



# D7.1 Communication and dissemination plan

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WIP Renewable Energies

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## Document sheet

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This document has been prepared by PYRAGRAF project partners as an account of work carried out within the framework of the EC-GA contract No 101114608.

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# Table of Contents

Executive Summary.....	6
PYRAGRAF Visual Identity.....	7
PYRAGRAF Communication Activities.....	8
PYRAGRAF Website .....	9
PYRAGRAF Social Networks.....	12
LinkedIn.....	13
X (Twitter).....	14
PYRAGRAF Communication Materials.....	16
PYRAGRAF Dissemination Activities .....	18
PYRAGRAF Dissemination Material.....	19
Project Flyer.....	19
Project Poster.....	20
PYRAGRAF’s Target Stakeholders.....	20
Planning of Communication and Dissemination Activities.....	23
PYRAGRAF Project Results Until M6 .....	24
Monitoring and Evaluation Framework.....	26

## List of Figures

Figure 1: PYRAGRAF logos in different styles .....	7
Figure 2: Homepage of the PYRAGRAF Website .....	10
Figure 3: PYRAGRAF pilot regions displayed on the home page .....	11
Figure 4: PYRAGRAF website disclaimer and bottom of the website .....	12
Figure 5: PYRAGRAF website visits and visitors' countries .....	12
Figure 6: PYRAGRAF EU disclaimer .....	15
Figure 7: PYRAGRAF first press release .....	17
Figure 8: PYRAGRAF flyer .....	19
Figure 9: PYRAGRAF poster for the WIRE cost action event .....	20
Figure 10: The dissemination & Communication monitoring sheet.....	23
Figure 11: An excerpt from "Biomass and biochar database: technical potential" .....	24
Figure 12: Full solar assisted integrated pyrolysis flowchart .....	25
Figure 13: Partial solar assisted integrated pyrolysis flowchart.....	25

## List of Tables

Table 1: PYRAGRAF key messages to be shared with the target groups, stakeholders.....	8
Table 2: PYRAGRAF project's and partners LinkedIn accounts and follower numbers from the 21.12.2023 .....	13
Table 3: Partners and their X account information from 21.12.2023 .....	16
Table 4: The target stakeholders will be benefitting from the PYRAGRAF outcomes in these different areas.....	21
Table 5: PYRAGRAF sister projects and their information.....	22
Table 6: PYRAGRAF monitoring and evaluation framework.....	26
Table 7: The events attended from 2023 to present by PYRAGRAF.....	27
Table 8: Conference mapping for PYRAGRAF attendance .....	28

## Executive Summary

This report provides a comprehensive communication and dissemination plan, which includes all PYRAGRAF communication and dissemination actions, along with their targets, target audiences, and key messages to be transmitted. The initial plan will be made available to consortium members in M6, and it will be continuously updated and elaborated every 6 months. The dissemination and communication plan will be released in the months M12, M24, M36, M42, M48, with a comprehensive review and update taking place at mid-term (M24) and at the end of the project (M42).

The target audience and key messages given in the proposal will be updated and expanded when necessary. The project results will be showcased with a potential dissemination and communication strategy to make them more visible to the target audience.

The plan contains the following elements, which can be closely followed in the chapters below:

- i) PYRAGRAF visual identity,
- ii) PYRAGRAF communication activities,
- iii) PYRAGRAF dissemination activities,
- iv) PYRAGRAF results,
- v) PYRAGRAF monitoring and evaluation framework

## PYRAGRAF Visual Identity

PYRAGRAF Project Branding is explicitly displayed in the D7.2, however the main elements and important points will be highlighted in this chapter.

PYRAGRAF fonts, Bahnschrift: In reporting, it is recommended that at least font size 11 be used.

PYRAGRAF Colour Codes are as follows:

As of the project color codes, green and orange is selected to reflect the essence of PYRAGRAF project.

Exact color codes are:

green

cmyk 75, 0, 85, 0

rgb 53, 171, 82



orange

cmyk 0, 40, 9, 0

rgb 247, 17, 10



PYRAGRAF Logo: A logo combining a leaf with forest bark inside, along with the "PYRAGRAF" writing below, can effectively reflect the project's goals and methods.

Figure 1: PYRAGRAF logos in different styles





PYRAGRAF Templates: PowerPoint (PPT) presentation template and a Word document template has been developed for a consistent presentation of the project outcomes.

Both templates include dedicated tables, schematics, and bullet point designs. EU disclaimer with the project Grant Agreement number and EU flag is involved in the documents.

The templates can be found in [D7.2 Project Branding](#).

## PYRAGRAF Communication Activities

To reach the targeted stakeholders, the public, and maximize the impact of the PYRAGRAF project, the consortium has implemented a communication strategy consisting of a variety of communication activities. To achieve an efficient and robust strategy, these communication activities are specifically aimed at particular target groups.

The project's communication strategy is designed to build a solid structure for PYRAGRAF messages, content, resources, and actions related to the project's general activities. To ensure a consistent and clear message from the beginning of the project, the following questions are answered to provide a better understanding of PYRAGRAF: *“What is the PYRAGRAF concept?”* , *“What challenges does it face?”* , *“What are the main project activities?”* , *“What benefits for climate, economy, technology, and society can be induced by PYRAGRAF?”*

Table 1. PYRAGRAF key messages to be shared with the target groups, stakeholders.

<p>What is the PYRAGRAF concept?</p>	<p>The PYRAGRAF project aims to develop and demonstrate an innovative demonstration concept using local agriculture and forestry waste biomass in a mobile integrated solar-assisted pyrolysis unit to produce energy, fuels, and</p>
--------------------------------------	---



