

REFLOW

EUROPEAN TRAINING NETWORK

REFLOW

“Phosphorus REcovery for Fertilisers frOm dairy processing Waste”

Grant Agreement: 814258

Deliverable 6.1

REFLOW Overall Network-wide Dissemination Plan



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EXECUTIVE SUMMARY

The REFLOW Communication Plan prioritizes scientific communication of results to potential users such as research peers, industry, the agri-food sector, regulators and policymakers. Open access to research publications, and open publication of research data (where appropriate) will be prioritized in accordance with Open Science Initiative. REFLOW will also capitalize on network member's existing dissemination outlets, for example European Sustainable Phosphorus Platform (ESPP), Teagasc (TGC), Joint Research Centre (JRC) and the European Landowners' Organization (ELO), who are already well-established in disseminating to our target audience.

This Communication Plan lays out individual partner responsibilities and includes guidance for communication and dissemination. As the leader of WP6 Dissemination, Exploitation, Communication, Public Engagement, ELO is responsible for managing and documenting the partner's reporting on a continual basis. The Communication Plan will be updated as needed throughout the project to ensure the effectiveness of communication activities. When changes occur, the document's revision history log will reflect an updated version number, the date of the new version, the author making the change, and a summary of the changes.

LIST OF ABBREVIATIONS

CDP	Career Development Plan
D	Deliverable
DMP	Data Management Plan
EC	European Commission
ERA	European Research Area
ESR	Early-Stage Researcher
EST	ESR Supervisory Team
ESPP	European Sustainable Phosphorus Platform
ETN	European Training Network
EU	European Union
FAO	Food and Agriculture Organization
H2020	Horizon 2020
IPR	Intellectual Property Rights
JRC	Joint Research Centre
LAG	Local Action Group
MSCA	Marie Skłodowska-Curie Actions
NC	Network Coordinator
OECD	Organisation for Economic Co-operation and Development
TGC	Teagasc
WP	Work Package

1 INTRODUCTION

The REFLOW Communication Plan prioritizes scientific communication of results to potential users such as research peers, industry, the agri-food sector, regulators and policymakers. Open access to research publications, and open publication of research data (where appropriate) will be prioritized in accordance with Open Science Initiative 48. REFLOW will also capitalize on network member's existing dissemination outlets, for example ESPP, TGC, JRC and ELO, who are already well-established in disseminating to our target audience.

1.1 AIMS AND OBJECTIVES

Work Package 6 (WP6) Dissemination, Exploitation, Communication, Public Engagement was established to ensure effective communication, dissemination and exploitation on the REFLOW project and its results. This Communication Plan aims to maximise the project's visibility and showcase its results to its envisioned target groups to increase the project impact. The Communication Plan objectives are to:

- increase awareness of the project to target groups from the agricultural, environmental and business community, stakeholders, administrations, and scientific community
- assist outreach and engagement of key stakeholders
- disseminate project outcomes to stakeholders, key actors and final users
- and increase exploitation of project results after the project's completion.

The following table lists partners in REFLOW that are assigned to participate in communication and dissemination activities within WP6.

Table 1. Participating partners in WP6

1 - UL
2 - UVIC UCC
3 - PWR
4 - PRAYON S.A
5 - UNILASALLE
6 - TEAGASC
7 - CHALMERS
8 - STRANE
9 - ELO ASBL
10 - AU

1.2 EC RIGHTS AND OBLIGATIONS

1.2.1 OVERVIEW

Open access to research publications, and open publication of research data (where appropriate) will be prioritized in accordance with Open Science Initiative. An open science strategy will be developed for the network by the Network Coordinator (NC) and WP Leader (ELO supported by ESPP) of WP6, respecting the H2020 strategic priority of Open Science, and guided by the EU FAIR Data Management Policy. Publication in Open Access Repositories will be encouraged to ensure publications are publicly discoverable, accessible and re-usable as soon as possible. This will be balanced against any plans to exploit the research findings. Each Fellow will be required to devise a Data Management Plan (DMP) by M6 of their project, and to issue a Final DMP at the end of their project. Their DMP will align with the H2020 aims of disseminating, sharing, exploring and collaborating with other researchers. They will be assisted by their supervisor to develop this DMP, which will outline: research data to be created or collected; responsibility for the plan; relevant

policies(funding, institutional, and legal); organization of data; documentation of data during collection and analysis; data management practices (e.g. storage); facilities and equipment required (e.g. cloud backup); ownership and access rights; and how the data will be preserved and made available in the long-term.

1.2.2 OWNERSHIP, PROTECTION, AND EXPLOITATION OF RESULTS

Beneficiaries own the results which they have produced. For joint ownership, “unless otherwise agreed: - each of the joint owners shall be entitled to use their jointly owned results for non-commercial research activities on a royalty-free basis, and without requiring the prior consent of the other joint owner(s), and - each of the joint owners shall be entitled to otherwise exploit the jointly owned results and to grant non-exclusive licenses to third parties(without any right to sub-license), if the other joint owners are given: (a) at least 45 calendar days advance notice with a right for the other joint owners to object hereto at the latest 15 days after receipt of such notice, but only if the objecting joint owner's legitimate academic or commercial interests are compromised and (b) if no objection is made within the time limit stated above, the permission is given by the other joint owners who each shall receive Fair and Reasonable compensation taking into account each joint owner's relative contribution to the jointly owned Results.” See Grant Agreement Section 8 for more information.

Each REFLOW beneficiary and partner organisation is responsible for ensuring their compliance with the provisions of the Grant Agreement and Consortium Agreement, as well as for the protection of their own (and other partners’) Results and Background. See REFLOW Secondment Agreement for more information.

Exploitation reaches audiences including project partners that make concrete use of the results (e.g. commercially, for policy, for research). Each beneficiary is obligated to exploits its results. “Access Rights are Needed if, without the grant of such Access Rights, the Exploitation of own Results would be technically or legally impossible.” (Section 1 GA).

1.2.3 DISSEMINATION OF RESULTS

1.2.3.1 *Obligation to disseminate*

“A Party shall not include in any dissemination activity another Party's Results or Background without obtaining the owning Party's prior written approval, unless they are already published.” (Section 8.3.2 GA). The Parties undertake to cooperate to allow the timely submission, examination, publication and defense of any dissertation or thesis for a degree which includes their Results or Background subject to the confidentiality and publication provisions agreed in the Consortium Agreement.

1.2.3.2 *Open access*

For projects within the Horizon 2020 programme, scientific publications related to the results of each beneficiary must be open access. Open access, also known as “gold” open access, means that an article is freely available online. There are sometimes Article Processing Charges (APCs) associated with publishing companies to make articles open access. These costs are eligible for reimbursement during the duration of the project as part of the overall project budget (Funding & tenders, 2020). “Green” open access refers to self-archiving for free public use while gold open access refers to works published in an open access journal and accessed through the journal or publisher’s website (e.g. [PLOS](#)) (Commission, 2020).

For more information on open access, the Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020 are explained here:

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm

1.2.4 OBLIGATION AND RIGHT TO USE THE EU EMBLEM

Any dissemination of results (e.g. materials - printed or online) must display the EU emblem disclaimer which indicates that these materials reflect only the author's view and that the European Commission is not responsible for any use that may be made of the information it contains. See below:



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Official logos and guidelines on EC graphics can be found through the following links:

- [The EU emblem: https://europa.eu/european-union/about-eu/symbols/flag_en](https://europa.eu/european-union/about-eu/symbols/flag_en)
- [Guidelines on the use of the EU emblem: https://ec.europa.eu/info/sites/info/files/use-emblem_en.pdf](https://ec.europa.eu/info/sites/info/files/use-emblem_en.pdf)

For further guidance and user manuals on how to complete tasks, use templates and other tools, there is an online Horizon 2020 manual available here:

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

1.2.5 TENETS OF STRATEGIC COMMUNICATION

Whilst the specifics and methods of strategic communication can vary, many similarities between the characteristics can be identified when comparing strategic communication across related industries (Hallahan et al., 2007). For example, there would likely be similarities amongst the strategic communication of projects like REFLOW. The following tenets of strategic communication are informed by a list of principles created by the U.S. Department of Defense in the 2008 Strategic Communication Education Summit after considering the similarities that can be found in the characteristics of strategic communication (Hastings, 2008).

Strategic communication involves the following tenets:

1. Intentional message design

Strategic communication requires thought, planning and analysis. This means there is a lot more required than a simple tweet or eye-catching advertisement. An intentional message requires a realistic communication goal of what it is you are trying to achieve. In the case of REFLOW the communication goal is to demonstrate how collaborative research can add value. Each message must have a well-defined purpose that is held at the forefront for the duration of the process. It is also important to design the message in such a way that is clear and informative to the intended audience.

