

A global approach for recovery of arable land through improved phytoremediation coupled with advanced liquid biofuel production and climate friendly copper smelting process

Deliverable D7.2:

Preliminary Communication & Dissemination Plan & periodic updates No.2

presented by Phy2Climate project consortium

N°	Short	Beneficiary	Role
1	ITS	ITS Foerderberatung GmbH	CO
2	Fraunhofer	Fraunhofer Gesellschaft	BEN
3	AUR	Aurubis AG	BEN
4	LEITAT	LEITAT Technological Center	BEN
	CUJ	Central University of Jharkand	IL3P
5	IFVCNS	Institute of Field and Vegetable Crops	BEN
6	SUT	Silesian University of Technology	BEN
7	ETA	ETA Florence Renewable Energies	BEN
8	UHA	University Hasselt	BEN
9	INTA	National Institute of Agricultural Technology Argentina	BEN
10	UNSPMF	University of Novi Sad - Faculty of Sciences	BEN
11	BVA	Biovala	BEN
12	PWMCVV	Public Water Management Company Vode Vojvodine	BEN
13	LTC	Litoclean SL	BEN
14	CLH	Compania Logistica de Hidrocarburos S.A.	BEN
15	PUW	Pro Umwelt	BEN
16	UCB	Umwelttechnologie Cluster Bayern	BEN

CO: Coordinator, BEN: Beneficiary, IL3P: International linked 3rd party under article 14a

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<i>PRO</i>	Technical/economic progress report (internal workpackage reports indicating work status)	
<i>DEL</i>	Technical reports identified as deliverables in the Description of Work	X
<i>MoM</i>	Minutes of Meeting	
<i>MAN</i>	Procedures and user manuals	
<i>WOR</i>	Working document, issued as preparatory documents to a Technical report	
<i>INF</i>	Information and Notes	

Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	
CON	Confidential, only for members of the Consortium	

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Version number	Date	Reasons for release	Responsible	Comments
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3.0	28/07/2022	Internal review	Project partners	Publications, events, videos, etc.
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CONTENT

- 1 EXECUTIVE SUMMARY 4**

- 2 HISTORY OF CHANGES 4**

- 3 INTRODUCTION 7**

- 4 IMPACT SCOPES AND OBJECTIVES 8**
 - 4.1 The overall strategy 8
 - 4.2 The Phy2Climate C&D process and responsibilities 12
 - 4.2.1 The Process 12
 - 4.2.2 Tasks and responsibilities 13
 - 4.2.3 Monitoring 13
 - 4.2.4 The C&Ds strategy 13

- 5 TOOLS AND EVENTS 18**
 - 5.1 Press releases and digital newsletters 18
 - 5.2 Videos 20
 - 5.3 Social media 21
 - 5.4 Promotional materials 24
 - 5.5 Events 27
 - 5.6 Articles and publications 33

- 6 CONCLUSIONS 34**

- 7 ACKNOWLEDGEMENTS 34**

- 8 BIBLIOGRAPHY/REFERENCES 35**



1 EXECUTIVE SUMMARY

The D7.2 Preliminary Communication & Dissemination Plan & periodic updates is a document for setting the impact pathway of Phy2Climate from the start of the project. This document is based on the first version of the project Communication and Dissemination strategy (as reported in D7.1), describing which will be the most efficient measures to be implemented with reference to specific targeted audiences and main project results. In relation to Exploitation, this document will refer to Phy2Climate business pathways and valuable inputs, at consortium level, for public authorities and standardization bodies. In relation to relevant target groups of stakeholders and general public, this document will refer, where appropriate, to Phy2Climate socioeconomic and environmental impacts evaluation.

As the title of this document implies that it is the preliminary version, the project consortium considers the Communication and Dissemination Plan to be a living document that will be periodically reviewed and updated at least at the end of each reporting period to ensure continued relevance and impact.

2 HISTORY OF CHANGES

Paragraph	Change
5.1 Press releases and digital newsletters	<p>Newsletters published, first 18 months of the project.</p> <p>The following sentences were added to Chapter 5.1:</p> <p>“A project newsletter has been published twice (July 2021 and January 2022) and distributed to an international mailing list including all of the contacts in the stakeholders’ database. Furthermore, they are hosted within the “Resources” and “News (Updates)” sections of project website www.phy2climate.eu (those people interested in the project can download related files from the project website), where an email subscription form is also available in the Home page. They were also promoted through the project social media channels.”</p>



	<p>“This press release can be downloaded from the “Resources” section of project website;” and related images.</p>
5.2 Videos	<p>The following sentences were added to Chapter 5.2: “A video “the project in a nutshell” explaining the background and the approach of the project was finalized and published in May 2022:”</p> <p>“This video is on the “Resources” section of project website and on the project Youtube channel: www.youtube.com/channel/UCFDX-M2WpLLNOeICFSvKZ7A/featured.”</p> <p>“Serbian partners released a video on the Serbian pilot site, available on Youtube: https://www.youtube.com/watch?v=Yn_rQb3d_xo (in Serbian language).”</p> <p>and related images.</p>
5.3 Social media	<p>The following images were added to Chapter 5.3:</p> <p>Image: Twitter on the project.</p> <p>Image: LinkedIn on the project.</p> <p>Image: Youtube channel with video on the project.</p>
5.4 Promotional materials	<p>The following images were added to Chapter 5.4:</p> <p>Image: Roll-up on the project.</p> <p>Image: Project poster.</p> <p>Image: Leaflet presenting the project.</p>
5.5 Events	<p>The following sentences were added to Chapter 5.5:</p>



	<p>“On Thursday 12th May 2022, at EUBCE 2022, three similar Horizon 2020 projects: GOLD, Phy2Climate and CERESiS, held a two-hour workshop “Squaring the circle between phytoremediation and biofuel production” in which the three projects were presented, as well as hearing from European Commission experts on the subjects of renewable energy, soil protection and policy:”</p> <p>“In the first 18 months, the consortium has also ensured the participation of partners ...</p> <p>... The project activities will be presented during next EUBCE, June 2023.”</p> <p>and related images.</p>
5.6 Articles and publications	<p>The following sentences were added to Chapter 5.6:</p> <p>“A paper from INTA team will be finalised by September 2022 as a scientific publication ...</p> <p>... until the end of 2023 and one paper is planned on WP6 until first months of 2023.”</p> <p>“... such as: the EC Horizon-magazine.eu, BE-Sustainable (edited by ETA since 2012), Renewable Matter, Renewable Energy Focus, Revolve as well as specialized/market-oriented magazines.</p> <p>An article on Phy2Climate was hosted within BE-Sustainable Magazine online portal, issue of April 2021 (www.besustainablemagazine.com).”</p>



3 INTRODUCTION

This report contains the Preliminary Communication and Dissemination Plan (D7.2), which has been designed as a practical guideline for efficiently implementing communication, dissemination and outreach activities at project level. The goal of the document is threefold:

- 1) supporting the achievement of the project objectives;
- 2) defining the activities for outreach and engagement with key stakeholders and the general public to maximise awareness and impact of the project;
- 3) facilitating and supporting the measures for the future exploitation of project results.