	other added-value products, accelerating the sustainability, decarbonization and circularity of the agricultural and forestry sectors.
What challenges does PYRAGRAF face?	<p>Challenges faced by the PYRAGRAF concept may be of a technological, economic, and social nature. Technical challenges are related to the integration of different processes into a single decentralized and mobile unit, aimed to convert biomass wastes into added-value products through thermochemical methods. Some of these processes are innovative and present a low-mature development, in particular the coupling between screw conveyor dryer, continuous pyrolysis reactor, and catalytic conversion of pyrolysis vapors. Moreover, the integration of renewable heat sources (solar dish concentrator and gasifier burner) and the admission of a broad range of biomass wastes increase the technological complexity and operational risks for the solution, which require the aggregation of different knowledge and expertise from the partners involved. Economic challenges may be concerned with the high production costs of biochar and wood vinegar obtained from advanced pyrolysis-based technologies such as the one proposed in PYRAGRAF, making costs less competitive in comparison to traditional pyrolysis. However, the high quality and homogeneity of final products may change this trend in favor of the attractiveness of PYRAGRAF in the near future.</p> <p>Finally, social challenges may cover the initial hard acceptance of the technology by the interested parties (e.g., farmers and foresters, public associations, and technology sellers), which PYRAGRAF is intended to solve via impact assessment studies and dissemination activities about project benefits.</p>
What are PYRAGRAF's main activities?	<p>PYRAGRAF proposes the integration of a solar-assisted gasifier burner with a continuous pyrolysis unit and catalytic conversion of pyrolysis vapors to process waste feedstocks into value-added products. The solar-assisted gasifier burner produces large amounts of biomass-based high temperature process heat. Using, reusing, evacuating, and recovering the heat produced allows thermal integration between the modules, increasing overall efficiency. The integrated pyrolysis unit enables a considerable heterogeneity of residual feedstocks to produce high-quality homogeneous products, advancing the SoA for biomass slow pyrolysis units using an auger reactor configuration.</p>
What are the main technological, environmental, and societal benefits of PYRAGRAF?	<p>The main benefits of PYRAGRAF are to provide innovative, competitive, clean carbon neutral, and negative carbon pyrolysis-based technologies and products using local renewable resources (agriculture and forestry residues) that contribute to minimizing GHG emissions and increase sustainability in a circularity approach, accelerating the energy transition of the EU, promoting advanced sustainability practices in the agriculture and forestry sector and mitigating climate change.</p>

The designated communication channels for effectively disseminating information about the PYRAGRAF project include the PYRAGRAF webpage and PYRAGRAF social media platforms. Through these channels, the project will be communicated with its progress updates, results, deliverables, events, and other communication materials.

## PYRAGRAF Website

The PYRAGRAF project website has been developed to disseminate relevant information and outcomes by a professional web developer using a systematic process. It was launched to

the public on 10 November 2023. Clear instructions, along with the project requirements, were provided, and the most suitable Content Management System was chosen for smooth website monitoring. The website design is based on the project's selected colour codes and logo creation concept. The images used on the website consist of free-stock photos. The website can be accessed under <https://pyragraf.eu/en/home/>.

Accessible to all interested stakeholders, the website includes key information about the project and its targets. All deliverables scoped for the public will be made available on the project website. The website will be continuously updated.

The structure of the PYRAGRAF website was elaborated by WIP Renewable Energies in close cooperation with the coordinator IPP and all project partners and includes a horizontal menu.

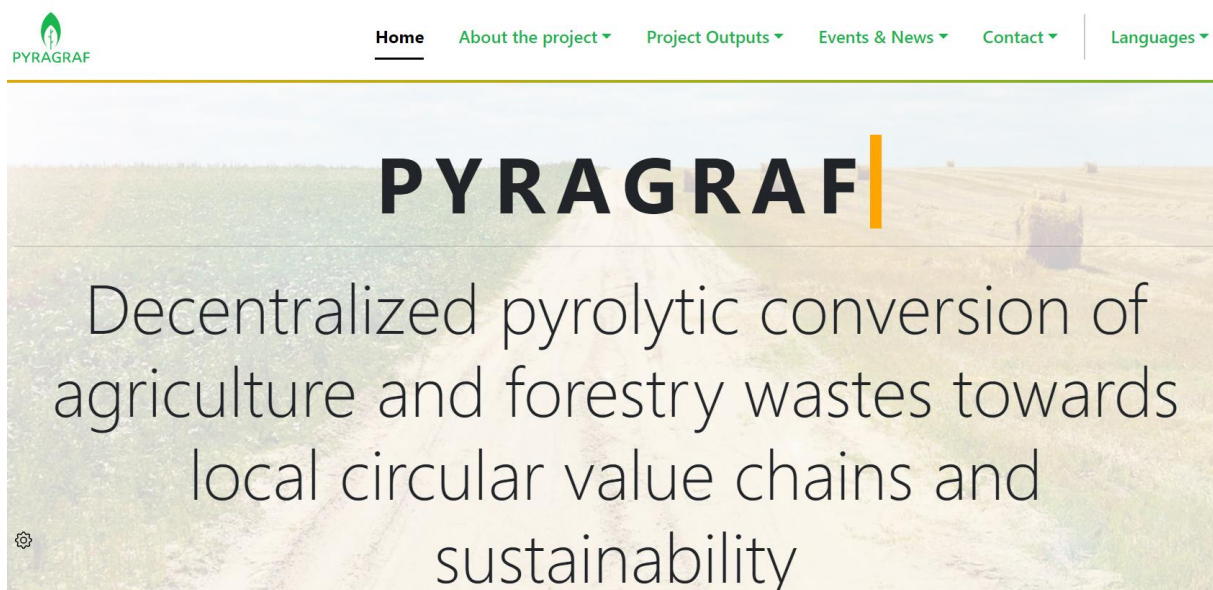


Figure 2. Homepage of the PYRAGRAF Website.

The horizontal menu contains the following sections and subsections:

- Home
- About the project
  - About
  - Meet the partners
  - Pilot regions
    - Information
    - Portugal
    - Germany
    - Turkey
- Project Outputs
  - Public deliverables

- Communication Library
- Scientific Publications
- Events & News
  - Project Spotlights
  - Events
  - Newsletter Subscription
- Contacts
  - Contact
  - Disclaimer  
Privacy Policy/ GDPR

In addition, the languages option is placed in the horizontal menu. The project website is available in different partner languages, in order to facilitate the outreach to target stakeholders and prevent the language barriers.

The website is available in the following partner languages:

- English GB
- Swedish SE
- Italian IT
- Polish PL
- Portuguese PT
- Turkish TR
- German DE

PYRAGRAF Pilots/Case Studies were introduced at the bottom of the home page, in addition to serving as a subtitle for the “About the Project” section, to enhance visibility.

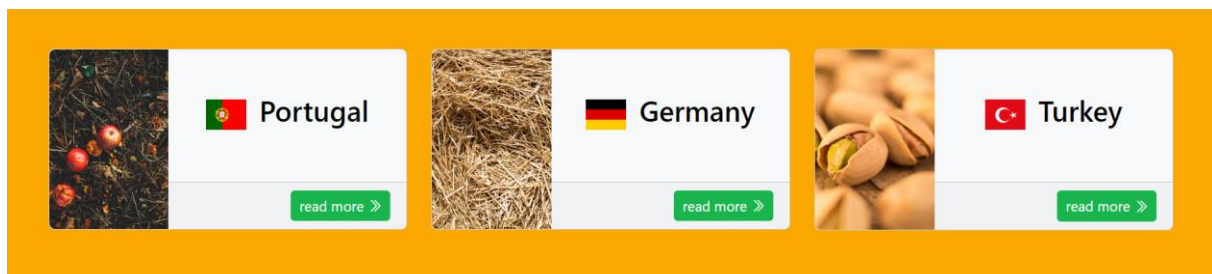


Figure 3. PYRAGRAF pilot regions displayed on the home page.

