Communication and Dissemination Plan

EUREMAP

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Legal Disclaimer

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1. Executive Summary

The following document presents a communication plan for the project EUREMAP, which aims to develop an optimised pipeline of marine bioprospecting services in Europe to enable state-of-the-art research and capacity for both academia and industry. The document is divided into 10 sections, starting with the reference situation with a short overview about the state-of-the-art of marine bioprospecting, the general context of Research Infrastructures (RIs) in Europe, and a summary of the project and its different work packages (WPs). The main communication goals will be listed and briefly explained, followed by a characterisation of the different target audiences. Key messages will be defined and thoroughly explained. Finally, the different communication channels will be listed and, for each, their key messages, tone of voice, and target audiences will be described, together with a brief description of the type of actions that will be pursued for each. The document closes with a timeline of all the activities that are projected for this communication plan. The present communication plan is part of WP19 Project Communication, developed by the CCMAR team with input from all partners. It will only be used internally among the project partners.

2.Reference Situation

2.1.   Marine bioprospecting in Europe and beyond

Marine bioprospecting for a Blue Economy

Bioprospecting offers a myriad of benefits, from the opportunity to discover novel compounds with therapeutic properties to fostering conservation efforts by highlighting the economic value of preserving ecosystems and biodiversity. The ocean has vast potential for bioprospecting, as it represents 71% of the Earth's surface and, in terms of biotechnologically relevant molecules, remains largely unexplored compared to terrestrial ecosystems. Currently, there is growing interest in developing marine-based biological products, yet creating an efficient discovery pipeline for these products requires cutting-edge technical platforms as well as multidisciplinary research teams.

The European Union's Blue Economy, which strives for the health of seas, oceans, and coasts, generated €658 billion in revenue in 2017 ([The 2019 EU Blue Economy Report](#)). As part of the European Marine Strategy, blue economy focuses on sustainably exploiting the ocean and discovering new solutions to current challenges in human health, agriculture, food supply, and biotechnology.

Marine organisms as sources of natural bioactive products

Marine organisms represent a vast diversity of natural products due to the high biodiversity and extensive range of habitats. The rise of interest in exploiting the marine environment for bioactive natural products in the past few decades has allowed numerous products to reach the market or be used in human health, particularly in cancer therapy.

Beyond drug discovery, marine-derived products are increasingly sought after as nutraceuticals. These products contain beneficial ingredients such as vitamins and antioxidants, which can be used in the cosmetic and food industry. In addition, marine-derived agrochemical products such as biopesticides are vital for the European Commission's environmental goals, such as the "From Farm to Fork Policy", which aims to reduce the use of chemical pesticides by 50% and fertilisers by 20% by 2030. These marine-derived natural products can also contribute to sustainable aquaculture practices, as they also offer potential solutions for controlling fish diseases and reducing antibiotics.

2.2.   General context about Research Infrastructure (RIs)

Despite the growing interest in marine natural products, there are currently no pipelines to efficiently enable their discovery. An effective discovery process needs advanced technical infrastructure and a multidisciplinary team of microbiologists, biologists, chemists, bioinformaticians, and pharmacologists. To date, the expertise and technical support needed to establish a comprehensive discovery pipeline are dispersed across Europe, primarily within various institutions, universities, and research groups.

To tackle such bottlenecks, EU Commission programmes have funded consortia, including RIs, to address strategic questions regarding natural resource exploitation. These efforts have resulted in the formation of a network of excellence driven by exploratory science. However, this network relies on individual *ad hoc* multi-year funding programmes that lack integration and thereby hinder its ability to promptly meet the multidisciplinary technical needs of research groups or industries in the marine natural product sector.

By contrast, EUREMAP will be a first-of-its-kind project that will gather all the expertise and state-of-the-art to create a pipeline of research services that can be offered by a consortium of European RIs.

2.3.   About the project

EUREMAP aims to integrate and optimise the marine bioprospecting workflow infrastructure in Europe by connecting a consortium of four RIs – EU-OPENSCREEN, EMBRC, ELIXIR, and EMBL – to support and enable the discovery of novel bioactive natural products from marine organisms.

EUREMAP will last for 36 months and consists of nine main pillars divided into 21 WPs. A brief description of each WP is presented below to provide some context for this communication plan. (For detailed information on each pillar and WP, please consult the EUREMAP Grant Agreement.) Important note: This Communication and Dissemination Plan is designed to include the communication and dissemination tasks planned for Pillar 9.

⦿ **Pillar 1: Project Management**

WP1 and WP2 – Project management (reporting periods 1 and 2): These WPs coordinate, manage, and control the activities of the consortium. Their main goals include a) establishing efficient management procedures for the EUREMAP project; b) ensuring project deliverables and milestones are met according to the work plan and budget; c) maintaining effective communication within the consortium and with the EU Commission; d) ensuring compliance with ethical requirements; and e) promoting gender equality.

- **Pilar 2: Genomics**

WP3 – *In silico* marine bioprospecting tools for gene clusters and their products: The main goals of WP3 are: a) to develop a state-of-the-art biosynthetic gene cluster (BGC) prediction pipeline for marine bioprospecting and apply it to both prokaryotic and eukaryotic marine data in the EMBL-MGnify repository and isolate genomes, refining the discovery interfaces in MGnify for sequence-based and compound-targeted searches on both public and private data; and b) utilise results from WP5–9 to incorporate new BGC and natural product knowledge, constructing libraries of enzymes and co-factors associated with specific BGC classes to generate libraries of chemical analogues.