The primary aim of this document is to ensure the detailed planning to facilitate the widest possible impact of the project in terms of activities delivering results which can support and engender further R&D opportunities for these process and technology in the near term.

The plan is the result of a coordinated effort among partners, considering stakeholder categories and needs as well as partners' communication channels and tools. In this sense, it is a supporting tool for each partner to maximize the impact of their own communication and dissemination actions while providing a means to ensure high visibility of activities and outcomes of the project as a whole.

The active involvement of stakeholders and target groups is one of the key success factors for Phy2Climate project. The plan is based on a list of suitable dissemination tools and activities for engaging the target groups identified by the consortium. Then a multi-channel dissemination strategy is proposed in order to maximize the impact of the project results and paving the way towards successful Phy2Climate results both in terms of sharing knowledge and business opportunities, according to the target audience.

The consortium considers it as a living document, with the chance to incorporate updates of an open dialogue with potential users and institutions.

Actions carried out and performed within the project activities will be fully described in deliverable D7.12 Final report on all C&D activities, that will be prepared at the end of the project.



Success indicators of the planned actions are set out and a detailed action and time plan with relevant responsibilities of the partners will be elaborated and presented at the end of the first year of the project.

This report is strictly related and linked to three other deliverables:

- D7.1: Preliminary Communication & Dissemination Plan & periodic updates No. 1 (First plan for communication, outreach and dissemination of the project results to different networks, stakeholders from public and private organisations and the scientific community);
- D7.4: Project Visual Identity and templates (Creation of a project logo and its incorporation into a standardized set of templates for project reporting and public dissemination);
- D7.5: Website and social media feeds online (Design and set-up of the project website and social media channels – establishment of project presence at digital level).

4 IMPACT SCOPES AND OBJECTIVES

4.1 The overall strategy

The D7.1 Preliminary Communication & Dissemination Plan & periodic updates is designed according to strategies and activities aimed at Communication and Dissemination (C&D), Exploitation which the EC defines as follows:

- **Communication** means taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange. The aim is to reach out to society as a whole and in particular to some specific audiences while demonstrating how EU funding contributes to tackling societal challenges;
- **Dissemination** is the public disclosure of the results of the project in any medium. It is a process of promotion and awareness-raising right from the beginning of a project. It makes research results known to various stakeholder groups in a targeted way, to enable them to use the results in their own work;



- **Exploitation** is the use of results for commercial purposes, in public policymaking and in any other way in the society.

Concerning this, **all partners** will play an active role in project communication and dissemination activities, mostly ETA that will act also as consortium facilitator, in coordination with ITS.

Such activities will take place at 2 levels:

1. **at regional/national level**, in the 10 countries where the Phy2Climate consortium will mainly implement its activities: Austria, Germany, Spain, Serbia, Poland, Italy, Belgium, Argentina, and Lithuania;
2. **at European level**, for outreaching to the scientific, technology and industry communities as well as end-users of and media interested in Phy2Climate results. This will mainly take place through existing policy and technology platforms promoted by the European Commission (EC), the European Climate Infrastructure and Environment Executive Agency (CINEA), sector events and by networking with other related projects and international initiatives (e.g., carried out by IEA Bioenergy, IRENA, etc.) and decision makers.

Two levels of project communication and dissemination will maximize the expected impacts at a technological level. The two primary innovative technological features of Phy2Climate are:

- The Phy2Climate approach consists of the phytoremediation of contaminated sites in 4 regions (due to force major caused by COVID-19 pandemic the 5th site in India is not able to continue) in Europe (EU & non-EU) and S-America with different characteristics (type of contamination, type of soil, climate, legislation); the phytoremediation will decontaminate lands from a vast variety of pollutants and make the restored lands available for agriculture, while improving the overall sustainability, legal frame and economics of the process;
- The combination of the phytoremediation with innovative cascadic biomass converting technologies to produce added value products such as drop-in biofuels for the road and shipping transport as well as bio-coke as substitution of petroleum coke (pet-coke) in the metallurgical industry. In case of heavy metal contamination of the



soil, the extracted metals and metalloids will be also valorised in the metal smelting process. These clean biofuels production will present no Land Use Change risks.

The **objectives of Phy2Climate** (each corresponding directly to a specific work package) are the following:

Table 1: Phy2Climate overall objectives.

#	Phy2Climate objectives
1	To ensure efficient management of the project by the establishment and operation of an effective consortium management structure.
2	To design and perform the phytoremediation pilots of the contaminated sites in Spain, Serbia, Lithuania & Argentina.
3	To validate the production of clean drop-in biofuel and bio-coke from phytoremediation biomass at pilot scale.
4	To assess the environmental and social sustainability of the Phy2Climate approach.
5	To develop a business roadmap for up-scale and further development of the Phy2Climate technology.
6	To develop top legal expertise for the smooth development and realization of projects related to phytoremediation and recovery of output materials, within as well as outside the EU.
7	To structure, plan and implement communication, dissemination and outreach activities supporting the successful implementation of the project and maximizing its impacts.
8	To ensure compliance with the 'ethics requirements'.

The D7.1 Preliminary Communication & Dissemination Plan & periodic updates is prepared for supporting the consortium over the entire project-life, whilst being flexible to adapt to the requirements of the four interrelated stages that will inform the dissemination and exploitation activities of the project:

1. during first months of project implementation (M1-M6): establishment of communication activities based on setting targets, audience and messages before deciding on the media. At this stage, means will be mainly “one-way exchange” style



with respect to project audiences: a Visual Identity for clearly identify the project among others, an iconic project logo set and an effective project website will be conceived. In addition, a first project leaflet and messages tailored to stakeholders' categories will be developed and spread through social media (on Twitter and LinkedIn mainly). The objective is to raise awareness and interest about the project and start paving the way for their future involvement in "two-way exchange" activities promoted at EU and non-EU level;

2. gradual integration of dissemination activities among project communication ones (M1-M18), to starting support exploitation of project's foreground while maintaining knowledge transfer. At this stage, means will be "two-way exchange" style. In addition to regular information coverage by short news, longer articles of analysis or events' follow-up, videos, interviews and story-telling, there will be technical workshops, participation in selected conferences, large fairs and other events;
3. once ready and available, scientific and market-potential results will be promoted according to the Exploitation strategy, coherently with what foreseen under the CA and the IPR decisions agreed upon by partners;
4. in the last 12 months of project duration (mainly on M44-M54), all former activities will be integrated by specific measures to promote further project development beyond its end. The consortium will provide information (in terms of thought pieces tailored to policy makers and regulatory officers), guiding on what is needed – in term of RTD and market exploitation - to further develop the process beyond TRL6-7 after the 54M. Measures will be mainly scientific (e.g. scientific and technical publications, high level RTD repository on project website, etc.) and open to transdisciplinary connections (e.g. participation in shared initiatives and platforms with other RTD projects and EU and non-EU funded initiatives, capitalization of project results and cross-fertilization activities for future projects, etc.). All tools and materials set up at the project outset will be kept updated during the second and third phases. Additional materials will be foreseen as well (e.g., technical factsheets for promoting the project at scientific conferences, workshops, and market events across Europe; new videos with focus on specific processes).

