



D8.1 Dissemination & Communication Plan

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Content

Table of Contents

PROJECT INFORMATION	2
DELIVERABLE INFORMATION	2
DOCUMENT LOG.....	3
DISCLAIMER.....	3
Executive Summary	6
1. Introduction	7
Background and Context	7
Communication & Dissemination Strategy	7
Communication & Dissemination Plan	8
2. General Strategy.....	8
Communication & Dissemination Objectives	9
Social Media Goals	9
Stakeholder Mapping.....	9
Multi actor approach.....	12
Communication with other European projects	13
Communication & Participation in Bioeconomy Partnerships and Initiatives	14
Communication & Dissemination Channels	15
Channels.....	15
Communication and Dissemination Procedures	20
Key messages	22
Main target groups	22
Further target groups.....	24
Communication Style	24
Brand Voice	25
Brand values.....	25
Communication and Dissemination Tools.....	25
3. Communication and Dissemination Plan	26
Specific Communication Actions	26
Specific Dissemination Activities.....	27
Participation in Events	27
Scientific Publications	27
Open Call Communication & Dissemination strategy	28

Identified end-users.....	28
Channels of Open Call Communication	28
Monitoring and evaluate the process.....	29
4. Monitoring and Evaluating C&D Actions	29
Communication & Dissemination KPIs	30
Key Performance Indicators on PRIMED website.....	30
KPI on Social Media Channels	31
Main KPIs	35
5. Conclusion.....	36

Executive Summary

A Communication & Dissemination (C&D) plan has been drafted to reach PRIMED stakeholders. This draft plan is a key deliverable within WP8, which is led by the Inveniam. Prior to starting the project, the PRIMED consortium developed a draft C&D plan. This plan will be updated during the project, revising the key target groups, messages, and specific concrete activities to be implemented. The plan will function as a living document to guide and monitor C&D activities, and report on these aspects. The plan will outline key activities, provide implementation timelines, allocate tasks, and provide evaluation parameters. The C&D strategies for the project aim to raise awareness, increase project impact, as well as end user and stakeholder engagement.

A mapping will be performed to identify, approach, and engage stakeholders, and then define the roadmap to ensure broad visibility of the project results through different mediums. These include periodic updates in a monthly newsletter, the project's social media accounts, the project website, and a final conference to disseminate project results.

1. Introduction

The Communication and Dissemination (C&D) Strategy and Plan is a vital blueprint designed to guide the systematic sharing of information and outcomes. It outlines a comprehensive approach for engaging with stakeholders, ensuring the broad dissemination of knowledge, and facilitating impactful dialogue. This document serves as the foundation for a structured, strategic effort to amplify our messages, foster collaboration, and achieve measurable impact through effective communication practices. It prioritizes clarity, engagement, and adaptability, setting the stage for a successful and dynamic exchange of ideas. Importantly, recognizing the dynamic nature of communication and stakeholder engagement, this strategy and plan is conceived as a living document. It is designed to evolve, adapting to new insights, feedback, and changing circumstances, ensuring that our communication efforts remain effective and aligned with our goals.

Background and Context

The PRIMED project will co-create innovative forms of cooperation to integrate primary producers in novel bioeconomy value chains with a multi-actor approach. PRIMED will develop novel Circular Business Models in Bioeconomy (CBMB) for the operation of biorefineries, to produce high-value bio-based products through advanced biorefineries. The CBMB will be demonstrated in 5 Llab: ALC Bio-HUB (ES), Bio-Silica Lab (PT), Liguria Bio Lab (IT), BioEire Lab (IE) and CellFactory (FI), together with primary producers, end-users, citizens, and civil society, that will be involved through an Open Call for applicants. Each Llab will focus on a specific bioeconomy sector (Fisheries, Forestry, Farming and Agri-food). In parallel, PRIMED will conduct Open Calls providing €500k in cascading funding, which will be split into €100k for each living lab providing selected end-users the opportunity to test and validate the bio-based products.

Furthermore, PRIMED will establish a collaborative ecosystem to accelerate bioeconomy, in order to create an active flow of shared knowledge, expertise and resources through social innovation and a mutually beneficial learning opportunity for the entire ecosystem. To achieve this, the project will develop an Open Access knowledge hub and toolkit (PRIMED digital toolbox).

The PRIMED CONSORTIUM is composed of 12 partners, including EU academic institutions and companies, from Belgium, Finland, Germany, Ireland, Italy, Norway, Spain, and Portugal. This diverse coalition of stakeholders ensures the project's comprehensive implementation and success.

Communication & Dissemination Strategy

The Communication and Dissemination Strategy for the PRIMED project is designed as a comprehensive and agile framework, focused on coordinating the various aspects of communication and engagement that are essential for the project's success. This strategy stands on the principles of clarity, inclusivity, and dynamism, ensuring that every stakeholder interaction advances the project's goals. From the articulation of the general strategy to the deployment of specialized tools and channels, the strategy meticulously outlines how we intend to share knowledge, engage with diverse stakeholder groups, and amplify our message across the European project ecosystem and beyond.

Objectives:

- Define what the project seeks to achieve through its communication efforts, setting clear and measurable goals.
- Customize messages to resonate with different audiences, making communication more relevant and engaging.

- Understand key stakeholders' interests and influences through comprehensive analysis, guiding targeted engagement.
- Articulate the project's objectives and benefits clearly through well-crafted key messages, emphasizing its significance.
- Maintain a consistent and recognizable style across all communications to strengthen the project's brand identity.
- Choose the most effective channels and tools to ensure messages reach and impact the intended audiences.
- Map and execute a plan for ongoing engagement with stakeholders, fostering productive relationships and dialogue.

Communication & Dissemination Plan

The Communication and Dissemination Plan of the PRIMED project operationalizes our strategic vision, translating objectives into tangible actions and milestones. This document is designed to guide our efforts in a coordinated, impactful manner, ensuring that our messages resonate with our diverse audience.

Objectives:

- Schedule key communication activities alongside project deliverables for synchronized execution.
- Publish findings to ensure broad dissemination of project insights to relevant communities.
- Participate in events to raise project awareness and foster industry connections.
- Conduct workshops and focus groups to gather feedback and encourage stakeholder collaboration.
- Customize communication to effectively reach and engage varied audience groups.
- Implement feedback mechanisms to continually enhance communication effectiveness.
- Utilize metrics to evaluate and refine communication tactics, ensuring they achieve desired outcomes.

This approach ensures a dynamic and responsive plan that aligns with the strategic vision and emphasizes practical implementation and measurable outcomes, fostering a strong connection with the audience and stakeholders.

2. General Strategy

The General Strategy of the PRIMED project aligns our communication efforts with the project's overarching goals, ensuring resonance with our intended audience. It combines clear objectives, targeted message tailoring based on in-depth audience analysis, and the development of a unique brand voice for consistent recognition. By choosing effective communication channels and tools, this strategy is designed to enhance our visibility and impact, establishing a cohesive presence across various platforms.

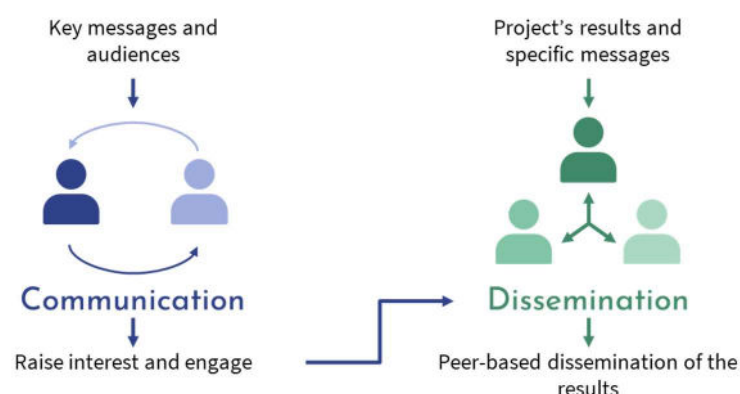


Figure 1. Communication & Dissemination plan schematics.

Communication & Dissemination Objectives

The overarching objectives of our communication and dissemination efforts translate our holistic approach into specific, actionable goals. These objectives are the linchpins that will ensure our efforts reach and resonate with our diverse stakeholders, driving engagement, understanding, and visibility in ways that align with our strategic vision for broad impact within the bio-economy sector. We aim to:

- **Boost Engagement and Sustain Interest:** Drive active participation and interaction among stakeholders while generating and maintaining enthusiasm for the project's themes and goals throughout its lifecycle.
- **Deepen Understanding and Promote Knowledge Exchange:** Ensure stakeholders have a comprehensive grasp of the project's objectives, activities, outcomes, and impact, and facilitate the exchange of ideas, best practices, and lessons learned to encourage innovation and collaboration.
- **Influence and Inform Policy:** Aim to inform policy discussions and influence policy decisions relevant to the project's focus areas, leveraging the project's outcomes to contribute to evidence-based policy-making.
- **Measure and Adapt:** Implement mechanisms for monitoring the effectiveness of communication and dissemination activities, using insights gained to adapt and refine strategies in real-time.
- **Ensure Visibility and Recognition:** Increase the project's visibility and recognition at local, national, and international levels, ensuring its contributions are widely acknowledged.