2. Correct Platform

A strong message can be rendered useless if it is not presented on the correct platform. It is therefore vital to identify the key audience for the message and communicate it via the most relevant platform. It is also important to remember that there could easily be more than one "correct" platform for each message and that there is no 'one size fits all' approach. REFLOW will have a number of different audiences depending on the information being communicated and so there will likely be a number of platforms that will need to be identified and utilised in order to ensure that communication of the project is executed as efficiently as possible.

3. Calculated timing

Timing is another very important factor to consider with regards to communication as all the planning and analysis of message can be wasted if it is not shared at the right time. External factors such as a major crisis can interfere with how the communication is perceived. It is therefore vital to be aware of how the situation outside of the project could impact the way in which communication is received.

4. Audience selection and analysis

Being aware of the audience you are communicating to has a huge part to play in how the message is communicated. For example, the way in which we communicate within the project will likely differ from the way in which we communicate with the social media following of the project. The terminology used and platform used needs to be tailored depending on the audience selected. The attitudes, values and beliefs of an audience all play a part in the way the communication is formed. The ultimate goal of any form of communication is providing a message that is relevant to the audience selected.

5. Desired Impact

It is important that there is an identified desired impact of the message and that it is realistic and relevant. For example, if the desired impact of a message is to gather questionnaire answers from 1000 dairy farmers when there is only access to 5 in the project then this is an unrealistic impact. This doesn't mean to say that it will only reach 5 farmers but to expect it to reach and impact 1000 is unrealistic. Equally if the desired impact is not understood by the audience then this too can have a negative impact on the communication.

1.2.6 COMMUNICATION IN MSCA-ITN-2018: INNOVATIVE TRAINING NETWORKS PROJECTS

Communication is a useful way to demonstrate that the research within the REFLOW project is financially justifiable. We do so by providing substantial proof that the collaborative research within our project adds value and has achieved more than would have been possible had it not been for this European collaboration. In addition, we should explain how REFLOW addresses existing and future societal challenges and transfers knowledge into products and services that can be used by a wider audience (e.g. job creation, improving public awareness, influencing policy change). Furthermore, REFLOW should present its research and results to the scientific community, potential industry partners, policymakers and society.

1.2.7 DISSEMINATION IN H2020 PROJECTS

Dissemination is the “public disclosure of the results by any appropriate means, including by scientific publications in any medium” (Glossary, 2020). All beneficiaries within Horizon 2020 programme projects are contractually obligated to disseminate their results. Research results should be shared in a targeted way with relevant stakeholder groups (e.g. research peers, industry and commercial actors, professional organisations, policymakers) that would facilitate the use of REFLOW results in their work. The difference between communication and dissemination will be explained further in Chapter 3: Communication and Dissemination Activities and Channels.

1.3 PROFESSIONAL GUIDANCE

Professional personal guidance to guide each research fellow in developing relevant competences in accordance with a personalised Career Development Plan (CDP). Localized training will be tailored to the career objectives and professional development needs of each ESR and will initiate and foster intersectoral and interdisciplinary engagement between all partner organizations.



REFLOW will develop EU capacity through a network of geographically and professionally mobile individuals (flexicurity) who (i) have the technical ability to deploy scientific and technological innovations, (ii) can contribute to and influence EU policy on nutrient recycling and re-use, (iii) will nurture and develop an intersectoral research and innovation culture which can sustain European enterprise and grow employment, and (iv) who will be role models for high level training and new skill acquisition among their peers. Fellows' training will reflect the Salzburg II Recommendations on innovative doctoral training.

Our industry network participants recognize that the lack of trained professionals with the necessary technical skills and practical experience will limit their ability to take advantage of the opportunities presented by these changes to the marketplace.

2 STAKEHOLDER GROUPS

There is a wide target audience of interested actors and stakeholders for the REFLOW project e.g. farmers and growers, consumers, researchers, dairy and fertilizer companies (investors), compliance specialists and policymakers. Communicating effectively to each of these stakeholder groups is key to addressing important technical and socio-economic challenges associated with the recovery of phosphorous from dairy processing wastewater and its recycling into fertilizer products enabling sustainable expansion of the dairy industry in Europe. Each stakeholder group will require targeted information, and this is what is addressed in the communication plan. For instance, public authorities will require tailored policy briefs, while academia will require more detailed information on the nature of the technologies that are developed over the course of the project, and their relevance to research overall. See Figure 1 for the stakeholder map.

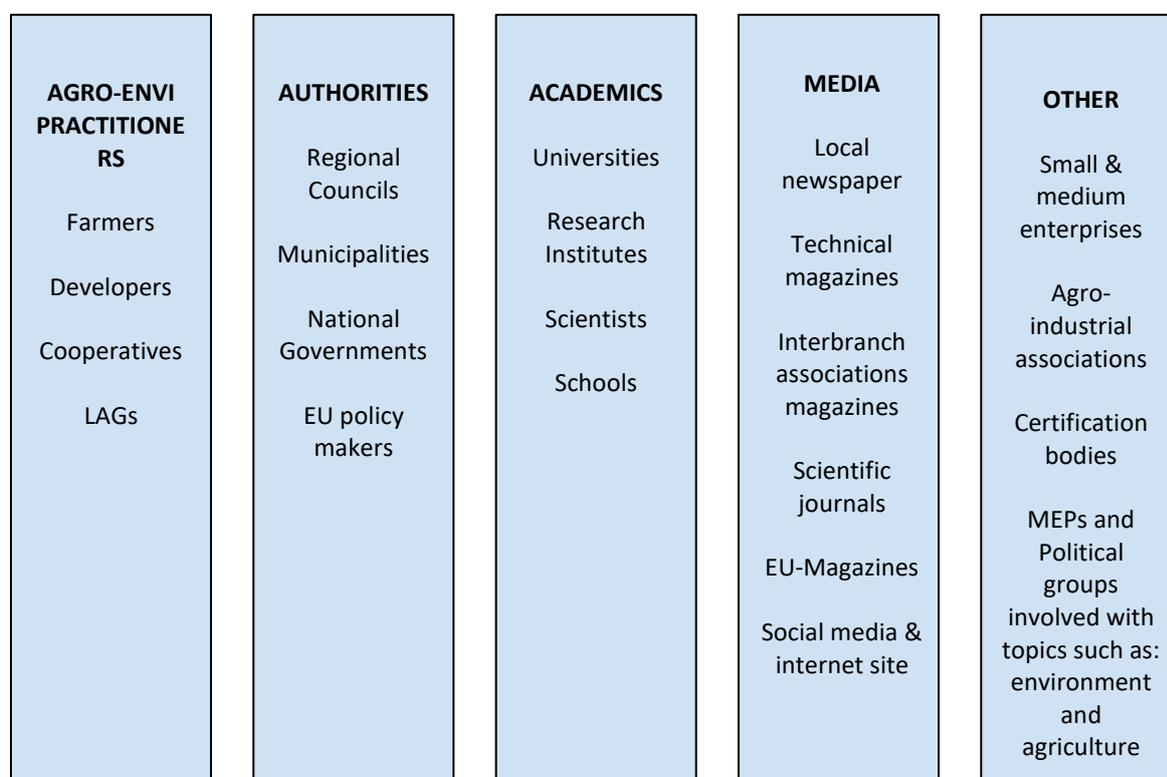


Figure 1: Stakeholder map

To ensure targeted engagement, each stakeholder has a unique type of engagement approach. Table 2 describes further the engagement along with the target stakeholders in the REFLOW project.

