</li> <li>8. <b>fertiliser association</b> (high impact – high influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 3 (SG3)</b></p>	<p><b>academia and research</b></p>	<ol style="list-style-type: none"> <li>2. <b>research institutions</b> (medium impact – medium influence)</li> <li>3. <b>EU subject related networks and clusters</b> (medium impact – medium influence)</li> <li>4. <b>EU R&amp;D neighbouring projects and consortiums</b> (medium impact – medium influence)</li> <li>5. <b>nutrient recycling research community</b> (high impact – medium influence)</li> </ol>
	<p><b>STAKEHOLDER GROUP 4 (SG4)</b></p>	<p><b>business and financial advisors</b></p>	<ol style="list-style-type: none"> <li>2. <b>business consultants</b> (low impact – medium influence)</li> <li>3. <b>financial institutions</b> (low impact – high influence)</li> <li>4. <b>agricultural banks</b> (low impact – high influence)</li> </ol>



			5. <b>funding agencies</b> (low impact – high influence)
	<b>STAKEHOLDER GROUP 5 (SG5)</b>	<b>policy makers &amp; authorities</b>	2. <b>ministries of agriculture</b> (low impact – high influence) 3. <b>paying agencies for agriculture</b> (low impact – medium influence) 4. <b>agro-connected intermediaries established by government</b> (medium impact – medium influence) 5. <b>local council</b> (low impact – low influence) 6. <b>regional government</b> (low impact – medium influence) 7. <b>waterboards</b> (low impact – low influence) 8. <b>standardization body</b> (low impact – high influence) 9. <b>EU policy makers</b> (high impact – high influence) 10. <b>CELAC policy maker</b> (high impact – high influence)

### 4.3. Dissemination activities

The dissemination of the FERTIMANURE’s results will be done through the following activities:

#### 4.3.1. Scientific publications

As a way of showing the project’s results and main findings, all the partners will be encouraged to disseminate their results, through scientific publications. The rules for management of this data and stipulations regarding their dissemination are discussed in depth in the Data Management Plan, Grant Agreement, and Consortium Agreement.

GreenWin will be in charge of asking the partners on a monthly basis if they have produced any results that are likely to be disseminated through appropriate means. This means asking the partners if they have written scientific publications related to the project.

*Key Performance Indicator for FERTIMANURE’s scientific publications:*

- The number of scientific publications will depend mainly on the information that will be made available (up to 10) taking into account that there would be information that will be protected, thus not published in the scientific journals. As stated before, GreenWin will be asking the partners in a monthly basis if they have available information that is ready to be published. This publications will be focused on a more scientific audience that will be interested in using FERTIMANURE’s results. – see Annex I List of Journalists and List of future publications.

Stakeholder group concerned:

- SG2 Fertilisers and processing industry

- SG3 Academia and research

Engagement strategy: The publication of scientific articles in high-impact peer reviewed journals. During the project duration, a series of technical/scientific publications will be done during the projects lifetime.

A leading role will be taken by FHR, UVic-UCC, APCA, RITTMO, UGENT, and LEITAT.

#### 4.3.2. Video(s)

GreenWin will coordinate a final video, with a duration of 2-3 minutes that will present FERTIMANURE's results and lessons learnt. This video will be produced internally by GreenWin with the input provided by partners. The rest of the partners will be encouraged, throughout the duration of the project, to produce short videos to disseminate and promote FERTIMANURE's main results.

*Key Performance Indicator for FERTIMANURE's video(s):*

- 1 final video showcasing FERTIMANURE's main results.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers processing industry
- SG3 Academia and research
- SG5 Policy makers and authorities

Engagement strategy: The dissemination of the project in a user-friendly way and on a regular basis will be done through the different social networks; in this case we are referring to the YouTube channel. This video will then be shared in the FERTIMANURE's social networks and the partners social networks and websites as to make sure we reach most of the target audiences from the stakeholder groups mentioned before. Also, the project partners will be able to showcase the video via the different international events, conferences, workshops, etc

GreenWin will take the lead, but with the feedback of all the work package leaders and the rest of the partners.

#### 4.3.3. EIP Practice abstracts

To ensure uptake by farmers, we will produce EIP practice abstracts in all consortium languages outlining the benefits and practical recommendations for the use the produced BFF and TMF.

*Key Performance Indicator for FERTIMANURE's events and conferences:*

- 12 practice abstracts will be produced by the end of the project.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG5 Policy makers and authorities

Engagement strategy: Participation in international conferences, workshops, congresses, etc as to disseminate the most important project results. Also, through the pilot plant visits where these 2 groups of stakeholders are expected to attend.

ELO will take the lead of this task, but it will be supported by the different project partners, especially by APCA.

#### 4.3.4. Attendance to the main events and conferences

To show FERTIMANURE's results and main conclusions, the different partners will be the ones to attend the main events, conferences and congresses related to the topic of FERTIMANURE to disseminate the advancements done throughout the project.

GreenWin will ask every 3 months what are the main events that the partners are planning to attend to in order to have the template, mentioned on sub-section 1.4.1., with all the required information so that it can be posted in the Events section of the website mentioned in sub-section 1.4.2.

Some of the workshops and conferences targeted are the following:

1. EU Biomass Conference and Exhibition,
2. BIO World Congress on Industrial Biotechnology,
3. EFIB Conference,
4. Agricultural fairs (Libramont agriculture, Forestry and Agribusiness Fair/Paris International Agribusiness Show
5. MANURESOURCE conference
6. World Biostimulants Congress
7. National and International Agronomy Meetings
8. European Geosciences Union
9. EuroSoil

*Key Performance Indicator for FERTIMANURE's events and conferences:*

- At least 8 international conferences related to the project.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers processing industry
- SG3 Academia and research
- SG5 Policy makers and authorities

Engagement strategy: Participation in international conferences, workshops, congresses, etc as to disseminate the most important project results. the purpose of participating in the most important events, conferences, congresses, and workshops related to FERTIMANURE's thematic (nutrient recycling).

All of the partners will be involved in this task, but special advantage will be taken from the industrial partner Fertilizers Europe, and the farmer side represented by ELO, and APCA. INTA will make the link in the CELAC region.

#### 4.3.5. Webinars with policy makers

Two policy webinars will be organised throughout the project. One will be led by DARP and APCA, and the other by INTA. The expected result of these webinars is to educate policy-makers about biofertilisers and allow a comparison between policies around Europe and South America.

*Key Performance Indicator for FERTIMANURE's webinars with policy makers:*

- It is expected to perform 2 webinars targeting policy makers in both Europe and South America.

Stakeholder group concerned:

SG5 Policy makers and authorities

Engagement strategy: Organisation of specific webinars and brainstorm sessions with the purpose of educating the policy makers about FERTIMANURE BBFs.

DARP, APCA and INTA will have the leading role in this activity.

#### 4.3.6. Press release

A first press release briefly describing the project, its objectives and the consortium will be produced (M5) and sent out in all countries involved in the project. This press release will thus be produced in the different partners language. The project's milestones and every major FERTIMANURE result or event will also be advertised through press releases.

*Key Performance Indicator for FERTIMANURE's Press release:*

- 3 FERTIMANURE press releases with the most important results and milestones.

Stakeholder group concerned:

SG1 Agricultural producers

SG2 Fertilisers processing industry

SG3 Academia and research

Engagement strategy: FERTIMANURE has already a list of specialized journalists that will serve as a main contact point for each press release that will be launched. Specialised journalists are the ones that interests more the project since we want to reach out to the targeted audiences.

All of the project partners will be involved (EU level and CELAC)

#### 4.3.7. Intermediate events

4 large scale events will be organised in order to engage relevant stakeholders and share knowledge, best practices, lessons learnt and final results of FERTINAMURE. These events will be organised in The Netherlands, Poland, Spain, and Argentina (CELAC region).