This is important to support technical and market stages of the project, underlining project results and implemented capabilities, with the most feasible tools (both digital and material ones).



4.2 The Phy2Climate C&D process and responsibilities

The “getting started” stage at communication and dissemination (C&D) level coincided with the set-up of the project coordination and decision-making structures: the virtual kick-off meeting on the 9th and 10th of February 2021 and the first six-monthly project meeting.

4.2.1 The Process

Since the start of the Phy2Climate project implementation, the scientific and technological tasks have taken place along with first communication measures (Phy2Climate visual identity) and preparation of preliminary dissemination materials, such as:

- D7.4 Project Visual Identity and templates, covering logo, templates, introductory poster, leaflet, and roll-up;
- D7.5 Website and social media feeds online, on the project website and channels with project presence on Twitter, LinkedIn and YouTube.

In addition, after the project start, a first Press Release was shared via ETA and partners’ mailing lists, project social media channels, several online blogs as well as on digital and printed magazine ([BE Sustainable](#)).

The Phy2Climate consortium believes that an **integrated C&D strategy** is required in order to provide project information and data accessible to the specific target groups and the wide audience.

It encompasses the following steps:

1. definition of the **Communication and Dissemination objectives**;

2. identification of:

- **relevant target groups**: to whom does the project want to speak?
- **key messages** according to each target group needs;
- **appropriate measures and tools** (with consortium roles and time plan) for each target group: how and when will those messages be conveyed to the relevant audience?
- **periodic impact monitoring** (by setting appropriate KPIs and control points).



4.2.2 Tasks and responsibilities

Indications on partners' roles and processes for guaranteeing a smooth communication flow at consortium level have been internally provided. In addition, the following principles on external communication and dissemination were agreed:

1. Partners engagement will be ensured via project meetings and online collaboration;
2. All partners shall ensure dissemination and communication activities/actions in accordance with the related deliverables and results as foreseen by the Phy2Climate Grant Agreement (which provides indications to comply first with the obligation to protect and then with the obligation to disseminate, art. 28-29 of the same GA and rules on visibility - use of project logo, EU-emblem and acknowledge of EU funding)¹;
3. All partners shall set up and implement dissemination and communication activities/actions in line with the present Plan in order to ensure effective dissemination and a common approach to communication;
4. Partners shall monitor dissemination and communication activities, both the ones foreseen by the project and those made independently by each partner.

4.2.3 Monitoring

Periodic monitoring and actions necessary to deal with any changes to project dissemination requirements are the responsibility of ETA. At each technical management and/or project meeting, input will be taken from the consortium on actions/changes necessary for guaranteeing the highest possible impact and outreach of the project.

In addition, the **updated version** of D7.12 Final report on all C&D activities in M54 will cover all the activities on communication, dissemination, and outreach activities made by the consortium.

4.2.4 The C&D strategy

The Communication and Dissemination strategy of Phy2Climate starts with focusing on the objectives identified by the consortium for guaranteeing a successful project impact.

¹ Official links:

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/acknowledge-funding_en.htm; http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm



4.2.4.1 Objectives for Project Communication and Dissemination

In table 2, *WP7* objectives are listed as a guide of the goals expected to be reached at Communication and Dissemination (C&D) level.

In addition, *WP7* efforts and actions can provide a relevant basis and related contribution to the project success also at exploitation and business potential.

Hence, given their combined relevance for having an impactful Phy2Climate project, *WP7* objectives are listed as follows:

Table 2: Objectives for Phy2Climate impact

#	WP7 objectives for Phy2Climate impact
1	To implement a comprehensive public and industrial dissemination policy and outreach programme to increase knowledge and understanding on the Phy2Climate project and related opportunities.
2	To implement a series of activities aimed at demonstrating, disseminating the Phy2Climate project results and communicating key project outcomes to relevant stakeholders as well as the general public.
3	Liaising and clustering with other on-going H2020 projects on the same topics, as well as actively taking part to EC/INEA initiatives, for maximizing the project impacts.

Furthermore, on RTD and market uptake in the renewable transport biofuels, the Phy2Climate consortium will take advantage of common information and dissemination activities promoted by the EU (i.e. DG RTD, DG ENER and INEA) to increase visibility and synergies between H2020 supported actions.

The geographic coverage of Phy2Climate is engaging primary target groups and multipliers at national/regional level of **10 countries** (thanks to leveraging on current networks of the consortium members), as well as **at European and (possibly) global level**. This is foreseen by the liaising with **other relevant European/global network and stakeholders at the policy level** on the areas addressed by the project, thus contributing to further debate and scientific evidence allowing scaling-up similar processes of energy (advanced, sustainable energy carriers) production into the current and future policy agenda, specifically the EU Renewable fuels and Bioenergy strategies.



4.2.4.2 Target groups

Since Phy2Climate will take a significant leap beyond the state-of-the-art in combining energy crops production from phytoremediation with TCR® technology integration in a pilot biorefinery plant (for the production of biocrude oil and other products from energy crops), a specific list of **stakeholders** has been identified for the all communication and dissemination activities, as follows:

Table 3: Primary target groups and multipliers.

Target audience	Specific stakeholders	Medium and means
Universities and RTD centres / Scientific community	R&D community in the field of renewable energy technologies, process of conversion of biomass into fuels and energy, chemical, biological and genetic engineering, agronomy, environmental and social sustainability, etc.	<ul style="list-style-type: none"> • Visual Identity & project templates • Dedicated website; • Social media channels (mainly Twitter, LinkedIn, YouTube, etc.);
SMEs and large industry; biomass producers /suppliers (farmers, etc.) and local/regional associations (in project EU and non-EU countries); owners of contaminated areas	Companies dealing with mechanic, thermo-chemical and chemical and biofuel areas; agronomist, environmental consultants, experts taking part to the following events: European Biomass Conference and Exhibition - EUBCE; TAE Fuels; Technical Conference & Exposition; IMECE International Mechanical Engineering Congress and Exposition (ASME); IFAT, Agrotica, Society of Wood Science and Technology events, International Conference on Agriculture & Horticulture, Agritechnica; LIGNA; etc.	<ul style="list-style-type: none"> • Press releases, news alerts, newsletters • Promotional materials (leaflet, posters, etc.) • Scientific publications (peer reviewed papers); • Organization of scientific and technical events and participation to external initiatives (at national/EU level); • Synergies with selected initiatives / stakeholders / end-users;



EU and non-EU governing bodies & regulators; public authorities; representatives of EU/International Standardisation Organisations	Members of EU (EC, EU Parliament, etc.) and non-EU (Argentina, Serbia, India) institutions dealing with renewable energy and environment; members of public authorities in charge for applying risk monitoring and restoration measures of polluted soils; EU and non-EU market & energy regulators.	<ul style="list-style-type: none"> • Organization of Demonstration Days (visits at labs and facilities) • Videos & other digital contributions; • Contribution at legal, policy and technical/standardization level (national/EU dimension)
Platforms and technical associations	International Energy Agency (IEA); ETIP Bioenergy; EERA Bioenergy; national & international energy, renewable energy, biomass; agriculture, environmental sustainability, SedNet (European network aimed at incorporating sediment issues and knowledge into European strategies), etc.	<ul style="list-style-type: none"> • Final project event (strategic gathering with partners, experts from EU-level RTD, market, policy and associations); presentation of the final project publication (with ISBN) with valuable inputs for policymakers and market experts.
Civil society NGOs, public, media	Associations and citizens concerned about polluted arable lands and interested in feasible solutions for their recovery; readers of both specialized journals and general-interest magazines (i.e. Agriculture, Energy & Fuels, Biomass Conversion and Biorefinery, Biomass and Bioenergy), including online ones (i.e. Euractiv, etc.).	