Table 2. Engagement with Target Audiences

Target Stakeholder	Description of Engagement	Type of Engagement
Scientific Community	REFLOW internal communication: scientific staff from different disciplines and countries	Internal meetings, secondments, knowledge transfer (joint publications and patents)
European Commission and European Parliament	Communication channels will be used throughout the project for informing EC-level policy and decision-makers in EC DGs responsible for connected policies relating to AEFS (AGRI, ENV, REGIO), the ENRD Helpdesk, and strategy teams (e.g. EC European Political Strategy Centre). Engagement with European Parliament will focus on the Common Agricultural Policy, Circular Economy Action Plan, the Bioeconomy strategy and the new regulations of the European Parliament on the market of EU fertilizing products.	Targeted REFLOW brochures, policy briefs, website and e-newsletters, social media, event attendance and final conference in Brussels.
European, national and regional level decision-makers	A workshop will be organized for regulatory agencies by ELO to disseminate the implications for future legislation. It is expected that that potential exploitable outputs of REFLOW will include (but are not limited to): the development of new fertilizer products; FEV for these fertilizers; guidelines for farmers on fertilizer application rates, a user-friendly smart “app” for stakeholder use; a techno-economic model to identify value chains; a socio-economic model for value integration; identification of route-to-market; and, sustainability metrics to feed	Policy briefs and manuals for policymakers and practitioners, workshops (M14, M24, M34, M40) and final conference.

	into the FAO's Sustainability Assessment of Food and Agriculture Systems (SAFA).	
Local level actors	<p>Local authorities, organizations, laws, citizens, farmers and businesses etc. that will be impacted on a local level is not yet known.</p> <p>Regulatory documents are commonly replicated at the regional and local levels, bringing the circular economy closer to citizens and businesses. Policy implementation at the macro and meso level may derive changes uniformly, thereby having a direct impact on the local governance context. Continuous feedback is intended in the communication process with key stakeholders (farmers, local associations, local governments, etc.) to ensure the adequate understanding and identification of challenges to be considered.</p>	Policy briefs, external meetings, workshops

3 COMMUNICATION AND DISSEMINATION ACTIVITIES AND CHANNELS

3.1 INTRODUCTION

There are different objectives and timings of the project outreach activities through communication and dissemination. These are key to ensuring the project's impacts are sustainably delivered through project's duration and even afterwards. A key objective of project communication activities is to engage stakeholders and sectors (e.g. farmers and growers, consumers, researchers, dairy and fertilizer companies (investors), compliance specialists and policymakers). A further objective is to develop good practice guidance to be used by develop good practice guidance to be used by farmers, growers and farm advisory services. A selection of the communication material will be translated into local languages for purpose of obtaining informed consent forms. Participating in outreach activities is a vital part of the ESRs' fellowship.

REFLOW has created a wide range of communications tools to promote the project and its findings to stakeholders at international, European, national, regional and local levels (see Table 3 below). Dissemination activities and channels specific to the REFLOW project are explained in further detail in D6.2 Dissemination Strategy submitted in M12, available on the project internal communication tool, BaseCamp.

Table 3. Communication vs. Dissemination Activities and Channels

	Activities		Channels	
	Communication	Dissemination	Communication	Dissemination
Publications	Non-scientific Publications	Scientific publications	Press release e-Newsletter News sites articles Blogs	Articles in scientific magazines and blogs
Events	Events for the general public	Stakeholders events	Open Doors Public talks	Market showcase B2B networking
Online	Online promotion	Online disclosure of results	Generalist website Social media	Project website Online repository of results Social media
Meetings	Face-to-face exchanges with citizens	Stakeholders engagement	Blog Surveys Interviews	Industrial events Training sessions
Media	Mass media campaign	Presentations in scientific conferences	Newspapers Local TV Radios	Scientific conferences, workshops and seminars
Materials	Promotional material	Conferences proceedings	Brochure Brochure Poster	Publication of proceedings

3.2 NETWORKING AND KNOWLEDGE TRANSFER

3.2.1 INTERNAL COMMUNICATION

All members of the consortium should communicate effectively to achieve the project's objectives. Various communication methods and tools have been selected to ensure efficient interactions and coordination of events and activities between project partners, ESRs, ESTs, and WPs.

General methods for internal dissemination and communication include joint planning and presenting activities and findings within each WP for the project partner meetings, use of the internal communication website Basecamp, shared discussions on specific topics (knowledge transfer), jointly authored scientific papers, presentations and organisation of events.

3.2.1.1 Basecamp

A web-based project management and communication tool has been set up for the consortium and ESRs to communicate and share documents relating to the project. [Basecamp](#) will be used to share project documents and files (such as publications, HR induction pack, training support, etc.), and to organize meetings. Interactive discussions will be facilitated through this discussion forum. Basecamp allows each WP and ESR to create to share on specific message boards, to-dos, schedules, documents, file storage, and two-person or group chats. All partners and ESRs have access and information is already being shared.

3.2.1.2 Video Conferencing

In between in-person project meetings, video conferencing should be used for short-term management, WP and bilateral meetings and discussions. In addition, in the event of unforeseen complications with a partner's ability to host a project meeting (e.g. force majeure), the consortium will move to an online video conferencing platform to ensure important meetings and workshops are still carried out to the best of our ability. For larger meetings with several partners participating, tools such as Vscene, Zoom and WebEx can be used while Skype for business is suitable for smaller group meetings.

3.2.1.3 Documenting and record keeping

Project progress reports will provide a log of the documented communication and dissemination activities by each project partner and ESR. The communication/dissemination activity report template is available on a google drive share folder entitled, "Reflow Dissemination Reporting", only accessible by the REFLOW consortium and ESRs through the following link: <https://drive.google.com/drive/u/0/folders/1Z4Ymu45ZE8qtZaDl0AjYMF4O2f-Yc2xv>. There are separate folders for project partners and ESRs.

The "REFLOW Dissemination Reporting" folder on google drive provides space for partners to store evidence of their communication and dissemination activities, including:

- presentation materials,
- photos of communication/dissemination events,
- print screens of online communication/dissemination events,
- metrics on dissemination activities,
- best practice guidance of documentation and minutes of key discussions.

In order to know more about the dissemination of REFLOW at events, project partners and ESRs will have to record which events they attended, mention how this contributed to communicating on the project and disseminating its results, and provide a link to the event (if available). We suggest taking pictures to document participation in dissemination activities. A tutorial on reporting and record keeping will take place during the first week of the training school and meeting in M14, but partners and ESRs can contact WP6 lead, ELO for assistance throughout the duration of the project.

3.2.1.4 Cyber-security

Special care should be taken when sharing content. Determine which information you want to keep private and which to publish, where and to what extent. Cyber-security is an important element of all online communication activities. Deliverable 5.7 Data management plan describes practices taken by REFLOW in relation to cyber-security.

3.2.2 EXTERNAL KNOWLEDGE TRANSFER

Public outreach activities will be directly beneficial for our researchers, enhancing their communication skills while simultaneously making contacts that may be useful later in their careers, especially at the interface of academia with industry and society. Specific training in communication and outreach will be provided to the ESRs, as required by the European Charter for Researchers. These will be delivered locally and through the network wide activities: ESRs will start to plan outreach activities at Summer School I; prepare an outreach activity at Summer School II, as well as receiving training in Communication skills; and will present examples of their dissemination and outreach activities at Summer School III. Additionally, each Fellow must design and deliver at least two public outreach events during his/her Fellowship, in addition to academic conferences and journal publications targeting the more specialist scientific stakeholder. Such participation will not only support the dissemination of the project results but also more importantly increase the

researcher's network and professional profile. As part of the Fellows CDPs, metrics will be put in place to monitor performance in this regard, including: number of conferences/seminars/poster sessions attended; number of publications; participation in outreach activities; attendance at quarterly meetings; and participation in postdoc working group. A final report on the REFLOW Outreach Activities will be prepared by the ESRs (Section 3.1.2).

Promotional material for classic media channels (TV, radio, newspaper); as well as scheduled and unique outreach activities sparked by their own creative ideas. Participation in specific media events which aim at promoting REFLOW research activities and achievements to the broader public will be supported, and where possible translated into the language of the country where the communication activity takes place. These activities will be assisted by each university's press offices as well as at network level. We will also exhibit and present.

3.2.2.1 Workshops

Career Seminars and workshops will be organized to showcase the varied options available to the ESRs. Individual coaching for communication and interview skills will also be facilitated in conjunction with grant writing and CV development.

Career Seminars and workshops will be organized to showcase the varied options available to the ESRs. Individual coaching for communication and interview skills will also be facilitated (WP4). Workshops on research related and transferable skills scientific and complementary "soft" skills facilitated by the academic, industrial and NGO partners within the consortium in order to underpin the technological and economic-environmental development by providing researchers from a range of diverse disciplines such as chemical and biochemical process engineering, microbiology, analytical chemistry, economics and social science, with the transferable skills necessary for sustainable careers in the new industrial landscape of the circular economy. There will also be network-wide training events (e.g. workshops and seasonal schools).

Research outcomes will also inform regulatory frameworks, e.g. end-of-waste criteria for DPW and their implications for nutrient management plans. A workshop will be organized for regulatory agencies by ELO to disseminate the implications for future legislation.

3.2.2.2 Organisation and participation in external events

All members of the consortium will participate actively in conferences, seminars and fairs to promote the project and disseminate the results, and their participation, as well as the performance of the concerned partner attending each event (oral presentation, poster presentation, etc.), will be properly reported to the EC. REFLOW will exploit research and achievements at local and Europe-wide science events, i.e. Science Saturdays, school open days, and National Science Week in participating host countries.