Social Media Goals

- **Position** PRIMED as an expert and dynamic initiative that is actively engaged in sharing information about the latest technological advancements in the sector.
- **Communicate** and educate PRIMED's audience about the project's latest developments and milestones.
- **Increase PRIMED project brand visibility** by expanding its social media presence among the target audiences.

These goals ensure a comprehensive and impactful approach to communicating, disseminating, and exploiting the key aspects and achievements of the PRIMED project.

Stakeholder Mapping

6 key groups essential for PRIMED communication and dissemination activities:

Target Group 1: Scientific Community

Challenges and needs

Creation and expansion of bioeconomy knowledge base in terms of CBMB, value chains, policy, biological processes, and their potential for the development of added-value bio-based products.

New circular business models need to be designed that enable the translation of emerging technologies to adopt circular business practices into value propositions and, thus, product-market applications.

Relevance

Research on business models in the context of the bioeconomy is still scarce, and the particularities of the bioeconomy such as the complex knowledge base, fragmented policy schemes, and diverse types of innovation to cause challenges for the design of business models. PRIMED will create a business model navigator that will include specific information, templates, or diagrams to help companies understand the key components of a business model.

Value Proposition Increase knowledge and availability data about resources available in EU; understand the challenges and the barriers, identify value chains and potential markets for bioproducts.

Target Group 2: Primary producers (farmers, foresters, fisheries) and secondary producers

Challenges and needs Lack of knowledge sharing and collaboration between stakeholders and the industry.
 Need of reconfigured or entirely new supply chains and develop new circular business models development:

- Development and promotion of CBMB for different primary production sectors
- Integration of primary producers in new bio-based value chains.
- Diversification and enhancement of agricultural incomes, fair distribution of costs, benefits, risks.
- Revitalisation and resilience of rural economies.
- Synergies along and across agricultural, forestry, and industrial value chains and industrial symbiosis opportunities.
- Development of clear, straight, practice-based instructions to build multi-actor agreements to allow rural areas advance towards economic transformation upon territorial resources, allowing farmers to play a role in which they can capture a significant part of the generated added value.

Relevance Primary producers, play a crucial role in the development of the bioeconomy by providing biomass as a feedstock to produce bio-based products. However, there are several challenges associated with integrating primary producers into bioeconomy business models and value chains. PRIMED will enhance collaboration between multi-actors and primary producers in order to include this sector in the CBMB, scale up the innovative technologies and promote CBMB in regions across Europe, promoting public awareness and acceptance of the use of waste as a primary resource. In addition, PRIMED will launch an open call for biomass providers participation.

Value Proposition Increase the variety of resources that can be revalorised to produce new value-added byproducts (biocosmetics, food, bioenergy, bio-based plastics etc), and diversify incomes. Increase circularity and provide biomass at a relatively low cost to customers.

Target Group 3: Industry, technology developers and bio entrepreneurs

Challenges and needs Affordable solutions for valorise resources from the primary sector. Therefore, cross-industry collaborations that require strong cooperations models are required.
 Difficult in the scale up of innovative technologies and making innovative valorisations economically viable.
 Enhance cooperation between primary producers and other key actors: creating innovation and business ecosystems, establishing fruitful collaborations between multiple stakeholders, such as primary producers, researchers, entrepreneurs, policymakers, investors, and consumers.

Relevance Furthermore, the bioeconomy is characterized by its cross-industry nature, with a range of sectors, technology platforms, and production systems looking into valorising waste streams into bio-based products as alternatives to fossil resources. For this reason, well-established value chains rooted in specific sectors need to span different industry boundaries. PRIMED will enhance collaboration among stakeholders from different sectors and backgrounds to promote the sustainable use of biological resources to foster social inclusion and equity by

ensuring that the benefits of bioeconomy development are distributed fairly across different groups. These agendas are based on the five Living Labs and will engage and empower marginalized producers, communities and future generations.

Value Proposition Identify new business opportunities and use cases for the implementation of biorefinery and other biomass conversion technologies. Support technology development and commercialisation through testing and piloting. Thus, providing affordable solutions with high return on investment, contributing to the growth of local communities and economies. CBMB offer opportunities for entrepreneurship. Also, offer alternative biomass by-products considering different feedstock. Reducing costs along the value-chain which will boost the competitiveness of potential producers.

Target Group 4: Policymakers

Challenges and needs Establish a new policy framework that encompasses new CBMB. To achieve this, it is important to do the following:

- Identify bottlenecks within the economic, market and regulatory frameworks that shape value chains for successful uptake and investment to scale.
- Address specific legislative issues at national and EU level, plus contradictions across regulatory frameworks for successful operation of value chains.

Relevance The development of CBMB are the complex and fragmented policy schemes, having to comply with different policy schemes (e.g. food security, climate change mitigation) from different administrations, which constrain biobased applications or biomass cascade steps for specific application. In addition, regulation for technology within the emerging bioeconomy are frequently still ambiguous, complex and vary from region to region, hindering stakeholders to implement bioeconomy systemic solutions.

Value Proposition Identify and analyse policies at European level to facilitate the transition towards a more inclusive and sustainable development model, promoting the exchange of information and experiences in order to create common perspective, best practices for governance and policy development and implementation.

Target Group 5: Society

Challenges and needs Access to information on successful implementations and effective CBMB in order to share the knowledge and overcome poor public acceptance of the use of waste as a primary resource.

Relevance Society plays a crucial role in shaping the development of new circular business models in the bioeconomy, as these models directly impact human well-being, environmental sustainability, and economic prosperity. By embracing circularity in bioeconomy, society can foster innovation, reduce waste, and promote the responsible use of biological resources, thereby contributing to a more resilient and equitable future. PRIMED represents a promising pathway to demonstrate the benefits of the CBMB in the society.

Value Proposition Positive impact on society in terms on job creation, encourage rural community, rural development and reduce depopulation in rural areas. Regional, rural, local/urban and consumer-based transitions are accelerated towards a sustainable, regenerative, inclusive, just and clean circular economy and bioeconomy across all regions of Europe.

Target Group 6: Bio-based byproducts end-users (primary producers, SMEs and industry)

Challenges and needs	Efficiently producing bio-based building blocks is critical for advancing sustainable materials and processes. These challenges include optimizing production methods, minimizing waste, ensuring scalability, and actively engaging with all stakeholders within the bioeconomy value chains.
Relevance	Bio-based materials are gaining prominence due to their reduced environmental impact. By utilizing byproducts, we can create a circular economy, reduce reliance on fossil fuels, and mitigate climate change. PRIMED will launch an open call for the participation of end-user testers and validators of the by-products developed in the living labs.
Value Proposition	Bio-based byproducts contribute to a greener future by reducing greenhouse gas emissions and promoting resource efficiency. Additionally, exploring novel applications and processes using bio-based materials opens up exciting opportunities for sustainable innovation.

Besides the primary target groups, we will explore additional target groups to incorporate into our strategy, ensuring each group receives a tailored approach:

- **Investors:** Primary producers need to adopt sustainable land use practices and ensure that their production methods do not harm the environment or compromise the quality of the biomass. This can require significant investments in technology and infrastructure, which may be difficult for small-scale primary producers to afford. Thus, PRIMED will help in the development of new investment options for sustainable long-term operations.
- **Women and Young farmers:** it is becoming increasingly difficult to attract and retain skilled individuals, due to the ageing of the primary sector population, younger generations and women’s participation in the rural economy and the expansion of the EU. Therefore, PRIMED will promote diversity and inclusivity by increasing new high-quality job opportunities in bioeconomy community development, particularly for younger generations and women.
- **Local Community groups:** Local stakeholder engagement is emphasized in project development and implementation phases. Ensuring the project resonates with local needs and gains is a key part of the strategy.

Multi actor approach

PRIMED will co-create innovative forms of cooperation to integrate primary producers in novel bioeconomy value chains with a multi-actor approach. This will look to involve all actors in a codesign process throughout the project. The aim of the following activities and workshops (Table 1) is to create a continuous conversation between all the relevant actors, giving them the opportunity to co- create and provide feedback to the project, improving project outputs, spreading dissemination, and increasing and accelerating the take up of results.

Table 1. Multi-actor approach for PRIMED.

Project Phase	Activities	Actors
Identify barriers and challenges (WP3)	25 workshops (5 with each LLab)	LLabs, primary producers, National Rural Networks (NRNs), operational groups (OGs), rural communities’ representatives, SMEs, end-users, local authorities, consortium partners.
Co-design of value chain maps (WP3)		
Building shared agendas for sustainable social transformation (WP4)		
Demonstration of knowledge developed (WP5)	Open Call for 10 use cases	End users, technology providers, NRNs, OGs, primary producers
Framework recommendations (WP7)	3 workshops	Local authorities, national representatives, NRNs, MEPs, EU CAP

		Network, European Commission DGs.
Effective take up of project results (WP6)	5 trainings on the toolbox and practice abstracts for operating groups	Primary producers, NRNs, rural communities' representatives, SMEs, end-users, local authorities, consortium partners.
Iterative Interaction at European Level	Collaborate in 10 clustering events with relevant EU projects	Other EU project participants, European Commission DGs.