In addition to the horizontal menu, website elements are summarized at the end of the home page to provide visitors with a clear overview of the tabs and their content. The option to subscribe to the newsletter is also available in this section. Additionally, EU Disclaimer, flag,

and funding information are featured in this part.



#### About the project

- About
- Meet the partners
- Pilot Regions

#### Project Outputs

- Public Deliverables
- Communication Library
- Scientific Publications

#### Events & News

- Project Spotlights
- Events
- Newsletter Subscription

#### Contact

- Contact
- Disclaimer
- Privacy Policy / GDPR
- subscribe
- unsubscribe

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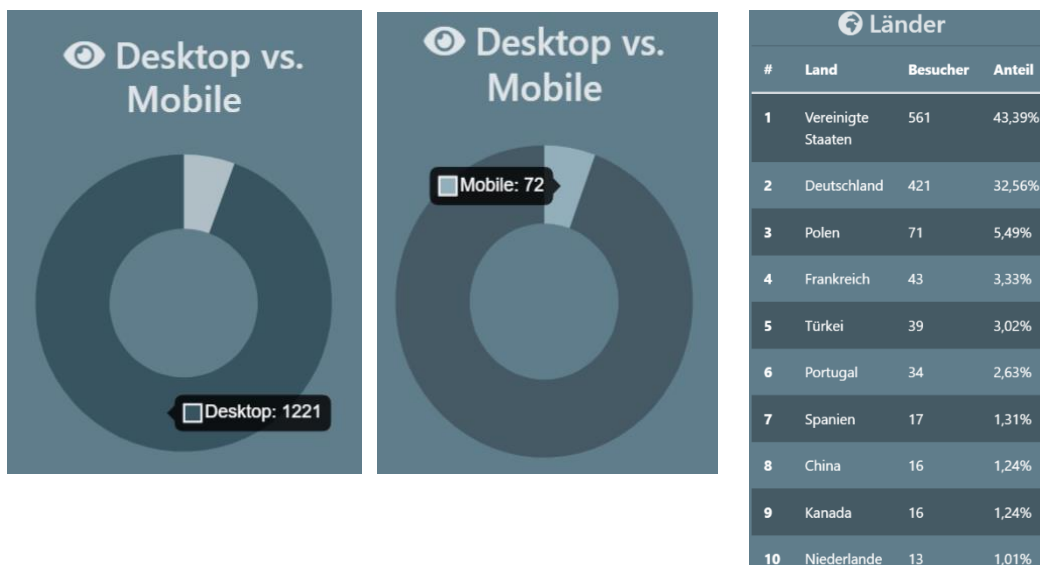


Figure 4. PYRAGRAF website disclaimer and bottom of the website

### Website Analytics

The PYRAGRAF website has been visited 1293 times since it was made open to the public, and most of the visits were through a desktop. As seen from the figure below (Figure 5), the website visitors were predominantly from the USA, followed by Germany, Poland, France, Turkey, Portugal, and Spain.

Figure 5: PYRAGRAF website visits and visitors' countries



### PYRAGRAF Social Networks

The PYRAGRAF project is promoted through 2 main social media channels: X (Twitter), LinkedIn. Project partners accounts on X and LinkedIn are collected in order to facilitate the procedure of connecting and following each other. See the respective tables with the partner information in below chapters.

## LinkedIn

A LinkedIn page for the project was created on LinkedIn “PYRAGRAF EU PROJECT”. The aim of the page is to serve as a communication, dissemination and discussion platform, in which news and results of the PYRAGRAF project will be disseminated and discussed in addition to news from different projects, academics and professionals. The ambition is to make use of synergies with other projects and contributions to grow the page, provide high quality source information on LinkedIn. This allows to put PYRAGRAF in the spotlight for the duration of the project, and to keep in touch and report on potential future developments also after the project ends.

The group was created by WIP, and all the consortium partners were invited to follow the page and to invite people in their network. In addition, a link to the page is shared on the project website to make possible for stakeholders who are not in the consortium’s network to follow the page.

Furthermore, the project partners were encouraged to share and post news about the project from their organisations and personal accounts in order to widen the outreach to the extent possible. It is advised that partners always tag PYRAGRAF LinkedIn as well as WIP in the posts they create so that they can be reshared. Additionally, it is recommended to tag as many partners as possible in individual posts. The partners are also encouraged to reshare the posts that are already shared on the PYRAGRAF page on their organizational and personal accounts. The group is open to the public and anyone can join.

Table 2. PYRAGRAF project’s and partners LinkedIn accounts and follower numbers from the 21.12.2023

Partner	LinkedIn Handle	Followers
PYRAGRAF EU Project	<a href="#">(2) PYRAGRAF EU Project: Company Page Admin   LinkedIn</a>	178
KTH Royal Institute of Technology	<a href="#">(2) KTH Royal Institute of Technology: Overview   LinkedIn</a>	195K
Karlsruhe Institute of Technology- KIT	<a href="#">(2) Karlsruhe Institute of Technology (KIT): Overview   LinkedIn</a>	134K
TUBITAK MAM	<a href="#">(2) TUBITAK MARMARA ARASTIRMA MERKEZI: Overview   LinkedIn</a>	64K
Politécnico de Portalegre	<a href="#">(2) Instituto Politécnico de Portalegre: Overview   LinkedIn</a>	6K
Łukasiewicz – Poznański Instytut Technologiczny	<a href="#">(2) Łukasiewicz – Poznański Instytut Technologiczny: Overview   LinkedIn</a>	9K
LNEG - Laboratório Nacional de Energia e Geologia	<a href="#">(2) LNEG: Overview   LinkedIn</a>	5K
Ankara University	<a href="#">(2) Ankara University: Overview   LinkedIn</a>	147K

University of Hohenheim	<a href="#">(2) University of Hohenheim: Overview   LinkedIn</a>	35K
Universidade de Évora	<a href="#">(2) University of Évora: Overview   LinkedIn</a>	30K
BIOREF- Collaborative Laboratory	<a href="#">(2) BIOREF - Collaborative Laboratory (CoLAB): Overview   LinkedIn</a>	8K
WIP Renewable Energies	<a href="#">(2) WIP Renewable Energies: Company Page Admin   LinkedIn</a>	2K
IDEA	-	-
MICE	<a href="#">(2) MICE - Molds and Injected Components Engineering: Overview   LinkedIn</a>	2K

## X (Twitter)

For the efficient use of X, a guideline on how to use X efficiently for dissemination is prepared, the suitable suggestions could be also adapted, used on the LinkedIn platform for a more efficient use. Please find the guideline below:

### Accounts

Based on experience, it was noticed that more dissemination effect will result if the consortium partners tweet about the project from their organisation accounts and /or personal accounts and hashtag the project. This method allows a wider dissemination network as it make use of already existing networks or followers. Therefore, a tag for the project will not be made and used.