Participating and co-organizing events outside REFLOW project events such as international conferences, disseminations at a Coordinators' day organised by the EC, and other events organised by DG AGRI or DG Research will only enhance the outreach of the project's results. It is important to engage with other actors and representatives that work on similar topics to REFLOW.

MSCA fellows of Marie Skłodowska-Curie actions are encouraged to participate in the [European Researcher's Night \(NIGHT\)](#), which takes place every year (usually on the last Friday of September). MSCA fellows can present their research and experience in schools, create blogs, participate in radio or TV programmes, set-up exhibitions or other engagements and dialogue with the general public, such as through citizen science.

3.2.2.3 Final Conference

The Final Conference will be organized with the final project meeting in Brussels at the end of the project. It will be used to disseminate findings and policy recommendations, while also providing an opportunity to discuss post-project continuation plans. This event and its contents will target representatives of European and national authorities and associations, the scientific community, targeted stakeholders identified during the stakeholder dialogues, including journalists and students.

3.2.3 REFLOW COMMUNICATION AND DISSEMINATION CHANNELS

3.2.3.1 Project website

REFLOW has developed a public project website to communicate the objectives and outputs of the programme (<https://etn-reflow.eu/>). The website will provide information for all stakeholder groups to ensure as wide an impact as possible of the programme outputs. Newsletters, press releases, interviews with ESRs, scientist profiles, research outputs will be published on the website to garner interest from the various sectors of society, as well as information on the MSCA initiative itself. ESRs will provide input to the REFLOW and consortium websites.

ELO and UL will maintain the project website based on contributions from all partners and ESRs. Each partner organization should have a link to the REFLOW project on their own organization website. This will be a valuable way to direct people to the project as well as other social media profiles on the project.

3.2.3.2 Online media, social media and visual support

Social media tools will be used appropriately to share data and results and promote the findings and researchers. Many such tools are available, e.g. ResearchGate and Academia.edu, and the training course on digital skills will help researchers to select the most useful ones. Scientific communications outlining novel methodologies will be made available on the REFLOW website and may take the form of webinars, short videos, diagrams or figures.

EU-funded projects typically use Twitter, Facebook, LinkedIn, Google+, Instagram and Pinterest. Several different social media platforms will be utilised throughout the duration of the REFLOW project or each a wider audience. By using social media, projects like REFLOW can communicate more directly and more personally than many other forms of dissemination. Individuals interested in the project can message project partners directly through Facebook, ask questions on Twitter, or watch videos on YouTube and comment below them. These methods are more fast paced compared to newspapers, scholarly papers and television, which take more time to reach people.

Profiles have been created on all platforms for the project ([Facebook](#), [Twitter](#), [LinkedIn](#), [Instagram](#), [YouTube](#)). ELO will be responsible for ensuring the profiles remain up to date and active with news and relevant posts. ESRs will also maintain social networking groups for research (Facebook, LinkedIn, ResearchGate, Twitter). ESRs will receive training from ELO in the development of such media tools. This will facilitate the identification of opportunities for synergistic collaborations with other leading groups.

Facebook will be used to share brief updates on the project with followers, and to share discussions at relevant workshops and conferences with a larger audience online. Both **Twitter** and Facebook will also be used to direct people to the REFLOW website by highlighting news and publications, share short comments, and make announcements that can instantaneously reach a large audience or retweet/share relevant content. The Twitter profile will be managed by all the ESRs at varying stages in the project, however, each ESR should also set up their own Twitter to maintain

throughout the project to highlight their own research focus and direct communication back to the project Twitter profile. It will be used to share updates on the projects with followers, and to spread online discussion about the topic at relevant workshops and conferences by using various hashtags and sharing thought-provoking content. Twitter provides an easy way to find other H2020 projects to make synergies with. The use of hashtags allows you to increase outreach — enabling you to join bigger, topic-specific conversations and to capitalise on existing trends — finding emerging hashtags to boost your research with the right audience. Hashtags include: #circulareconomy #agriculture #H2020 #MSCA; It is also useful to tag beneficiary organisations and institutions as well as @EUagri, EUENV and @MSCActions. CORDIS will showcase a project group photo as their banner on Twitter. We can use this as an opportunity to showcase our project. Fellows are also able to nominate themselves via a private message on the [Facebook page](#) as MSCA "Fellow of the Week".

LinkedIn is a social media channel with an emphasis on business and employment-orientated service. Users can professionally network and share content with colleagues and fellow researchers. ESRs should all have professional profiles on LinkedIn and follow the REFLOW page. LinkedIn Groups also provide an opportunity to connect with other professionals with similar employment, career and research interests. ESRs will be assisted in developing a platform for their peer network, via a LinkedIn group to share competencies, advice and ideas. Some groups to join include Marie Curie Fellows Association; EU projects & partner search – EASME; “Horizon 2020” Framework Programme for Research and Innovation; and Innovation and Networks Executive Agency.

Instagram is a photo and video-sharing social networking service. The project profile will serve as an independent archive of all the project-related images the consortium wants to publicise, separate from the project website. Pictures can be easily searched for without restrictions on storage. In the future, users will only be able to see which of their followers liked a post instead of the total number of likes. For the purposes of the project, we will still be able to see the right audience was reached.

YouTube ESRs will provide content on the results of their research, including interesting findings, and demonstrations of different processes within the methods of the REFLOW project in order to generate videos for the REFLOW YouTube. ELO can provide ESRs with a Video Production Method Factsheet as well as some advice on how ELO can help make videos using its camera and recording equipment.

A social media guide for EU funded R&I projects is also publicly available online with tips for social media strategy on different platforms as well as relevant twitter handles and hashtags related to the EC and European-funded projects that can be linked to REFLOW. It can be found here:

https://ec.europa.eu/research/participants/data/ref/h2020/other/grants_manual/amga/soc-med-guide_en.pdf

Monitoring of the social media accounts and assessment of their activity will take place every month. Each platform provides analytical data to identify trends and refocus activities if necessary. Using pre-defined criteria, WP6 will analyse what works and what does not and use this knowledge to adjust the dissemination strategy and communication plan. When reporting communication and dissemination activities to the EU, WP6 will include information about the social media accounts, activities, achievements and impacts.

3.2.3.3 *Conventional media*

Research dissemination, outreach and exploitation using traditional media (e.g. policy briefs, newspapers, newsletters, articles, brochures, magazines and press releases) and updated tools and channels for communication (e.g. online newsletters, blogs) will be used to: (i) convert the scientific

data into outcomes customized for different stakeholders and sectors (e.g. farmers and growers, consumers, researchers, dairy and fertilizer companies (investors), compliance specialists and policy-makers); (ii) create open-access information databases for use by scientists and stakeholders; (iii) develop good practice guidance to be used by farmers, growers and farm advisory services.

Press releases, highlighting key events within the project (completion of deliverables, final project results) will be disseminated to the local, regional and national press and published on the project website to garner interest from the various sectors of society, as well as information on the MSCA initiative itself. These will be reinforced using social media. Targeted messages about REFLOW achievements will be circulated to promote awareness among final users of REFLOW outputs. Consequently, each partner is required to establish links with local and regional journalists to ensure coverage of the project. An agreed upon list of international, national, regional and local press will be identified by the REFLOW consortium for publishing about the project. It will be regularly updated by WP6 as much as possible.

Moreover, the press and media should be invited to all public events from conferences to select workshops. Each partner is required to invite media according to their networks with journalists at local, regional and European levels as well as through their respective universities. Promotional material for classic media channels like community television broadcasts can be targeted as a means of increasing the awareness and publicity about REFLOW. Popular news items and popular articles aimed at local stakeholders can be provided in local languages in regional and local news media.

3.2.3.4 E-newsletters

Once the first results of the project are generated, WP6 will design, collect content on the project and distribute informative e-newsletters. These will contain articles on latest research outputs, profiles of ESRs, technology developments, career opportunities from participating organizations, abstracts from latest ESR publications, and will aim as far as possible to be populated by content written by the ESRs to encourage development in communication skills. A mailing list will be collected from each participating partner in WP6 of relevant stakeholders, key actors and target groups who would be interested in learning about the REFLOW project. A scheduled timeline of e-newsletters will be set in Year 2 of the project.

The projected timeline for e-newsletters is intended to coincide with events, project meetings and training schools which take place in the project. The goal is to send a newsletter approximately every 6 months. Since the first meeting with the ESRs and their training school was postponed to M15, the first newsletter will be sent after M17. This will be followed by newsletters in M25, M31, M35, M41. Newsletters that do not coincide with a project meeting or training school will highlight the research of the ESRs and their progress (M31).