WP4 – Support biomass production: The main objective of WP4 is to develop a new service for microbial biomass production. This biomass will be used for the extraction occurring in the early stages of the development pipeline, including activity screening and structural analysis of bioactive molecules.

- **Pillar 3: Green Chemistry**

WP5 – Integrating services for chemical and biological profiling of marine samples: The main objective of WP5 is to connect and standardise services for optimal access to marine extract libraries, metabolomics, and a broad range of bioassays by a) addressing technical bottlenecks; b) preparing an inventory of existing extracts and descriptions for new chemical extracts; and c) establishing mechanisms and protocols for long-term resource maintenance and use by researchers and European industries.

WP6 – Chemical and biological profiling of prioritised marine samples: The main goals of WP6 are a) to demonstrate and validate services linked to extraction, metabolomics, and bioassays across different RIs; and b) to identify and implement new and improved extraction technologies to facilitate a shift towards greener and more sustainable methods.

WP7 – Bioassays and safety demonstration of marine natural products: The main objective of WP7 is to support at least two demonstration case studies in bioassay-guided isolation and provide

bioprofiling, safety, and toxicity studies of marine natural products.

◉ **Pillar 4: Marine Natural Compounds**

WP8 – Integrating natural products chemistry services: The main aim of WP8 is to establish and integrate technology platform services and analytical/computational tools to support efficient identification and characterisation of novel bioactive molecules from diverse marine sources and ensure their isolation, structural elucidation, sustainable production, and novel synthesis for the preparation of analogues.

WP9 – Isolation and structural elucidation of selected marine bioactive samples: The aim of WP9 is to develop demonstration activities in collaboration with other RIs to validate the application of the services proposed by the chemistry technology platform and ensure the purification and structural elucidation of novel marine natural products from bioactive marine sources.

WP10 – Synthesis of natural products by chemical and biotechnological methods: The goals of WP10 include: a) implementing a second demonstration case study to achieve the total and semi-synthesis of natural products; b) preparing labelled and fluorescent derivatives; c) implementing bioconversion/biocatalytic approaches; and d) performing *in silico* studies to generate improved analogues.

◉ **Pillar 5: Data Management and Tools**

WP11 – Open science policy and project data management: WP11 aims to landscape and describe the current implementation of open science policy and FAIR data practices by consortium members and establish the basis for designing a Data Management Plan (DMP) for the project to ensure its interaction and compatibility with the European Open Science Cloud (EOSC).

WP12 – Increasing data availability and enhancing interoperability: The main goals of WP12 are to remedy gaps and deficiencies identified in the previous WP by developing new and enhancing existing data services and infrastructure identified in the DMP. Other goals include increasing the availability and interoperability of data through the development of resource description framework (RDF) ontologies and triple-linked data structures and integrating consortium data into the EOSC.

◉ **Pillar 6: Valorisation and Industry Engagement**

WP13 – Enable industry engagement: The main goals of WP13 are to: a) promote the visibility of the platform to industry to foster engagement with and use of the pipeline services; b) develop new and clear access procedures; and c) define a model with a single-entry door and centralised contact to facilitate multilevel interaction. The purpose of this WP is to identify current gaps in the pipeline for industrial end-users and co-develop solutions to address them, defining common rules to establish the route for using the pipeline assets and their valorisation.

WP14 – Industrial valorisation of the marine natural products pipeline: The main goals of WP14 are to: a) establish demonstration projects to valorise various nodes of the pipeline, offering services requested by industry end-users to create added value across diverse applications, including human health, agriculture, and aquaculture; b) document and establish links to the nodes' database information to ensure compliance of biological resources with current legislation concerning access and benefit sharing (ABS); and c) establish tools to facilitate access to Convention on Biological Diversity/Nagoya Protocol information on marine assets.

⊙ **Pillar 7: Training and Capacity Building**

WP15 – Training and capacity building plan: The main goals of WP15 include: a) identifying training gaps and developing a suitable training plan for RI staff and external users; b) designing and organising webinars and workshops in best practices for metabolomics, green chemistry, bioprofiling, synthesis, etc.; c) developing guidelines for and launching an open call for a job-shadowing programme and staff exchanges; and d) building an extensive state-of-the-art portfolio to support early-stage and established researchers in marine natural product discovery.

WP16 – Training school, courses and job-shadowing programme: The main goals of WP16 include a) organising a training school for early career scientists in marine bioprospecting; b) launching a second call for staff exchanges and job-shadowing between consortium members to strengthen the existing collaboration and knowledge-sharing between RIs and with international experts and industry; and c) organising thematic webinars and satellite workshops at scientific conferences in marine bioprospecting.

⊙ **Pillar 8: Long-term Sustainability and International Partnerships**

WP17 – Long-term sustainability & international partnerships 1: The main goals of WP17 include a) conducting a landscape analysis of initiatives in marine bioprospecting as a basis for the integration and interconnectedness of EUREMAP with relevant national and international initiatives; and b) initiating the engagement with international peers and relevant industries in the Blue Bioeconomy.