Communication with other European projects

Our strategy identifies compatible European projects with similar objectives, aiming to create a dynamic network for mutual knowledge exchange.

Table 2. Non-exhaustive list of active European projects related to PRIMED.

PROJECT	Short description and relevance for PRIMED	Date
BIOBOOST	BIOBOOST is an accelerator for bioeconomy projects and business models, covering a wide range of sectors, covering biomass producers (e.g. forests, agriculture, fisheries, waste) and users (e.g. bioenergy, food, bioindustry) in the region of Catalonia.	06/2022-05/2026
Biomodel4regions	Aims to support the establishment of innovative governance models at local and regional levels, to create better-informed decision-making processes, social engagement, and innovation, enabling replication.	07/2022-06/2025
TREASoURcE	Territorial and regional demonstrations of systemic solutions of bio-based waste among others and development of key value chains.	06/2022-05/2026
Agro2Circular	A2C is EU project boosting the upcycling of agri-food wastes (from fruit and vegetables waste, among others) through innovative routes of valorisation to be used for the production of new food, cosmetic and nutraceutical formulation.	10/2021-09/2024
EcoeFISHent	Demonstrates and develops synergistic circular value chains for the eco-efficient valorisation of fishery by-streams and fishery industries (LLab3, WP5).	10/2021-09/2026
SEA2LAND	Promotes large-scale fertilizer production in the EU from raw materials sourced from the fisheries and aquaculture sector.	01/2021-12/2024
InvestCEC	Develops and demonstrates a replicable model for the implementation of circular economy projects in Austria and includes the investment program set up and management.	11/2022-10/2025
ROBIN	Establishes and demonstrates the potential of innovative circular bioeconomy governance structures and models in 5 Ireland, Germany, Spain, Slovakia and Greece.	09/2022-08/2025
Hubs4Circularity	Creates a community of practice, a knowledge platform, and exchange structures to help existing and future Hubs for Circularity to overcome barriers to the implementation of industrial symbiosis, industrial-urban symbiosis and circular.	06/2022-05/2026
AgriChemWhey	Industrial-scale bio-refinery which will take by-products from the dairy processing industry (whey permeate and delactosed whey permeate), as in the case of IBF in LLab4.	01/2018-04/2027

SEMPRE-BIO	Demonstrates the biomethane production from different biomass residues (sewage sludge, cattle manure, organic and green waste), using several novel technologies, promoting the circular economy. PRIMED's ALC Bio-HUB lab is producing bio-CNG from cattle biomass. Partner INV is involved.	11/2022-04/2026
ZEBRA	Produces lignin from by-products of the pulp & paper industry to replace existing fossil fuel-based additives in the market for different applications (rubber, fuels, lubricants, food industry and cosmetics). Partner INV is involved.	11/2022-11/2026
Bionanopolys	Open Innovation Test Bed (OITB) of cross-cutting technologies dedicated to transform biomass into sustainable bio-based nanomaterials of industrial interest, in order to accelerate its introduction and adoption by the market. Partner CeNTI involved.	01/2021-12/2024
Biomat	OITB for providing services to a wide range of EU industries and SMEs to motivate the uptake of innovation in nanoenabled bio-based material for furniture, bedding, automotive, building and construction sectors. Partner CeNTI involved.	01/2021-12/2024

In addition, PRIMED will collaborate closely with the other winning project of the HORIZON-CL6-2023-CircBio-01-9 call which is [CB4](#), Circular Bio-Based Business models to create high-value Bio-based products in integrated value chains.

Communication & Participation in Bioeconomy Partnerships and Initiatives

Table 3. Non-exhaustive list of Partnerships and Initiatives related to bioeconomy in Europe.

Partnerships	Short description and relevance for PRIMED
Biobased industries consortium	Stimulates investment, fosters growth and creates new value chains and local policies in all European regions linked to the bio-based industry.
European Network for Rural Development	The European Network for Rural Development (ENRD) serves as a hub for exchange of information on how Rural Development policy, programmes, projects and other initiatives are working in practice and how they can be improved to achieve more. The ENRD is not a membership organisation. Its work aims to engage and reach anyone with an interest in and commitment to rural development in Europe.
ROOTS Initiative- Circular policies for changing the bio-waste system	4 Horizon 2020 projects working on biowaste valorisation have teamed up to promote innovative solutions for the circular bioeconomy. The promoters have discussed their views and shared their concerns on policy barriers hindering innovations that lead to the Circular Economy for urban biowaste.
Hubs for Circularity	Hubs4Circularity are socio-technical ecosystems for full scale industrial symbiosis, industrial-urban symbiosis and circular economy closing energy, resource and data loops at regional scale. They are an important building block for achieving the climate neutrality targets by 2050.

Circular Cities and Regions Initiative	<p>As part of the EU Circular Economy Action Plan, the Circular Cities & Regions Initiative (CCRI) focuses on implementing the circular systemic solutions at local and regional level by providing assistance to cities and regions.</p>
Rural Observatory	<p>The Rural Observatory supports the knowledge production and aims at improving data collection and dissemination related to EU rural areas. It offers relevant statistics, indicators and analyses based on data from multiple sources and at the most appropriate territorial granularity, covering the economic, social and environmental dimensions. The Observatory contributes to a better understanding of rural areas and it represents an important source of information for ‘rural proofing’, evaluating and assessing the impact of EU legislative initiatives on rural areas and providing evidence for policy making in relation to rural areas development.</p>
European Circular Economy Stakeholder Platform	<p>ECESP supports civil society organisations and public authorities accelerating the transition to a circular economy across Europe by fostering dialogue, sharing knowledge and exchanging good practices. ECESP provides a virtual space that brings stakeholders together online, and in person through an annual conference.</p>
European Network of Living Labs (ENOLL)	<p>ENOLL is the international, non-profit, independent association of benchmarked Living Labs. Living Labs are real-life test and experimentation environments that foster co-creation and open innovation among the main actors of the Quadruple Helix Model, namely: Citizens.</p>
JRC Publications Repository	<p>The JRC Publications Repository gives access to research results of the Joint Research Centre: Science-for-Policy reports, articles, technical reports and other scientific outputs. The content grows daily as new publications are added to the repository.</p>

Communication & Dissemination Channels

Channels

To amplify the project’s reach and impact, it’s essential to utilize a multi-platform approach to maximize the reach and impact of the PRIMED project’s dissemination efforts. This section outlines the strategic use of digital platforms and traditional methods to engage diverse stakeholder groups effectively.

[Website](#)

The project's website serves as a comprehensive hub, integrating all essential information, updates, and achievements. It's meticulously designed to enhance user experience and accessibility, featuring sections on project insights, objectives, milestones, and consortium members. Dynamic in nature, it hosts deliverables, news, and event announcements, ensuring stakeholders and the public remain well-informed and engaged. The content, presented in English, reaches a global audience, emphasizing inclusivity and broad accessibility.

Below is the main structure:

- Landing Page
 - Header with the name and the logo.
 - Project description
 - Consortium General
 - News

- Project
 - Description of the project
 - Goals of the project
 - WP
 - Milestones & Impact
- Consortium
 - Header with an image and a phrase
 - Map
 - Consortium members with logos and descriptions
- Resources
 - Resources- Communication toolkit and brand package
 - Deliverables
 - Newsletters
- News & Events
 - News section
 - Event section
- Open Call
- Contact

Search Engine Optimisation (SEO) for PRIMED's website:

SEO is the practice of enhancing the visibility and positioning of web pages in organic search results. It is a critical component of digital marketing, aiming to increase a PRIMED website's reach to potential customers. SEO is not only about optimising for search engines but also about understanding and meeting the needs of the audience. Effective SEO strategy ensures that PRIMED website remains visible to consumers amidst the ever-changing landscape of search algorithms and competitive online environment.

Benefits of SEO for the PRIMED project:

- **Increased Visibility and Traffic:** By improving our website's ranking on search engine results pages, SEO helps boost organic search traffic, leading to greater visibility for the PRIMED project.
- **Enhanced Credibility and Authority:** Higher search rankings contribute to the perceived credibility and authority of our PRIMED, encouraging trust and engagement from our target B2B audience.
- **Cost-Effective Marketing:** SEO is a cost-effective marketing strategy, offering long-term benefits by attracting organic traffic without the need for continuous investment in advertising.
- **Competitive Advantage:** Effective SEO analysis and implementation can provide a competitive edge by ensuring the PRIMED project stands out in a crowded online space.

SEO analysis and its role in the PRIMED project:

SEO analysis involves auditing a website to identify opportunities for improving its placement in search engine results. This process includes keyword research, content optimisation, and technical enhancements to meet the specific goals of increasing organic referral traffic and improving search result rankings. For the PRIMED project, SEO analysis will help:

- **Identify Relevant Keywords:** Understanding the specific terms and phrases our target B2B audience uses when searching for solutions related to waste management and hydrogen production.
- **Optimize Content and Structure:** Ensuring that our website content is informative, relevant, and structured in a way that search engines can easily understand and rank.
- **Enhance User Experience:** Improving the overall user experience of our website, making it more accessible and navigable for visitors, which in turn supports SEO efforts.
- **Monitor Performance:** Using tools like keyword rank trackers to continually monitor and adjust our SEO strategy based on industry data and competitive insights.