The consortium can already count on mailing lists derived by partners' formal and informal networks. In addition, during the project, a **database of contacts** at European and country level will be collected for increasing the impact of project promotion and dissemination.

Contacts will be evaluated and provided by the following categories:

- subscribers to project newsletters (through the website online form) and via social media channels (mainly through the Phy2Climate page on LinkedIn);
- people met during Phy2Climate events and collected feedbacks;
- project partners and networks' referees;
- from contacts with stakeholders involved in all business and market analysis expected to be performed under project activities.

All data will be treated in compliance with the Regulation (EU) 2016/679 General Data Protection Regulation (**GDPR**) entered into force on 25 May 2018. Hence, the GDPR will be the reference for data collection, storage, protection, retention and destruction. Furthermore, the consortium will inform its C&D and exploitation activities by a guidance of the EC, called **Ethics & Data protection**.² In the deliverables D 8.1 (H-requirement No.1) and D 8.2 (POPD – requirement No.2) relevant Data protection procedures are elaborated.

4.2.4.3 Keywords and main messages to external audience

Since the beginning of the project, a list of meaningful **keywords** has been identified at consortium level. The consortium identified Phy2Climate novel and efficient contributions on the following areas:

1. to build the bridge between produced **energy crops** by **phytoremediation** of contaminated sites with the production of clean drop-in biofuels for transport;
2. there is a significant area of land which is **contaminated** and therefore unusable for any purpose;
3. phytoremediation is considered a **cost-effective and environmentally friendly** method;
4. the **lack of innovation** in the contaminated biomass conversion to added value products is evident and needs to be addressed;

² Source:

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-data-protection_en.pdf



5. the Phy2Climate approach synergistically interlinks the remediation of contaminated soil with the production of **added value products**;
6. Contribution to the Mission Innovation Challenge for **sustainable biofuel** production and to almost all UN Sustainable Development Goals.

Furthermore, the consortium intends to transfer to target groups and all stakeholders the concept that Greenhouse Gas (GHG) reduction will be achieved by substituting fossil fuels and pet-coke as well as by enhancing the organic carbon content in the soil (according to the Phy2Climate concept). The approach has a significant potential to provide a sustainable and economic solution to lower the pressure in the land-use competition.

5 TOOLS AND EVENTS

5.1 Press releases and digital newsletters

During the project, at least **9 digital newsletters** will be prepared and distributed. Subscription to the newsletter is voluntary, via a subscription form on the website. Mass mailing system software is used for management and distribution of the digital newsletters, ensuring the accurate monitoring of the impact of the newsletters. Each newsletter will cover periodic news, events and information; content will be based upon posts on website, as well as contributions by partners, key updates on the project development, presentations at workshops, reports and publications. The planned timetable for sharing the newsletters (**1 every 6 months**) will provide a consistent coverage of the activities implemented within the project.

A project newsletter has been published twice (July 2021 and January 2022) and distributed to an international mailing list including all of the contacts in the stakeholders' database. Furthermore, they are hosted within the "Resources" and "News (Updates)" sections of project website www.phy2climate.eu (those people interested in the project can download related files from the project website), where an email subscription form is also available in the Home page. They were also promoted through the project social media channels.



First and second project newsletters.

In addition, **at least 4 press releases** are foreseen to be prepared during the project implementation:

- the 1st one at the launch of the project (**M2**, February 2021), disseminated also on BE-Sustainable magazine (edited by ETA) beyond other online media. This press release can be downloaded from the "Resources" section of project website;
- other press releases will be published after related events of the project and/or in coincidence with relevant milestone/s; in particular, the last one will be highlighting the project's most salient results and benefits in occasion of its closure.

The press releases will be created for the general press (e.g. Horizon Magazine, online newspapers on EU policy & market affairs, etc.) and specialized media and magazines on sectors like breakthrough technologies for renewable fuels, circular economy practices, environmental sustainability (identified during the project implementation by ETA with all partners).

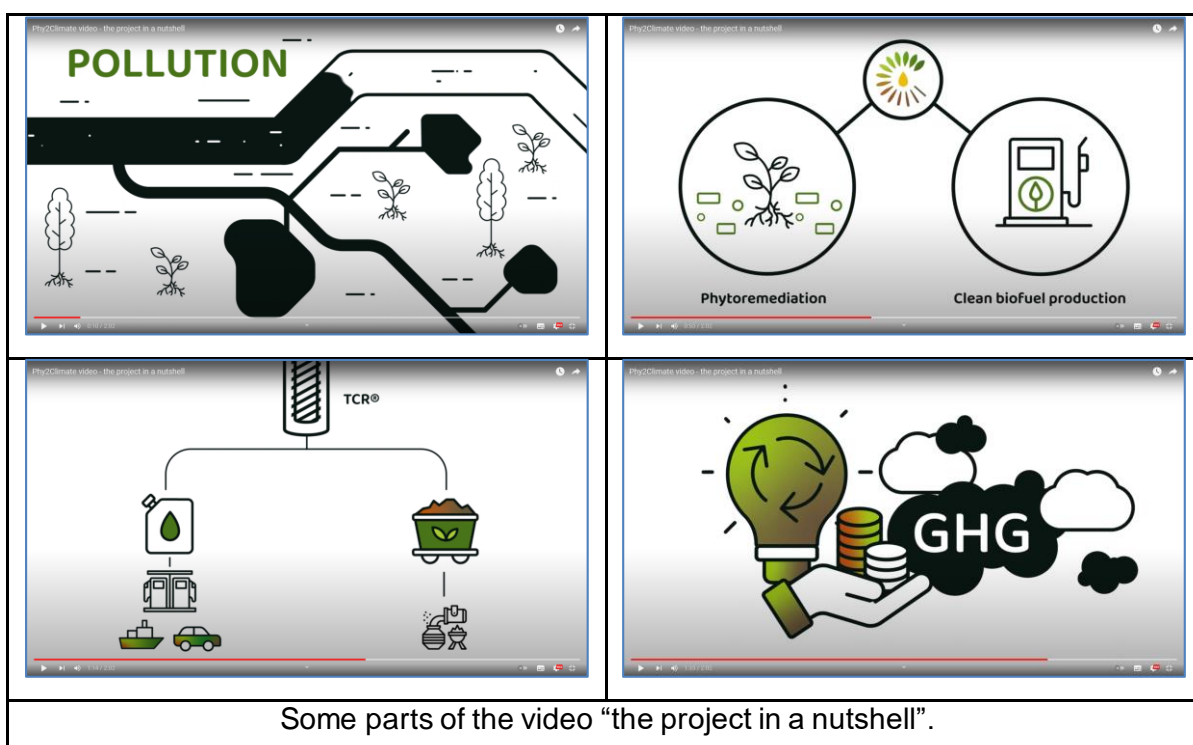
ETA will prepare a **final press review**, to keep track of the media coverage of all published press releases. It will be integrated in the final report, together with all communication and dissemination materials (D7.12 Final report on all C&D activities).