WP18 – Long-term sustainability & international partnerships 2: The main goals of WP18 include a) engaging with relevant national and international initiatives based on a landscape analysis; and b) reinforcing efforts to build a global community in marine bioprospecting.

⊙ **Pillar 9: Outreach and Dissemination**

WP19 – Project communication: Leveraging the communication capacity of the four RIs within the consortium, WP19 aims to achieve the following objectives: a) establish a cross-RI communications working group; b) develop the present Communication and Dissemination Plan; and c) create a toolkit of communication materials and channels to be used within the project.

WP20 – Raising awareness of marine bioprospecting: The aims of WP20 include the following: a) to increase the visibility of the EUREMAP marine bioprospecting service portfolio; b) to attract new users to the marine bioprospecting services developed; c) to raise awareness about the potential of marine bioprospecting for societal challenges and innovation; and d) to foster societal support for RIs as tools to address societal challenges and promote innovation.

An additional WP, WP21, focuses on ethical aspects in EUREMAP. The aim is to monitor and detect, assess and address potential ethics issues in the project.

2.4.   Situation analysis – communicating EUREMAP

By systematically analysing the strengths, weaknesses, opportunities, and threats related to the project's communication, a SWOT analysis was performed to create a robust, strategic, and adaptive communication plan that can effectively support the project's goals (Table 1).

Table 1. SWOT analysis focusing on the communication of project EUREMAP. This analysis identifies internal factors of the project (Strengths and Weaknesses) that affect its communication positively or negatively, as well as external factors to the project (Opportunities and Threats) that may impact the success and effectiveness of its communication.

Strengths	Weaknesses
⊙ **Expertise**	⊙ **Complexity**
The EUREMAP project gathers multiple partners with extensive experience and knowledge in marine bioprospecting. This confers credibility to the project, which is essential for its communication and to position	Since this project has a very innovative background, it can create some complexity to communicate its goals and progression effectively.

itself with target users from research and industry. The expertise of the EUREMAP project partners is crucial for the successful completion of this integrative, interdisciplinary project and for sustaining methods and skills within RIs over the long term.

Innovation

EUREMAP is a one-of-a-kind project which connects four RIs to create an effective pipeline for marine bioprospecting across Europe. Such an initiative has never been carried out before.

Value

This project tries to find solutions for current needs and goals at a global scale – from new drug discovery to food production, from the cosmetic industry to antibiotic resistance and agricultural sustainability. The communication of the project can benefit from the value it may bring to EU Missions and global Sustainable Development Goals (SDGs).

Collaboration between RIs

These collaborations will strengthen and improve knowledge in an underexplored area of research, contributing to solutions and scientific knowledge in general.

State-of-the-art equipment

All four RIs and the partners involved have high-end equipment that will become more accessible for marine bioprospecting with this project.

Timing – service pipeline

The service pipeline is expected to be finished by the end of the project, leaving only minimal time to properly communicate it to end-users and other stakeholders. The service pipelines will be tested and set up throughout the project lifetime, and as the pipelines and parts of them will be available by the end of the first year, it should be possible to already set up and initiate communication. The issue related to service communication is ongoing, therefore other RI projects could be consulted on the topic.

Timing – pilot projects

Pilot studies may start midway through the project but should yield outcomes fairly quickly, as the set-up of the flow will start with the preliminary WPs which aim to interconnect the modules' different nodes and create a connected structure. The outcomes may be covered by confidentiality issues if companies get involved. Hence, what we seek from them is feedback about the "fitness" of the pipeline. Are they fit for purpose? Would they use them? And if no, why not?

Geographic dispersion

For communication purposes, the geographical dispersion of all the partners across Europe presents challenges, as it becomes harder to produce certain types of content (e.g., videos).

Opportunities	Threats

Networking

The marine bioprospecting research field presents several opportunities for networking and exchange of expertise and information between highly qualified individuals (from both academia and industry), such as conferences, meetings, etc.

Possibility of scientific discoveries

New drugs and marine natural products could be discovered during the project and used to communicate

Misunderstandings

There may be a lack of understanding about marine bioprospecting and its activities. For instance, marine bioprospecting may incorrectly be associated with other Blue Economy activities that have negative connotations (e.g., extractive activities).

Lack of appeal

It is not very exciting to talk about pipelines, which necessitated the identification of a means by which the

and highlight the value of marine bioprospecting and biodiscovery, and the need to create a dedicated trans-RI pipeline of services.

○ Societal interest

There is an increasing interest from society in general in the ocean and its conservation, both at policy making and general public level.

○ Blue Economy

This project is aligned with the Blue Economy goals and has the potential to find solutions for issues related to it.

message is not only received, but also considered stimulating.

○ Competition

Issues linked to ownership and origin may arise. It is critical to be seen as partners rather than competitors to other scientists in order to stimulate engagement, valorisation, and use of the RIs and this pipeline in particular.

3.Main Communication Goals

EUREMAP's main communication goals are:

- **To engage key stakeholders, namely the scientific community, industry and decision-makers, with the EUREMAP project.**

- **To increase the visibility of the EUREMAP marine bioprospecting service portfolio, particularly towards its potential end-users, with special emphasis on those in the scientific community.**

- **To attract new users to the marine bioprospecting services being developed, particularly among the scientific community and industry.**

- **To raise awareness of the public and decision-makers of the potential of marine bioprospecting to address societal challenges and promote innovation.**

- **To foster societal support for RIs as tools to address societal challenges and promote innovation, particularly close to decision-makers.**

4.Target Audiences

4.1.   Scientific Community

Researchers working in marine bioprospecting represent the main end-users of the pipeline developed within EUREMAP. These researchers will stem both from academia and industry and from European and global scientific communities.