3.2.3.5 Open access publications and scientific articles

An open science strategy will be developed for the network by the NC and WP Leader (ELO supported by ESPP) of WP6, respecting the H2020 strategic priority of Open Science, and guided by the EU FAIR Data Management Policy. Publication in Open Access Repositories will be encouraged to ensure publications are publicly discoverable, accessible and re-usable as soon as possible.

The SB will review all scientific manuscripts before publication in accordance with the IPR policy of the consortium agreement and EC guidelines on open access to scientific publications and research data. The ESTs will oversee the quality of output and assist Fellows in bringing their findings to the wider scientific community and key industry practitioners, increasing the impacts of their research

on society, and the benefits to the ESRs.

Task 5.5 was created to monitor the network performance a cloud-based project management platform which will allow a portfolio of data, presentations, reports and publications to be established online for each ESR and EST. There will also be a literature review to provide Fellows with the essential background knowledge and current scientific state-of-the art in order to clearly define research questions and hypotheses for testing. The Fellows will prepare technical reviews for publication from this activity.

Research-based metrics are very important for early career researchers. Journal and publication metrics will ultimately impact on their careers at some stage, whether it is for first job applications, subsequent promotions or winning grants to sustain their own research endeavors. For this reason, the REFLOW researchers will submit their research findings for publication to high-ranking journals, and their supervisors and their teams will lead by example. Open access journals will be prioritized (section B.2.2), aligning REFLOW with the EU Open Science “Citizen Science” strategy, bringing a greater understanding of research to the public. As the researchers will be provided with training and practice in digital media and outreach, it is expected that they will have built a portfolio of blogs, videos, and articles for popular magazines, newspapers or social media, by the end of the project. While these activities are not measurable using conventional metrics, they have impact and are increasingly important for researchers of the future. Some of the researchers may have patents or other means of exploiting their findings, through spinout or start-up companies, for example. They will also develop an appreciation of the needs of target final users, and the broader socio-economic landscape.

ESRs will be expected to achieve three publications each, at least one as first author. High-impact peer reviewed journals will be targeted, to include: Bioresource Technology; Waste & Biomass Valorisation; Journal of Environmental Chemical Engineering; European Journal of Soil Science; Journal of Environmental monitoring Journal of Agricultural Science; Water Research; Applied Soil Ecology; Science of the Total Environment; PloSOne; Soil Use & Management; Waste Management; and Journal of Environmental Management. The ESRs will be supported to attend the major conferences in order to disseminate findings with their host teams. It is anticipated that each ESR will present their results at two conferences over the course of their programme, such as: Forum for the Future of Agriculture (ELO); Waste Processing Engineering; European Society for Soil Conservation; EU Sustainable Phosphorus Platform (ESPP); International Dairy Federation Conference; International Fertilizer Association Symposium.

Publications will be reviewed in advance to ensure that the ESRs can balance their publication targets against opportunities that arise to protect IP.

3.2.3.6 European Commission Communication and Dissemination Channels

There are also several communication and dissemination channels through the European Commission that would be useful for news and events related to REFLOW. The REFLOW project partners and ESRs should take initiative in using the following opportunities.

Table 4. EC Communication and Dissemination News-related Channels

SUCCESS STORIES	Success stories of EU-funded projects are featured on the research and innovation website of the EC.
CORDIS NEWS	CORDIS is the EC public repository/portal for disseminating on EU-funded projects. REFLOW’s cordis page is accessible through the following link: https://cordis.europa.eu/project/rcn/218052/en

	CORDIS News delivers the latest research and innovation developments, policy and practice in Europe, and upcoming events.
HORIZON MAGAZINE	HORIZON magazine is the EU Research & Innovation e-magazine written by independent journalists on behalf of DG Research & Innovation. It covers the latest developments in EU-funded research and innovation, communicating the priorities and achievements of EU-funded research, its impacts on citizens' lives and its contribution to the EU goals of smart and sustainable growth. We can contact the editorial board via email: editorial@horizon-magazine.eu . As the REFLOW project progresses, key findings and “success stories” can be considered for an article.
FEATURED PROJECTS	Through the featured projects section of the EC website, selected EU-funded research projects, which led to advancements in their field, contributed to economic growth and created jobs and/or tackled societal challenges are showcased in articles. We can contact our Project Officer with interesting project outcomes, or a journalist contracted by the European Commission may contact the REFLOW coordinator.
RESEARCH*EU RESULTS MAGAZINE	Research*eu magazine features highlights from the EU-funded R&D projects. There are ten issues released each year with a focus on a particular field in every issue. We can contact our Project Officer, or a journalist contracted by the European Commission may contact the REFLOW coordinator.
NEWSLETTERS	REFLOW newsletters will contain articles on latest research outputs, profiles of ESRs, technology developments, career opportunities from participating organizations, abstracts from latest ESR publications, and will aim as far as possible to be populated by content written by the ESRs to encourage development in communication skills. Newsletters are also published by the European Commission. The Project Officer can provide information about how to publish something in a specific newsletter.
CO-PUBLICATIONS OR EDITORIAL PARTNERSHIPS	The EC “works with private publishers and international organisations to promote the dissemination of relevant publications” in different research areas (Communicating EU research and innovation guidance for project participants, 2014). Scientific publications and books can be co-published accordingly. We can contact our Project Officer to discuss opportunities to do so.
OPENAIRE	The Open Access Infrastructure for Research in Europe is an electronic platform for collecting

	content (e.g. peer-reviewed articles, datasets, scientific publications, conference publications) which stemmed from completed Horizon 2020 projects. It contains more than 21 million publications and almost 800,000 datasets from almost 12,000 repositories and Open Access journals and its mission is being carried on through the OpenAIRE-Advance project (European project OpenAIRE 2020 has ended: what was the role of DANS in this project?, 2018).
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Table 5. EC Communication and Dissemination Events-related Channels

EVENTS	The Research and Innovation portal of the European Commission displays research and innovation-related conferences and events. An event can be entered into the event calendar by using the form here . This is only for research and innovation activity within the European Union.
EVENTS ON CORDIS	News featured on the CORDIS website includes research-related conferences and events. Submitting an event requires a one-time free registration with CORDIS.
CORDIS WIRE	Access to CORDIS Wire requires one-time free registration online. Users must adjust their profile as a Wire contributor (Update account > Check the box for Wire contributor) to enable articles to be published or events included on the CORDIS News and Events pages, which are moderated by editors at CORDIS.

3.2.4 REFLOW VISUAL IDENTITY

The Dissemination Strategy includes rules for the use of the visual identity of the project in communication which are aimed at promoting the REFLOW project. These guidelines are in line with the obligations of beneficiaries regarding information and communication and dissemination measures included in Articles 29 and 38 of the Grant Agreement Nr. 814258. For guidance on the visual identity of the project see D6.2 Dissemination Strategy.

3.2.5 COMMUNICATION AND DISSEMINATION MATERIALS

3.2.5.1 Project brochure

The project brochure is a key dissemination component and should accompany project partners and ESRs at all dissemination activities. It will serve as the first outreach document of the project that provides an insight into the core objectives, the challenges, the concept, an overview of the ESRs, partners, and EU funding programme. For the layout of the initial project brochure see D6.2 Dissemination Strategy.

3.2.5.2 REFLOW roll-up banner

Roll-up banners will be created for REFLOW in line with all dissemination material produced within

the project. UL/WP1 and ELO/WP6 will be responsible for preparation and distribution of the banners. They will be displayed at key positions of venues (entry or on stage) hosting events organized in the framework of the overall project. It will be in the form of a roll-up banner. For the layout of the first REFLOW banner see D6.2 Dissemination Strategy.

3.2.5.3 *Project document templates*

REFLOW consortium partners will be provided with a Microsoft Word, Excel and PowerPoint template to guarantee uniform presentation and visual identity. The templates are available on the internal communication platform, 'Basecamp'. For the layout of the project document templates see D6.2 Dissemination Strategy.

4 TARGET IMPACT

4.1 POLICY, INSTITUTIONAL AND GOVERNANCE SETTING

REFLOW seeks to address important technical and socio-economic challenges associated with the recovery of phosphorus from dairy processing wastewater. Outputs from REFLOW include not only technical guidance and dissemination on novelty processes for phosphorus recovery, but direct influence over the decisions taken in the policy, institutions and governance at international, European, national, regional and local levels.

