Sustainable Blue Economy Partnership

THEMATIC PORTFOLIO

Innovations for boosting sustainability in marine algae cultivations and circularity in the blue bioeconomy

IMPLEMENTATION PLAN

Final version – 12/6/2026

Lead: Thematic Portfolio Secretariat, ANR (French National Research Agency)

WP4 (Monitoring and follow-up of calls and projects), T4.6 (Portfolios of projects)

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VERSION CONTROL		
Document version	Date	Changes
V0	7/5/2026	Initial draft
V1	13/5/2026	Changes made after collecting first comments from the projects. IOC UNESCO endorsement added to the dissemination activities. KPIs refined.
V2	12/6/2026	Communication strategy update. Adaptation of the KPIs.

I. INTRODUCTION TO THE THEMATIC PORTFOLIO

1. What is SBEP

The Sustainable Blue Economy Partnership (SBEP) is a Horizon co-funded partnership that brings together 74 partner institutions from 32 countries and the European Commission to pool research and innovation investments, and align national programmes at pan-European scale. More information about the Partnership can be found at: https://bluepartnership.eu/.

The core activity of SBEP is the launching of annual transnational joint calls co-funded by the partner institutions and the European Commission, based on the priorities outlined in the Strategic Research and Innovation Agenda (SRIA). The Intervention Areas are developed according to an annual cycle and drive future calls and activities.

The 2026 Intervention Areas are:

- Transitioning Blue Economy Sectors
- Managing Sea-Uses
- Blue Bioresources
- Resilient Coastal Communities and Businesses

In addition, SBEP provides the platform to develop R&I clusters aimed to promote knowledge-sharing and R&I cooperation, both around thematic areas and at regional level.

2. The Thematic Portfolio Action

The Thematic Portfolio Action aims to connect ongoing research and innovation projects funded by the Partnership and by other national, regional or EU instruments for a two-year period, from early 2026 to early 2028. It is part of the activities of Work Package 4 (*Monitoring and follow up of calls and projects*), and more particularly of Task 4.6, '*Portfolios of projects*'.

Two Thematic Portfolios have been launched in parallel and fall under the scope of the Intervention Area 'Blue Bioresources' defined in the SRIA:

- Thematic Portfolio 1: Innovations and digitalisation for low-impact sustainable small-scale fisheries management in EU sea-basins
- Thematic Portfolio 2: Innovations for boosting sustainability in marine algae cultivations and circularity in the blue bioeconomy

The primary goal of this action is networking. The ambition is to boost exchanges, knowledge and data sharing, and synergistic collaborations between R&I projects which address the same theme. Through a common platform provided by the Partnership, the Thematic Portfolios of projects are expected to improve communication across projects by enabling channels of networking and knowledge sharing, potentially facilitating the production of joint outputs and outcomes. Each portfolio will design its own roadmap comprising, for instance, joint actions to avoid duplication, competition, and overlap, to foster complementarities, to create exchanges of results, and to co-deliver impactful and innovative solutions for reaching a sustainable blue economy in the EU.

With the support of the Partnership, the two Thematic Portfolios are expected to increase transnational synergies at the EU scale, boost quadruple helix multi-stakeholder collaboration, and respond to the challenges and opportunities identified within each topic.

Several benefits to participate in the Thematic Portfolio are described in the open call for expression of interest:

- *Increased visibility at the international level*
- *Networking with quadruple-helix stakeholders*
- *Career boost especially for early career scientists*
- *Identification of new opportunities for cooperation*
- *Identification of potential beneficiaries of the project outputs*
- *Co-design market uptake plans*
- *Meetings with EU Commission experts*
- *Participation to SBEP events (e.g. symposium)*

This document outlines the Implementation Plan for Thematic Portfolio 2 on *Innovations for boosting sustainability in marine algae cultivations and circularity in the blue bioeconomy.*

3. Thematic Portfolio sub-topics and projects

The Thematic Portfolio projects were selected through an open call for expressions of interest, launched from July to November 2025, based on their eligibility and on the synergies that may be developed with other projects (in regards to the R&I activities covered by the project).