### Hashtag

The hashtag of the project is #PYRAGRAF. It should be always included in the Tweets about the project when partners are tweeting from their accounts. This way #PYRAGRAF will be the central access point to all communication on twitter for people interested in the project and will also allow to have a global overview of all tweets related to the project. Whenever possible other hashtags (#...) should be included in the tweets like #biomass, #pyrolysis, #renewables, #energy and others depending on the specific message of the tweet or audience that is intended to reach. Hashtags in national languages can be more efficient when tweeting about MUSIC in languages other than English.

You can check the popularity of a hashtag before using it by searching for it on twitter and looking at the 'live' tweet list, as in here. Writing a hashtag in lower or upper case does not make any difference #PYRAGRAF is the same as #pyragraf)

### Addressing accounts

Tweets can be addressed to other twitter accounts by including one or more twitter handles (such as @WIPRenewables, @IPPortalegre , etc.) in the text of a tweet. These tweets will be seen by anybody just as any other tweet but will automatically get the attention of whoever you are addressing. This can be an effective way of engaging people and organisations who



are not part of the consortium and could be interested in or help re-lay tweets about the project. Unfortunately, addressing other accounts in the text of a tweet reduces the amount of text available for the actual tweet content. A good workaround is to attach an image to the tweet, which does not take away any character from the tweet content. You can then very easily 'tag' the Twitter accounts you want to address in the image, up to 10 different accounts. Once the tweet is posted, these Twitter accounts will be notified as if you had included them in the text of the tweet, so this method has no drawback. Since there was no account created for the project, whenever you tweet, please tag mainly WIP and the other partners if possible so that so we can retweet your tweet and expand the outreach.

### Acknowledgement of EU funding

As stated in PYRAGRAF Grant Agreement:

“Unless the Agency requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.) and any infrastructure, equipment and major results funded by the grant must:

- (a) display the EU emblem and
- (b) include the following text:

For communication activities: *“This project has received funding from the European Union’s Horizon Europe research and innovation programme under grant agreement No 101114608.”*

Also, it is recommended to include the following text for as long as possible, especially during events and meetings with external stakeholders. *“The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.”*

When displayed together with another logo, the EU emblem must have appropriate prominence “.

As the above-mentioned obligatory acknowledgement would barely fit in a tweet, partners are instead recommended to insert the European flag and message in an image attached to the tweet. The image below is provided to partners and can easily be used to this effect:

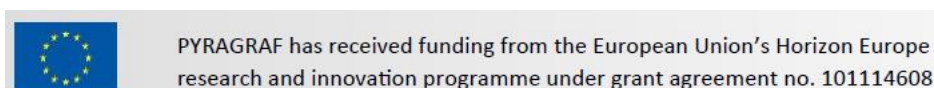


Figure 6: PYRAGRAF EU disclaimer

### Follow and retweets

The outreach and impact would be greatly extended if partners retweet each other's tweets about the project. One first step would be for all partners in the consortium who are active on X (twitter) to follow each other, so that they are informed when there is a tweet from one about PYRAGRAF. Then it would be great to make it a habit to retweet those tweets, especially those of significant importance or good potential. Both, the project itself as well as the consortium members would benefit as this helps to extend the influence on twitter.

## Monitor impact

X offers free analytics for the twitter activity of all registered users. The impact of each tweet can be visualised by clicking on the small button with graph bars below the tweet, including how many people clicked on a link etc. Global analytics of the X activity with top tweets, evolution of impact in time etc. can also be accessed by clicking 'Analytics' in the X profile menu (or going to [this page](#) directly). This monitoring can help you analyse the performance of your various tweets and improve over time. WIP will take care of the global monitoring for project reporting, without requiring input from Partners.

Table 3: Partners and their X account information from 21.12.2023

Partner	X Handle	Followers
PYRAGRAF EU Project	@pyragraf_eu	29
KTH University	@KTHUniversity	11.3K
KIT Karlsruhe	@KITKarlsruhe	36.1K
TUBITAK MAM	@TUBITAK_MAM	14.2K
Politécnico de Portalegre	@IPPortalegre	163
Łukasiewicz – Poznański Instytut Technologiczny	@lukasiewiczpit	451
LNEG - Laboratório Nacional de Energia e Geologia	@LNEG_PT	349
Ankara University	@AnkaraUni_en	3,007
Uni Hohenheim	@UniHohenheim	4,608
Universidade de Évora	@divcomuevora	69
WIP Renewable Energies	@WIPRenewables	958

## PYRAGRAF Communication Materials

PYRAGRAF communication materials include the press release, project video, and the organization of additional meetings.

### Press Release:

Until now, only one press release has been published to announce the official start of the project and connect with the interested audience. This initial press release highlights the



project background, introduces partners, and provides PYRAGRAF's social media links, along with contact details for the project coordinator.

The first press release is shown below and was shared on the PYRAGRAF X and LinkedIn pages:



Figure 7. PYRAGRAF first press release

### Videos:

Production of an introductory video for project communication is planned for M15 of the project. The video aims to communicate the project's concept and objectives, main outcomes, and expected benefits for society in a dynamic and easy-to-understand way.

Additionally, a more scientific-technical/guidance video will be produced to communicate and disseminate the scientific-technical outcomes of the project in the final year of PYRAGRAF.

### Organization of Additional Meetings:

At least one additional meeting per year is planned with associated partners, advisory board members, standardization bodies, possible qualified intermediaries or end-users, and EU stakeholders. The aim is to receive feedback on innovation, development, commercialization, and policy strategies. This event is expected to take place in the second half of the year.

## PYRAGRAF Dissemination Activities

PYRAGRAF's dissemination strategy aims to raise interest among target audiences, including final end-users and adopters. All partners are aware of and committed to ensuring the effective dissemination of the project's outcomes throughout the course of the PYRAGRAF project and beyond. It is crucial to ensure the successful dissemination of the project for achieving a sustainable and impactful outcome.

The main findings and progress achieved will be consistently reported through deliverables and reports by the project consortium. These outcomes will be steadily disseminated using different channels to enhance the dissemination and impact by describing the project underlying theory and concept, progresses, and meaningful results through the project website, social media platforms, and informative flyers. The results will also be reported in the respective chapter of the Communication and Dissemination plan and will be regularly updated.

The PYRAGRAF Dissemination actions include:

### E-newsletters:

A PYRAGRAF newsletter will be published every 6 months, delivering the latest project updates, progress, deliverables, and events. Developments within the project and information will be compiled regularly to be published in the newsletter, which will also be shared on the PYRAGRAF website and social media channels. The first newsletter will be made available to public by M6.