*Key Performance Indicator for FERTIMANURE's large scale events:*

- It is expected that at least 100 relevant stakeholders will attend these 4 events.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG3 Academia and research
- SG4 Business and financial advisors
- SG5 Policy makers and authorities

Engagement strategy: Participation in international conferences, workshops, etc, with a dedicated space for the FERTIMANURE project, where we will be able to perform parallel sessions or round tables do disseminate the FERTIMANURE project results.

All of the project partners will be involved (both EU and CELAC)

#### 4.3.8. On-farm experimental pilot visits

There will be on-farm experimental visits in each of the 5 pilots that FERTIMANURE has already built. These visits were supposed to take place during 2022. Due to the current COVID-19 situation, and the fact that the project partners do not know if the visits will be taking place, an initiative of creating a video of the on-farm experimental pilots was taken. In each video, a short explanation will be given regarding each of the 5 pilots.

*Key Performance Indicator for FERTIMANURE's final conference:*

- It is expected that at least 5 on-farm experimental pilot videos will be produced.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry

Engagement strategy: Visit the on-farm experimental pilots and the field trials. The purpose of these visits is to share each of the on-farm experimental pilots results to the target audiences. There they will be able to see how the technologies are working, what are the results produced by using these technologies, the results produced, by the use of the products (BBFs), via the different technologies, etc.

The leading role will be taken by: APCA, RITMO, WENR, APF, UVic-UCC, LEITAT, UGENT, FHR, ALGAE, DARP, FERT, and CPV

#### 4.3.9. Final conference

There will be a final conference in Spain to show all the lessons learnt, the main conclusions and results of FERTIMANURE. This final conference will bring together partners from other related projects. Agricultural players, public authorities, policy makers, universities and industrial stakeholders will be invited to this final event.

*Key Performance Indicator for FERTIMANURE's final conference:*

- It is expected that at least 100 relevant stakeholders will attend this final conference.

Stakeholder group concerned:

- SG1 Agricultural producers
- SG2 Fertilisers and processing industry
- SG3 Academia and research
- SG4 Business and financial advisors
- SG5 Policy makers and authorities

Engagement strategy: Conference organization in Spain, as to disseminate all of the project results to the concerned target groups, thus allowing the uptake of these. During the final conference a presentation will be done, in which the most promising results will be showcased, and the stakeholders will be allowed to raise their questions.

All of the project partners will participate.

## 5. Communication and Dissemination obligations

### 5.1. European Union funding phrase and European Union flag

All the communication and dissemination material should showcase the phrase that the project has received funding from the European Union as well as to include the European Union flag as shown below:

*This project has received funding from the EU Horizon 2020 Research and Innovation Programme under grant agreement No. 862849*



### 5.2. Disclaimer European Union funding phrase and European Union flag

Any communication and dissemination activity has to clearly show that the information provided on them reflects only the authors view and shall not be taken in any case as the European Commission's point of view or opinion:

**Disclaimer:** *this document/poster/leaflet/publication/etc a. Reflects only the author's view; and b. Exempts the Commission from any use that may be made of the information it contains*

### 5.3. Partner obligation and protection of data

Matters regarding protection of data and other information-related obligations of partners is covered in the Data Management Plan.

## 6. Decision and publication process and management of the External Communication and Dissemination material to be produced

The management organization will be comprised of the following bodies:

- Project Coordinator (PC),
- Work Package Teams (WPT), and
- Communication and Dissemination WP leader (C&DWPL)

### 6.1. Communication and Dissemination WP leader

GreenWin as work package 7 -Communication and Dissemination – leader will represent this level and will be in charge of producing all the communication and dissemination material focused on the EXTERNAL audience. GreenWin will be in charge of asking all the partners relevant information for communication and/or dissemination and with this information will create the different templates for posters and roll-ups, leaflet, website, newsletters, etc.

### 6.2. Project Coordinator

UVIC, as project coordinator of FERTIMANURE, will be in charge of approving the material created by GreenWin and will provide feedback when needed. GreenWin will provide the necessary measures to make the changes according to what the Coordinator asks.

### 6.3. Work Package Teams

All work package leaders will be the ones representing this level and will be the last ones to review the material created as to make sure that they are the ones that receive a final version according to GreenWin and UVIC. These partners, which have a technical expertise, will make sure that all the necessary information has been included and that all the technical terms are understood, taking into account that nothing extremely important was left behind. GreenWin will provide them with input regarding the intended audience of the material to be produced in order to avoid a language that is too technical for a non-scientific audience and a language that is non-technical for a scientific audience.

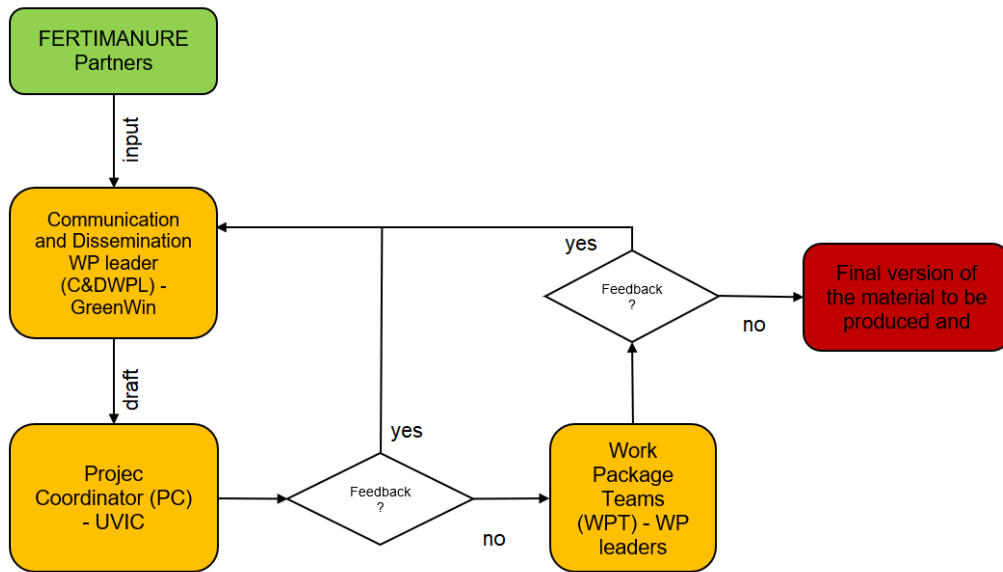


Figure 1 Decision and publication process and management for WP7

## 1. 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 a plan that identifies the most important activities to be performed during the project's lifetime, and the target audiences (stakeholder groups), to which the specific activities should be of high interest. The communication and dissemination plan is a road map for the project partners on identifying the opportunities related to the proposed activities in the Grant Agreement. In order to disseminate the project results, the FERTIMANURE project will also ensure its proper diffusion and secure a maximum impact and uptake of results.

Regarding the communication activities it is important to mention that the branding of the FERTIMANURE project is extremely important, because it gives the identity to the project. It will make the project recognisable, due to the colours, its logo, etc and this is one of the impacts that we want to create – a recognisable brand for the project. All of the project partners are encouraged to use these in all of the communication and dissemination activities. The project website is the main communication channel, where all of the information will be posted and it will be updated regularly with news. All of the communication that will be done, will come from the website and then it will be shared to all of the social media channels and websites of the project partners. It is important that the stakeholders understand that the website is the main communication channel, and that if they are searching for something related to the project, then they have to go directly to the website.