Project Title and Acronym	Source of funding	Duration	R&I Activities covered (according to the text of the call for expressions of interest, see detailed description in annex)				
			Strain development and genetic engineering	Sustainable, circular and low-impact algae cultivation systems	Biorefinery and valorization of algae biomass	Synthetic biology and AI integration	Economic, policy and social research
SEAGROW Seaweed Ecosystem Aquaculture for GROWth and Sustainability	CINEA, EMFAF	1/10/2025 – 30/9/2028	☒	☒	☒	☐	☐
BIOVAL Microalgal biomass valorization for sustainable production of functional food and feed ingredients	SBEP Call 2	27/8/2025 – 26/8/2028	☒	☒	☒	☐	☐
Blue Bio Boost Boosting seaweed farming through better utilization of genetic resources	SBEP Call 1	31/5/2024 – 30/5/2027	☒	☐	☒	☐	☒
Blueboost Culture of a wide range of low trophic species to boostsustainable production of Blue Food and reduce environmental footprint	SBEP Call 1	1/4/2024 – 31/3/2027	☐	☒	☒	☐	☒
CIRCALGAE	Horizon Europe	1/10/2022 – 30/9/2026	☐	☐	☒	☐	☐
MARMADE MARine bioMass valorizAtion for fooD and fEed innovation	CBE-JU	9/1/2025 – 31/8/2029	☐	☐	☒	☐	☐

SEALGAEPOWER	SBEP Call 2	31/8/2025 – 30/8/2028	☐	☒	☒	☐	☒
SEAREFINERY Improved Valorization of Marine Sources and Processing Waste for Resuource Efficient Blue Food/ Feed and Environmentally Sustainable Materials Development	SBEP Call 1	15/4/2024 – 15/4/2027	☐	☐	☒	☐	☐
SEAFOODTURE Integral valorisation of seaweed biomass for the development of sustainable, high nutritional quality food products	SBEP Call 1	1/5/2024 – 30/4/2027	☐	☒	☒	☐	☐
ALGAEPROBANOS Accelerating algae product developments in Baltic and North Sea	Mission Ocean and Waters	1/4/2023 – 31/3/2027	☐	☒	☒	☐	☐
ALLIANCE European microalgae alliance (ALLIANCE): innovative, safe, and sustainable multi product biorefineries for a blue biobased economy	CBE-JU	9/1/2025 – 31/7/2029	☒	☒	☒	☒	☒

4. Thematic Portfolio Governance

The Thematic Portfolio is a light networking instrument with a dedicated governance framework, composed of:

- **The Thematic Portfolio Board** – decision-making body of the Thematic Portfolio Board, composed of the Partnership General Assembly Members. The Board is responsible for approving the list of selected projects in the portfolio, provide support and guidance to the projects during the portfolio implementation, and oversee the monitoring of the activities.

- **The Thematic Portfolio Secretariat** – coordinates the portfolio implementation, by organizing the regular meetings, provides the platform to exchange information, and is the primary contact point for portfolio members. The Thematic Portfolio Secretariat is the ANR.

- **The Thematic Portfolio Facilitator** – part of the Secretariat, the Facilitator provide input for brokerage events, identifying synergies among the projects. The Facilitator is **Claire Hellio (ANR)**.

- **Thematic Portfolio Chair(s)** – identified during the kick-off meeting, the chair supports the Secretariat and Facilitator in preparing and moderating the discussions when necessary during the portfolio implementation phase. During the kick-off, the projects decided that **Giovanna Romano (BIOVAL)** and **Adriana Ramirez (BLUEBOOST)** will co-chair the portfolio.

II. IMPLEMENTATION PLAN AND ACTIVITIES

This part outlines the portfolio implementation activities and results from discussions among the thematic portfolio projects during the first 3 to 4 months after the kick-off meeting. This implementation plan has been designed collaboratively with the projects so that the activities are tailored to portfolio projects' needs. As it is a living document, it may be subject to future modifications.