### Peer-reviewed publications:

Dissemination actions include scientific publications in peer-reviewed journals, offering the open-access option. Partners will implement their participation and scientific publications individually and jointly, in line with the project progress, aiming for a minimum of 8 peer-reviewed journal publications.

### Participation in conferences:

Consortium members are committed to participating in national/international events and conferences through oral and poster presentations, which will be included in their publishable proceedings (e.g., European Biomass Conference and Exhibition, and International Conference on Bioenergy and Clean Energy).

The progress is reflected in the Monitoring and Evaluation framework.

### Participation in fairs or exhibitions:

In addition to conferences, the project results will be presented at industrial tradeshows and fairs focusing on mobile pyrolysis, solar energy coupled with thermochemical conversion, biochar, and wood vinegar applications. The aim is to have at least one presentation per year for the duration of the project.

### Innovation days:

PYRAGRAF's technology will be presented in situ with detailed overviews of the working process. For each product demonstrator country, there will be three Innovation days (PT, DE, TR).

**Demonstration campaigns:**

PYRAGRAF's concept will be demonstrated in situ under working conditions, including demonstrations of product applications at a demonstration scale. Three demonstration campaigns for farmers and foresters will be conducted on the demonstration sites (PT, DE, TR).

**Final conference and technical workshop:**

The final dissemination event is PYRAGRAF's final conference and scientific-technical workshop. The final event will inform and capture the interest of public and private stakeholders about the technical and scientific outcomes of the project.

**PYRAGRAF Dissemination Material**

**Project Flyer**

The project flyer was developed during the starting phase of the project. Its purpose is to inform and engage the target audience, emphasizing the project's core components and its potential impact on local circular economies. The flyer also includes the partners' logos. Two QR codes are provided, directing readers to the project's social media accounts. The project flyer will be used to disseminate the PYRAGRAF project and its results at various national/international events. It has already been presented at the Horizon Europe cluster event on biofuels and biomethane. An online version is also available on the project website. The flyer will be updated with new significant results during the course of the project.

Project flyer is displayed below:



Figure 8. PYRAGRAF flyer

## Project Poster

The project flyer has been designed in a way that it can be easily adapted to turn into a poster. The poster will be updated and customized for each conference, taking into account its characteristics, needs, and topics.

An example of the poster that was presented at the WIRE event is given below:



### An example of a successful neural network: WIRE COST Action & project PYRAGRAF

Bruna Rijo<sup>1</sup>, Catarina Nobre<sup>2</sup>

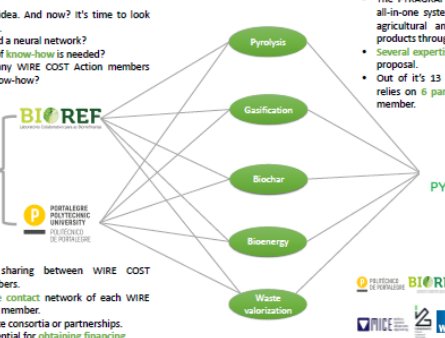
<sup>1</sup> CoLAB BIOREF—Collaborative Laboratory for Biorefineries, 4455-901, São Mamede de Infesta, Portugal, bruna-rijo@bioref-colab.pt  
<sup>2</sup> VALORIZA - Research Centre for Endogenous Resource Valorization, Polytechnic Institute of Portalegre, 7300-555 Portalegre, Portugal, catarina.nobre@ipportalegre.pt

---

#### WIRE COST Action as Neural Network

- There's an idea. And now? It's time to look for partners.
- How to build a neural network?
- What kind of know-how is needed?
- Are there any WIRE COST Action members with this know-how?

**Network inputs**

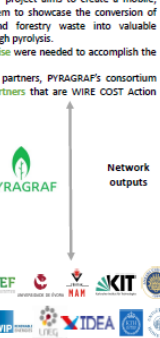


**Fields of expertise / Know-how**

- Know-how sharing between WIRE COST Action members.
- Increase the contact network of each WIRE COST Action member.
- Easy to create consortia or partnerships.
- Greater potential for obtaining financing.

- An example of a successful neural network: PYRAGRAF project.
- The PYRAGRAF project aims to create a mobile, all-in-one system to showcase the conversion of agricultural and forestry waste into valuable products through pyrolysis.
- Several expertise were needed to accomplish the proposal.
- Out of its 13 partners, PYRAGRAF's consortium relies on 6 partners that are WIRE COST Action member.

**Network outputs**



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#### Objectives and outlook

- Develop a network based on the know-how of WIRE COST Action members. → **WG2 and WG4**
- This network will allow the creation of consortia or partnerships in projects quickly, eliminating the initial barriers to their construction or the time-consuming brokerage and networking events. → **Online & real-time collaborative platform**
- This network creation will improve the development and implementation of waste biorefinery technologies. → **For all "400 WIRE members"**
- The development of neural networks will propose innovative solutions to accelerate the implementation of sustainable energy processes.
- These neural networks will reduce the gap between the initial idea and its realization. → **e.g., Reducing proposal preparation time**

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#### Potential collaborations and outcomes

- Researchers, research groups, companies, industries and stakeholders have easier access to a database that provides relevant information on successfully created neural networks.
- Companies, industries and stakeholders looking for a particular area of expertise to solve industrial problems or implement relevant technologies using information from an existing neural network.

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Figure 9. PYRAGRAF poster for the WIRE cost action event

## PYRAGRAF's Target Stakeholders

The identification and classification of PYRAGRAF's target stakeholders are important for understanding their significance and determining the most efficient approach to reach them. To engage better with these stakeholders, the table below was created, which includes dissemination and communication methods, as well as outreach activities to better connect with each group. These outreach activities are based on assumptions; however, it is expected that all activities will reach different stakeholder categories in addition to the ones mentioned.