Academic researchers: This group includes professors, postdoctoral researchers, and graduate students working at universities and research institutions. They are interested in advancing scientific knowledge, conducting experiments, and publishing findings in peer-reviewed journals. They consume scientific literature and engage with academic communities and forums online. The social media platforms LinkedIn and Twitter/X are popular among this group for networking and sharing research updates. This group also attends scientific symposiums, conferences, and training events to advance their knowledge and skills and to grow their networks.

Researchers in industry: This group consists of researchers working in the biotechnology sector and in pharmaceutical, cosmetics, and agrochemical companies. They too are interested in leveraging marine natural products for product development, innovation, and commercialisation. Industry professionals often consume a mix of scientific literature, market reports, and industry news. They may also follow relevant hashtags and accounts on Twitter/X and LinkedIn to stay updated on industry trends, participate in professional groups and forums, and engage with thought leaders in their respective fields. They are also interested in scientific conferences and symposiums, both to network and to advertise their products. Issues related with intellectual property may be of particular concern for this target group.

4.2. Professionals from industry and SMEs, pharmaceutical companies, chemical companies

Whereas our target group of researchers working in industry have a background in life science research, industry managers may not. These individuals may be marketeers, business professionals, or managers at biotechnology, pharmaceutical, cosmetics, or agrochemistry companies. They may base their decisions on what the researchers say, but their main interests lie in the added value and possible revenue of a product.

Industries and small- and medium-sized enterprises (SMEs) that will have a direct interest in the EUREMAP services operate in the fields of biotechnology, marine sciences, environmental technologies, nutraceuticals, cosmetics, agrochemicals, sustainable aquaculture, drug discovery, oncology, antibiotics, antivirals, biopharmaceuticals, biochemicals, biofuels, industrial enzymes, and specialty chemicals. Their main needs and interest include:

- Having access to cutting-edge marine bioprospecting tools and technologies and support for research and development activities.
- Collaborative opportunities with research institutions and information on funding and investment opportunities.
- Clear pathways for commercialising marine-derived products and new bioactive molecules for industrial applications.

Another target group is partnerships for technology transfer and scale-up. This group is usually present in scientific conferences and webinars, not only as sponsors for advertising purposes but also for networking. These companies usually have an official LinkedIn account for professional networking, industry news, and updates and a Twitter/X for quick updates on industry trends and news. Issues related to intellectual property may be of particular concern to this target group.

4.3.   Decision/policy makers

The main interest of policy makers is to develop and implement policies for sustainable marine resource exploitation to ensure compliance with international marine and environmental regulations. As such, they search for ways to facilitate funding and support for marine research and innovation. They also aim to promote the socio-economic benefits of marine bioprospecting and understand its social and economic impacts on marine conservation by encouraging public–private partnerships and collaborative research initiatives.

As policy makers, it is important that they fund projects which align with their goals – creating RIs, addressing societal issues, and leveraging their own industry – and that simultaneously supports the image of the European Research Area (ERA) as a place for cutting-edge scientific research. They attend conferences and symposia of varied topics in which their political work can be an asset. With respect to social media, they can be found on LinkedIn for professional networking, policy updates, and discussions; Twitter/X for real-time updates on policy developments and events; and Facebook for broader engagement and outreach with the general public by sharing success stories and initiatives.

4.4.   EOSC professionals

The European Open Science Cloud (EOSC) is a cross-cutting Common European Data Space and a pivot point for policy implementation for the integration and interoperability of European life science data. Professionals working in EOSC-related fields include project managers, data scientists, infrastructure developers, IT specialists, research data managers, cloud service providers, and digital policy advisors. Their main goal is to develop and implement open science and open data policy by ensuring compliance with FAIR (Findable, Accessible, Interoperable, Reusable) data principles. They enhance interoperability and data sharing across European research infrastructures and facilitate access to high-quality data and computational resources for marine bioprospecting. They support collaborative research and innovation through advanced digital services by leveraging cloud technologies for efficient data storage, processing, and analysis.

EOSC professionals also aim to continually improve data management and metadata documentation standards. They often engage with the scientific research community to drive the adoption of EOSC services, mainly in events and scientific symposia. Regarding social media, they are often present on LinkedIn for professional networking, sharing project updates, and engaging with the scientific research community; Twitter/X for real-time updates, announcements, and participation in open

science discussions; and GitHub for collaborative development, code sharing, and project documentation.

4.5.   General public

Members of the general public to whom this project will likely appeal include citizens who share interests in science (especially marine-related), environmental conservation, health and wellness, and sustainable living. They may or may not have any scientific background but are aware of the importance of advancements in scientific research, especially ocean-related investigation. They are interested in understanding the importance of marine biodiversity and its role in the ecosystem and learning about the latest scientific discoveries and technologies. They are aware of the effects of their lifestyle and choose to use certain products based on their environmental impact. Regarding social media, they can usually be found on Facebook and Instagram, not only to consume content for their own entertainment but also to engage with community groups, consume educational posts, and share multimedia content. They can also be found on Twitter/X for entertainment purposes and updates on the latest news; on YouTube for accessing educational videos and documentaries; and on TikTok for short, engaging videos on varied topics.