5.2 Videos

A suite of short informational videos will be prepared and shared via social media and will be available on the Phy2Climate website and YouTube channel. Animated videos and interviews are rich communication channels for delivering information on the Phy2Climate processes.

A video “the project in a nutshell” explaining the background and the approach of the project was finalized and published in May 2022:

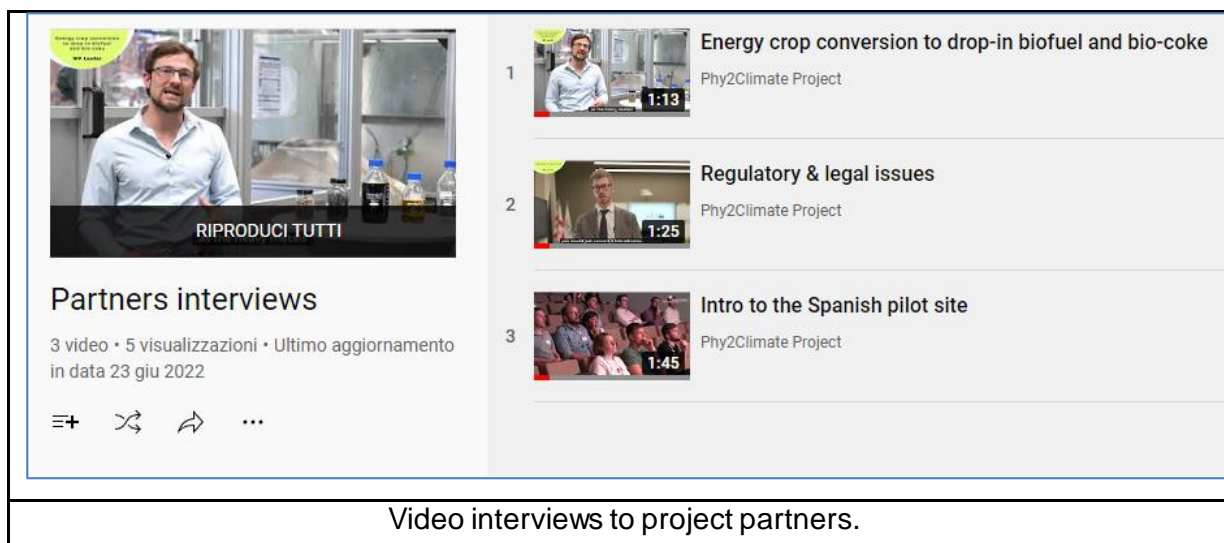


This video is on the “Resources” section of project website and on the project Youtube channel www.youtube.com/channel/UCFDX-M2WpLLNOeICFSvKZ7A/featured, and it will be added also to the related Zenodo section (Phy2Climate Community).

The consortium agreed on preparing a series of videos, in order to easing the engagement with the wider public outside of conventional stakeholder groups. For such reason, ETA will put together a series of videos pitched towards a more general audience. These will focus on the rationale for the project, the project concept, the plant validation phase and the project results (with recordings taken on the Phy2Climate trial areas and pilot plant). Inputs from all partners, in addition to external experts and stakeholders, will be duly valorised. In addition, short interviews to partners and guests from relevant national/ international organizations will be collected during the project



meetings, workshops, a selection of Open Days, etc. All the videos will be available on a dedicated Phy2Climate YouTube channel as well as being displayed on the project website and promoted through social media.



Serbian partners released a video on the Serbian pilot site, available on Youtube https://www.youtube.com/watch?v=Yn_rQb3d_xo (in Serbian language).

5.3 Social media

Phy2Climate will exploit the full potential of social media with the following goals:

1. sharing clear information for raising awareness about technologies and processes dealing with feedstocks from energy crops in order to produce added value products;
2. providing latest news, trends and related events (for both expert and non-specialized audiences);
3. disseminating the project outputs and events, as well as other events in the same sector;
4. attracting attention from an increasing number of media and citizens to the project community.

Social media engagement will be sought also through the launch of initiatives such as hashtags to engage with the general public, surveys and spontaneous public consultations among social media users.

Phy2Climate consortium agreed on creating profiles and pages on the following **4 social media platforms:**



Twitter. The account is used as one of the primary tools in spreading the project news and announcements to the wide public. Project tweets are uploaded on a regular basis, referring to activities, results (as soon as available and publicly shareable) and news about the project and the sector. The Twitter account **@phy2climate** is a very useful channel to immediately disseminate news to a wide audience (both primary target groups and multipliers), as well as raising awareness on latest trend topics related to Phy2Climate processes and technology and market potential sectors.

Specific hashtags will be chosen when sharing Phy2Climate project news, some of them could be as follows:

#phytoremediation

#TCR

#renewable

#transport

#fuels

#biofuels

#biocrude

#coal

#biochar

#energycrops

#bioeconomy

#soilcontamination

#environment

#GHG

#sustainable

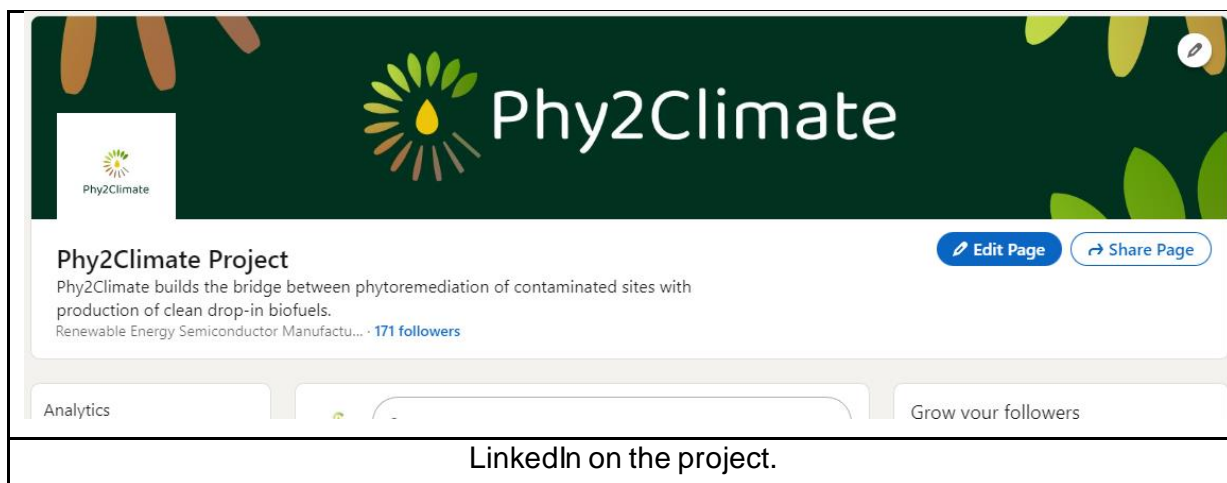
The Phy2Climate account is already following partners' social media profiles, those from the EC, thematic networks, and scientific and industrial key players at a worldwide level, in addition to main corporate and institutional players from academia, industry and national and EC. Partners' social media will also echo the project posts and the other way around, further increasing the combined impact and outreach of the project.