Table 4. The target stakeholders will be benefitting from the PYRAGRAF outcomes in these different areas

Target Group	Significance	Dissemination and communication method and outreach activities
Farmers & Foresters (F&F)	Individual and collective farmers and foresters are the leading target group and primary beneficiaries of PYRAGRAF dissemination and outreach efforts. New added-value chains, partnerships, and farmer and forester entrepreneurship will positively affect agri-food systems' resilience.	Sector participation in conferences, participation in fairs or exhibitions, demonstration campaigns, final conference and technical workshop
Renewable fuel/products suppliers and ecosystem services companies	Renewable fuel/products and ecosystem services companies serve as an integrative framework for linkages between new value chain partnerships. Such companies are expected to take up project results, assist in exploitation and entrepreneurial activities and thus support the resilience of local ecosystems.	Peer-reviewed publications, participation in fairs or exhibitions, innovation days, demonstration campaigns, final conference and technical workshop
Biorefinery developers, promoters, and advocates	Individuals or groups that aim to generate new value chains, ensure job creation, and boost the bioeconomy through an integrated biorefinery approach will benefit from the successful demonstration of PYRAGRAF's advanced technologies with a lower carbon footprint and different types of renewable biomass as a raw material for new processes / new products - in a multiproduct and multipurpose approach, considered essential for accelerating the deployment of advanced biorefineries.	Peer-reviewed publications, participation in conferences, participation in fairs or exhibitions, innovation days, final conference and technical workshop
Universities and Research Organizations	RTD organizations will build on PYRAGRAF'S R&D&I efforts to gather and develop new ideas, innovative uses, opportunities, and future applications for PYRAGRAF technologies and products.	Peer-reviewed publications, participation in conferences, participation in fairs or exhibitions, Innovation days (TR,PT,DE), final conference and technical workshop
F&F local, regional, and national associations and co-ops	Increasing awareness of the availability of PYRAGRAF technologies will promote their deployment & incubation of early adopters around the demonstrator.	Participation in conferences, participation in fairs or exhibitions, innovation days, demonstration campaigns (TR,PT,DE), final conference and technical workshop
Local Governing Bodies	Local governing bodies will be engaged to support PYRAGRAF efforts locally.	Demonstration campaigns, final conference and technical workshop
Regional Governing Bodies	Regional governing bodies shall support regional deployment of PYRAGRAF.	Final conference and technical workshop

National Governing Bodies	National governing bodies addressed/engaged to support widespread deployment of PYRAGRAF through supporting policies, legislation, and strategies.	Final conference and technical workshop
Local, Regional, and national NGOs	Awareness-raising will seek to engage, inform, and educate non-governmental organizations about PYRAGRAF's positive impacts and benefits to influence their attitudes, behaviors, and beliefs toward supporting PYRAGRAF's efforts	Final conference and technical workshop
Transnational and European Stakeholders	The success of PYRAGRAF demonstrators and subsequent deployment will gather support and facilitate potential roll-out in line with the European Green Deal and climate and energy targets for 2030.	Final conference and technical workshop
General Public	The general public will be continuously engaged and informed about aims, activities and benefits and solutions offered by PYRAGRAF. This will increase understanding and stimulate behavioural changes towards a circular economy.	Newsletter, social media, final conference, and technical workshop

In addition to the target stakeholders summarized above, PYRAGRAF will also seek to create synergies and exchange knowledge with relevant organizations and EU projects.

Sister projects funded in the same call have been identified and will be contacted for future cooperation. These projects can benefit from each other and collaborate for greater outreach.

Call: [Sustainable, secure and competitive energy supply \(HORIZON-CL5-2022-D3-02\)](#)

Table 5. PYRAGRAF sister projects and their information

Title	Acronym	Project ID	Link/ Website
ECOLOOP	ECOLOOP	101118127	<a href="#">Funding &amp; tenders (europa.eu)</a>
Sustainable renewable energy VALUE chains for answering FARMers' needs	VALUE4FARM	101116076	<a href="#">Funding &amp; tenders (europa.eu)</a>
agriculTurE wAste PyrOlysis and Thermocomposting for renewable energy in Sustainable agri-food sector	TEAPOTS	101118296	<a href="#">Funding &amp; tenders (europa.eu)</a>



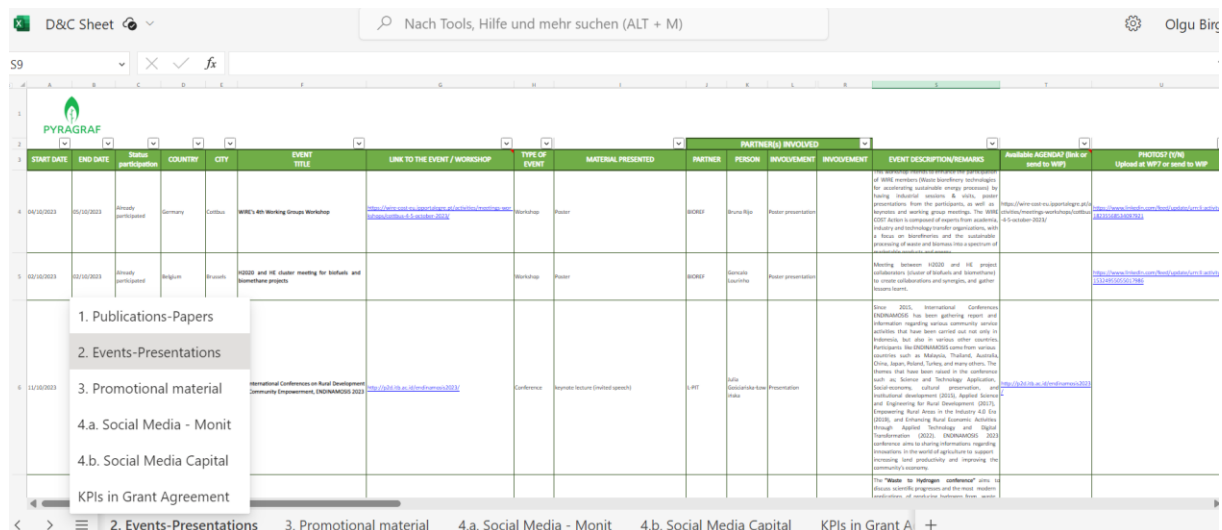
## Planning of Communication and Dissemination Activities

Communication and dissemination activities are crucial to maximize PYRAGRAF's impact. Therefore, the contribution of all partners is important to effectively communicate and roll out the project results. The measures to maximize PYRAGRAF's impact will be led by WIP as the WP7 leader, under the guidance of dedicated managers for Dissemination & Communication, Innovation, and Exploitation (to be nominated by WIP and IPP). WIP nominates Rainer Janssen as the Dissemination and Communication manager, considering his long-time experience and expertise in the field of dissemination and communication activities. Rainer will closely monitor communication and dissemination activities, ensuring that deadlines are met and KPIs are achieved. Rainer Janssen will receive close support from Olgu Birgi and Duygu Celik.

To achieve the aimed target and the key performance indicators related to the dissemination and communication efforts, it is important to decide and plan the implementation of these activities in advance.

Therefore, WIP created a joint spreadsheet to track and monitor the dissemination efforts of each partner. With regular reminders to fill in and update this sheet, WIP stays informed about the partners' dissemination efforts, the conferences, and events they have attended. This information allows WIP to plan for the future based on the updates received from the partners.

Information on publications, promotional materials, social media monitoring, and partners' social media capitals is collected regularly with the help of the joint document.