As a result of the kick-off meeting held on February 12th in Bucharest, in hybrid format (see milestones, p.13), working themes and activities were tentatively identified during several brainstorming sessions, and developed in greater detail in the first months of implementation. The table on the next page is the result of this discussion

1. Synergies table – identification of working themes and associated networking activities

Working area identified by the projects	Consumer perspective and acceptance (including consumer awareness)	Life-cycle assessment, circularity and sustainability	Algae cultivation and biorefinery	Strain development and genetic engineering	Market analysis, business model development, regulatory gaps and assessment	Algae-based products development (food, food supplements, feed, packaging, cosmetics, ...)
Projects involved in the working area	SEAlgaePower, SEAREFINERY, SEAFOODTURE, AlgaeProBANOS, ALLIANCE	SEAGROW, BIOVAL, BLUEBOOST, SEAlgaePower, SEAREFINERY, AlgaeProBANOS	BIOVAL, BlueBioBoost, BLUEBOOST, CIRCALGAE, SEAlgaePower, MARMADE, SEAREFINERY, SEAFOODTURE	BIOVAL, BlueBioBoost	SEAGROW, BIOVAL, BLUEBOOST, BlueBioBoost, SEAlgaePower, SEAREFINERY, AlgaeProBANOS	BIOVAL, BLUEBOOST, CIRCALGAE, SEAlgaePower, SEAREFINERY, SEAFOODTURE, AlgaeProBANOS
Identified activities/ideas for future activities	Discuss how to multiply consumer engagement across projects Discuss ideas for consumer awareness opportunities in different countries	Share best practices Comparative analysis Share knowledge and best practices through an open event (webinar for instance)	Share best practices and agree on culture protocols Knowledge exchange to address common culture problems Conduct a comparative analysis Development of a standardized joint protocol or best practices	Networking and knowledge-sharing + data-sharing Researchers' mobility Fostering future collaborations Academia-industry collaboration Collaboration on genetics/breeding and biochemical analyses	Organize a training on market analysis for non-experts Data sharing through a library of resources (to share deliverables, methodology, etc.) Organize a workshop addressing, for instance, innovation or exploitation Discuss how to engage with customers, especially large industry Identify the legislation that limits the development of algal culture Reinforce the connection with policymakers and activities through different activities (sharing policy research, engagement with policymakers to increase the impact of the projects, using the SBEP platform, policy-brief production)	Define markets and value of biomass Policy alignment, policy brief development including joint recommendations Share information about events where products can be tasted, showcased, etc.

The portfolio members identified six working areas based on the synergies that can be made within the portfolio, and associated activities, listed in the table on the previous page:

- **Consumer awareness, perspective and acceptance**
- **Life-Cycle Assessment, circularity and sustainability**
- **Algae cultivation and Biorefinery**
- **Strain development and genetic engineering**
- **Market analysis, business model development, regulatory gaps assessment**
- **Algae-based products development (food, food supplements, feed, packaging, cosmetics, …)**

The previously identified networking activities will be refined in the first semester of implementation of the portfolio and may be subject to changes depending on the projects' needs.

2. Identified networking activities

The objective agreed upon with the portfolio members during the kick-off meeting is to have at least one networking activity per year. Based on the discussion above, the activities can be summarized as follows, with a tentative timeline:

First year of implementation (2026-2027) ***Focus: Getting to know each other and work on the synergies***	Second year of implementation (2027-2028) ***Focus: Joint networking activities and outcomes***
- Information and data sharing (e.g. key data, information, protocols or deliverables), exchanges on best practices in the different themes identified by the projects - Exchanges on common themes (e.g. engagement with the industry, increase the engagement of the consumer, consumer awareness opportunities) - Assess the opportunity to develop common outputs (e.g. paper/recommendations, best practices, workshop, training for non-experts) in the 2nd year - Consider opportunities for researchers' mobility	- Continuation of the networking activities in year 1 - Joint outputs: paper/recommendations development, training for non-experts, workshop - Open webinars - Policy-oriented activities. - Preparation of the final event and dissemination of the portfolio outputs

3. Frequency of portfolio meetings

In order to ensure the follow up of the Thematic Portfolio implementation, **internal online update meetings will be held every 2 months**. These regular update meetings will focus on the update of activities, exchanging information, and addressing other subjects of interest for the portfolio members.