We have conducted an analysis from an SEO perspective on approximately 70 phrases and keywords for content optimisation and management. This analysis was performed using the Google Keyword Planner tool, providing estimates of monthly searches and the level of competition. Below, there is the list of the top 20 performing phrases and keywords for prime content from an SEO standpoint.

List of keywords

Table 4. List of relevant keywords for content optimisation.

Keyword	Average monthly searches	Competition
waste management	500000	Low
single cell protein	50000	Low
biopolymers	50000	Low
biofertiliser	50000	Low
agronomy	50000	Low
living labs	50000	Low
open call	50000	Low
social innovation	50000	Low
rural development	50000	Low
biochar	50000	High
anaerobic digestion	50000	Low
biofuels	50000	Low
biomaterials	50000	Low
bioplastics	50000	Low
circular business models	5000	Low
silica nanoparticles	5000	Medium
bio actives	5000	High
bio cosmetics	5000	High
novel food	5000	Low
biomass waste	5000	Low

Social Media

We have chosen **LinkedIn, X and Facebook platform** as our primary channels for PRIMED social media initiative.

- **LinkedIn:** As a premier professional network, LinkedIn is pivotal for connecting with industry professionals and stakeholders. It's the platform where in-depth articles, project achievements, and industry discussions thrive, enhancing professional engagement and project visibility.
- **X:** Catering to a niche audience of policymakers and renewable energy experts, Platform X enables targeted communication with those directly involved in or interested in clean energy advancements. Its community-driven environment fosters meaningful discussions and collaborations.
- **Facebook:** With its large user base and diverse audience, Facebook provides an effective means to connect, communicate, and share information with primary producers. Additionally, Facebook's features, such as groups and pages, offer valuable opportunities to build communities, share resources, and facilitate discussions on relevant topics.

Therefore, selecting LinkedIn, X and Facebook is in line with PRIMED social media objective to position PRIMED as a project in circular business models in bioeconomy. Using **LinkedIn's** professional network, **Facebook** and Platform **X's** engagement capabilities will facilitate timely updates, meaningful discussions, and effective














networking opportunities. In addition, these social media platforms will allow us to disseminate information about the **Open Call** that we will launch following the communication and dissemination strategy that we have detailed in section 3.

























Below are the hashtags we have listed to effectively engage with our target audience across the platforms mentioned above.

Table 5. List of relevant tags to use for posts as needed.

Tags	Hashtags	
@ruhrunibochem	#Bioeconomy	#Fishery
@UniLUT	#CircularEconomy	#Biofertiliser
@InveniamGroup	#SustainableDevelopment	#PrimaryProducers
@SINTEF	#GreenInnovation	#Biofuels
@NakedInno	#Bioproducts	#AgriculturalInnovation
@AKISint	#CBMB	#Biopolymers
@EuropaBio	#CircularBusinessModels	#BioBasedProducts
@CENTI_PT	#EUBioeconomy	#Sustainability
@filse_spa	#WasteManagement	#BiologicalResources
@IrishBioeconomy	#RuralDevelopment	#BioEntrepreneurship
@VTTFinland	#Agronomy	#CircularityInAction
	#Forestry	#ResourceEfficiency
	#Agriculture	#BioeconomyResearch

Table 6. List of partner's links to website and social media accounts.

Partner	Website and social Media	
RUHR-UNIVERSITAET BOCHUM (RUB)		https://www.ruhr-uni-bochum.de/en
		https://www.linkedin.com/school/ruhrunibochem
		@ruhrunibochem (https://twitter.com/ruhrunibochem)
		https://www.facebook.com/RuhrUniBochum
		@RuhrUniversitatBochum (https://www.youtube.com/user/ruhruniversitaet)
LAPPEENRANNAN-LAHDEN TEKNILLINEN YLIOPISTO LUT (LUT)		https://www.lut.fi/en
		https://fi.linkedin.com/school/lut-university
		@UniLUT (https://twitter.com/UniLUT)
		https://fi-fi.facebook.com/unilut/
		@lut-university (https://www.youtube.com/lutvideo)
INVENIAM (INV)		https://www.inveniam-group.com
		https://www.linkedin.com/company/inveniam-group
		@ InveniamGroup (https://twitter.com/InveniamGroup)

SINTEF ENERGI AS (SINTEF)		https://www.sintef.no/en
		https://www.linkedin.com/company/sintef
		
		
NAKED INNOVATIONS SL (NAKED)		https://www.nakedinnovations.eu
		https://www.linkedin.com/company/naked-innovations/?originalSubdomain=es
		@NakedInno (https://twitter.com/nakedinno)
AKIS RESEARCH SL (AKIS)		https://akisinternational.com
		https://es.linkedin.com/company/akis-international
		@AKISint (https://twitter.com/akisint)
		@akisinternational7763 (https://www.youtube.com/channel/UCOLlfgQt8hHicuSil3dPsXw)
EUROPABIO (EUBIO)		https://www.europabio.org
		https://www.linkedin.com/company/europabio/?originalSubdomain=be
		@EuropaBio (https://twitter.com/EuropaBio)
ALCARRAS BIOPRODUCTORS SAT (ALC)		https://bioboost.cat/alcarras_bioproductors
		https://www.linkedin.com/company/bioboost-project
		@bio_boost (https://mobile.twitter.com/bio_boost)
CENTITVC - CENTRO DE NANOTECNOLOGIAE MATERIAIS TECNICOS FUNCIONAIS EINTELIGENTES (CENTI)		https://centi.pt/en
		https://pt.linkedin.com/company/centi---centre-for-nanotechnology-and-smart-materials
		@CENTI_PT (https://twitter.com/centi_pt)
		https://www.facebook.com/CeNTInanotech
FINANZIARIA LIGURE PER LO SVILUPPOECONOMICO FI.L.S.E. SPA (FILSE)		https://www.filse.it
		https://www.linkedin.com/company/fi-l-s-e-s-p-a-finanziaria-ligure-per-lo-sviluppo-economico
		@filse_spa (https://twitter.com/filse_spa)
		https://www.facebook.com/filspespa

		@regioneliguria28 (https://www.youtube.com/@regioneliguria28/search?query=Filse)
IRISH BIOECONOMY FOUNDATION (IBF)		https://bioeconomyfoundation.com
		https://www.linkedin.com/company/irish-bioeconomy-foundation
		@IrishBioeconomy (https://twitter.com/IrishBioeconomy)
		@irishbioeconomyfoundation250 (https://www.youtube.com/channel/UCKZ5BGk4YM7viqCJoM1DTZA)
TEKNOLOGIAN TUTKIMUSKESKUS VTT OY (VTT)		https://www.vttresearch.com/en
		https://www.linkedin.com/company/vtt
		@VTTFinland (https://twitter.com/VTTFinland)
		https://www.facebook.com/VTTFinland

Newsletter

To be scheduled and planned annually, our newsletter acts as a direct conduit to our community, providing regular, rich updates on project milestones and insights, designed to keep our audience engaged and informed.

Scientific Publications

Publishing in esteemed journals underscores our project's credibility and promotes the scholarly exchange of our findings.

Webinars and Workshops

Interactive webinars and workshops offer deep engagement opportunities, encouraging active participation and collaborative learning.

Conferences and Exhibitions

Engaging in conferences and exhibitions plays a pivotal role in amplifying our project's visibility, enabling direct dialogue with the industry, and sparking potential partnerships. This strategic presence not only highlights our achievements but also opens doors to valuable collaborations and community building within our field.

Communication and Dissemination Procedures

Our procedures for content publication are meticulously crafted to ensure seamless communication and safeguard sensitive information. Before any communication release, we follow a rigorous internal protocol to:

- Protect Intellectual Property
- Preserve Confidentiality
- Ensure Alignment with Communication Strategy

By adhering to these procedures, we maximize the effectiveness of our communication while upholding trust and confidentiality.

Table 7. Defined procedures for the different communication means.