START DATE	END DATE	Status participation	COUNTRY	CITY	EVENT TITLE	LINK TO THE EVENT / WORKSHOP	TYPE OF EVENT	MATERIAL PRESENTED	PARTNER	PERSON	INVOLVEMENT	EVENT DESCRIPTION/REMARKS	Available AGENCY (link or send to WIP)	PHOTOS (link or send to WIP)
04/10/2023	05/10/2023	Already participated	Germany	Cottbus	WIP's 4th Working Group Workshop	<a href="#">https://www.wip-partners.com/en/working-groups/working-group-4-10-2023</a>	Workshop	Poster	INDRAC	Olgu Birgi	Poster presentation	At the end of the workshop, the participants agreed to create a joint publication for showcasing sustainable energy practices by being industrial systems. At the joint presentation, the participants, as well as the WIP Action is composed of papers from academic industry and technology transfer organizations, with a focus on bioeconomy and the sustainable processing of waste and biomass into a spectrum of products.	<a href="#">https://www.wip-partners.com/en/working-groups/working-group-4-10-2023/</a>	<a href="#">https://www.wip-partners.com/en/working-groups/working-group-4-10-2023/</a>
05/10/2023	05/10/2023	Already participated	Belgium	Brussels	INDRAC and HE cluster meeting for biofuels and bioeconomy projects		Workshop	Poster	INDRAC	Stefanie Juchacz	Poster presentation	Meeting between INDRAC and HE project representatives (owner of industrial and bioeconomy) to create collaborations and synergies, and gather best practices.	<a href="#">https://www.wip-partners.com/en/working-groups/working-group-4-10-2023/</a>	<a href="#">https://www.wip-partners.com/en/working-groups/working-group-4-10-2023/</a>
11/10/2023					International Conferences on Rural Development Community Engagement, INDRAC2023	<a href="#">https://indrac2023.org/indrac2023/</a>	Conference	Speaker lecture (poster speech)	INDRAC	Julia Koczkodaj	Presentation	Since 2022, International Conferences on Rural Development (INDRAC2023) has been gathering reports and information regarding various community service activities that have been carried out not only in Indonesia, but also in various other countries. Participants from INDRAC2023 come from various countries such as Malaysia, Thailand, Australia, China, Japan, Poland, Turkey, and many others. The theme that has been raised in the conference was: Science and Technology Application, Socioeconomics, Cultural, Governance, and Institutional Development (S2E), Applied Science and Engineering for Rural Development (S2E), Engineering Rural Areas in the Industry 4.0 Era (S2E), and Empowering Rural Economy: Advancing through Applied Technology and Digital Transformation (S2E). INDRAC2023 conference aims to share information regarding innovations in the world of agriculture to support increasing food productivity and improving the agricultural economy. The "Rural to Hydrogen conference" aims to discuss scientific progress and the most modern innovations of agriculture business from experts.	<a href="#">https://indrac2023.org/indrac2023/</a>	<a href="#">https://indrac2023.org/indrac2023/</a>

Figure 10. The dissemination & Communication monitoring sheet.

While planning the dissemination activities, one important aspect to be considered is gender balance and equity. Gender balance and equity will be considered throughout the project at every step. In line with this goal, considerations regarding gender balance and equity will be included in all dissemination activities.

PYRAGRAF guarantees that all project results and knowledge contributions to society are accessible to all populations, regardless of sex and gender, to reach the most heterogeneous audience. This will be achieved by selecting non-restricted communication channels such as





moisture (%), HHV (kcal/kg), BET results, CEC (cmol/kg), pH, P, K, Ca, Mg, Na, and heavy metals (As, Cd, Cr, Co, Cu, Ni, Pb, Zn, Hg, Mo, etc.). References are also provided for every feedstock being examined.

The link to the database can be found [here](#).

### Result 2: Solar-assisted integrated pyrolysis flowchart

The main objective of this WP “Solar-assisted integrated pyrolysis demonstrator” is to develop, build, and operate a solar-assisted integrated pyrolysis unit that can be easily transported by road to a remote facility, farm, or end-user. The WP is led by MICE. MICE has created a solar-assisted integrated pyrolysis flowchart to facilitate the next steps within WP3. The flowchart also clearly shows the distribution of work and responsibilities among partners.

Figure 12. Full solar assisted integrated pyrolysis flowchart

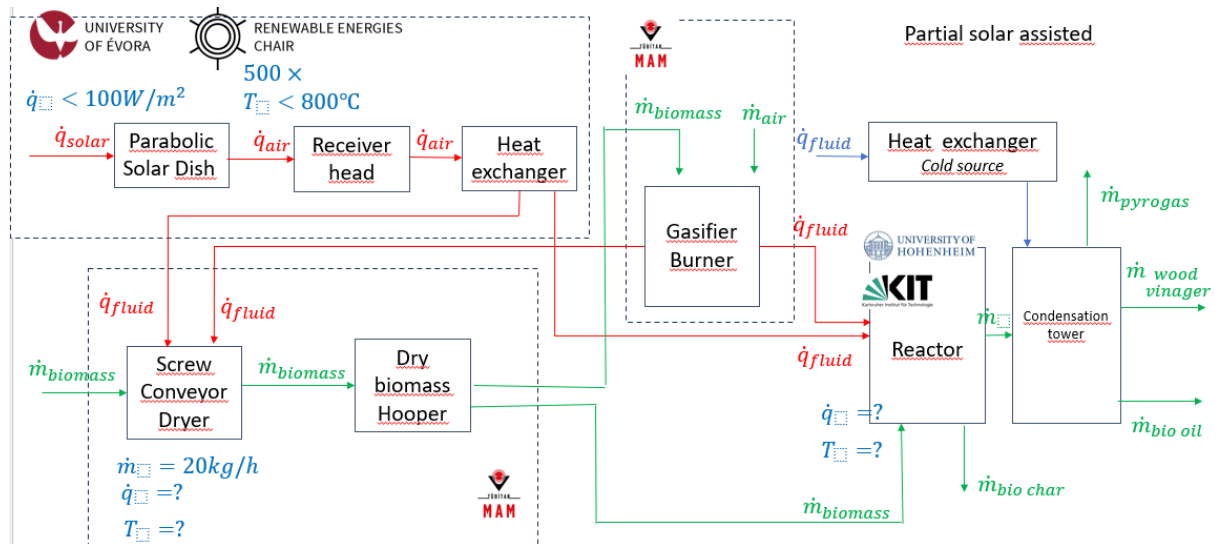
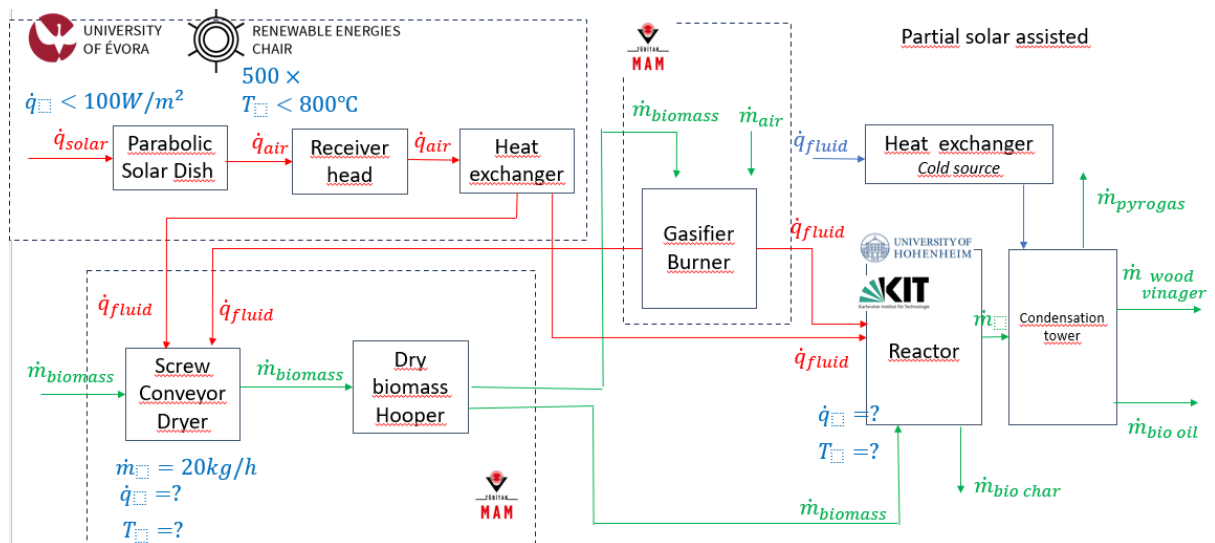