The performance, validation and compliance of REFLOW products with regulatory frameworks of the EU will be provided to influence, elicit responses, and inform stakeholders with supporting evidence. Punctual information regarding aspects for recovered fertilizer products will be discussed and policy briefs with decisions over Global commitments and local (EU level) regulations will be generated. The main regulatory frameworks identified to have a direct impact by REFLOW are the Common Agricultural Policy, Circular Economy Action Plan, the Bioeconomy strategy and the new regulations of the European Parliament on the market of EU fertilizing products.

These regulatory documents are commonly replicated at the regional and local levels, bringing the circular economy closer to citizens and businesses. Policy implementation at the macro and meso level may derive changes uniformly, thereby having a direct impact on the local governance context. The number of authorities, organizations, local laws, etc. that will be impacted on a local level is not yet known. Despite the potential impacts on the policy arena in the EU, continuous feedback is intended in the communication process with key stakeholders (farmers, local associations, local governments, etc.) to ensure the adequate understanding and identification of challenges to be considered in the submission of policy briefs.

4.1.1 SCIENTIFIC AND EDUCATIONAL SETTING

4.1.1.1 *Scientific setting*

REFLOW is based and validated under the most rigorous academic standards. Information generated through the project will (to a certain extent) transform agricultural practices across the EU. In the scientific context, it will enable the identification of significant gaps that subsequently will shape Research Agendas in the European Union in the field of sustainability, agricultural and soil research, chemical and fertilizer processes, economy, regulatory frameworks, social science and financial modeling.

The communication of results, challenges and opportunity areas will be accessible for the research community and related stakeholders via academic publications, conferences, workshops, seminars,

etc. Through the participation of the research community and its involvement in the project, the state of the art on nutrients recovery will raise new questions to be entered into the discussion for further scientific synergies in the field.

The working model proposed by REFLOW, serves as a reference for the transition from the traditional mono-disciplinary to collective scientific work. This opportunity, translates local and national goals into EU scale cooperation, fulfilling the objectives from the European Higher Education Areas and development. In addition, the direct collaboration of industrial partners with science will benefit with innovation capacity.

4.1.1.2 Educational setting

Internal educational setting

Several REFLOW partners are active in education and training (e.g. UL, TGC, UVIC, IPU, ESPP). These partners will organise face-to-face training activities. Network-wide training events will enhance the mobility of researchers and their exposure to different research environments.

Main network-wide training events:

No.	Main Training Events & Conferences	ECTS *	Lead Institution & Location	Action estimated	Month
C1	European Sustainable Phosphorous Conference (TBC)	8	TBC	M7,19,31,43	
C2	Symposium of Phosphorous in Soils and Plants (TBC)	8	TBC	M13,25,37	
1	Summer School I – Fundamentals of Research Practices (8 days)	16	UL /TGC	M14	
2	Training Course A – Waste / Resource Management (2 day)	4	TGC	M14	
3	Training Course B – Sustainability Indicators, LCA & Food Security (3 days)	6	UVIC	M24	
4	Summer School II: Maximizing Research Impact (7 days)	14	UVIC	M24	
5	Training Course C – Socio / Techno Economic Modeling (3 days)	6	ELO	M28	
6	Training Course D – Crop Growth and Soil Health (2 days)	4	IPU	M34	
7	Summer School III – Science to Policy (Translational Science) (6 days)	12	IPU	M34	
8	Training Course E – ESPP Event: REFLOW Products & the Future (3 days)	6	ESPP	TBD	

* Credits have been calculated according to the *European Credit Transfer and Accumulation System (ECTS)*. Evaluations for the award of Credits will be based on a range of means, including ESR presentations, posters, examinations, reports, or other assessments.

External education setting

All members of the consortium will participate actively in conferences, seminars and fairs to promote the project and disseminate the results, and their participation, as well as the performance of the concerned partner attending each event (oral presentation, poster presentation, etc.), will be properly reported to the EC.

4.1.2 WIDER PUBLIC AND COMMUNITY IMPACTS

4.1.2.1 Wider public impact

REFLOW will develop and deploy new technologies for socially and environmentally responsible innovative management of dairy processing waste and to stimulate new markets for recycled phosphorus. This European Training Network will provide advanced training to a new generation of high-achieving early-stage researchers through a structured PhD programme. Poorly treated wastewater with high level of pollutants caused by poor design, operation or treatment systems creates major environmental problems when discharged to the surface land or water. Various operations in a dairy industry may include pasteurization, cream, cheese, milk powder, etc. The dairy industry handles large volumes of milk and the major waste material from processing is the water. The water removed from the milk can contain considerable amounts of organic milk products and minerals. In addition, cleaning of plant, results in caustic wastewater.

REFLOW research will minimize the environmental impact of dairy processing waste on soil and water as well as provide safe environmentally sustainable, cost effective closed loop solutions for crop nutrient management. The project will also increase the number of skilled professionals that

are needed to support the technical, regulatory and commercial development of the market for recycled phosphorus fertilizer products. The outputs from REFLOW will influence land management practice, the rural bio-economy framework and EU policy goals while significantly progressing the state-of-the-art in phosphorus recycling.

4.2 POST-PROJECT IMPACT

Creating and maintaining a post-project impact will require continuation of social media platforms in order to communicate the ongoing outcomes of the project. Follow-up research projects will also contribute to the post-project impact by highlighting the influence the project has had on those involved and how it can continue to develop the ideas brought to light in the project. The connections made with the ESRs during the project will also prove to be a valuable tool in creating post-project impact by promoting the results of their research through outreach and communication activities.

4.3 SYNERGIES AND EXTERNAL COLLABORATIONS

4.3.1 COLLABORATING WITH PROJECTS FINANCED UNDER TOPIC MSCA-ITN-2018 – INNOVATIVE TRAINING NETWORKS AND OTHER PROJECTS

To keep in line with the new procedure of research supporting the development of open science, the training within REFLOW will prepare ESRs for research collaboration and information sharing. There are several new technological tools that facilitate this such as collaborative tools, open access publications and research data, FAIR (FAIR: Findable, Accessible, Interoperable and Reusable) data management, public engagement and citizen science.

REFLOW stems from a series of challenges, objectives and goals for the common development in what refers to the sustainable agricultural future in the EU. To achieve maximum exploitation of REFLOW's intellectual and technical resources, it is important to engage with other research & development projects in which REFLOW project partners are also participating in. This will ensure a collaboration environment and information sharing. R&D activities linked to REFLOW are the ones listed below:

Table 6. Existing relevant projects

Project acronym	Relevant outputs	Institutions
H2020 SYSTEMIC	New technologies for nutrient recovery from wastewater treatment plants	UGENT, WENR, UMIL
H2020 Water2Return	REcovery and REcycling of nutrients TURNing wasteWATER into added-value products for a circular economy in agriculture (different industries including slaughtering, wastewater treatment)	ELO
H2020-NUTRIMAN	Compilation and analysis of current recovered bio-based fertilizer products, technologies, applications and practices: this work reflects the state of the art and the best practices on this topic.	UGENT, APCA

H2020 To-Syn-Fuel	TCR upscaling for treatment of sewage sludge and digestate for energy production and phosphorous recovery	FHR, LEITAT, SUS
PROTECT (Marie-Curie)	Knowledge for management options and decisions on new and emerging food safety threats due to climate change on the dairy industry.	UC Dublin and other institutions
AgRefine (Marie-Curie)	Creating new and optimising current agri-resource and agri-waste valorisation pathways	UC Dublin and other institutions

REFLOW does not exclusively relate to the projects above mentioned, but several others under different working schemes. Throughout the development, communication and dissemination of results, additional projects and potential synergies will be analysed accordingly.

4.4 COLLABORATION WITH EIP-AGRI and EIP-WATER

European Innovation Partnerships (EIPs) are intended to accelerate innovations within their field initiative that contribute to solving societal challenges, boost Europe's competitiveness and generate job creation and economic growth. To achieve this aim, they bring together various expertise and resources from public and private actors at EU, national and regional levels.

EIP-AGRI and EIP-WATER are two of five EIPs, within the EU 2020 Innovation Union. [EIP-AGRI](#) focuses on increasing agricultural production with less resource consumption, with an emphasis on sustainability. [EIP-Water](#) targets innovative solutions which address major European and global water challenges.

Since the topics of REFLOW overlap with both EIPs areas of interest, REFLOW can register in the EIP-AGRI and EIP-WATER project database. We can inform the EIP-AGRI and EIP-WATER Service Points about the project and can seek dissemination opportunities through their channels.

5 MONITORING AND ASSESSMENT OF COMMUNICATION AND DISSEMINATION

5.1 MONITORING REPORTING

To provide an efficient flow of information and communication, a network of the networks among practice and science partners will be implemented in the project. A mid-term dissemination report (month 24; D6.4) will be produced and then a final report on dissemination outcomes (month 48; D6.6). These updates will include an evaluation of the extent and impact of the dissemination and communication activities and materials, where available and possible. Internal updates will be in months 12, 18, 24 and 36 (MS31).