Communication mean	Procedure
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Project's Press releases and pictures	<ol style="list-style-type: none"> 1. Press release authored by the C&D team. 2. Initial supervision by project coordinator within 48 hours. 3. Feedback from partners within 48 hours. 4. Formatting and graphic review by C&D team to align with PRIMED brand image. 5. Content posted on PRIMED website by C&D team, with link shared with journalists. 6. Content can be added to partner websites after publication on PRIMED website.
Partner's press releases and pictures	Share with the coordinator and C&D team 48 hours before publication for review
Social media content	<p>To be published in PRIMED's social media channels when launched:</p> <p>Social Media Content for PRIMED's Channels:</p> <ol style="list-style-type: none"> 1. Content creation by the C&D team under project leader supervision, with an accompanying image. 2. Review and approval within 48 hours by relevant partner(s) for feedback. 3. Final Review, design, and formatting by the C&D team to adhere to branding guidelines. 4. Publication on PRIMED's channels by the C&D team. <p>Social Media Content for Partner's Channels</p> <ol style="list-style-type: none"> 1. Partners create and post content, tagging PRIMED and linking to our website as needed. 2. All content must align with PRIMED's brand guidelines. 3. Tags for project partners and consortium members are encouraged for wider visibility. <p>All shared content must be derived from information that's publicly available from the project, including official deliverables, event highlights, and updates suitable for public dissemination</p>
LinkedIn Newsletter	<ol style="list-style-type: none"> 1. Drafted by the C&D team with partner input. 2. Initial oversight by the coordinator. 3. Partner evaluation and feedback before publication if relevant. 4. Review of formatting and graphic image by the C&D team. 5. Assembly and distribution of the newsletter by the C&D team. <p>No changes or edits are accepted after newsletter distribution.</p>
Blog	<ol style="list-style-type: none"> 1. Written by the partner, supervised by the C&D team, then the coordinator. 2. Feedback from other partners within 2 working days if applicable. 3. Publication on the appropriate platform/website.
Project related article, papers ...	Shared and reviewed by the coordinator and C&D team 5 days before publication.

Scientific publications (inc. abstracts, papers, or other scientific publications)

1. Drafted by the partner and circulated among the consortium.
2. Feedback is solicited within a defined period—10 days for documents up to 5 pages and 21 days for longer documents—to identify any objections.
3. Administrative silence implies acceptance of the article. Submission to the journal/conference if no objections are raised.

However, reviewing times can be adjusted depending on the times of the call and the length of the document.

Key messages

Main target groups

Target Group 1: Scientific Community

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> • Expansion knowledge related to value chains, policy, biological processes and their potential for the development of added-value bio-based products. • New circular business models in bioeconomy. • Inviting scientific collaboration for further innovation. 	Website	Detailed and analytical, inviting discussion and exploration.
	Social media	
	Newsletter	
	Conferences & Exhibitions	
	Webinars & Workshops	

Target Group 2: Primary producers (farmers, foresters, fisheries) and secondary producers (industry subproducts)

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> • To raise awareness about the potential valorisation of primary sector resources to produce new value-added byproducts. • Foster innovation in sustainable technologies to drive efficiency and minimize environmental impact. • Disseminate our innovative technologies developed in the living labs that are capable of valorising organic waste from both primary (such as agriculture, forestry, farming and fisheries) and secondary (including industrial by-products) sectors. • Disseminate and communicate the launch and any updates related to the open call. It offers funding to end-users interested in maximizing the value of their biomass or testing the byproducts generated in the project's living labs. 	Website	Primary producers are a key target group for project development, so the language needs to be practical, authentic, and with a direct approach. Professional and authoritative tone, underscored by approachable and engaging manner to promote trust and encourage dialogues.
	Social media	
	Visual, audiovisual materials	
	Newsletter	
	Conferences & Exhibitions	
	Webinars & Workshops	

Target Group 3: Industry, technology developers and bio entrepreneurs

Key messages	Channels	Language & Tone
	Website	

<ul style="list-style-type: none"> Offers 5 innovative technologies for the development of added value bio-based products using biomass from the primary sector. Provide cost-effective and scalable solutions to produce bio-based products. Enhance collaboration and cooperation in the industry sector. Emphasize transparency and traceability throughout the supply chain to build trust with consumers and stakeholders. 	Social media	<p>Clear, precise, technically rich, directly addressing the project's innovative aspects.</p> <p>Encouraging and collaborative tone, stressing our role in fostering synergies between different bioeconomy projects.</p>
	Newsletter	
	Conferences & Exhibitions	
	Webinars & Workshops	

Target Group 4: Policymakers

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> Advocate for supportive policies and incentives to accelerate the transition towards the primary sector and a sustainable industrial ecosystem. Communicate and disseminate the policy recommendations detected during the project. Encourage local and national authorities to adapt policies to facilitate the development of new circular business models across Europe. Highlighting best practices, promote technology transfer, and recommend international standards for sustainable bio-based products (new policies developed). Connect with a wide range of stakeholders (farmers, foresters, industry, processors, advisors, clusters...) 	Website	<p>Persuasive, policy-oriented, focusing on environmental and economic benefits.</p>
	Social media	
	Newsletter	
	Conferences & Exhibitions	
	Webinars & Workshops	

Target Group 5: Society

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> The project paves the way for a greener future, transforming and valorising biomass waste into added-value products and clean energy, developing new circular business models in bioeconomy including primary producers as the main actor. Communicate challenges of climate change, energy transition and primary sector. 	Website	<p>Accessible and engaging, emphasizing community benefits and environmental impacts.</p>
	Social media	
	Newsletter	
	Visual, audiovisual materials	

Target Group 6: Bio-based byproducts end-users (primary producers, SMEs and industry)

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> Disseminate and communicate the launch and any updates related to the open call. It offers funding to end-users interested in maximizing 	Website	<p>These are a key target group for the open call engagement, so the language needs to be</p>
	Social media	
	Newsletter	

<p>the value of their biomass or testing the byproducts generated in the project’s living labs.</p> <ul style="list-style-type: none"> Engage them during the open call to test and validate the innovative byproducts generated in our living labs. 	<p>Visual, audiovisual materials</p>	<p>practical, authentic, and with a direct approach.</p>
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Further target groups

Investors

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> Emphasize the growing market demand for green solutions and that our circular business models promise both profitability and positive environmental impact. Share the demonstrations conducted by the end-users selected through the open call. 	<p>Website</p>	<p>Professional and forward-looking, highlighting economic advantages and sustainability.</p>
	<p>Social media</p>	
	<p>Newsletter</p>	
	<p>Visual, audiovisual materials</p>	

Women and Young farmers

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> Promote gender equality and women’s empowerment in rural regions. Support female in the primary sector. Engage young entrepreneurs in the primary sector by demonstrating the availability of potential solutions that offer both stability and sustainable employment opportunities. 	<p>Website</p>	<p>Accessible and engaging, emphasizing community benefits and environmental impacts.</p>
	<p>Social media</p>	
	<p>Newsletter</p>	
	<p>Visual, audiovisual materials</p>	

Local Community groups

Key messages	Channels	Language & Tone
<ul style="list-style-type: none"> PRIMED engages local communities in bioeconomy circular and sustainable practices, showcasing the direct benefits of the valorisation of bio-waste into value added byproducts and green energy. 	<p>Website</p>	<p>Informative and supportive, focusing on local impact and participation.</p>
	<p>Social media</p>	
	<p>Newsletter</p>	
	<p>Visual, audiovisual materials</p>	

Communication Style

Our communication style engages with clarity and accessibility, breaking down complex ideas while prioritizing interaction and relatability. It embodies:

- Empowering and Visionary: Inspiring action and innovation to drive the bio-economy sector forward.
- Data-Driven yet Relatable: Transforming complex topics into accessible narratives supported by data.
- Inclusive and Accessible: Embracing inclusivity and accessibility to reach diverse audiences effectively.
- Authoritative and Open: Grounded in scientific rigor, fostering trust and transparency.

- Clear and Direct: Communicating with clarity and directness for easy understanding and action.

Brand Voice

Brand voice defines the distinct personality of PRIMED brand adopted in all its communications, especially in social media, effectively shaping how it is perceived by our audience. It acts as the essence of our messaging, guiding not only what we say but also how we say it. This distinction is crucial in ensuring that PRIMED's communications resonate with its target audience, especially in a field as specialised and impactful as that of the PRIMED project.

For the PRIMED project, brand voice functions as a connector between our innovative work and the broader community, stakeholders, partners and potential collaborators. It embodies PRIMED's commitment to sustainability, innovation, and collaboration in tackling the environmental challenges. PRIMED's brand voice reflects the expertise and dynamic approach, ensuring that our communications convey the seriousness of our mission while also being accessible and engaging. To have a defined brand voice is important for:

- **Enhancing Connectivity:** In the specialised B2B landscape that the PRIMED project operates within, a well-defined brand voice allows us to connect more effectively with industry professionals, stakeholders, and potential partners. It ensures that our communications are not only seen but felt, fostering a deeper understanding and appreciation of our work.
- **Differentiating in a Crowded Space:** The environmental and energy sectors are crowded with initiatives and projects looking for audience's attention and support. A distinct brand voice helps the PRIMED project stand out, highlighting our unique approach and the innovative solutions we're bringing to the table.
- **Building Trust and Credibility:** By consistently using a voice that reflects our expertise and dedication, we build trust with our audience. A consistent brand voice assures our audience that we are a reliable and authoritative source of information in our industry.
- **Engaging on Social Media:** Social media is a critical platform for the dissemination of our communication and engaging with a broader audience. A well-defined brand voice enables us to craft messages that are not only informative but also engaging and relatable. It allows us to navigate the casual yet impactful nature of social media effectively, connecting with our audience where they are most active.
- **Facilitating Conversations:** A key part of our strategy involves sparking discussions and encouraging dialogue around the issues we address. A clear brand voice helps us initiate and maintain these conversations, ensuring they are constructive, informative, and aligned with our mission.