5.Key Messages

Main slogan: "**Advanced research services to discover new marine products.**"

Rationale: This slogan widely summarises EUREMAP's goal of developing a new pipeline of marine bioprospecting services to enable the discovery of novel marine products.

Target audience: This slogan is suitable to use transversally across all communication platforms and can be easily understood by all target audiences.

Secondary slogan: "**Research Partnerships to Boost Marine Bioprospecting.**"

Rationale: On one hand, this secondary slogan focuses on the collaborative approach of the EUREMAP project – across multiple RIs, involving multidisciplinary researchers, between academia and industry. On the other hand, it conveys the impact that this project aims to achieve with its research pipeline: a) to boost the technical capacities of marine bioprospecting as an area of research in itself; b) to integrate the state-of-the-art of the field; and c) to showcase our own capacity to undertake marine bioprospecting activities.

Target audience: This slogan is suitable to use when addressing stakeholders and end-users such as researchers and industry professionals, as it implies familiarity with the term "marine bioprospecting". Different target audiences may perceive "research partnership" as relating to their own position (as researchers, RI professionals, industry professionals, etc).

Key messages to convey in the communication of this project include:

1) The ocean is a vast reservoir of largely undescribed marine biodiversity from which we can develop new natural products.

Rationale: This message focuses on marine biodiversity as a major source of novel bioactive natural products. Most natural products on the market today have been isolated from land-based organisms, with marine-based products comprising only a small proportion of existing products on offer. Yet, considering that the ocean is home to a vast diversity of life covering 70% of the planet, it offers a nearly untapped source of new material for biodiscovery.

Target audiences: all

Slogan proposal:

"**Uncovering the ocean's hidden treasures through sustainable bioprospecting**"

2) Marine bioprospecting technologies reveal the bioactive potential of marine organisms.

Rationale: This message emphasises the importance and potential of using advanced bioprospecting technologies to explore and harness the bioactive compounds found in marine organisms. These technologies can lead to groundbreaking discoveries in many fields such as those of the pharmaceutical and biotechnology industries. Applying cutting-edge bioprospecting technologies and finding these marine compounds can lead to significant advancements in drug discovery, health products, and industrial applications. The integration of these technologies will not only expand our understanding of marine biodiversity but also drive innovation and sustainable use of marine resources.

Target audiences: Scientific community, Industry

Slogan proposal:

"**Unlocking the potential of marine biodiversity to discover cutting-edge bioactive compounds**"

3) Protecting marine biodiversity is important to maintain its potential for future generations.

Rationale: There is a critical need to preserve marine biodiversity to ensure a good future for the upcoming generations. Marine ecosystems are under threat from pollution, climate change, and overfishing, which can lead to the loss of invaluable species and their unique bioactive properties. Protecting these ecosystems is essential for maintaining the natural reservoir of bioactive compounds that have the potential to revolutionise not only medicine but other areas as well, such as aquaculture and food production.

Slogan proposal #1:

"**Sea the Potential: marine biodiversity for innovative discoveries**"

Target audiences: Industry, Policy makers

Slogan proposal #2:

"**Blue Re(Sea)rch: joining forces for a better future**"

Target audiences: Scientific community, Policy Makers

4) The EUREMAP service pipeline will enable researchers and industry to carry out state-of-the-art research in marine bioprospecting.

> **Rationale:** EUREMAP offers access to advanced technologies, comprehensive databases, and expert support to enable high-quality research and development of marine-derived bioactive compounds. By leveraging this platform, stakeholders can conduct innovative and efficient studies, leading to the discovery and commercialisation of new products that capitalise on marine biodiversity. This resource not only accelerates scientific discovery but also fosters collaboration between academia and industry for the advancement of innovative products.
>
> Slogan proposal #1: **"From the ocean to the industry: powering innovation with marine biocomponents"**
>
> **Target audiences:** Industry
>
> Slogan proposal #2:
>
> **"Fuelling Innovation: Marine Bioprospecting for Tomorrow's Solutions"**
>
> **Target audiences:** (Industry, Policy makers)

6. Strategy

The overall strategy for the communication of EUREMAP takes into consideration the project's main communication goals and target audiences, insights from the SWOT analysis, and the time planning of the other WPs. As the remaining WPs are set to deliver visible results and outputs primarily from the midpoint of the project onwards, this communication strategy is divided into two consecutive phases. The initial phase will establish the project communication channels, tools, and resources, focusing on the project's goals, consortium credibility, and its expected impacts for the Blue Economy. The second phase will use the communication channels already established to effectively disseminate activities, results, and outputs (namely the services portfolio) to ensure wide engagement with different stakeholders and end-users.

6.1. First stage – Developing basic tools and channels for project communication

6.1.1. Establishing a communication group

An interdisciplinary working group comprising the external-relations officers of the four RI partner institutions will be established to ensure cohesive communication strategies and effective outreach to diverse research communities and stakeholders. Additionally, a dedicated channel will be established on the Research Infrastructure Communicators Slack platform (ri-comms.slack.com) to facilitate communication within this network. To foster collaboration and engagement among these communication officers, three workshops will be organised during the project's first year:

Workshop 1: This session will focus on aligning communication efforts, sharing best practices for outreach campaigns, and developing strategies to promote awareness of the project and marine bioprospecting to various audiences.