The leaflet, the posters, and the roll-up are a very good way to communicate about the project, since during the events they can be shared among the audience. The purpose of these is to be used during the main activities so that the target audiences get the information they need. For the explanatory video, it is important to mention that it is a perfect way to explain the video during regional events, since it was already translated to all of the consortium languages. This will allow us to engage in a more easy way with them since we will be talking to them in a language they understand. The press releases are a way to reach specific and targeted stakeholder via the specialised journalists, so that they can get the latest information and results regarding the project.

The bio-refine cluster community group will help the FERTIMANURE project in reaching out other EU related project, as to provoke knowledge exchange and good practices. This is a way to find synergies with other projects like events in which FERTIMANURE can disseminate its project results, webinars that can be done with other EU projects, etc. Scientific publications are going to be the main way to disseminate the project results and main findings. A list of the scientific publications is provided in the Annex until the end of the project. A final video will be produced by GreenWin, since it is important to show the most important findings and results but in a way that all of the stakeholder groups will be able to understand.

The EIP-practice abstracts are an excellent way to ensure the uptake of results by farmers, and this is why they need to be written down in a very clear and understandable way. These will be produced until the end of the project and it will maximise the impact of the project results. The attendance to the main events and conferences is crucial to maximise the impact of the project results, and this is why the project partners will identify the most promising to be sure that the results are getting to the targeted stakeholder groups.

Intermediate events are another excellent way in which the project will communicate and disseminate about the project, and this is why they will be performed in 4 different countries, as to make sure that the impact is maximised. The on-farm experimental pilots will be performed and they are also an excellent way to show all of the work they have been performing, and the results that they have gotten. Due to the COVID-19 pandemic a video will be created by all of the pilot leaders, so that it can be shared in case the visits are suspended.



## 2. Conclusions

- The Communication and dissemination plan is a roadmap that can be easily followed by the project partners.
- The FERTIMANUR project has different partners with different profiles, which will allow the identification of the most promising activities to maximise the impact.
- All of the project partners are concerned by the communication and dissemination activities.
- The Communication and dissemination plan will be updated until the end of the project, which means that it might suffer some changes.
- Dissemination of the project will have a stronger focus in the years to come.

## 3. Recommendations

- It is recommended to keep participating in the most promising events, workshops, conferences, etc, as to keep informing about the project.
- It is recommended to keep working closely with the pilot leaders as to make sure that the information is getting published in the website and social networks.
- It is recommended to invite the different stakeholders, at the different presentations, events, conferences, etc, to subscribe to our newsletter so that they can be informed about the project.
- It is recommended to update the Communication and dissemination plan as the project evolves and changes.

## Annexes

### 1.1. Logo Guidelines





## Foreword

With these guidelines, **Fertimanure** seeks to assist you in understanding and reproducing the characteristics of the enterprise in all its philosophy, as identified in the organisation's internal and external communication.

Our logotype and its colours, wherever they might appear, are our enduring ambassadors.

That is why it is fundamental that the guidelines set out in the following pages are respected in full, to ensure the credibility of any activity or message that Fertimanure may decide to undertake or communicate.

These guidelines represent a tool that will enable you to establish under which conditions, and in which manner, you may use our logo across the different types of media.

It is essential that these visual identity guidelines are followed as closely as possible. For if communication starts with recognition, recognition, surely, starts with repetition.

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For any information concerning Fertimanure, please feel free to contact :

**Françoise Scheepers,**  
*Marketing & Communication Manager*  
francoise.scheepers@greenwin.be

More specific questions relating to these visual identity guidelines or to graphic applications can be addressed to :

**Webadev - SPRL**  
info@webadev.com



## Summary

### 1. The logo

- 1.1 Logo
- 1.2 Logo - versions
- 1.3 Monochrome logo

### 2. The colours

- 2.1 Colours
- 2.2 Secondary colours

### 3. Ergonomic factors

- 3.1 Exclusion zone
- 3.2 Minimum size

### 4. What is not allowed

### 5. Typography

- 5.1 Typeface
- 5.2 Secondary typeface
- 5.3 Secondary typeface - Online

### 6. Layout

- 6.1 Size and spacing
  - 6.2 Italics, bold and underlining
  - 6.3 Paragraphs
-



FERTIMANURE

## 1. The logo

---



FERTIMANURE

1.1

## Logo

The Fertimanure logotype consists of four differently-coloured square symbols and features the company name in a dark blue typeface in capital letters. Its different components are all interlinked and cannot be disassociated from one another.

Under no circumstances can the logo be reproduced with any modification in shape or colour, or in any layout not provided for in these guidelines.



FERTIMANURE



1.2

## Logo - versions

To make communication clearer, and if it is a requirement of the type of media being utilised, the Fertimanure logo can be used in its negative version.

Otherwise, the Fertimanure logo should ideally only ever sit on one background colour : the colour white.

Version 1 – original logo - preferred use



Version 2 - logo negative version





1.3

## Logo - monochrome

If it is only possible to print in one colour, the logo can be adapted in dark blue, or in white, depending on the graphic or technical context.

Version 1 - white background



CMYK : 100 / 80 / 44 / 46  
RGB : 0 / 42 / 70  
HEX : #002A46  
PANTONE : 7546 C

Version 2 - dark blue







## 2. The colours

---



2.1

## Colours

When used appropriately and evenly, the company's official colours contribute towards the creation of a strong and coherent image for the organisation.

The logo colours must be used as a matter of priority in all forms of communication.

The logo's colour code must be respected for all printed and virtual media.

The basic rule is the use of a white background. Under no circumstances may a transparent background be used.

The conversion of the logo into RGB must **ALWAYS** start from the CMYK version.



### Primary colours :



CMYK : 100 / 80 / 44 / 46  
RGB : 0 / 42 / 70  
HEX : #002A46  
PANTONE : 7546 C



CMYK : 50 / 0 / 100 / 0  
RGB : 140 / 197 / 63  
HEX : #8CC53F  
PANTONE : 368 C



CMYK : 40 / 12 / 12 / 0  
RGB : 156 / 194 / 209  
HEX : #9CC2D1  
PANTONE : 551 C



CMYK : 0 / 88 / 67 / 0  
RGB : 238 / 66 / 81  
HEX : #EE4251  
PANTONE : 1788 C



CMYK : 8 / 35 / 100 / 0  
RGB : 230 / 168 / 33  
HEX : #E6A821  
PANTONE : 130 C



2.2

## Secondary colours

In addition to the primary colours, a palette of secondary colours is also available. These secondary colours must only be used to deliver accents that might help to emphasise the visual interest.

They must always be used in conjunction with the primary colours.

### Secondary colours :



CMYK : 65 / 42 / 34 / 5  
RGB : 102 / 127 / 143  
HEX : #667F8F



CMYK : 19 / 11 / 9 / 0  
RGB : 204 / 212 / 218  
HEX : #CCD4DA



CMYK : 71 / 39 / 100 / 31  
RGB : 70 / 98 / 32  
HEX : #466220



CMYK : 19 / 0 / 38 / 0  
RGB : 209 / 231 / 179  
HEX : #D1E7B3



CMYK : 78 / 33 / 31 / 2  
RGB : 59 / 137 / 156  
HEX : #3B899C



CMYK : 6 / 1 / 1 / 0  
RGB : 235 / 243 / 246  
HEX : #EBF3F6



CMYK : 20 / 92 / 78 / 10  
RGB : 178 / 50 / 62  
HEX : #B2323E



CMYK : 0 / 36 / 14 / 0  
RGB : 248 / 179 / 186  
HEX : #F8B3BA



CMYK : 29 / 47 / 100 / 9  
RGB : 172 / 126 / 25  
HEX : #AC7E19



CMYK : 3 / 12 / 40 / 0  
RGB : 245 / 220 / 166  
HEX : #F5DCA6



### 3. Ergonomic factors

---

3.1

## Exclusion zone

For the logo to be as eye-catching as possible it must always be surrounded by a minimum clear area. This exclusion zone is a minimum protected area around the logo that must be respected at all times. It must not contain any graphic, typographic or pictorial elements of any kind. The distance between the logo and the edge of any material on which it is placed cannot be inferior to the exclusion zone.