Brand values

Our brand values reflect and guide the project's mission:

- Integrity: Upholding integrity in all endeavors, fostering trust and credibility.
- Inclusivity: Embracing inclusivity, ensuring diversity in approach and engagement.
- Expertise: Grounded in expertise, leading with authority and scientific rigor.
- Innovation: Championing innovation, driving transformative change for a sustainable future.

Communication and Dissemination Tools

The Communication Toolkit provides consortium members with essential documents and resources to ensure consistent and effective communication throughout the project. These resources will be updated with additional promotional and visual elements as needed. The toolkit includes:

- A guide on how to install the Templates for the Microsoft suite.
- Visual style guide and project logo.

- Production guidelines.
- Social media banners.
- PowerPoint presentation template.
- Word document template for various uses (e.g., deliverables, minutes from workshops and reports).
- Promotional material (poster, banners, roll-ups, leaflet, etc.).
- Content creation images.
- Logos for PRIMED project.
- Other logos.
- Logos from the partners.
- Online meeting wallpapers.

The Annex also features a guide on producing photos, videos, and blogs to support content creation.

3. Communication and Dissemination Plan

The Communication and Dissemination Plan builds on the foundational strategies previously laid out, offering a detailed roadmap for our outreach efforts. This plan converts our strategic vision into tangible actions aimed at engaging our stakeholders comprehensively. It delineates critical steps from launching our project's digital presence to disseminating policy recommendations, ensuring our message not only reaches but resonates widely. This document acts as our navigational chart to extend the project's visibility and impact, encapsulating the essence of our mission in practical, actionable terms.

Specific Communication Actions

Table 8. Specific communication actions.

Action	Channels	Target Audience	Goal	Timing
Launch social media	Social media	Everyone	Establish an online presence to showcase the project	M4
Post in social media	Social media	Everyone	Share project news, insights, and achievements to sustain engagement	M4
Inform Press about Kick-off Meeting and General Assemblies	Press release	Everyone	Provide updates on the project's progress	M4
Set up website	Website	Everyone	Create a platform for project information, updates, and resources	M4
Post blogs on website	Website	Everyone	Offer detailed insights, updates, and stories to deepen understanding and interest	M4
Set up visual entity	All	Everyone	Enhance project brand recognition and ensure communication consistency	M4
Share explicative video on social media	Video on social media	Everyone	Present the project	M13
Share Newsletters	Newsletter	Key stakeholders	Keep stakeholders informed and engaged	M12
Site visit	In-person visit	Key stakeholders	Offer an up-close look at the project's progress	M13-M36
Workshops	Online and some in person.	Key stakeholders	Conduct workshops involving multiple actors for knowledge exchange	M1-M36

Trainings	Online and some in person.	Primary producers	Empower primary producers with practical knowledge of the project and best practices.	M1-M36
Lectures in educational contexts	Tbd	Students	Deliver engaging and informative lectures adapted to educational contexts, encouraging critical thinking and knowledge acquisition.	M1-M36
Present project in relevant congresses	Congresses	R+D, industry, investors	Showcase innovations and project impact to industry peers and stakeholders	M1-M36
Practice abstracts	Website and social media	Everyone with a special focus on primary sector	Enhance communication effectiveness on project updates	M12-M36

Specific Dissemination Activities

Table 9. Specific dissemination activities.

Action	Channels	Target Audience
Showcase project at industry conferences and exhibitions	Conferences and exhibitions	R+D, industry, investors
Share findings in peer-review journal publications	Publication in peer-reviewed journals	R+D
White paper	Conferences, public deliverable on website, emailed to key stakeholders	Policy makers

Participation in Events

In this section, we outline our plan for engaging with industry events and workshops throughout the duration of PRIMED. We've conducted an initial assessment of relevant opportunities and commit to ongoing monitoring to ensure alignment with our project's objectives.

Table 10. List of potentially relevant events in 2024 for communication and dissemination.

Name	Name
11th international bioeconomy conference	Renewable Materials Conference (annual)
International Conference on Bioeconomy and Sustainable development	Nanotechnology - International Conferences & exhibition on Nanotechnologies, organic electronics & Nanomedicine (annual)
CBE JU stakeholder forum 2023	The Greener Manufacturing Show (annual)
Academy of Management	2 nd international Cellular Agriculture conference
New Business Models	Future Food Tech conferences
Green and Sustainable Chemistry Conference (annual)	Renewable Materials Conference (annual)

Scientific Publications

We've compiled a list of journals relevant to PRIMED scientific and research progress. This compilation serves to support scientific partners in pinpointing suitable journals for the submission of research papers and other publications.

- [Business Strategy and the Environment](#)
- [Processes](#)
- [Journal of Nanoparticle Research](#)
- [Futures](#)
- [Biomass Conversion and Biorefinery](#)
- [Journal of Cleaner Production](#)
- [Food Research International](#)

Open Call Communication & Dissemination strategy

Our primary goal is to ensure that potential **participants and stakeholders are well-informed** about the **Open Call**. We aim to provide clear and concise details regarding the objective, eligibility criteria, submission process, and deadlines. This section will be updated according to the Open Call guidelines document.

Identified end-users

The potential participants and end-users are the ones described in **Target 2 - primary producers and secondary producers** who could be the providers of the biomass and other **Target 6 - Bio-based products end-users** who could test and validate the by-product created in the different living labs of the project.

Since each living lab is unique, the participants in each will also differ in their characteristics and backgrounds (Figure 2).

Living Labs	Feedstock	End products
LLab1 : ALC Bio-HUB (ES)	Livestock biomass (pig slurry and cow manure)	Biofuels (bio-CNG), biofertilizers and bio-compounds
LLab2: Bio-Silica Lab (PT)	Rice Husk (silica based residues)	Biomaterials and biochemicals (silica nanoparticles, coating and fibers/polymers)
LLab3: Liguria Bio-Lab (IT)	Fisheries-related waste and agro-waste	Bio-actives, or gelatine, or cosmetics, or fertilisers; and bioplastics
LLab4: BioEire Lab (IE)	Dairy by-products and forestry biomass	Lactic acid for biodegradable plastics, bio-based fertilisers (biochar)
LLab5: CellFactory Lab (FI)	Agri-food side-streams	Novel food and cosmetics

Figure 2. Inputs and subproducts of the PRIMED Living Labs.

Channels of Open Call Communication

We will use our website, social media and visual materials to reach out to a diverse audience:

Website:

The PRIMED project website will serve as a central hub for all information related to the open call. We will create a dedicated section specifically for the Open Call, providing essential details, guidelines, and resources. The Open Call section will include:

- A comprehensive **guide** outlining the purpose, eligibility criteria, and submission process for the Open Call.
- A list of **frequently asked questions (FAQs)** to address common queries from interested users.
- An **application form (template)** for those who wish to participate in the Open Call. This template is the one that every applicant has to send it to a dedicated Open Call project email.

In addition, via **partners websites** we could republish updates on the Open Call (as it is mentioned in the visual materials subsection).

Social Media:

We acknowledge the influential role of social media in connecting with a diverse audience and potential end-users.

Our strategy includes **regular posts** to announce the **launch of the Open Call**, highlight **key dates**, outline the **benefits** and **opportunities**, and remind followers of the **Open Call's closing**. By maintaining an active presence and disseminating timely updates, we aim to maximize outreach and engagement across various social media channels.

To ensure timely dissemination of information about the Open Call, we will schedule at **least one social media post at least one day prior to the launch**, another **on the day of the launch**, and a **couple of reminders** leading up to the closing of the Open Call. This strategic approach will help maximize awareness and participation in the Open Call across all target audiences.

Visual Materials:

We will develop a range of visual materials tailored to different end users (SMEs, primary producers and industry) in **different languages**, aligned with the 5 living labs. Therefore, we will develop visual content in Spanish, Catalan, Portuguese, Italian; Finnish and Irish. Each language will correspond to the specific living lab it serves, ensuring accessibility for local end-users.

To facilitate easy access, the living lab-specific **visual content** will be published on the respective living lab **partner leader's website**. This targeted approach aims to effectively engage with local end-users within each area.

Monitoring and evaluate the process

Throughout the execution of the 1st Open Call, we will conduct **regular meetings** to address encountered challenges and **identify potential enhancements for the process**. As the 1st Open Call nears its conclusion, these discussions will culminate in a series of **recommendations to refine the approach for the 2nd Open Call**. This iterative process ensures continuous improvement and integration of lessons learned from the 1st Open Call, creating a feedback loop that enhances the effectiveness of subsequent calls.

The **communication and dissemination of the 2nd Open Call will be the same as defined for the 1st Open Call**.

4. Monitoring and Evaluating C&D Actions

To ensure the effectiveness and impact of our communication and dissemination efforts, we have established a set of Key Performance Indicators (KPIs). These KPIs will provide measurable benchmarks to assess progress, guide strategic adjustments, and quantify our achievements in alignment with the project's objectives.

Communication & Dissemination KPIs

At the outset of the PRIMED project, it is imperative to acknowledge the inherent challenges in setting initial KPI goals. The digital landscape, particularly in the early stages of a project, is characterised by rapid fluctuations in growth metrics. Such volatility can render early data somewhat deceptive, as initial growth—often marked by significant percentage increases—may not accurately forecast long-term trends. This phenomenon is largely attributable to the small base effect, where initial numbers, though showing quick growth, lack statistical significance to predict future performance reliably. Hence, our approach to KPI monitoring and goal setting is designed to be adaptive at the early stage, considering the dynamic nature of online engagement and the evolving objectives of the PRIMED project.