Through our planned communication activities, we will account for public spending by showing that collaborative research adds value to scientific excellence and contributes to competitiveness. Our research activities are highly relevant to everyday lives due to the environmental and food safety implications. REFLOW

communication activities will be formally managed by the Dissemination, Exploitation and Communication WP6 leader (ELO). Evaluation and management will be carried out on a continuous basis, to ensure an effective impact and quality of the dissemination and exploitation carried out. The following monitoring and evaluation tools used:

Analytics on the website and social media platforms

ELO will analyse trends, statistics, and the impact of each activity performed on the website and on social networks. Social media platforms such as Twitter, Facebook, Instagram and LinkedIn and YouTube provide analytics which can be used to see approximately how many people are reached with each post. ELO can provide tips and suggestions for specific days and times to post on different platforms as each social media platform has its own popular peak times for posting, which will reach the greatest number of people. A training session on communication will take place during the first meeting of the ESRs, ESTs and project partners in Limerick. This will provide partners and ESRs a better understanding of the most appropriate timing, communication style and target stakeholder of each message based upon the patterns of access, and downloads of files.

Monitoring of participation in relevant events by all project partners and ESRs on a continuous basis throughout the project

All partners will report on communication and dissemination activities they have performed, using the same file, while the ESRs will have their own file to report their activities. To ensure effective implementation, each ESR will prepare an initial CDP (Section 3.2.5) with their supervisor to include individualized research objectives (taken from each IRP), training needs and career options, training objectives and plans, targets for dissemination, exploitation, communication and outreach, and a description of the monitoring and assessment methods.

Each Fellow must design and deliver at least two public outreach events during his/her Fellowship, in addition to academic conferences and journal publications targeting the more specialist scientific audience. Such participation will not only support the dissemination of the project results but also more importantly increase the researcher's network and professional profile. As part of the Fellows CDPs, metrics will be put in place to monitor performance in this regard, including: number of conferences/seminars/poster sessions attended; number of publications; participation in outreach activities; attendance at quarterly meetings; and participation in postdoc working group.

All partners and ESRs should prepare their dissemination and exploitation activities according to the Communication Plan, report all dissemination and exploitation activities, and save evidence of the activities conducted and any references made by stakeholders to outputs or activities and include this with their reporting (photos, website links to the event, etc.). To facilitate the process of collecting information on dissemination activities, ELO has created a shared google drive link which contains all relevant and necessary dissemination log files to be used amongst partners and ESRs. WP6 leader, ELO will monitor the dissemination log file and provide recommendations for targeted communication and dissemination based on the reported activities from the partners and ESRs.

5.2 ASSESSMENT

5.2.1 INDICATORS OF SUCCESS

Various indicators of success will be used to assess REFLOW's progress towards achieving its objectives (Table 7). These are influenced the by European Commission [H2020 programme indicators](#).

Table 7. Indicators to be used to evaluate the principal impacts of REFLOW communication actions

Key output	Indicator	Target of success	Means of monitoring	Schedule for revision
Successful dissemination	Number of visitors/followers on website and social media during the project time frame	300	Twitter followers will be counted per individual	Month 12 (50) Month 24 (150) Month 36 (250) Month 48 (300)
Successful dissemination	Number of visitors/followers on ESR Twitter profile accounts	150	Twitter followers will be counted per individual	Month 24 (50) Month 36 (100) Month 48 (150)
Successful dissemination	Times the project is represented by stands (with material), sessions or presentations at 2 events per year (per ESR), possibly in combination with existing events, meetings or dissemination to other projects	2 events / year	A shared Agenda will be set up to follow and monitor the events where REFLOW is represented	Month 12-24 (2 events) Month 25-36 (2 events) Months 37-48 (2 events)
Successful dissemination	REFLOW will be represented at least 2 times/year at agriculture events (material, sessions and presentations) in combination with using external existing events, meetings or dissemination. Focusing on successful REFLOW methodology.	2 events / year	A shared agenda will be set up to follow and monitor the events where REFLOW is represented	Month 1-12 (1 event) Month 13-24 (1 event) Months 25-36 (1 event)
Successful training and capacity building	ESRs to participate in two public	2 public outreach events /Fellowship	A shared agenda will be set up to follow and	Total of 26 public outreach events by Month

activities	outreach events during his/her Fellowship		monitor the events where REFLOW is represented	46
Successful Final Conference	Number of attendees to the Final Conference	60 attendees	UL and ELO will collect an attendance list signed by all participants, as well as produce audio-visual material on the event	Month 45 (50 attendees)

5.3 MANAGEMENT OF INTELLECTUAL PROPERTY RIGHTS

The principles of IPR ownership and responsibility for its management and protection within REFLOW will adhere to the EC's formal guidance on IP – the H2020 guide to IP in H202054, and to the H2020 Model Grant Agreement, and will be defined in the CA. The NC will take responsibility for the IP Strategy, and will be supported by the WP6 leader.

REFLOW researchers will have access to background IP and results necessary to their research by the hosting beneficiaries. The NC will ensure that POs provide similar access to information. Exploitation of project results, IP protection and patent applications will be by agreement, overseen by the relevant Technology Transfer Offices, prior to industrial or commercial use. The network will advise the Commission about IP developments. Ownership of foreground results will belong to the partner that generated them – however joint ownership situations may occur, and provisions for transfer of such ownership will be detailed in the CA. In the unlikely event of IP conflict within the consortium, resolution will be by partner voting, (Section B.3.2.1). The IP Strategy will be reviewed biannually for resolution of any potential issues, and to ensure adequate monitoring of IP.

6 COMMUNICATION AND DISSEMINATION REPORTING PERIODS

The periods of communication and dissemination activities in REFLOW are defined by the years involved in the project timeline.

<p>Year 1: Month 1 to 12 Year 2: Month 12 to 24 Year 3: Month 24 to 36 Year 4: Month 36 to 48</p>
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Communication and dissemination activities and tools have been outlined for the first two years of the project. As the project progresses, this deliverable will be updated the third and final year's outline.

	YEAR 1	YEAR 2
Dissemination Activities	<ul style="list-style-type: none"> • general dissemination • supporting other WPs • commence networking activities (press releases, events, articles etc.) • dissemination of results from the first project year 	<ul style="list-style-type: none"> • general dissemination • supporting other WPs and ESRs • additional networking activities (press releases, events, articles etc.) • dissemination of results from the first

		<p>two years of the project</p> <ul style="list-style-type: none"> • distribute e-newsletters
Communication Tools	<ul style="list-style-type: none"> • project visual identity (logo, Word, Excel and PowerPoint templates) • social media accounts (Twitter, Facebook, Instagram, LinkedIn, YouTube) • project website • project summary on partner websites • press release 	<ul style="list-style-type: none"> • project roll-up banner • project general brochure • press release • add new content to project website after ESRs join the project • project partner websites should have a direct link to project website • design and generate e-newsletter and mailing lists