The size of the minimal white area must be equivalent to half the height of the letter « E ».



3.2

## Minimum size

The minimum size allowed for all logo impressions is 10 mms in height. The logo proportions must be perfectly maintained at all times.





## 4. What is not allowed

---



## What is not allowed

What not to do... (Non-exhaustive list).  
Below are a few examples of how not to use our logo.  
Any use that results in a degrading or poor legibility of the logo is prohibited.

Do not alter the logo colours :



FERTIMANURE



FERTIMANURE

Do not distort the logo, or modify the proportions of any of its elements :



FERTIMANURE



FERTIMANURE

Do not change the typeface :



FERTIMANURE



FERTI  
MANURE

Do not use the logo on an inappropriate background :



FERTIMANURE



FERTIMANURE



## 5. Typography

---





5.1

## Typeface

Typography forms an integral part of a visual identity. The designated typeface must be used consistently and evenly to improve and reinforce the company's branding. The correct use of typeface allows for the introduction of a rhythm into a text and for a hierarchy to be transcribed, facilitating an understanding of the text and its subject matter.

Fertimanure's corporate typeface is **HelveticaNeue** (in its non-condensed and non-stretched version). It can be used in all its different weights, and must be used for all printed material and offline applications.

**AaBbCcDd**  
**1 234!@#& »**

—  
**Helvetica Neue 65 Medium**  
**ABCDEFGHIJKLMNOPQRSTUVWXYZ**  
**abcdefghijklmnopqrstuvwxyz**  
**1 234 567 890!@#%&^\*()**

AaBbCcDd  
1 234!@#& »

—  
Helvetica Neue 25 Ultra Light  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#%&^\*()

—  
Helvetica Neue 45 Light  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#%&^\*()

—  
**Helvetica Neue 95 Black**  
**ABCDEFGHIJKLMNOPQRSTUVWXYZ**  
**abcdefghijklmnopqrstuvwxyz**  
**1 234 567 890!@#%&^\*()**



5.2

## Secondary typeface

If the use of HelveticaNeue is not an option, the possible alternative is **Arial**, which is widely available by default with all operating systems.

---

AaBbCcDd  
1234!@#& »

—  
Arial Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#\$%^&\*()

—  
Arial Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#\$%^&\*()

—  
Arial Black

abcdefghijklmnopqrstuvwxyz  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#\$%^&\*()

Other variations are also permitted.

5.3

## Secondary typeface - Online

The preferred typeface for online use is **Lato**, which belongs to the « Google Fonts » library.

---

AaBbCcDd  
1234!@#& »

—  
Lato Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#%&\*()

—  
Lato Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#%&\*()

—  
Lato Black

abcdefghijklmnopqrstuvwxyz  
abcdefghijklmnopqrstuvwxyz  
1 234 567 890!@#%&\*()

Other variations are also permitted.



## 6. Layout

---

6.1

## Size and spacing

While the use of the **HelveticaNeue** typeface for running text and headings is quite straightforward, attention has nevertheless to be paid to certain aspects; for example, never reducing the font size below 8.5 pts in a running text, especially when using the Light version.

As these fonts are already conceived according to uncluttered design parameters, it could be inadvisable to enlarge them, except maybe in the case of headings.

It is also important to have clear line spacing that is ideally a minimum of 3 pts more than the main text. For example, a 10 pt body text should have line spacing of at least 13pts.

Also, any character distortion (compression, stretching or horizontal) is to be shunned. The practice considerably reduces legibility, altering the original design while also causing an imbalance in shape.

Any increase in letter spacing, on the other hand, is considered acceptable.

Footnotes, for their part, are necessarily in a font size that is smaller than that of the main text.

---

### Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute inure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

The running text in the above extract is written in a 10pt font with 15 pt spacing, 0 tracking, and no distortion.



6.2

## Italiques, gras et soulignement

When used sparingly, italics serve to highlight a word, or group of words in a text, without interfering with the homogeneity or continuity of the reading flow. Unlike bold text, which is visible from a distance, italic text only becomes obvious when it is actually being read. It is important therefore to reserve the use of **bold** text for any highlighting that is deemed essential.

Also, unless necessary for indicating internet links within the text, **underlining** must be avoided.

---

6.2

## Headings and hierarchy

As they are not sentences, headings are not usually followed by punctuation marks, except maybe a question mark, an exclamation mark, ellipsis points, or abbreviation points; a colon is also generally acceptable.

For the structure of a text to be kept simple and coherent it should ideally contain no more than four levels of headings, and in styles that should be determined in a manner that allows the reader to rapidly determine their hierarchy.

Headings can be highlighted in different ways, provided that attention is paid to the **importance of maintaining consistency** throughout the document so as to preserve its homogeneity. In addition, it is customary to always start any important section or chapter on a new page, whenever possible. This ensures the reader can better grasp the layout and structure of the text.

---

6.3

## Paragraphs

The use of paragraphs makes for easier reading. As a general rule, one should use one idea per paragraph. Paragraphs are usually indicated by the use of double spacing and are justified.



GUIDELINES2020

1.2. Power Point template



**Before even  
opening a  
design tool...**



Preparation is essential to ensure the success and logical flow of your presentation.

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862849.






### 1.3. Event Report Template

WP7/Communication & Dissemination duty



#### Event Reporting Template

*(This template is to be filled-in by the partner that attends an event where FERTIMANURE was presented)*

Name of the beneficiary	<i>Please write down your organisation's name</i>
Name of the event	<i>Please write down the name of the event</i>
Date of the event	<i>Please write down the date in which the event was held</i>
URL of the event	<i>Please write down the URL of the event</i>
Place of the event	<i>Please write down the country and city where the event was held</i>
Type of event	<i>International/National</i>
Type of Communication/Dissemination activity	<i>[Organisation of a Conference] [Organisation of a workshop] [Participation to a conference] [Participation to a workshop] [Participation to an event other than a conference or workshop] [Participation in activities organised jointly with other H2020 projects] [Other] explain for Other</i>
Duration of the event	<i>Please write down the duration of the event (one day event, two days event, etc)</i>
Thematic of the event	<i>Please write down the event's theme(s) (ex. Circular economy, Environment, etc.)</i>
Relation of the event with FERTIMANURE	<i>Please write down a paragraph explaining the relationship between the event and FERTIMANURE (minimum 75 words)</i>
Type of audience	<i>Please write down the type of audience the event was intended to (ex. Scientific, researchers, students, etc)</i>  Stakeholder group.pdf
Number of participants	<i>Please write down the number of people that attended the event. Of course this is an estimate since it is not always easy/possible to count everyone or get the number of attendees from the organiser.</i>
Communication/Dissemination material	<i>Please write down if you gave any communication or dissemination material and how many were given (ex. Leaflets (130) and if the explaining video was used to give a general idea of the project)</i>

#### Beneficiary's list of participants:

*(Please write down the name of your organization's attendants and their role in the project)*

Name	Role in the project



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FERTIMANURE

WP7/Communication & ~~Dissemination duty~~



FERTIMANURE

**Pictures:**

*Please paste here the pictures that you took during the event*

*Recommendation:*

- 1. Take quality pictures of the event in general, for which use in the promotion of the project is allowed*
- 2. Take pictures where your ~~organisation's~~ staff appear*
- 3. If you were showcasing/giving communication/dissemination material of the project, please make sure it appears in the pictures*