For the website, our focus encompasses a range of KPIs that shed light on user engagement and content effectiveness, such as unique users, average engagement time and pageviews. These metrics will not only help us understand our reach and the quality of the user experience but also guide us in optimising our Search Engine Optimisation (SEO) strategies and website positioning. Similarly, on social media platforms like LinkedIn and X, we aim to measure engagement, follower growth, and the efficacy of our content through carefully chosen KPIs. These indicators will enable our Communications Team to refine our social media strategy, ensuring that our efforts align with the overarching goals of the PRIMED project, such as increasing brand visibility, educating our audience, and establishing our position as industry leaders in clean energy innovation.

To ensure accuracy and consistency in our KPI tracking, all data will be sourced from Google Analytics for our website and the respective analytics tools provided by our chosen social media platforms. This data will be reviewed and updated on a quarterly basis, allowing us to maintain a clear and current picture of our web and social media performance. By adopting this meticulous approach to KPI monitoring, we aim to foster a culture of data-driven decision-making within the PRIMED project, enabling us to navigate the complexities of online marketing with confidence and precision.

In conclusion, the KPIs selected for the PRIMED project's social media channels and website are integral to our internal strategy for monitoring progress and performance. Recognising the initial challenges in setting definitive goals, our approach remains flexible and responsive to the insights garnered from these indicators. Through continuous evaluation and adaptation, we are committed to optimising our online presence, ensuring that our digital marketing efforts effectively support the ambitious goals of the PRIMED project.

Key Performance Indicators on PRIMED website

Website KPIs are quantitative measurements that help identify the effectiveness of marketing initiatives, examine experiments, and track goal progress in the context of the PRIMED website. These key performance indicators display and highlight data related to customer behaviour habits on the PRIMED website, providing essential information in the processes of Search Engine Optimisation (SEO) and evaluating website health. Furthermore, KPI web analytics enable the observation of how specific initiatives contribute to achieving business objectives, thereby assisting in making informed decisions when optimising the website.

- **Unique users, or unique visitors**, represent the number of distinct individuals visiting a PRIMED website within a specified time frame, regardless of how many times they access the site's pages. This metric provides a clear picture of a website's reach and audience size, differing from total visits, which counts the number of times the site is accessed irrespective of the visitor count. Unique visitors are counted once in the period, offering valuable insights into the actual number of people engaged with the site's content.
- **Average Engagement Time** allows to understand user interaction and interest in PRIMED's website. This metric captures the average duration that the websites remain in the foreground on a user's device

(mobile or desktop), or PRIMED’s website maintains focus in a user's browser. Essentially, it quantifies how long a user actively engages with the content before shifting their attention elsewhere. The core concept of Average Engagement Time is straightforward—it measures the length of time a user spends with the website actively in view and being interacted with.

- **Pageviews** measures how many times PRIMED’s website pages are viewed or refreshed, indicating content attractiveness over a specific period. Each page load or reload by a visitor counts as a pageview, including repeated views of the same page. This KPI helps understand which PRIMED’s content engages visitors most, guiding improvements. Pageviews differ from "sessions" (user activity periods) and "users" (individual site visitors). "Unique pageviews" aggregate views by the same user in a single session, offering insights into engagement per session.

All data for the KPI calculation will be sourced from Google Analytics, which will be integrated with the PRIMED website. The data will be tracked in a centralised file for the entire project duration. Updates will occur on a quarterly basis. Over time, this will provide a clear view of web performance, allowing us to take actions to optimise it.

Table 11. Main KPIs for website.

KPI	Method of Calculation	Purpose
Unique Users	Count of distinct individuals visiting the website within a specified timeframe, regardless of page views	Measures the reach and audience size, indicating the number of people engaged with the site’s content.
Average Engagement Time	Measures the length of time a user spends with the website actively in view and being interacted with.	Indicates site engagement and effectiveness; helps assess the quality of visitor experience and content relevance.
Pageviews	Total number of page loads (or reloads) by visitors	Reflects content attractiveness and engagement level; guides content improvement and site optimization.

KPI on Social Media Channels

Choosing the correct KPIs (Key Performance Indicators) for PRIMED social media is crucial because it allows the Comms Team to measure and validate the effectiveness of their social media strategies in achieving their goals. By focusing on relevant metrics such as engagement, follower growth, and conversions (in case of paid advertising), businesses can gain insights into how well their content resonates with their target audiences, how effectively they are building brand awareness, and the return on investment (ROI) their social media efforts are generating. Furthermore, well-defined KPIs provide a clear framework for tracking progress over time, enabling the Communication Team to adjust strategies as needed and effectively communicate successes to stakeholders, demonstrating the tangible impact of their social media campaigns.

Followers’ monthly growth rate

Quarterly Growth Rate = (Followers on last day of quarter– Followers on first day of quarter) divided by Followers on first day of quarter.)

Follower growth rate is a metric that quantifies the rate at which a social media account acquires new followers over a specific period, typically expressed as a percentage. This metric shows the velocity of follower accumulation relative to the account's existing follower base. For instance, if the PRIMED project's LinkedIn account has an increase in followers from 1,000 to 1,100 over a month, the follower growth rate for that month would be calculated by taking the net gain in followers (100), dividing it by the starting follower count (1,000), and then multiplying by 100 to convert it into a percentage, resulting in a 10% growth rate for that month.

Follower growth, on the other hand, simply measures the net change in the number of followers within a given timeframe, serving as an indicator of brand reach and engagement levels. Platforms like LinkedIn, renowned for their strength in brand building and audience engagement, provide analytics tools that allow the Communication Team to closely monitor these metrics, assess content strategy effectiveness, and understand follower demographics to refine and enhance their social media presence.

Why is Follower Growth Rate Important for the HIYELD Project and its Communications Team?

- **Indicator of Social Media Performance:** For the communications team working on the PRIMED project, tracking the follower growth rate is crucial for understanding the effectiveness of their social media activities and strategies. A rising growth rate suggests that the strategies deployed are resonating well with the target audience, generating interest, and engaging users sufficiently to follow the project's account. Conversely, a declining or stagnant growth rate signals a need for strategy reassessment and possible optimisation to better captivate and expand the project's audience.
- **Comparative Analysis with Competitors:** The follower growth rate offers a valuable perspective for benchmarking the PRIMED project against its competitors. Even if the project's social media accounts have fewer followers compared to more established competitors, a higher growth rate can indicate more robust engagement and momentum. This metric helps the communications team identify competitive edges and areas of opportunity in capturing market share and attention.
- **Expanding Reach and Attracting New Audiences:** Beyond mere numbers, the follower growth rate provides insights into the project's ability to extend its reach and appeal to new segments of the audience. A healthy growth rate is indicative of the project's growing influence and its success in making meaningful connections with potential followers. For the PRIMED project, this is particularly important as it seeks to build a strong online presence and community around its objectives.
- **Evaluating Content Strategy:** The dynamics of follower growth rate also serve as a feedback mechanism for the project's content strategy. Rapid growth can validate the content's relevance, creativity, and alignment with audience preferences, while slow growth may prompt the communications team to innovate or diversify their content offerings. This continuous loop of feedback and adjustment is vital for maintaining an engaging social media presence that supports the PRIMED project's goals.
- **Strategic Planning and Forecasting:** Understanding the trends in follower growth rate enables the communications team to plan strategically for future campaigns and initiatives. By analysing patterns and correlating them with specific actions or events, the team can forecast potential growth and tailor their strategies to capitalise on what works best, ensuring sustained momentum and engagement.

Engagement Rate

Engagement Rate ER (Engagement Rate) = ((Total Engagement (Reactions + Comments + Shares)) / Impressions) *100%

Engagement rate is a metric in social media marketing that quantifies how actively the audience interacts with the content. It's calculated by aggregating the total interactions a post receives (likes, comments, shares, and clicks) and dividing this by the number of impressions, then multiplying by 100 to get a percentage. This formula applies across various platforms, including LinkedIn and X, offering a consistent measure of content performance. The engagement rate reflects the level of audience interest and interaction beyond mere viewership, indicating how compelling and relevant your content is to your followers.

Importance of Engagement Rate for PRIMED and its Communication Team

- **Measuring Content Efficacy:** For the PRIMED project, understanding the engagement rate on platforms like LinkedIn and X is essential for the Communication Team to understand the impact of their content. High engagement rates indicate that the content is resonating with the audience, driving interaction, and fostering a community around the project's goals.