Workshop 2: A dedicated training session will be conducted to equip communications officers with specific skills and tools relevant to their roles.

Workshop 3: The final workshop will serve to test and validate communication materials, channels, and activities.

6.1.2. Toolkit of communication resources and channels

A EUREMAP communication toolkit will be developed, including:

⊙ Visual and style guide

This guide will include the project's digital identity, logo, and visual elements, along with key messages and slogans.

⊙ Website

EUREMAP will have a dedicated website (https://euremap.eu/) to provide information about the project, including new services, activities, news, events, and funding details, as well as hosting all developed digital content.

⊙ Communication materials

To promote cross-RI services in marine bioprospecting and support other project pillars, communication materials will be developed. These materials may include presentation templates, brochures, policy briefings, graphics, videos, newsletters, and other promotional/exhibit materials (more details in section 8). An initial meeting with other WP leaders will be held to map communication needs across the project.

⊙ Social media strategy

The main social media goals of EUREMAP include expanding communication channels, reaching a broader audience, and driving traffic to the project website, in preparation for the dissemination of results and activities that will intensify in the second stage of this strategy. The social media strategy will primarily focus on Twitter/X and LinkedIn. Until month 18, content will predominantly aim to highlight the project's ongoing activities and raise awareness. Additionally, strategic content will be amplified through paid advertising to effectively target and engage new users.

For the social media strategy and based on the different target groups, we will consider a few personas to better understand the communication needs for each:

⊙ Marina Solé – Senior researcher in Marine Bioprospecting

Background: Marina has dedicated her career to exploring the vast potential of marine bioprospecting. She holds a Ph.D. in Marine Biology and a specialisation in natural product discovery. Marina has conducted extensive fieldwork in diverse marine environments worldwide, from coral reefs to deep-sea vents, uncovering unique organisms and their bioactive compounds.

Personality: Marina is driven by curiosity and a deep appreciation for the ocean's mysteries. She is meticulous and detail-oriented in her work, always striving for excellence in every aspect of the research process. Despite the challenges of working in remote and often harsh environments, Marina maintains a positive and optimistic outlook, inspired by the endless possibilities that marine bioprospecting holds. She is a natural leader who fosters collaboration and creativity among her team members and encourages innovative approaches to problem-solving. Her main motivation to work in this field is the potential it has for finding solutions to environmental issues while also contributing to humanity's well-being. She sees marine bioprospecting as a promising avenue for discovering novel bioactive compounds with the potential to revolutionise various industries.

Media: Marina actively participates in Twitter/X discussions related to marine biology, bioprospecting, and scientific research in general. She follows leading scientists, research institutions, and science communicators to stay updated on the latest developments in her field and engage in conversations about emerging topics. Marina also maintains a professional presence on LinkedIn, where she connects with colleagues, collaborators, and potential collaborators. She shares updates about her research projects, publications, and conference presentations, as well as networking with professionals in academia, industry, and government agencies. As a scientist, she also actively participates in training events and scientific symposia. She also enjoys reading news and consuming life science-related content.

◉ Oliver Müller – Industry professional

Background: Oliver is a project manager at a pharmaceutical company. Although he does not have a primary background in scientific research, he holds a Ph.D. in Business and Economics and has over 20 years of experience in the pharmaceutical industry. Oliver has led numerous research projects aimed at identifying and developing novel bioactive compounds, contributing significantly to innovative drug discovery.

Personality: Oliver is driven by a passion for scientific innovation and a commitment to improving healthcare. He is strategic and analytical and takes into consideration what the scientific researchers tell him. Oliver is highly collaborative and fosters strong partnerships with research institutions and industry peers. He is proactive in addressing regulatory challenges that science investigation brings and tries as much as possible to bring innovative products to the market that are valuable both to society and to the company in terms of revenue.

Media: Oliver maintains a robust professional presence on LinkedIn, sharing insights about advancements and networking with other industry professionals. He posts updates on his projects and participates in discussions on pharmaceutical innovations. Oliver frequently attends industry conferences, both to sponsor the company's products and for networking purposes.

⊙ Laura Fernandez – Decision-maker

Background: Laura has dedicated her career to shaping environmental and scientific policies. She holds a master's degree in Public Policy and a bachelor's degree in Environmental Science. With 25 years of experience in governmental and international policymaking, Laura has been instrumental in promoting sustainable practices and conservation efforts.

Personality: Laura is driven by a commitment to public service and environmental stewardship. She is analytical and detail-oriented, with a strong ability to balance diverse stakeholder interests. Laura is persuasive and strategic, often engaging in high-level discussions to advocate for sustainable policies. She is proactive in seeking out the latest scientific research to inform policy decisions.

Media: Laura uses LinkedIn to connect with policy makers, researchers, and environmental advocates. She shares policy updates and engages in discussions about sustainable practices and scientific advancements. She also shares some quick and "in the moment" policy updates about sustainable practices and scientific advancements, as well as the events and conferences she attends. Laura also shares these updates to reach a broader audience on Facebook and Instagram; in these cases, she uses engaging and simple language to communicate with the general public. She also attends meetings, EU Commission briefings, and United Nations conferences to network and stay updated on global policy trends.