Twitter on the project.



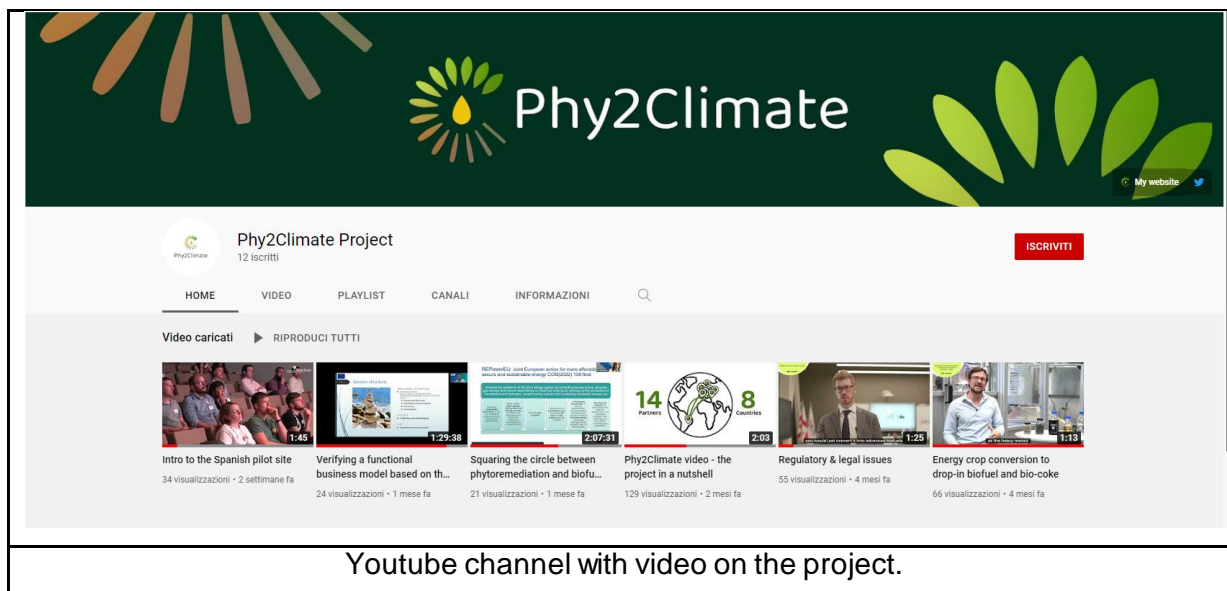
LinkedIn. An official Phy2Climate page is operative for exchanging information and opinions between Phy2Climate partners and professionals.



LinkedIn on the project.



YouTube. A specific Phy2Climate project channel has been created YouTube to share videos on project, interviews and testimonials at national/EU events from project members and experts, etc. Short and long videos will be shown also in conjunction with project booths at events and during demonstration sessions for attracting stakeholders of primary target groups and increase their curiosity on state-of-the-art of project activities, therefore their impact.



5.4 Promotional materials

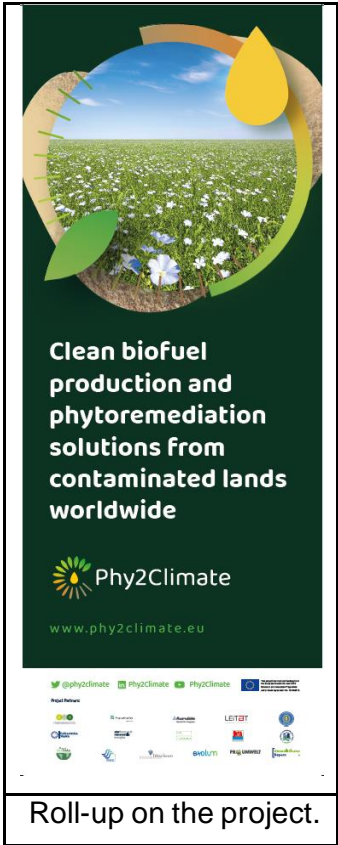
A number of communication materials are elaborated and shared in both digital and print version, according to consortium needs.

According to the visual identity, ETA prepared a **coordinated project layout** (on PowerPoint and for leaflet, roll up and poster).

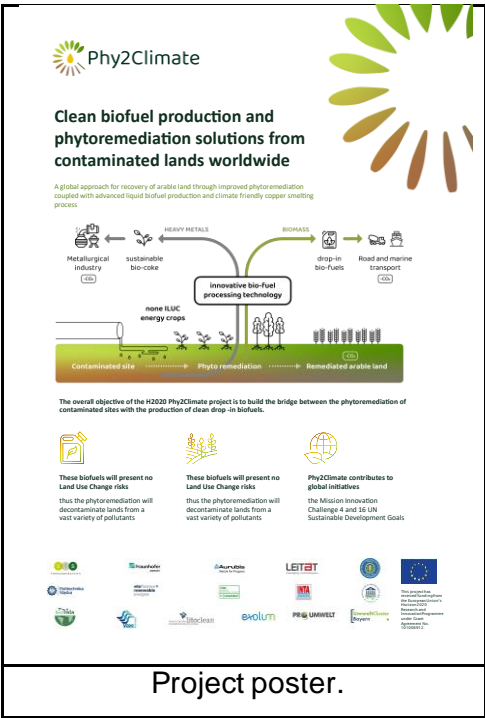
They were used as basis for a series of promotional materials, with contents and graphics agreed at consortium level.

Partners are in charge of printing materials as per their own needs. In special occasions, materials can be translated in a list of national languages or new versions can be prepared for tailoring specific audiences with practical information, during the project implementation. Phy2Climate promotional materials includes:

- **Roll-up:** conceived for presentations at project's events as well as for external conferences and workshops. The roll-up allows partners to present Phy2Climate project basic concept and methodology at relevant events;



- **Project poster:** prepared for presenting the project at events as well as for external conferences and workshops. The poster allows partners to present Phy2Climate project concept and methodology at relevant events;





- **Leaflet:** designed in order to present general information on the project. It supports the dissemination and promotion activities linked to the national and EU stakeholders in events, workshops, etc. All partners are invited to distribute copies whenever feasible.

The overall objective of the H2020 Phy2Climate project is to build the bridge between the phytoremediation of contaminated sites with the production of clean drop-in biofuels.