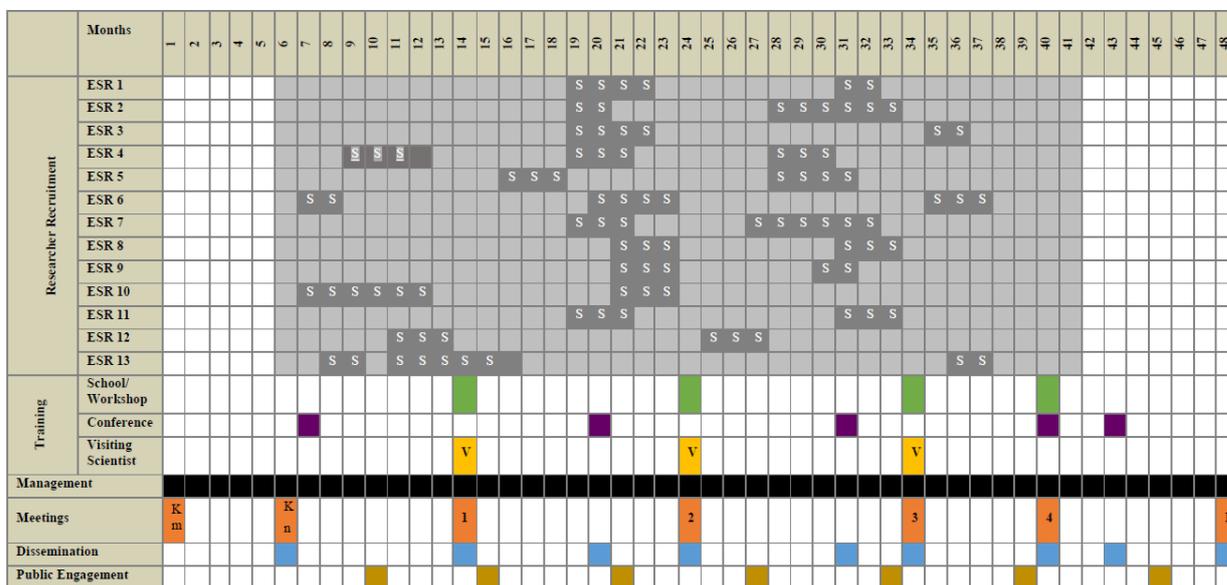
6.1 DISSEMINATION STRATEGY

The final version of the dissemination strategy, D6.2 was submitted in December 2019. The REFLOW dissemination strategy prioritizes scientific communication of results to potential users such as research peers, industry, the agri-food sector, regulators and policymakers. Specifically, it elaborates on the various dissemination activities, channels and tools that will be used throughout the duration of the project and beyond. Within the dissemination strategy, we elaborate on stakeholders, REFLOW visual identity (project logo, colour scheme, etc.), and our project-specific communication and dissemination materials (e.g. website, social media, project banner, project brochure, uniform PowerPoint presentation, e-newsletters, articles, policy briefs and roadmap) as well as communication and dissemination activities (meetings, participation in events), among other events.

D6.2 will be updated as the project progresses and obtains more dissemination tools and participates more actively in disseminating project results. Therefore, as the project develops, so too will the dissemination strategy.

6.2 TIMELINE FOR DELIVERABLES AND MILESTONES RELATED TO COMMUNICATION AND DISSEMINATION

Reflecting ESR recruitments, secondments, training events, management and dissemination / public engagement activities



S = Secondment³⁸ / K = Kick-off meeting - m - management; n - network; / E = End of action

³⁸ 30% secondment rule: Under ETN, each recruited researcher can be seconded to other beneficiaries and /or to partner organisations for a duration of up to 30% of his/her recruitment period (this limitation does not apply to EID and EJD, insofar as time spent at other participating organisations occurs in line with the proposal).

REFLOW will hold Annual Meetings, which will be an opportunity for all stakeholders and ESRs to come together for informal discussion and knowledge transfer, project updating and evaluations via face-to-face meetings. These will provide the ESRs with the opportunity to interact with their peers across the Programme network, and to extend their potential career networks by engaging with academic and industry partners outside their own environment. General Assembly Meetings are scheduled for M1, M6, M14, M24, M34, and M40. These coincide with the ESR training school/workshops in M14, M24, and M34 once all ESRs have been recruited.

Public engagement activities have been planned for M10, M15, M21, M27, M33, M39, and M45. Conferences are planned for M7, M20, M31, M40 and M43. It is anticipated that each ESR will present their results at two conferences over the course of their programme, such as: Forum for the Future of Agriculture (ELO); Waste Processing Engineering; European Society for Soil Conservation; EU Sustainable Phosphorus Platform (ESPP); International Dairy Federation Conference; International Fertilizer Association Symposium.

6.3 PROJECT DELIVERABLES AND MILESTONES

Table 8 shows all project deliverables which will be made publicly available. All other reports will be confidential. Table 9 shows the relevant project milestones.

Table 8. Deliverables in REFLOW

Deliverable Number	Deliverable Title	WP Number	Lead Beneficiary	Type	Dissemination Level	Due Date (in months)
D1.1	Literature reviews of each research area in WP1	WP1	1 – UL	Report	Public	12
D1.16	Submission of PhD thesis by all WP1 ESRs	WP1	1 – UL	Report	Public	48
D2.1	Literature reviews of each research area in WP2	WP2	5 – UNILASALLE	Report	Public	12
D2.3	Profile of changes to soil microbial communities and activities arising from application of REFLOW fertilizers	WP2	5 – UNILASALLE	Report	Public	24
D2.4	Report on crop yield, crop uptake of N	WP2	10 – AU	Report	Public	28
D2.6	Model of soil P cycling and physio-chemical processes after fertilizer additions	WP2	6 – TEAGASC	ORDP: Open Research Data Pilot	Public	36
D2.7	Guidelines on management of DPW fertilizers, (timing & application rates) on forage soils, to maximize plant uptake and minimize nutrient losses to water	WP2	6 – TEAGASC	ORDP: Open Research Data Pilot	Public	36
D2.8	Submission of PhD theses by all WP2 ESRs	WP2	5 – UNILASALLE	Report	Public	48
D3.1	Literature Review of each research area in WP3	WP3	7 – CHALMERS	Report	Public	12

D3.2	Report on FEVs for DPW products	WP3	6 – TEAGASC	Report	Public	24
D3.3.	Smart-Agri app for farmers to enable optimum fertilizer application	WP3	6 – TEAGASC	Other	Public	36
D3.4	Labeling metric for environmental sustainability of DPW fertilizer products	WP3	7 – CHALMERS	Other	Public	36
D3.6	Report on 1 st stage techno-economic/environmental assessment for project guidance	WP3	8 – STRANE	Report	Public	24
D3.7	Report on second stage questionnaire on techno-economic/environmental performance	WP3	8 – STRANE	Report	Public	36
D3.10	Report on consumer and retailer behaviour – food purchasing	WP3	9 – ELO ASBL	Report	Public	15
D3.13	Report of alternative socio-economic models for value distribution (bioeconomy)	WP3	9 – ELO ASBL	Report	Public	36
D3.14	Submission of PhD theses by all WP3 ESRs	WP3	7 – CHALMERS	Report	Public	48
D4.3	Summary report on all training events during P1	WP4	2 – UVIC UCC	Report	Public	24
D4.5	Summary reports on training events during P2	WP4	2 – UVIC UCC	Report	Public	48
D5.2	REFLOW supervisory Board of the network	WP5	1 – UL	Other	Public	2

D5.3	Report on network kick-off meeting	WP5	1 – UL	Report	Public	7
D5.7	Data management plan	WP5	1 – UL	Report	Public	6
D6.3	Report on all STEM, outreach and stakeholder engagement activities	WP6	9 – ELO ASBL	Report	Public	48
D6.5	Report on the implementation of network and individual data management and knowledge transfer plans.	WP6	9 – ELO ASBL	Report	Public	48
D6.6	Final report on Dissemination outcomes	WP6	9 – ELO ASBL	Report	Public	48
D6.7	Policy brief	WP6	9 – ELO ASBL	Other	Public	36
D6.8	Measures that will be implemented to prevent unauthorised access to personal data	WP6	1 – UL	Report	Public	1

Table 9. Milestones in REFLOW

Milestone Number	Milestone Title	WP Number	Lead Beneficiary	Due Date (in Months)	Means of verification
M1	Network launched; PMT/SB/EAB/SC set up	WP5	1 – UL	1	Network launched, PMT/SB/EAB/SC set up. CA signed, Management kick-off meeting held
M2	Launch of REFLOW website	WP5	9 – ELO ASBL	1	Launch of REFLOW website. Website live and populated.
M3	Programme Manager hired	WP5	1 – UL	1	Programme Manager hired

M4	<i>Fellowship vacancies advertised</i>	WP5	1 – UL	2	Fellowship vacancies advertised
M5	<i>Projects start</i>	WP5	1 - UL	6	Fellows recruited & start of projects
M6	<i>Project and personal development plan</i>	WP4	2 – UVIC UCC	9	Project and personal development plan
M7	<i>Delivery of EBPR biosolids</i>	WP1	2 – UVIC UCC	14	Delivery of EBPR biosolids
M8	<i>Established impacts on crop yields</i>	WP2	5 – UNILASALLE	27	Established impacts on crop yield
M9	<i>Demonstrated economic/env. viability</i>	WP3	7 – CHALMERS	34	Demonstrated economic/env. viability
M10	<i>Annual progress review completed</i>	WP5	1 – UL	48	Annual progress review completed
M11	<i>Completion of each ESRs training</i>	WP4	2 – UVIC UCC	48	Completion of each ESRs training
M12	<i>Planned recruitments completed</i>	WP5	1 - UL	12	Planned recruitments completed
M13	<i>All recruited fellows enrolled in PhD programme</i>	WP5	1 – UL	12	All recruited fellows enrolled in PhD programme
M14	<i>Project check</i>	WP5	1 - UL	14	Project check (meeting between REA and Consortium) all beneficiaries, ESRs and Partner Organisations shall attend this meeting. This will correspond with the first Summer School.

7 REFERENCES

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