⊙ Sophie Dubois – EOSC Professional

Background: Sophie has dedicated her career to enhancing data interoperability and accessibility within the European Open Science Cloud (EOSC). She holds a Ph.D. in Data Science and a master's degree in Computer Science. With over 10 years of experience, Sophie has played a key role in promoting FAIR data principles and supporting researchers in leveraging big data for scientific advancements.

Personality: Sophie is driven by a passion for data science and a commitment to open science principles. She is highly analytical and detail-oriented, with a talent for solving complex data management challenges. Sophie is collaborative and often works with diverse research teams to facilitate data sharing and integration. She is proactive in promoting data security and compliance with regulations.

Media: Sophie maintains a professional presence on LinkedIn, sharing updates on data science projects and networking with other data professionals. She participates in discussions about data interoperability and open science. She follows data science trends, engages with the data science community on Twitter/X, and shares insights and updates. She attends events like the EOSC

Symposium and the Research Data Alliance (RDA) Plenary Meetings to present her work and collaborate with peers.

○ **John Parker – General public**

Background: John Parker is a high school science teacher with a passion for marine biology and environmental conservation. He holds a bachelor's degree in Education with a focus on Biology. John has been teaching for over 15 years, inspiring young minds to appreciate and protect the natural world. He spends his summers volunteering with local marine conservation organisations, participating in beach clean-ups, and educating the community about marine ecosystems.

Personality: John is enthusiastic and approachable, known for his ability to make complex scientific concepts accessible and engaging for his students and community members. He is curious and always eager to learn more about the natural world, which fuels his passion for teaching and conservation. John is patient and empathetic, qualities which make him a favourite among his students and a respected member of his community. He is a proactive advocate for environmental sustainability and is committed to raising awareness about the importance of protecting marine biodiversity.

Media: John is active on Twitter/X, where he follows environmental organisations, marine biologists, and conservationists. He uses the platform to share educational resources, conservation news, and his own experiences with marine biology projects. On Facebook and Instagram, he connects with local conservation groups, shares community event information, and posts about his volunteer activities. He also participates in discussions about environmental issues and solutions. He often watches educational videos and documentaries on YouTube about marine life, conservation efforts, and new scientific discoveries. He integrates these resources into his teaching to make his lessons more dynamic. John listens to podcasts and reads blogs related to environmental science and marine conservation. In general, John uses social media and enjoys learning from experts in the field and staying updated on the latest research and trends.

6.2. Second Stage – Raising awareness of marine bioprospecting

In the second stage of the communication strategy, we expect a more intense communication of project results and activities, as the remaining WPs finish deliverables and milestones. The main tasks to develop at this stage include:

- ◉ **Increasing the visibility of the new digital portfolio with the marine bioprospecting pipeline of services**

The digital portfolio will be hosted on the EUREMAP website, and several activities will be developed to raise awareness: 1) dedicated social media campaigns about the new services, and 2) joining efforts amongst the cross-RI communications working group to tap into their communication channels and ensure wider reach of the portfolio and its awareness social media campaigns.

- ◉ **Attracting new users**

This task will involve proactive engagement with the scientific community, industry, policymakers, civil society, and general public to promote services and attract new users to the integrated bioprospecting pipeline. These activities will include participation in scientific conferences and trade shows through oral presentations, posters, and satellite workshops, followed by virtual discussions. Notable conferences include the International Symposium on Marine Natural Products (MaNaPro), European Conference on Marine Natural Products (ECMNP), and International Symposium on the Chemistry of Natural Products (ISCNP). Additionally, virtual webinars will be organised, featuring keynote speakers from RIs and external scientists to report project services and outcomes. These webinars will target early-career scientists and offer free registration to maximise attendance.

- ◉ **Raising Awareness of Marine Bioprospecting**

This task will involve the creation of engaging, non-scientific digital educational materials (videos, articles, infographics) for the general public. These materials will explain the role of RIs in marine bioprospecting. To reach a broader audience, an international digital storytelling competition will be held for students (up to year 12). The best stories will be shared on EUREMAP's social media, and winning students will be invited for visits and short internships at the RIs.

- ◉ **Fostering Support for RIs as Tools to Enable Marine Bioprospecting**

The main goal of this task is to highlight the scientific and societal impact of marine bioprospecting and RIs to policymakers and funders. This will include personal meetings with funders and policymakers, including at ESFRI meetings and in Brussels. There will also be an effort to engage with national funders and contact points to raise awareness of the contributions of RIs to the ERA and research quality.

7.Communication Channels

Several channels will be used to communicate about ongoing activities within EUREMAP (Table 2).

Table 2. Communication channels for EUREMAP and their details, target audiences, messages, and tone.