PROJECT PARTNERS:

These biofuels will present no Land Use Change risks
thus the phytoremediation will decontaminate lands from a vast variety of pollutants

Make the restored lands available for agriculture
while improving the overall sustainability, legal frame, and economics of the process

Phy2Climate contributes to global initiatives
the Mission Innovation Challenge 4 and 16 UN Sustainable Development Goals

info@phy2climate.eu
@phy2climate
Phy2Climate
Phy2climate

Clean biofuel production and phytoremediation solutions from contaminated lands worldwide

Phy2Climate
www.phy2climate.eu

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 101006912.

Workplan and Methodology

- Management & Coordination
- Design and implementation of phytoremediation pilots
- Environmental and social sustainability
- Regulatory & legal issues
- Energy crop conversion to drop-in biofuel and bio-coke
- Exploitation and Business Potential
- Communication and Dissemination

Phytoremediation

The method of phytoremediation consists of the use of plants and their associated microbes to stabilize, degrade, volatilize and extract soil pollutants.

Technology

The project is designed to bring the technological development on both phytoremediation and drop-in biofuel production to Technological Readiness Level (TRL) 5.

Products

TCR® process, which acts as enabling technology in the biorefinery, produces bio-coke and the three intermediate products: TCR-oil, TCR-gas and TCR-water.

Leaflet presenting the project.



5.5 Events

Within Phy2Climate, there will be a calendar of events and initiatives, as follows:

- **at least 2 “Phy2Climate Open Days”**, where local stakeholders (policy makers, agriculture & environmental experts, entrepreneurs, media) will access to the trials and can have a direct contact with involved partners;
- **at least 2 half-day workshops**, as a side event of the European Biomass Conference and Exhibition (EUBCE, <http://www.eubce.com/>), that gathers biomass experts of academia and companies and is organized annually by ETA. They will represent the occasion to engage with the international community of experts at research and industrial level on technologies and processes for energy crops and renewable fuels production. All partners will be called to participate as speakers for covering all the aspects of Phy2Climate where results can be publicly presented and discussed with the EUBCE audience.

On Thursday 12th May 2022, at EUBCE 2022, three similar Horizon 2020 projects: GOLD, Phy2Climate and CERESiS, held a two-hour workshop “Squaring the circle between phytoremediation and biofuel production” in which the three projects were presented, as well as hearing from European Commission experts on the subjects of renewable energy, soil protection and policy:



Workshop - Thursday 12 May 2022
14:00 -16:30 CEST

**Squaring the circle between
phytoremediation and
biofuel production:
The role of policy and
regulation in Europe**

 Phy2Climate  GOLD  CERESiS

The poster features a large circular image of a field of green plants with white flowers under a bright sun. The text is arranged on the left side of the circle, and the logos of the participating organizations are at the bottom.



Phy2Climate

Phy2Climate

A global approach for recovery of arable land through improved
phytoremediation coupled with advanced liquid biofuel
production and climate friendly copper smelting process

EUBCE Conference 2022
Policy workshop: Squaring the circle between phytoremediation and biofuel production
12.05.2022

Prepared by: Matteo Fermeglia and Marko Perišić

This project has received funding from the European
Union's Horizon 2020 Research and Innovation
Programme under Grant Agreement No. 101000912.

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33:30 / 29:30

Slides presenting and introducing the workshop.

- **1 workshop** on Phy2Climate Sustainability and Regulation aspects will be organized during the last project period for disseminating project results collected;
- **A one-day final project event**, to be conceived as a strategic comprehensive event, targeting the international research community, industry, investors, policy makers and regulators, and underlining the breakthrough of the project on phytoremediation coupling with bioenergy production, open to public officers, academics, policy makers, market experts as well as media agencies. Strategic indications and recommendations at policy, regulatory and market and business exploitation will be provided for future market entry.

In addition, **partners** will take part as speakers to **leading events on specific topics of the project at national/European level**, addressing different audiences.

Furthermore, other conferences, fairs and joint cross-cutting workshops (i.e. by the EC, CINEA and synergies with other EU-funded projects on RDT in biofuels, transport sector and circular economy, etc.) will be identified on a periodic basis by ETA and all partners and proposed for discussion at consortium level. For example, the consortium should take part to annual EU-level conferences such as: the EU Sustainable Energy Week – EUSEW (<https://www.eusew.eu/>), evaluating cooperation with other H2020-funded projects; relevant conferences such as for instance the International Renewable and Sustainable Energy Conference, the Annual Mediterranean Bunker Fuel



Conference, the European Summit of Industrial Biotechnology (ESIB), the International Conference on Wetland Systems for Water Pollution Control or the European Environmental Law Forum (EELF).

In the first 18 months, the consortium has also ensured the participation of partners as speakers to leading events at both international and national level in order to address different audiences.

- ITS virtually presented the project within an oral speech “Recovery of arable land through improved phytoremediation coupled with advanced liquid biofuel production” during the 29th European Biomass Conference & Exhibition (EUBCE) at the end of April 2021. A dedicated e-stand on Phy2Climate project was present into the EU projects area of EUBCEs 2021 and 2022 online event platform to share project material and interact with visitors.
- The EUBCE (www.eubce.com) combines one of the world’s leading R&D conferences with an international exhibition, and represents the leading platform for the collection, exchange and dissemination of scientific know-how in the field of biomass.
- ITS presented the project within a poster presentation and speech during the 30th European Biomass Conference & Exhibition (EUBCE), held online in May 2022. The related presentation paper “Clean Biofuel Production and Phytoremediation Solutions from Contaminated Lands Worldwide” is included in the full open access EUBCE conference proceedings database: all submitted full papers of plenary, oral and visual presentations are published on-line in the EUBCE Conference Proceedings and are fully searchable and citable online.
- Leitat virtually presented the pilot sites project activities within a poster presentation and speech during the 30th EUBCE.
- Another workshop, titled “Verifying a functional business model based on the Phy2Climate approach: Pitfalls, opportunities and strategies in place”, referring to WP5, was hosted by EUBCE 2022, on Thursday 12th May 2022.
- INTA participated in the virtual meeting organised by Bavarian Research Alliance (BayFOR), Germany on June 16, 2021. Next Destination: Horizon Europe "Circularity & Bioeconomy – How to match your R&I proposal with EU and regional strategies". His talk was titled “Phytoremediation of mining waste and conversion to biofuels: An Argentine case study”.