Figure 13. Partial solar assisted integrated pyrolysis flowchart



The PYRAGRAF results will be regularly communicated and disseminated through the PYRAGRAF website, social media, and newsletters. New project posters and flyers will be created with updated PYRAGRAF information to provide the latest results and keep the audience up to date.

## Monitoring and Evaluation Framework

A monitoring and evaluation framework has been created and will be continuously updated and monitored to ensure the successful communication and dissemination of PYRAGRAF throughout the project's lifetime. Every communication and dissemination activity has been added to the table and is accompanied by the Key Performance Indicators (KPIs) stated in the proposal and the status until the end of the project's specified month. In the monitoring framework, the status of different tools coloured in green means that the KPI has already been achieved by M6. "N/A" indicates that the deadline has not yet approached, and "-" stands for objectives that have not been achieved yet, but there is still time to do so.

Table 6. PYRAGRAF monitoring and evaluation framework

Communication Tool	Objectives/KPIs	Monitoring M6	Status for M6
Press release	1 at the beginning 2/y	1	Reached
Project webpage	8000 visits	1293	8000/8= 1000 visits per 6 months, objective reached
Social Media	600 followers	172 LinkedIn 29 X	600/8= 75 per 6 months, 201 followers, objective reached
Introductory video	1	In the second year of the project (M15)	N/A
Guidance video	1	In the final year of the project (M42)	N/A
Additional meetings	1/y	-	-
Dissemination Tool	Objectives/KPIs	Monitoring M6	Status for M6
E-newsletters	2/year	1	1 newsletter published in M6, objective reached
Peer-reviewed publications	8	Gradual increase along the project.	-
Participation in conferences	4/y	2 conference+2 workshops+1 forum	Objective reached
Participation in fairs/exhibitions	1/y	-	-
Innovation Days (TR, PT, DE)	3	In the last 2 years of the project	N/A

Demonstration campaigns (TR, PT, DE)	3	In the last year of the project	N/A
Final conference	1	At the end of the project (M48)	N/A

The events attended from 2023 to present by PYRAGRAF are summarized below, including information about the event, target group reached, and presenter.

Table 7: The events attended from 2023 to present by PYRAGRAF.

Event	Description	Target group approached	Presenter
WIRE's 4th Working Groups Workshop- Poster presentation	This workshop intends to enhance the participation of WIRE members (Waste biorefinery technologies for accelerating sustainable energy processes) by having industrial sessions & visits, poster presentations from the participants, as well as keynotes and working group meetings.	Academia, industry and technology transfer organizations, with a focus on biorefineries	Bruna Rijo (Female)
Workshop H2020 and HE cluster meeting for biofuels and biomethane projects- Poster presentation	Meeting between H2020 and HE project collaborators (cluster of biofuels and biomethane) to create collaborations and synergies, and gather lessons learnt.	Universities and Research organisations and transnational and EU stakeholders	Goncalo Lourinho (Male)
5th International Conferences on Rural Development and Community Empowerment, ENDINAMOSIS 2023- Oral presentation	Since 2015, International Conferences ENDINAMOSIS has been gathering report and information regarding various community service activities that have been carried out not only in Indonesia, but also in various other countries. ENDINAMOSIS 2023 conference aims to sharing informations regarding innovations in the world of agriculture to support increasing land productivity and improving the community's economy.	Universities and Research organisations, industry	Julia Gościańska-Łowińska (Female)
WASTE2H2 Final Conference- Poster presentation	The "Waste to Hydrogen conference" aims to discuss scientific progress and the most modern applications of producing hydrogen from waste biomass. Such a view is reflected in the cross-cutting topics and wide range of applications considered one of the pillars of future European energy and transport systems, making a valued	Scientific community /Academia, Policy makers /governments, Associations (industry), Utilities / Grid	Catarina Nobre (Female)

	contribution to the transformation to a low carbon economy by 2050.	operators (industry)	
ANI   Agência Nacional de Inovação / annual event- Roundtable discussion	This event took place on October 27 at the Pavilion of Knowledge in Lisbon. CoLAB BIOREF participated in a round table entitled "Crafting winning strategies for success", where the general experience of participating in European projects was addressed.	Scientific community /Academia	Goncalo Lourinho (Male)

To ensure the continuous dissemination of the PYRAGRAF project, the conferences to be attended are scanned and listed below along with their status:

Table 8: Conference mapping for PYRAGRAF attendance

Date	Conference name	Status
2024	Young energy researchers conference	Astract submitted for 2024
2024	EUBCE	Abstract submitted for 2024
2024	Wasteeng	On-rolling basis
2025	Wastes: Solutions, Treatments and Opportunities,	On-rolling basis
2024/2026	Bioenergy International Conference 2024/2026,	On-rolling basis
2024	International Conference on Renewable Resources and Biorefineries	On-rolling basis
2024	PVSEC	On-rolling basis



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