**Disclaimer:** this document a. Reflects only the author's view; and b. Exempts the Commission from any use that may be made of the information it contains



This project has received funding from the EU Horizon 2020 Research and Innovation ~~Programme~~ under grant agreement No. 862849

1.4. Deliverable Template



# Deliverable (the font that will be used is ARIAL)

**Project Acronym:** FERTIMANURE **Arial 14**

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

**Grant Agreement No.** 862849  
**Arial 14**

## D7.1. Dissemination and Communication Plan **Arial 34**

(Please write down the deliverable number, according to the work package it belongs, and its title, like the example above)

For the following table (Arial 10)

Project start date	January 1st, 2020
Duration in months	48
Deliverable due date	June 30 <sup>th</sup> , 2020 <small>(Please write down the due date according to the proposal, like the example in black)</small>
Actual submission date	June 30 <sup>th</sup> , 2020 <small>(Please write down the actual submission date of the deliverable, like the example in black)</small>
Work package concerned	7 <small>(Please write down the work package concerned, like the example in black)</small>
Author(s) and Co-author(s)	Rodrigo Arandi-Klee (author) and XXX (co-author) <small>(Please write down the name of the author of the deliverable, like the example in black)</small>
Contributor(s)	Greenwin <small>(Please write down your organisation's name, like the example in black)</small>

**Disclaimer:** This deliverable a. Reflects only the authors view; and b. Exempts the Commission from any use that may be made of the information it contains.

0



This project has received funding from the EU Horizon 2020 Research and Innovation Programme under grant agreement No. 862849

## Preface

### ARIAL 10

**IMPORTANT:** In this section you need to explain the context of the deliverable within the FERTIMANURE project, such as:

- The tasks carried out
- The related work packages to this deliverable



## Document History

<b>Date</b> <small>Arial 10 centered</small>	<b>Author</b>	<b>Action</b>	<b>Status</b>
April 15 <sup>th</sup> , 2020 <small>Arial 10 centered</small>	Rodrigo Arandi-Klee	1 <sup>st</sup> draft revision	Draft
May 2 <sup>nd</sup> , 2020	XXX	2 <sup>nd</sup> draft revision	Draft
June 28 <sup>th</sup> , 2020	Laia Llenas	Approved by UVIC	Approved by the PC

(Please fill-in the table like the example shown above)





FERTIMANURE



FERTIMANURE

## Summary

ARIAL 10

**IMPORTANT:** In this section you need to ~~summarise~~ summarise the main key elements of EACH and EVERY section of the deliverable.

2



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## Content

Preface.....	0
Document History .....	1
Summary.....	2
1. Introduction .....	8
2. Methodologies and Organisation .....	9
3. Management of FERTIMANURE's project communication activities Arial 16 (please use TITLE/HEADING 1 for the main titles) .....	9
3.1. Objectives Arial 13 (please use TITLE/HEADING 2 for subsection 1).....	9
3.1.1. Website Arial 12 (please use TITLE/HEADING 3 for subsection 2, and TITLE/HEADING 4 for the other subsections).....	9
4. Management of FERTIMANURE's dissemination activities.....	9
4.1. Objectives .....	9
5. Discussion.....	13
6. Conclusions .....	13
7. Recommendations .....	13
Annexes .....	14
References.....	15
Brief project summary .....	17

You just need to update the fields and the changes will be done automatically



## List of Tables

Table 1 Number of followers on Twitter and Facebook.....	10
Table 2 Number of publications on Twitter and LinkedIn .....	10

You just need to update the fields and the changes will be done automatically





## List of Figures

Figure 1 Comparison of followers between Facebook and LinkedIn .....	10
Figure 2 Spanish Pilot infographic .....	12
Figure 3 Belgian Pilot infographic .....	12

You just need to update the fields and the changes will be done automatically



## List of Abbreviations

<b>BBF Arial 10</b>	Bio-based Fertiliser <b>Arial 10</b>
<b>TMF</b>	Tailor-made Fertiliser





FERTIMANURE



FERTIMANURE

## 1. Introduction

Use ARIAL 10 for this section

IMPORTANT: please provide with:

- A short background related to this deliverable
- An introduction to the MAIN topics of the deliverable.



## 2. Methodologies and Organisation

### ARIAL 10

IMPORTANT: this section must explain the way the deliverable was produced, such as:

- models used,
- data gathering,
- literature analyses,
- stakeholder meetings

## 3. Management of FERTIMANURE's project communication activities **Arial 16** (please use TITLE/HEADING 1 for the main titles)

### 3.1. Objectives **Arial 13** (please use TITLE/HEADING 2 for subsection 1)

#### 3.1.1. Website **Arial 12** (please use TITLE/HEADING 3 for subsection 2, and TITLE/HEADING 4 for the other subsections)

## 4. Management of FERTIMANURE's dissemination activities

### 4.1. Objectives



Table 1 Number of followers on Twitter and Facebook

	Facebook	Twitter	LinkedIn
Followers	400	200	900
Views	nine	ten	eleven

You can use shading in the headings of the above table - Followers, Views, Facebook Twitter and LinkedIn. Just make sure that the shading colours are the ones from the guidelines. You can choose to use the primary or secondary colours. Just keep it simple, it is better.

Table 2 Number of publications on Twitter and LinkedIn

	Number of publications
Twitter	
LinkedIn	

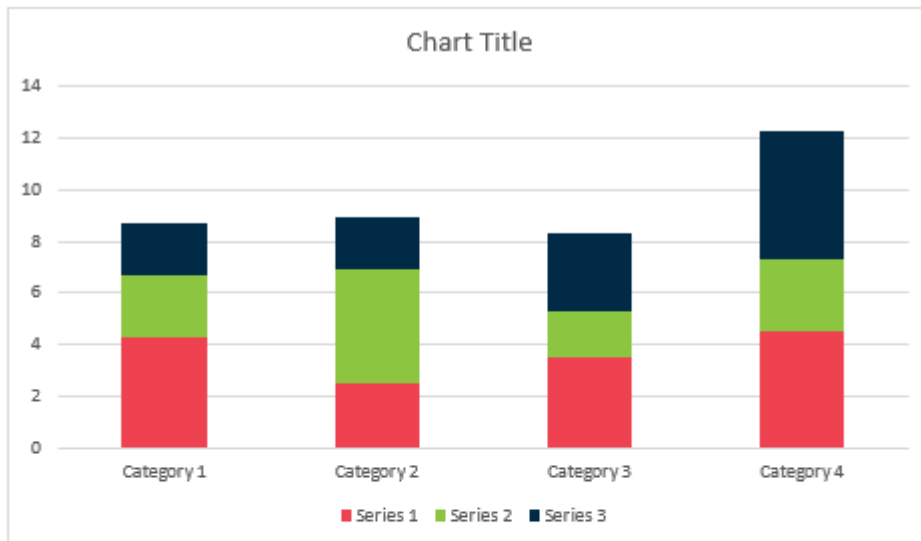


Figure 1 Comparison of followers between Facebook and LinkedIn





FERTIMANURE



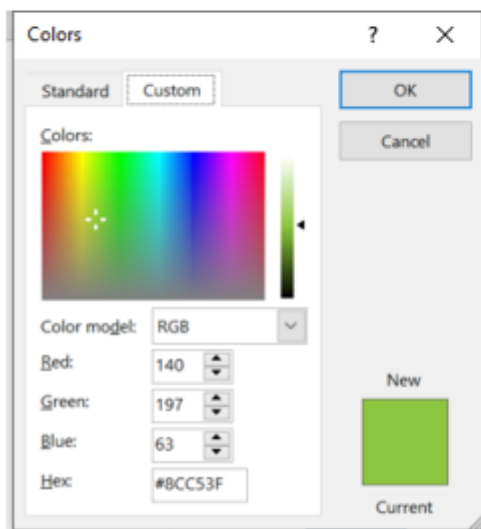
FERTIMANURE

Example for the following colour:



CMYK : 50 / 0 / 100 / 0  
RGB ; 140 / 197 / 63  
HEX ; #8CC53F  
PANTONE ; 368 C

Click on the shading button and then click on the more colours button



In colour model choose RGB and follow the colour code 140 RED, 197 GREEN and 63 BLUE. The Hex will appear automatically and as you can see, it matches the one from the guidelines #8CC53F.