These meetings can include keynote speakers, either recommended by the portfolio members or the Secretariat, to open the discussion on a topic of interest for the group.

A **mid-term portfolio meeting** will take place, either online or physically back-to-back with a Partnership event. This meeting will allow the portfolio members to network and will also be an opportunity to assess the first year of implementation based, the update of activities and perspectives for the second year of implementation.

The Thematic Portfolio final event, to be held physically back-to-back with a SBEP event, will be focused on the outcomes of this networking action.

4. Inclusion of other projects in the portfolio

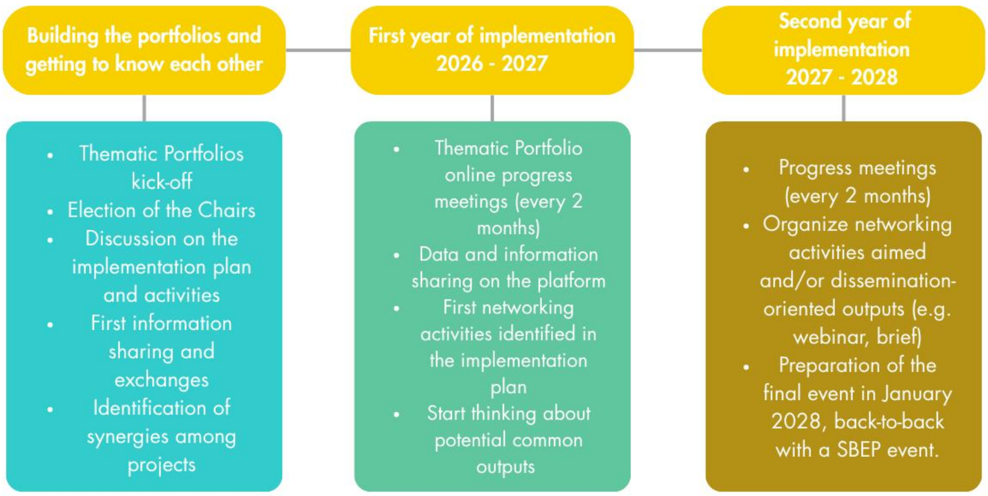
As the Thematic Portfolio already includes 11 projects, inclusion of additional projects is not considered for the moment. Other projects may be invited to attend the portfolio events.

III. IMPLEMENTATION MILESTONES AND KPIs

Although the Thematic Portfolio action is relatively light in scope and primarily focused on networking, milestones and Key Performance Indicators (KPIs) have been identified to frame the action and its objectives and were discussed with portfolio members during the kick-off meeting.

1. Implementation phases

The following implementation phases were presented during the kick-off meeting:



2. Milestones and KPIs

This part outlines the milestones and KPIs created together with the thematic portfolio projects. As the instrument is a light networking tool, the objective is to frame the action and activities using indicative milestones and KPIs.

A. Milestones

- February 12th, 2026: Thematic Portfolio kick-off
- April/May 2026: Who is who brochure
- End of May 2026: Implementation Plan, first version
- By the end of 2026: At least 1 networking activity
- December 2026 – January 2027: Portfolio physical midterm meeting
- By the end of 2027: At least 1 networking activity
- Early 2028: Final portfolio workshop, back-to-back with a SBEP event (to showcase portfolio results)

B. KPIs

The following list of KPIs is indicative and results from a discussion with the Portfolio Members during the kick-off meeting. Their completion will be therefore assessed based on the portfolio members' declarations, through short surveys in mid-term (end of 2026) and end of implementation (end of 2027/early 2028).

These KPIs will also be an indicator for the final report which will be drafted by the Secretariat.