Channel	Target Audiences	Messages	Tone	Details
Website	All	Clear message on what is EUREMAP, its goals and partners; information for users; information about the services and the pipeline. **Key messages:** 1, 2, 3 and 4	Informative formal, smart, trustworthy	The website will be developed in two phases: **1st phase:** - Homepage: slogan - Mission statement; consortium credibility; news and events; outreach - 1st menu: about the project: project's description, partners and team description, pillar's description - 2nd menu: about marine bioprospecting (outreach and background information on the project) - 3rd menu: news and events - 4th menu: pipeline and services **2nd phase:** - The activities and results from the project will be published throughout the project's lifetime - 5th menu: industry
LinkedIn	All	EUREMAP is innovative; EUREMAP is aligned with the EU's goals/strategies **Key messages:** 1, 3 and 4	Informative formal, smart, trustworthy	Images, videos, infographics, informative and scientifically accurate copywriting, redirection to website and news, mentioning partners, promoting events
Twitter/X	All	EUREMAP is innovative; EUREMAP is aligned with the EU's goals/strategies	Informative formal, concise, smart, trustworthy	Images, videos, infographics, threads, short and concise copywriting, tagging partners, promoting events

Channel	Target Audiences	Messages	Tone	Details
		Key messages: 1, 3 and 4		
Events	Scientific community	EUREMAP is innovative; EUREMAP's events are a good networking opportunity; EUREMAP has value **Key messages:** 2 and 4	Informative formal, smart, scientifically accurate, engaging	The range of action to promote EUREMAP will be scientific conferences and trade shows through e.g., oral presentations, posters, satellite workshops. Follow-up (virtual) discussions will be organised. Examples of conferences include: International Symposium on Marine Natural Products (MaNaPro), European Conference on Marine Natural Products (ECMNP), International Symposium on the Chemistry of Natural Products (ISCNP), International Conference on Marine Bioprospecting (BIOPROSP), etc.Virtual webinars about marine bioprospecting to report project services and outcomes with keynote speakers from the RIs and external scientists. These webinars will target early-career scientists, and registration will be free to maximise attendance.
Events	Industry	EUREMAP can bring exciting results for the industrial world, while also being sustainable **Key messages:** 2, 3 and 4	Informative formal, smart, engaging, trustworthy, accessible	Industry events related to WP13. Details will be updated throughout the project as the activity plan for WP13 is developed.
Meetings	Policy Makers	EUREMAP is aligned with the EU's goals/strategies; EUREMAP will put Europe on the forefront of marine bioprospecting investigation and services **Key Messages:** 1, 3 and 4	Informative formal, smart, engaging, diplomatic, trustworthy, accessible	Personal meetings with funders and policymakers, e.g., in conjunction with ESFRI meetings and personal discussions in Brussels. Engagement with national funders / national contact points to raise awareness of RIs and their contribution to the ERA and research quality.

Channel	Target Audiences	Messages	Tone	Details
Training	Scientific community	EUREMAP will increase scientists' expertise in state-of-the-art bioprospecting technologies; EUREMAP will connect scientists all over Europe (and the world) that work with bioprospecting and marine-related sciences. **Key messages:** 2, 3 and 4	Informative formal, smart, scientifically accurate, engaging	Training events related to WP15. Details will be updated throughout the project as the activity plan for WP15 is developed.

8. Communication Materials

Several communication materials will be developed during the project to feed digital communication activities, ensure branding recognition, and support events, including:

- **Visual ID**

The EUREMAP visual ID should be used in all communication materials to imprint visual consistency, convey a professional and trustworthy feeling, and increase brand recognition (in this case, project awareness).

- **Videos**

Short videos (30–60") for social media use are a preferred format. Topics for these videos should include interviews with our researchers, event coverage, info about marine bioprospection, examples of natural products, and results of pilot projects.

- **Templates**

Templates with the project's visual ID should be used in all communication and dissemination activities by all partners. Specific formats include MS PowerPoint presentations, project deliverable reports, MS Word documents, and social media templates to announce events and activities.

- **Print materials**

Flyers, brochures, and policy briefings with the EUREMAP visual ID will be developed according to the needs of the other WPs. Promotional/exhibit materials – roll-ups and posters with the EUREMAP visual ID – will also be developed according to the needs of the other WPs.

9.Planning

	1st Stage																		2nd Stage																			
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36	M37	M38
Workshops	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																				
Comm. and dissem. plan	■	■	■	■	■	■																																
Visual ID	■	■	■																																			
Toolkit of Communication Materials			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■																				
Website					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Social Media (LinkedIn and X)			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Digital Portfolio																			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Events and meetings																			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

10. Key Performance Indicators (KPIs) and Metrics

Key performance indicators (KPIs) and metrics are tools used to measure and evaluate the effectiveness of all the communication activities developed so far. They provide quantifiable data that help in assessing progress toward specific goals and objectives. KPIs and metrics are essential for monitoring performance, identifying areas for improvement, and ensuring that efforts are aligned with the desired outcomes. There will be systematic control of data and results, so that the strategy can be adjusted if the goals set are not being attained.

◉ Social Media

The metrics that will be used for EUREMAP's for LinkedIn will be **reach, engagement rate, number of followers, and number of interactions.** For Twitter/X, **impressions, number of interactions, and number followers** will be the focus.

The main KPI across both social media platforms will be **to monitor these metrics monthly** to ensure the growth and reach of these two platforms throughout the project.

◉ Website

Since EUREMAP will focus on a very niche service and its possible outcomes, the only metric used to evaluate the website's performance will be **page views**. The main KPI will be to monitor the website page views every two months.

◉ Events

The main metrics to monitor the success of the events will be the **number of events held and their attendance.** One of the main KPIs is that EUREMAP will be present in at least three international events, mainly the International Symposium on Marine Natural Products (MaNaPro), the European Conference on Marine Natural Products (ECMNP) and the International Symposium on the Chemistry of Natural Products (ISCNP).