**Please make sure to use the Logo Guideline's colours for the FIGURES that you will be producing for your reports.**

10



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Figure 2 Spanish Pilot infographic



Figure 3 Belgian Pilot infographic



## 5. Discussion

ARIAL 10

IMPORTANT: please discuss the main findings/results of this deliverable.

## 6. Conclusions

ARIAL 10

IMPORTANT: In this section you need to present:

- the main findings
- key messages
- detailed issues that the deliverable delivers to other/ later project activities.

## 7. Recommendations

ARIAL 10

IMPORTANT: in this section you need to present:

- the recommendations
- lessons learnt.





## Annexes

### ARIAL 10

If there is an annex please include it here (ex. Calculations done for the results showed in this report).



## References

Please use the APA citation style. In the following link you have the examples for everything. For the references please use 1,5 of line spacing and number the references by alphabetical order.  
[Reference examples \(apa.org\)](#)

### Arial 10 and 1.5 line spacing

1. Kübler-Ross, E. (with Byock, I.). (2014). *On death & dying: What the dying have to teach doctors, nurses, clergy & their own families* (50th anniversary ed.). Scribner. (Original work published 1969)
2. Lyons, D. (2009, June 15). Don't 'iTune' us: It's geeks versus writers. Guess who's winning. *Newsweek*, 153(24), 27.





FERTIMANURE



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>

15



This project has received funding from the EU Horizon 2020 Research and Innovation Programme under grant agreement No. 862849



## Brief project summary

The mission of the FERTIMANURE project is to provide innovative solutions (technology, end-products, and business models) that solve real issues, ~~is~~ 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 <del>biostimulants</del>
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

\*~~Ammonium sulphate/nitrate~~ sulphate/nitrate has been split into two BBFs



**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.



1.5. Scientific publications

	Proposed by	Scientific journal name	Tentative article title	Author of the publication	Link	Publication date
1	UGENT	Ecological Engineering	Evaluation of a new approach for swine wastewater valorisation and treatment: A combined system of ammonium recovery and aerated constructed wetland	Claudio Brienza, Natalia Donodo, Hongzhen Luo, Ruben Vingerhoets, Denis de Wilde, Dion van Oirschot, Ivona Sigurnjak, Jayanta Kuma, Evi Michels, Erik Meers	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0925857423000289?dgcid=coauthor">https://www.sciencedirect.com/science/article/abs/pii/S0925857423000289?dgcid=coauthor</a>	April 2023
2	UGENT	Journal of Cleaner Production	Detailed nitrogen and phosphorus flow analysis, nutrient use efficiency and circularity in the agri-food system of a livestock-intensive region	Ruben Vingerhoets, Marc Spiller, Joris De Backer, Anne Adriaens, Siegfried E. Vlaeminck, Erik Meers	<a href="https://www.sciencedirect.com/science/article/pii/S0959652623014361?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0959652623014361?via%3Dihub</a>	April 2023
3	UVIC	The International Journal of Life Cycle Assessment	Life cycle assessment of bio-based fertilizers production systems: where are we and where should we be heading?	D. Egas, S. Azarkamand, C. Casals, S. Ponsá, L. Llenas & J. Colón	<a href="https://link.springer.com/article/10.1007/s11367-023-02168-8">https://link.springer.com/article/10.1007/s11367-023-02168-8</a>	May 2023



## FERTIMANURE

	Proposed by	Scientific journal name	Tentative article title	Author of the publication	Link	Publication date
4	LEITAT	Science of the Total Environment	Nutrient recovery and valorisation from pig slurry liquid fraction with membrane technologies	Rubén Rodríguez, Julia Zapata, Xialei You, Montserrat Pérez, Sonia Sanchis, Julia García	<a href="https://www.sciencedirect.com/science/article/pii/S0048969723011646?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0048969723011646?via%3Dihub</a>	May 2023
5	UGENT	Chemical Engineering Journal	A calibrated model approach to cost-efficient nitrogen recovery in manure processing using a two-stage ammonia stripping and nitrification-denitrification system	Ruben Vingerhoets, Claudio Brienza, Ivona Sigurnjak, Jeroen Buysse, Siegfried E. Vlaeminck, Marc Spiller, Erik Meers		July 2023
6	UGENT	Journal of Environmental Management	Is intensification by N recovery, pure oxygen aeration and effluent polishing the way forward in swine manure treatment? A long-term techno-economic assessment at full scale.	Ruben Vingerhoets, Ivona Sigurnjak, Erik Meers		July 2023
7	UGENT	Journal of Plant Nutrition and Soil Science	Agronomic and environmental performance of ammonia water on <i>Lactuca sativa</i> as a	Vaibhav Shrivastava, Ivona Sigurnjak, Erik Meers		August 2023



FERTIMANURE

	Proposed by	Scientific journal name	Tentative article title	Author of the publication	Link	Publication date
			potential replacement of commercial synthetic fertilizers			
8	UGENT/UVIC	Frontiers in Plant Science	Evaluation of agronomic efficiency and stress indicators on swiss chard via use of biostimulants	Vaibhav Shrivastava, Omar Castaño Sanchez, Berta Singla Just, Laura Diaz Guerra, Ivona Sigurnjak, Rosa Vilaplana Ventura, Erik Meers		October 2023
9	UGENT	Science of the Total Environment	Use of Ammonium Nitrate and Ammonium Sulphate in circular agriculture: A compilation of results from 4 year field trials	Vaibhav Shrivastava, Tomas Van De Sande, Ivona Sigurnjak, Erik Meers		December 2023
10	UVIC	Waste and Biomass Valorization / Sustainable Chemistry of the Environment / Environmental	Assessing phosphorus recovery potential from ashes: incubation studies of different secondary raw materials after multiple combustion processes	Berta Singla, Pablo Binder, Nagore, Guerra, Laura Díaz, Rosa Vilaplana, Anna Robles, Nicola Frison, Laia Llenas, Erik Meers		December 2023





## FERTIMANURE

	Proposed by	Scientific journal name	Tentative article title	Author of the publication	Link	Publication date
		Science and Pollution Research				
11	UVIC	Frontiers in plant science	Assessment of the positive effects of the biostimulant on stress tolerance and crop yield	Omar Castaño, Laura Díaz, Rosa Vilaplana, Laia Llenas		December 2023
12	UGENT	Resources, conservation & recycling	Navigating the Economic Impact of Novel Nutrient Recovery Technologies in Livestock-Intensive Regions (logistic modelling)	Ruben Vingerhoets, Ivona Sigurnjak, Jeroen Buysse, Oscar Schouman, Erik Meers		January 2024
13	UVIC	Plant and soil	Nitrogen release and mineralization potential from high-added value fertilisers from animal manure	Berta Singla, Omar Castaño, Nagore, Guerra, Laura Díaz, Rosa Vilaplana, Anna Robles, Laia Llenas, Erik Meers		January 2024
14	UVIC	Agriculture, ecosystems, and	Study of the agronomic performance of the TMF compared to	Omar Castaño, Laura Díaz, Rosa Vilaplana, Laia Llenas		January 2024