KPI	Description	Target in the 2 years of action
Engagement in the Thematic Portfolio activities (engagement rate)	Each project to take part in at least 1 joint activities of the Thematic Portfolio	1 networking activity per portfolio project
Number of identified connections between portfolio projects	Number of connections* between projects during the action. * For instance, an indicative list of connections: -bilateral explorational calls happened between portfolio members	At least 2 connections found per project

	-2 or more portfolio members met to discuss potential collaboration (including to discuss a new project proposal) -connections of other form: visiting lecturer, technical visit, participation in each other event, jointly organized event, other project's outputs cited/used by another project, information and data exchange.	
Shared data and resources	Number of projects that managed to share data and resources (e.g. data, tools, methodology, protocols, best practices) with other projects in the portfolio.	At least 2 projects
Number of webinars/events (co-) organized	Number of events organized or co-organized within the framework of the action.	At least 1each year
Common outputs and productions	Number of documents jointly produced, with at least 2 projects involved (policy brief, opinion paper, best practices note, …).	At least 1 joint output
Dissemination of common results, within and outside the SBEP.	Dissemination through internal and external communication channels.	Internal communication: share updates about the portfolio every 6 months, through the SBEP newsletter. External communication: maintain regular updates on the portfolio LinkedIn page, posting at least 2-3 times per trimester, including original posts and reposts from portfolio projects. All portfolio key documentation (i.e. Implementation Plan, Who-is-Who brochure) will be posted on the SBEP website when validated by end of June 2026.
Global satisfaction	% of projects declaring that the Thematic portfolio action was useful for their project.	95%

IV. COMMUNICATION AND DISSEMINATION

This part of the document addresses the internal and external communication, and dissemination. One of the objectives of the Thematic Portfolio action is to provide the portfolio projects with the platform and framework to boost networking activities, and increase the visibility of the projects and their outcomes. This communication and dissemination strategy targets different channels: the internal communication within the portfolio, the promotion of the portfolio activities and connectivity with the SBEP community, and external quadruple-helix stakeholders (academia, industry, governments, and civil society).

This communication and dissemination plan may be subject to modifications during the portfolio implementation.

1. Portfolio internal communication

In order to simplify information exchange and data sharing – i.e. data extracted from the portfolio projects' deliverables, for instance – a dedicated Sharepoint was created. Among the different functionalities, the projects are given access to a dedicated chat to exchange information, as well as dedicated folders where they can share key documentation and data. On this platform, projects are also invited to share relevant information about future events.

The regular update meetings, held every 2 months, is also seen as a key communication channel. During these meetings, portfolio projects are given the opportunity to share their results, discuss common thematics, and address future opportunities. These regular update meetings are also the occasion for the Secretariat to update the portfolio projects about the ongoing activities in the Partnership, that are relevant to the portfolio topic. During these meetings, keynotes will be scheduled to launch the discussion of the day or open new perspectives for exchange.

In addition to the regular meetings, projects are encouraged to do bilateral exchanges, which may be facilitated by the Portfolio Secretariat if necessary.

Projects are encouraged to regularly share key news or information to the other portfolio projects, notably by email or through the Sharepoint.

2. Communication to the SBEP Community

Smooth communication between the portfolio and the whole SBEP community will be facilitated by the Secretariat, with the support of the portfolio projects, through different channels:

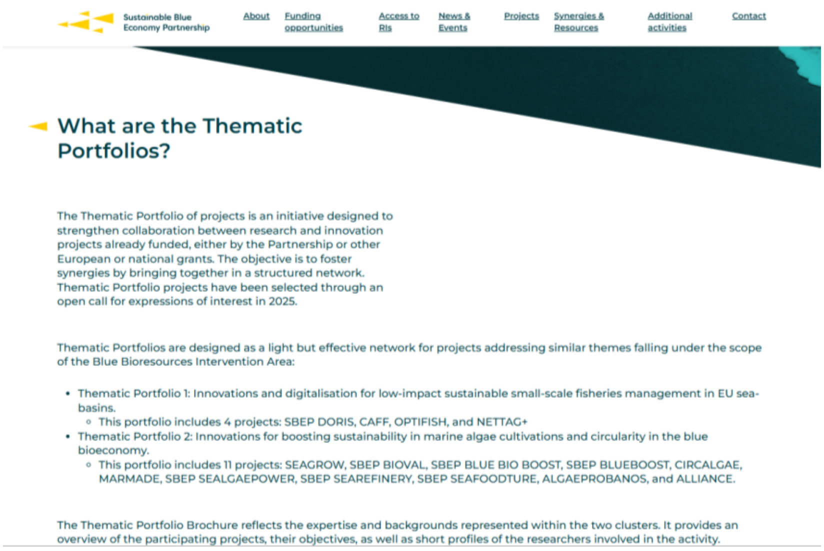
- **Regular updates through the SBEP governing meetings**: The Secretariat will regularly communicate about the key portfolio activities during the Partnership governing meetings (ExComm, General Assembly, Steering Committee), when relevant. The objective is to bring awareness of the initiative and its outcomes through the community.
- **Regular contributions to the SBEP newsletter**: the portfolio Secretariat will include key updates about the portfolio activities in this format, circulated every trimester approximately.