- **Strategic Insights and Optimisation:** Engagement rate serves as a direct feedback mechanism, helping the Communication Team refine their social media strategy. By analysing what types of posts generate more engagement, the team can tailor future content to better meet the audience's preferences, enhancing the effectiveness of the PRIMED project's online presence.
- **Enhanced Visibility and Reach:** Platforms like LinkedIn and X prioritise content with higher engagement in their algorithms, amplifying its reach. For the PRIMED project, leveraging this can mean greater visibility among potential stakeholders, partners, and participants, expanding the project's influence and impact.
- **Building Credibility and Trust:** A consistent high engagement rate helps establish the PRIMED project as a credible and expertise voice within its field. For new visitors and potential collaborators, strong engagement signals an active and invested community, increasing trust and interest in the project.
- **Competitive Benchmarking:** By monitoring engagement rates, the PRIMED Communication Team can benchmark their performance against competitors and industry standards. This insight is invaluable for identifying strengths to build upon and areas requiring improvement, ensuring the project remains competitive and relevant.
- **Supporting Project Goals with Data-Driven Decisions:** The engagement rate allows the Communication Team to make informed decisions supported by data, aligning social media activities with the PRIMED project's broader objectives. Whether it's raising awareness, driving participation, or sharing outcomes, a focus on engagement ensures that social media efforts contribute directly to these goals.

Reach and Impressions

In the context of social media marketing, particularly for platforms like LinkedIn and X (formerly Twitter), "Impressions" and "Reach" are metrics that show the visibility of your content among PRIMED users. Impressions refer to the total number of times your content has been displayed to users, irrespective of whether it was clicked or not. This metric counts multiple views by the same user, highlighting the frequency of content exposure. On the other hand, Reach defines the total number of unique users who have seen your content. It measures the reach of PRIMED's content and is indicative of potential audience size. LinkedIn categorises these metrics as Page views and Unique visitors, providing insights into how many people have encountered the business page and the diversity of your audience. X platform offers only analytics for impressions, not for reach (unique users).

Why are Impressions & Reach Important for the PRIMED Project and Its Communication Team?

- **Maximizing Visibility and Awareness:** For the PRIMED project, maximizing the visibility of its initiatives on LinkedIn and X is crucial. Impressions and Reach serve as indicators of how broadly and frequently the project's content is being seen. A high number of impressions and a wide reach ensure that the project's messages are penetrating the digital space, enhancing visibility among potential collaborators, stakeholders, and the public.
- **Enhancing Brand Recognition:** The repeated exposure of the PRIMED project's content (impressions) combined with a strategy to expand its audience base (reach) is fundamental in building brand recognition. The more frequently users see PRIMED content, the more likely they are to recall and recognise the project's brand, contributing to a strong presence in the industry.
- **Audience Growth and Engagement Strategy:** By analysing Reach and Impressions, the Communication Team can tailor their engagement strategies to better connect with their audience. Understanding the nuances between the two metrics allows the team to refine content strategies to not just reach more users but to ensure that content is compelling enough to be viewed multiple times. This balance is key to growing a dedicated and engaged audience.

- **Benchmarking and Optimization:** Impressions and Reach provide a basis for benchmarking the performance of the PRIMED project's social media activities against competitors and industry standards. By tracking these metrics, the Communication Team can identify trends, assess the effectiveness of their social media campaigns, and make informed decisions to optimise future content for better performance.
- **Improving Conversion Potential:** Ultimately, the goal of enhancing Impressions and Reach is to convert viewers into active participants, supporters, or customers of the PRIMED project. A strategic focus on these metrics ensures that content not only reaches a broad audience but does so in a way that encourages interaction and deeper engagement with the project's objectives.
- **Reporting and Stakeholder Communication:** Impressions and Reach are tangible metrics that can be reported back to stakeholders to demonstrate the success and impact of the PRIMED project's social media activities. They provide information regarding the project's digital footprint and its ability to engage with a wide audience effectively.

Posting Frequency

Posting frequency refers to how often a brand or organization shares content on their social media channels. It can vary widely depending on the platform, the brand's goals, the nature of the content, and the target audience's preferences. On platforms LinkedIn and X (formerly Twitter), the recommended posting frequency can range from once per week to multiple times per day. LinkedIn suggests that companies posting weekly can see a significant increase in content engagement. The longevity of LinkedIn content in user feeds, thanks to engagement and feed filters, underscores the potential impact of each post. X, with its fast-paced nature, may warrant a higher posting frequency to stay visible in followers' rapidly updating feeds.

Why is Posting Frequency an Important KPI for the PRIMED Project and Its Communication Team?

- **Maximizing Engagement and Visibility:** For the PRIMED project, maintaining an optimal posting frequency on LinkedIn and X is crucial for maximizing content engagement and visibility. Regular posting keeps the project up to date for followers and increases the chances of content being seen and interacted with. This consistent visibility is essential for building and maintaining momentum for the project's initiatives.
- **Content Longevity and Reach Expansion:** LinkedIn's feature of content longevity in user feeds highlights the importance of engaging posts. By posting content that encourages interaction, the PRIMED project can leverage the network effect, where engaged content reaches beyond immediate followers to appear in their connections' feeds, significantly expanding reach.
- **Audience Engagement and Retention:** Keeping the audience engaged with regular updates can help retain interest in the PRIMED project. A strategic posting frequency ensures that the audience receives timely and relevant updates without feeling overwhelmed. This balance is key to sustaining a healthy, active online community.
- **Optimising for Platform Algorithms:** Each social media platform has its unique algorithm that prioritises content based on various factors, including posting frequency. For the PRIMED Communication Team, understanding and adapting to these algorithms by maintaining an optimal posting frequency can enhance content performance, ensuring better positioning in followers' feeds.
- **Feedback and Continuous Improvement:** Regular posting provides continuous feedback on content performance, allowing the PRIMED Communication Team to refine their content strategy. By analysing engagement patterns and audience preferences, the team can adjust their posting frequency and content types for improved outcomes.
- **Building Industry Expertise:** Sharing insightful content, industry news, and project updates frequently helps establish the PRIMED project as a thought leader in its field. A consistent, informative presence on platforms like LinkedIn enhances credibility and authority, attracting more followers and potential collaborators.

KPI	Method of Calculation	Purpose
Followers Quarterly Growth Rate	(Followers at end of quarter - Followers at start of quarter) / Followers at start of quarter	Measures the rate of audience growth, indicating brand reach and engagement effectiveness.
Engagement Rate	(Total engagements (reactions, comments, shares) / Total impressions) * 100%	Assesses how actively the audience interacts with content, reflecting content's relevance and interest to the audience.
Reach and Impressions	Reach: Number of unique users who see the content. Impressions: Total times the content is displayed.	Reach measures audience size, while impressions indicate content's visibility and brand exposure.
Posting Frequency	Frequency of content sharing on social media platforms	Balances audience engagement without overwhelming, optimising content visibility and interaction.

Main KPIs

Table 12. C&D activities for PRIMED project.

Communication or dissemination method	KPI	Level of engagement
Website	Number of updates	≥ 1 per month
	Visits	≥ 1,000 per year
Project material	Project brochures	Give away in every event
	Newsletter	4 during project
	Press release	3 during project
	Webinar	1 webinar per year (25 participants for each webinar)
	Videos	1 project video
Social media	Twitter posts	2-4 post/month
	LinkedIn posts	2-4 post/month
Scientific publications	Publications in peer-review journals	3-5 during project
Conferences, exhibitions, trade fairs, workshops	Attending and/or presenting at conferences, exhibitions and trade fairs.	10 events to be selected
Lectures in educational contexts	Academic partners	1 per year
Multi-actor co-creation workshops and trainings	Participation in workshops, focus groups and trainings for stakeholders	5 workshops in WP3 (LUT and RUB) to create CBMB. 5 workshops in WP5 (LUT and RUB) to validate CBMB. 10 workshops in WP4 to shared agendas. 5 workshops in WP6. 3 workshops in WP7 to policy recommendations (T7.2) 5 trainings for primary producers
Collaborate in events with other ongoing EU projects and projects funded under the same topic (clustering)	Online with other ongoing projects related to PRIMED	10 during the project

<p>Workshops to MEPs (members of the EU Parliament), together with national and sectorial representatives</p>	<p>Annual update and closing workshop</p>	<p>1 workshop</p>
<p>Open access repositories: Biomanufacturing Platform, Hubs for Circularity, the Circular Cities and Regions Initiative, the EC's Knowledge Centre for Bioeconomy, European Circular Economy Stakeholder Platform, E-STRATOS, EIP-AGRI, Rural Observatory, ENOLL, The European Network for Rural Development and JRC Publications Repository.</p>	<p>PRIMED will engage multi-actors at every available opportunity, for recruiting participants for workshops, developing strategies and solutions, and up take of the results. We will also participate in industry meetings. To this end, the project will be able to disseminate PRIMED results to the regional and local operational groups of the agricultural sector in an understandable language using “practice abstracts”.</p>	<p>At least 5 posts per year in one of the platforms and 2 meetings.</p>

5. Conclusion

In closing our strategy and plan chart a clear path for the impactful communication, widespread dissemination of our project findings. It's a commitment to share our work and to ensure it resonates, influences, and sparks change. By uniting our voices, extending our reach, and harnessing our innovations, we're set to drive forward scientific progress and societal benefit. This document is in just a roadmap; it's our pledge to make a lasting contribution to our field and beyond. With a focused approach, collaborative spirit, and rigorous methodology, we move forward, ready to achieve remarkable outcomes.