FERTIMANURE

	<b>Proposed by</b>	<b>Scientific journal name</b>	<b>Tentative article title</b>	<b>Author of the publication</b>	<b>Link</b>	<b>Publication date</b>
		environment	conventional fertilization and pig slurry application			
15	UVIC	Plant and soil	Evaluation of the biostimulant action on an extensive crop	Omar Castaño, Laura Díaz, Rosa Vilaplana, Laia Llenas		January 2024
16	UVIC	Agronomy	Study of the biostimulant application method and biostimulant-fertilizer interaction	Omar Castaño, Laura Díaz, Rosa Vilaplana, Laia Llenas		January 2024



FERTIMANURE

1.6. Magazines and sectorial articles

	Proposed by	Magazine name	Title/topic	Date of publication	Link to the publication
1	APCA	Réussir Terra	FERTIMANURE, a project to optimize manure management	03/07/2020	<a href="https://www.calameo.com/books/00611278533152acf4e68">https://www.calameo.com/books/00611278533152acf4e68</a>
2	APCA	Paysan Lorrain	Pour des sols efficaces, dotés d'une fertilité biologique durable	04/09/2020	<a href="https://www.le-paysan-lorrain.fr/">https://www.le-paysan-lorrain.fr/</a>
3	UVIC	Open access government	FERTIMANURE From farm to market-upcycling manure to improved fertilising products pg 242	09/10/2020	<a href="https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&amp;edid=f10cf98f-85a8-453f-a44f-a855861878cc">https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&amp;edid=f10cf98f-85a8-453f-a44f-a855861878cc</a>
4	UVIC	RETEMA	Estrategias innovadoras de valorización de deyecciones	17/09/2021	<a href="https://www.retema.es/revista-digital/especial-bioenergia-7">https://www.retema.es/revista-digital/especial-bioenergia-7</a>



FERTIMANURE

	Proposed by	Magazine name	Title/topic	Date of publication	Link to the publication
			ganaderas para producir nuevos fertilizantes en la UE PG - page 118		
5	APCA / RITTMO	Le Paysan Vosgien	First results of the FERTIMANURE project	01/10/2021	<a href="https://grandest.chambre-agriculture.fr/publications/toutes-les-publications/la-publication-en-detail/actualites/premiers-retour-du-projet-europeen-fertimanure/">https://grandest.chambre-agriculture.fr/publications/toutes-les-publications/la-publication-en-detail/actualites/premiers-retour-du-projet-europeen-fertimanure/</a>
6	INTA	Solo Aves y Porcinos	Nuevas Tecnologías para tratar y dar valor agregado a los residuos ganaderos. Crespo, D.C; Beily, M.E y Bres, P.A. Año XV, N°9 - page 10	01/10/2021	<a href="https://www.calameo.com/read/005800297e67b1549b839">https://www.calameo.com/read/005800297e67b1549b839</a>
7	DARP / UVIC	Agrodiario.com	Notícia:Cataluña pone en marcha una planta piloto	24/01/2022	<a href="https://www.agrodiario.com/texto-diario/mostrar/3414485/cataluna-pone-marcha-planta-piloto-valoriza-deyecciones-ganaderas">https://www.agrodiario.com/texto-diario/mostrar/3414485/cataluna-pone-marcha-planta-piloto-valoriza-deyecciones-ganaderas</a>



FERTIMANURE

	Proposed by	Magazine name	Title/topic	Date of publication	Link to the publication
			que valoriza deyecciones ganaderas		
8	INTA	Producir XXI	Agregando más valor a los residuos del tambo - page 26	20/04/2022	<a href="https://producirxxi.com.ar/revista-abril-no-366/">https://producirxxi.com.ar/revista-abril-no-366/</a>
9	APCA	Le magazine des agriculteurs de Bretagne	Test d'un pyrolyseur mobile à Kerguéhenne c - Recycler du fumier de volaille en biochar -page 24	01/06/2022	<a href="https://www.calameo.com/read/00262679310c015e6411c">https://www.calameo.com/read/00262679310c015e6411c</a>
10	LEITAT	Eueropean Sustainable Phosphorus Platform - Book of abstracts	Recovery of Nitrogen and Phosphorus from Livestock Slurry through membrane technologies - page 113	20/06/2022	<a href="https://www.phosphorusplatform.eu/images/Conference/ESPC4/ESPC4%20PERM5%20-%20Book%20Of%20Abstracts%20-%20Final.pdf">https://www.phosphorusplatform.eu/images/Conference/ESPC4/ESPC4%20PERM5%20-%20Book%20Of%20Abstracts%20-%20Final.pdf</a>



## FERTIMANURE

### 1.7. List of Journalists

No	First Name (surname)	Last name	Media name	Type of media	Freelancer or employee of the media	e-mail address	Country prefix	Phone number	Territories covered	Communication language(s)
1	-		Informatore Agrario www.informatoreagrario.it	Agriculture Specialised - Online and Offline	-	<a href="mailto:informatoreagrario@informatoreagrario.it">informatoreagrario@informatoreagrario.it</a>	39	458057547	Italy	Italian
2	-		Agronotizie <a href="https://agronotizie.imagelinenetwork.com/">https://agronotizie.imagelinenetwork.com/</a>	Agriculture Specialised - Online (free)	-	<a href="mailto:info@imageline.it">info@imageline.it</a>	39	546680688	Italy	Italian
3	Repetti	Ottavio	Tecniche nuove - Terra è vita	Agriculture Specialised Online and Offline	-	<a href="mailto:ottavio.repetti@gmail.com">ottavio.repetti@gmail.com</a>	39	3383633793	Italy	Italian
4	Garcia	Chus	Heraldo de Aragón	Mainstream/Offline/Online Newspaper	Employee	<a href="mailto:mjgarcia@heraldo.es">mjgarcia@heraldo.es</a>	34	976765000	Regional	Spanish
5	Poncela	Isabel	Efe	Mainstream Offline Agency	Agency Director	<a href="mailto:iponcela@efe.com">iponcela@efe.com</a>	34	976215021	National	Spanish
6	Lacarcel	Silvia	Cadena Ser	Mainstream Offline/ Online Radio	Radio Director	<a href="mailto:smlacarcel@prisaradio.com">smlacarcel@prisaradio.com</a>	34	647308862	Regional	Spanish
7	Barraguer	Samuel	CARTV	Mainstream Offline/Online TV	News Chief	<a href="mailto:samuel.barraguer@gmail.com">samuel.barraguer@gmail.com</a>	34	876256500	Regional	-
8	Lopez Judeiras	Chema	Diario de Teruel	Mainstream Offline/Online Newspaper	Director	<a href="mailto:chemalopez@diariodeteruel.net">chemalopez@diariodeteruel.net</a>	34	978617086	Provincial	-
9	-		Journal of Plant Protection	Online and Offline	-	<a href="mailto:zadrzna.stampa@zq.t-com.hr">zadrzna.stampa@zq.t-com.hr</a> <a href="mailto:info@zastitbilija.com.hr">info@zastitbilija.com.hr</a> <a href="mailto:zrakic.magdalena@gmail.com">zrakic.magdalena@gmail.com</a>	38	5012316060	-	Croatian and English
10	-	-	Gospodarski list d.d.	Online and Offline	-	<a href="mailto:redakcija@gospodarski-list.hr">redakcija@gospodarski-list.hr</a>	38	5013843222	-	Croatian
11	-	-	Pomologia Croatica: Journal of the Croatian Agronomic Society	Online and Offline	-	<a href="mailto:info@agronomsko.hr">info@agronomsko.hr</a>	38	5014872493	-	Croatian and English
12	-	-	Časopis Poljoprivreda/ Journal of Agriculture	Offline	-	<a href="mailto:poljoprivreda@fazos.hr">poljoprivreda@fazos.hr</a>	38	5031554821	-	Croatian and English
13	-	-	Agroeconomia Croatica	Online and Offline	-	<a href="mailto:Ruzica.Loncaric@pfos.hr">Ruzica.Loncaric@pfos.hr</a>	38	5031554871	-	Croatian