- **Bilateral contact with other relevant SBEP projects**: The Secretariat will create links with other SBEP co-funded projects, when relevant to the portfolio activities. Other SBEP projects, for example, will be invited to join the portfolio open events or webinars and will be invited to present their results during the portfolio update meetings as a keynote.
- **Communication with the other Thematic Portfolio on small-scale fisheries**: Communication between the two thematic portfolios, implemented at the same time, will be promoted by the Secretariat when relevant.

3. External Communication

In order to support the visibility of the portfolio projects, the Secretariat will create dedicated communication platforms, using the SBEP website and social media. In addition, measures are proposed to disseminate the portfolio results to other external stakeholders addressed sustainable algae cultivations and circularity, including quadruple-helix stakeholders (academia, governments, industry and civil society).

A. Thematic Portfolio webpage and social media



In the first months of implementation (M1 to M3), information about the Thematic Portfolio will be added on the Partnership website ([Thematic Portfolios [2026-2028] | Bluepartnership]), which is the primary communication and information platform for the Partnership. This page will feature key information about the Thematic Portfolio, its members, and the objectives of this action. The portfolio documentation and common outputs will also be uploaded on this page.

Fig. 1: Thematic Portfolio webpage

In addition, a LinkedIn page will be created in the first months of implementation to showcase the portfolios' networking activities and allow the projects to easily share information to their networks. The projects' LinkedIn posts will be shared on this page for more visibility. This page is managed by the Secretariat and common to the two Thematic Portfolios, in order to maximize their visibility. To that aim, posts will be regularly made. Portfolio projects' posts will also be reposted on this page. The page can be accessed here: https://www.linkedin.com/showcase/thematic-portfolios-of-projects-blue-partnership/.

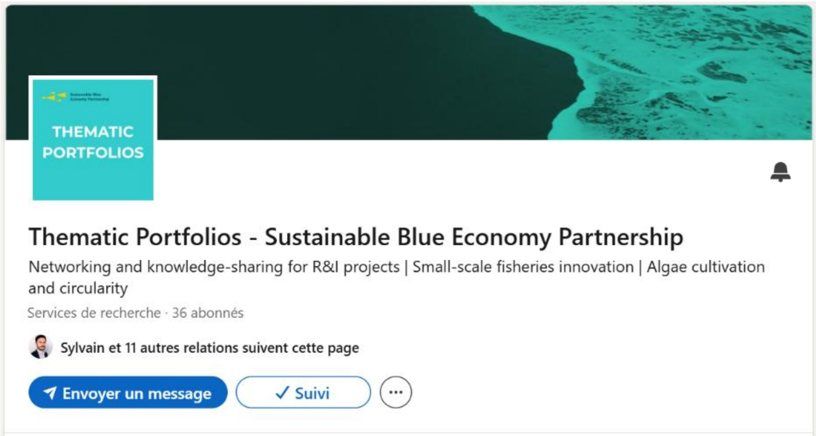


Fig. 2: Thematic Portfolio LinkedIn page

B. Who-is-Who Brochure

The "Who-is-Who" brochure is the first dissemination activity of the Thematic Portfolio. It aims to introduce each portfolio project with public-oriented content. This brochure includes key information from the projects: name/title, key themes, funding source, sea basins addressed, the project duration, summary, PI's biography and contact details, and some words about the project's motivation.