- Three abstracts were submitted by INTA to SETAC Latin America 2021, 14th Biennial Meeting. They were accepted by the scientific committee and included in the event program. The Abstract Book of SETAC Latin America was published and the three contributions by INTA were included outlining some of the project activities carried out in the pilot site of La Planta, San Juan, Argentina.
- University of Hasselt presented Phy2Climate project and their related activities focused on developing top legal expertise for a smooth project realization and European environmental law, on Friday 10th September 2021 at 8th EELF Annual Conference 2021.
- The project has been presented by the project coordinator during the sessions of the CINEA workshops on H2020 energy projects working on biofuels, virtually, in October 2021.
- University of Hasselt successfully presented the project at the Georgian National University SEU in Tbilisi on Thursday 10th February 2022 and at the VII Tarragona International Environmental Law Colloquium, 26-27 May 2022.
- UNSPMF and IFVCNS submitted an abstract, related to the WP2 activities of Phy2Climate project and titled “Potential of Brassica Napus for Phytoextraction of Heavy Metals from Soil and Sediment”, to the 2nd European Sample Preparation e-Conference (EuSP2022) and the 1st Green and Sustainable Analytical Chemistry e-Conference, in February 2022. This abstract was accepted and presented as poster on Wednesday 16th March 2022.
- UNSPMF and IFVCNS submitted an abstract and presented the poster, related to the WP2 activities of Phy2Climate project and titled “Phytoremediation of sediment polluted with organic pollutants” to “The CORFU 2022 9th International Conference on Sustainable Solid Waste Management”, 15-18 June 2022, and for the national conference "Wastewater, Municipal Solid Waste and Hazardous Waste", 14-16 June 2022.
- The Biovala team, Lithuania, presented the project in webinar “A soil deal for Europe - mission possible in the Baltic Sea Region”. The event was held on June 29th and focused on the engagement of citizens and business for the EU Soil Mission.



- University of Hasselt presented the project and its activities at IUCN Academy of Environmental Law Colloquium 2022 - Queensland University of Technology, Brisbane, 13 July 2022 (online).

The consortium has planned the participation to the following events:

- Silesian University of Technology will present the project and its activities at the 7th International Conference on Problems of Thermal Engineering CPOTE2022, which is going to be a hybrid event held in Warsaw, Poland, 20-23 September 2022.
- UNSPMF and IFVCNS submitted abstracts, related to the WP2 activities of Phy2Climate project to:
- The Remtech Expo 2022, 21-23 September 2022, Italy: A scientific abstract is about phytoremediation of bioavailability of heavy metals from contaminated sediment and soil in the pot test conducted within the WP2 activities;
- 4th International Conference on Plant Biology (23rd SPPS Meeting), 6-8 October 2022, Belgrade, Serbia: A scientific abstract is about biomass production and translocation of selected metals pollutants from contaminated sediment in above ground plant parts, results obtained in the pot test conducted within the WP2 activities;
- COST conference Metals, Plants and People - CA19116 PLANTMETALS symposium 2023 which will be organized in Ankara, Turkey, 30 August - 2 September 2022: A scientific abstract is about translocation of selected metals pollutants from contaminated sediment in above ground plant parts, results obtained at the pilot site conducted within the WP2 activities.
- Leitat and Litoclean submitted abstracts on WP2 activities:
 - for a presentation at the conference Remtech Expo 2022, regarding the investigation activities carried out at the Spanish pilot site;
 - at a meeting about contaminated soils that will be held at the Barcelona Port (World Trade Center), on September 28th.
- INTA plans to present some abstracts at an international scientific meeting, that should be the next SETAC Latin America Biennial Meeting, which will hold in Montevideo, Uruguay, September 2023.



- University of Hasselt will present the project and its activities at 2022 IUCN World Commission on Environmental Law, Oslo International Environmental Law Conference, 3-6 October 2022.

The project activities will also be presented during next EUBCE, June 2023.

Current events planned by project partners to present Phy2Climate project activities are summarised for the period September 2022 – September 2023 and listed in the following table:

Table 4: List of current scheduled events to present Phy2Climate project.

Event	Date	City/Country
European Sustainable Energy Week	26-30 September 2022	Brussels, Belgium
31 st European Biomass Conference & Exhibition (EUBCE 2023)	5-8 June 2023	Bologna, Italy
7 th International Conference on Problems of Thermal Engineering CPOTE2022	20-23 September 2022	Warsaw, Poland
Remtech Expo 2022	21-23 September 2022	Italy
4 th International Conference on Plant Biology (23 rd SPPS Meeting)	6-8 October 2022	Belgrade, Serbia
COST conference Metals, Plants and People - CA19116 PLANTMETALS symposium 2023	30 August - 2 September 2022	Ankara, Turkey
Meeting about contaminated soils	28 September 2022	Barcelona Port, Spain
SETAC Latin America Biennial Meeting	September 2023	Montevideo, Uruguay
2022 IUCN World Commission on Environmental Law	3-6 October 2022	Oslo, Norway



5.6 Articles and publications

A list of **dissemination articles and scientific publications** on Phy2Climate integrated process will be prepared by all project partners, especially by RTD partners, targeting academics in universities and research centres.

Scientific publications will be essential to reach different audiences of peer academics and market experts at EU/international level, while dissemination articles will be published on magazines reaching a wider audience. At least 12 papers/scientific publications, by the end of the project, will be prepared and get published by RTD partners on journals in Open Access modality, on the basis of specific results the consortium agrees to disseminate to a wide audience.

A paper from INTA team will be finalised by September 2022 as a scientific publication about phytoextraction of metals and metalloids from a contaminated soil with mining waste. The bioaccumulation of metals and metalloids in native plants growing on the site and their bioavailability in soil were evaluated. The study area was located in La Planta town, Department of Caucete, San Juan Province, Argentina. Part of this information was presented during the SETAC Latin America meeting held in September 2021. This paper will be published in Chemosphere (<https://www.journals.elsevier.com/chemosphere>).

At least other two papers are planned on WP2 until first months of 2024. Two papers are planned on WP4, one on LCA and one on Social Acceptance studies, until the end of 2023 and one paper is planned on WP6 until first months of 2023.

Based on the specific results achieved dissemination articles (one per year) will be drawn up and published with the consent of the consortium in order to reach a wider audience of end users and beneficiaries. Two out of the four articles will focus on main project findings, one target the agriculture and environmental aspects and another one focus on biofuels production and market/industrial sector, such as: the EC Horizon-magazine.eu, BE-Sustainable (edited by ETA since 2012), Renewable Matter, Renewable Energy Focus, Revolve as well as specialized/market-oriented magazines.

An article on Phy2Climate was hosted within BE-Sustainable Magazine online portal, issue of April 2021 (www.besustainablemagazine.com).

The consortium will also prepare a **final publication** in form of a paperback (ISBN) summarizing the most relevant project activities and results, in a fact-based and public-oriented way. The goal is to have a book to underline beneficial impacts promoted by Phy2Climate also beyond the project end.



The publication will be edited by **ETA with the contribution of all partners** and made available as digital format, accessible and downloadable from the project website.

6 CONCLUSIONS

Updates of the Preliminary Communication and Dissemination Plan (at least in occasion of each Periodic Reporting) were and will be prepared for including new key messages, new stakeholders reached as well as a way for measuring the impact performance and acting for improving it (whatever needed). A final deliverable will report on all the communication and dissemination tasks implemented during the project.

This report is strictly related and linked to three other deliverables:

- D7.1: Preliminary Communication & Dissemination Plan & periodic updates No.1 (First plan for communication, outreach and dissemination of the project results to different networks, stakeholders from public and private organisations and the scientific community);
- D7.4: Project Visual Identity and templates (Creation of a project logo and its incorporation into a standardized set of templates for project reporting and public dissemination);
- D7.5: Website and social media feeds online (Design and set-up of the project website and social media channels – establishment of project presence at digital level).

7 ACKNOWLEDGEMENTS

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