## FERTIMANURE

14	-	-	Agronomski glasnik: Glasilo Hrvatskog agronomskog društva	Online and Offline	-	<a href="mailto:info@agronomsko.hr">info@agronomsko.hr</a>	38	5014872493	-	-
15	-	-	Glasilo biljne zaštite	Offline	-	<a href="mailto:rbazok@agr.hr">rbazok@agr.hr</a>	-	-	-	Croatian
16	Eva	Funoll	UVic-UCC	-	UVic-UCC communication manager	<a href="mailto:eva.funoll@uvic.cat">eva.funoll@uvic.cat</a>	34	679578935	Spain	Spanish and English
17	Pampa	Garcia	Agencia SINC	Specialised Online	Agency Director	<a href="mailto:esperanza.garcia@fecyt.es">esperanza.garcia@fecyt.es</a>	-	-	Spain	Spanish and English
18	Adelina	Marcos	Agencia SINC	Specialised Online	Employee	<a href="mailto:adeline.marcos@fecyt.es">adeline.marcos@fecyt.es</a>	-	-	Spain	Spanish and English
19	-	-	-	-	-	<a href="mailto:redaccion@agenciasinc.es">redaccion@agenciasinc.es</a>	-	-	-	Spanish and English
20	-	-	Agencia EFE	Specialised Online	Agency	<a href="http://ciencia@efe.es">ciencia@efe.es</a>	-	-	Spain	Spanish and English
21	Ana	Morales	Europa Press	Specialised Online	Agency Employee	<a href="mailto:anamorales@europapress.es">anamorales@europapress.es</a>	-	-	Spain	Spanish and English
22	Cristina	Saez	-	-	Freelance	<a href="mailto:saez_cristina@yahoo.es">saez_cristina@yahoo.es</a>	-	-	Spain	Spanish and English
23	Teresa	Bau	-	-	Freelance	<a href="mailto:tbaupuig@gmail.com">tbaupuig@gmail.com</a>	-	-	Spain	Spanish and English
24	Michele	Catanzaro	-	-	Freelance	<a href="mailto:catanzaro.michele@gmail.com">catanzaro.michele@gmail.com</a>	-	-	Spain	Spanish and English
25	Nuria	Jar	-	-	Freelance	<a href="mailto:nuriajarbenabarre@gmail.com">nuriajarbenabarre@gmail.com</a>	-	-	Spain	Spanish and English
26	Valentina	Raffio	-	-	Freelance	<a href="mailto:raffiovalentina@gmail.com">raffiovalentina@gmail.com</a>	-	-	Spain	Spanish and English
27	Lorena	La Fuente	INTA	INTA has social networks, newsletters, website, specialized magazine, a network of communicators	Employee	<a href="mailto:lafuente.lorena@inta.gob.ar">lafuente.lorena@inta.gob.ar</a>	54	01137548468 / 8400 int 3753	National	Spanish
28	Rose	O'Donovan	Agrafacts	Specialised	-	Rose O'Donovan < <a href="mailto:rose@agrafacts.com">rose@agrafacts.com</a> >	-	-	-	English and French
29	Chris	Lyddon	Agrafacts	Specialised	-	<a href="mailto:chris@agrafacts.com">chris@agrafacts.com</a>	-	-	EU focused, Brussels based	English
30	Zosia	Wanat	Politico	Mainstream	-	<a href="mailto:zwanat@politico.eu">zwanat@politico.eu</a>	-	-	EU focused, Brussels based	English
31	Sarantis	Michalopoulos	EURACTIV	Mainstream	-	<a href="mailto:sarantis.michalopoulos@euractiv.com">sarantis.michalopoulos@euractiv.com</a>	-	-	Europe, Brussels-focused	English
32	Claire	Stam	EURACTIV	Mainstream	-	<a href="mailto:claire.stam@euractiv.com">claire.stam@euractiv.com</a>	-	-	Europe, Brussels-focused	English



## FERTIMANURE

33	Robert	Hodgson	ENDS Europe	Specialised	-	<a href="mailto:robert.hodgson@haymarket.com">robert.hodgson@haymarket.com</a>	-	-	Europe, Brussels-focused	English
34	Susanna	Ala-Kurikka	ENDS Europe	Specialised	-	<a href="mailto:susanna.ala-kurikka@haymarket.com">susanna.ala-kurikka@haymarket.com</a>	-	-	Europe, Brussels-focused	English
35	Dafydd	Abiaggo	Argus Media	Specialised	-	<a href="mailto:dafydd.abiaggo@argusmedia.com">dafydd.abiaggo@argusmedia.com</a>	-	-	Europe, Brussels-focused	English
36	Camille	Louedec	Contexte	Specialised	-	<a href="mailto:clouedec@contexte.com">clouedec@contexte.com</a>	-	-	France	French and English
37	Miranda	Johnson	The Economist	Mainstream	-	<a href="mailto:ukpressoffice@economist.com">ukpressoffice@economist.com</a>	-	-	Global	English
38	George	Von Harrach	BBC	Mainstream	-	<a href="mailto:georg@europe.com">georg@europe.com</a>	-	-	Europe	English
39	David	Maher	Argus Media	Specialised	-	<a href="mailto:david.maher@argusmedia.com">david.maher@argusmedia.com</a>	-	-	Global	English
40	Ben	Farey	Fertilizer Week	Specialised	-	<a href="mailto:ben.farey@crugroup.com">ben.farey@crugroup.com</a>	-	-	Global	English
41	Alessandro	Mancosu	Informa	Specialised	-	<a href="mailto:Alessandro.Mancosu@informa.com">Alessandro.Mancosu@informa.com</a>	-	-	-	English
42	Philip	Clark	Farmers weekly	Specialised	-	<a href="mailto:philip.clark@rbi.co.uk">philip.clark@rbi.co.uk</a>	-	-	-	English
43	Audrey	Dibet	TERRA - Réussir Group	Specialised ; Online and Offline	Employee (Editor in Chief)	<a href="mailto:a.dibet@reussir.fr">a.dibet@reussir.fr</a>	33	954556458	France Brittany	French
44	via APCA, CRAB, CRAGE and CA80	Other journals of Réussir Group	Other journals of Réussir Group	Specialised ; Online and Offline	-	-	-	-	France and French regions	French
45	via APCA	La France Agricole	La France Agricole	Specialised ; Online and Offline	-	-	-	-	France	French
46	via APCA	Terre net	Terre net	Specialised ; Online	-	-	-	-	France	French
47	via APCA	Plein champs	Plein champs	Specialised ; Online	-	-	-	-	France	French
48	via APCA	Campagne Et Environnement	Campagne Et Environnement	Specialised ; Online	-	-	-	-	France	French
49	via APCA	Terre Eco	Terre Eco	Specialised ; Online	-	-	-	-	-	-

## References

Not applicable



## 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>

## 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-BC	Biochar (solid)
12	DE-AP	Ammonium phosphate on perlite (solid)
13	BE-AN	Ammonium nitrate
14	BE-AS	Ammonium sulphate
15	BE-AW	Ammonium water
16	FR-BC	Biochar
17	FR-AS	Ammonium sulphate
18	FR-LK	Liquid K-fertiliser

**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.



## FERTIMANURE

*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.*