This format was developed as a first follow-up to the kick-off meeting, based on the content provided by the portfolio projects. The brochure will be uploaded on the Thematic Portfolio webpage and posted on LinkedIn.

Fig. 3: Thematic Portfolio 'Who-is-Who' Brochure

C. SBEP newsletter

Regular contributions to the Partnership newsletter, published every 2 months, will foster the portfolio visibility.

D. Communication and dissemination to external stakeholders

Throughout its implementation, the Portfolio will seek to disseminate its activities, targeting relevant quadruple-helix stakeholders (researchers, academia, national, EU, and international institutions, industry).

To this aim, the Secretariat will support the connectivity of the portfolio with other initiatives that are relevant to the portfolio topics. Connections will be made through participation to the portfolio meeting as keynote.

The connection with other stakeholders, from the public and private sectors, is encouraged by the Secretariat through the different networking activities organized during the portfolio. This includes inviting these stakeholders to the portfolio events, or drawing connections during dedicated meetings, for example.

In this context, the portfolio activities will be disseminated through the network of projects endorsed by the UN Decade for Ocean Science for Sustainable Development (2021 to 2030) (‘the Ocean Decade’).

ANNEX I: DESCRIPTION OF THE R&I ACTIVITIES COVERED IN THE CALL FOR EXPRESSIONS OF INTEREST

The second Thematic Portfolio entitled "Innovations for boosting sustainability in marine algae cultivations and circularity in the blue bioeconomy", aims to regroup projects under this topic and related R&I activities to attract complementary projects and to build a strong portfolio responding to the following targeted objective:

- *'To address challenges and opportunities associated with further development and expansion of marine algal production for a low-impact[1], productive and circular marine bioeconomy.'*

Expected types of R&I activities to be covered by the projects participating in the Portfolio are listed below.

- Strain development and genetic engineering
  - Microalgae

- *To investigate genome editing (e.g. CRISPR/Cas) for higher production of specific compounds such as lipid/protein yields.*
- *To examine enhanced resistance to environmental stress (e.g. salinity, temperature).*
- *To improve photosynthetic efficiency.*

  - Macroalgae

- *To develop selective breeding for faster growth, disease resistance, or specific biochemical traits.*
- *To conduct genome sequencing and transcriptomics of key commercial species.*

- Sustainable, circular and low-impact Algae Cultivation System

- *To develop innovative Offshore and Low Trophic Aquaculture (LTA) /Integrated Multi-Trophic Aquaculture (IMTA) systems (for macroalgae) considering challenges related to impact of climate change (acidification, temperature) on yield and composition. Other environmental stressors such as effects on local biodiversity, water quality parameters. (nitrogen/phosphorus loading, dissolved oxygen levels), benthic habitat modification, and carrying capacity thresholds for cultivation areas, are also to be considered.*
- *To propose novel Photobioreactor (PBR) and open pond optimization for microalgae.*
- *To include circularity in cultivation systems: Sustainable nutrient sourcing and recycling.*

- *To develop sustainable and cost-efficient cultivation systems e.g. reduce Optimization of energy usage.*

- Biorefinery and Valorization of Algae Biomass

- *To propose new methods for processing harvested seaweed, taking into account the subsequent value chain (e.g. through biorefinery).*
- *To develop green chemistry approaches: Circular economy models and low-waste valorization chains.*

- Synthetic Biology and AI Integration

- *To promote the use of AI and machine learning for: Optimizing growth conditions; Predictive modeling of biomass composition and Automating harvesting and processing.*
- *To examine Synthetic biology for novel compound production or cell-factory design.*

- Economic, Policy, and Social Research

- *To conduct market uptake/business models analysis for new algae-based products.*
- *To perform Life cycle assessments (LCA) to specify environmental impact categories relevant to marine cultivation: eutrophication potential, marine ecotoxicity, habitat modification index, and carbon sequestration vs. emission balance, and techno-economic assessments. These assessments would provide concrete metrics for comparing different cultivation approaches.*
- *To include Public perception, social and consumer acceptance of new algae products (feed, biomaterials…).*