Eurofleets⁺

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D5.1 Strategic Agenda for Stakeholder Engagement

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1 Introduction

1.1 Purpose and scope define common priorities between the different players

The "Strategic agenda for stakeholder engagement" describes planned activities of international relevance to reinforce the European Eurofleets strategic significance.

The overall aim is to position the Consortium activities into the broader spectrum of the critical global challenges. Then, defining its potential usefulness for different type of actions related to the Research Vessels (RVs) to undertake together with various stakeholders, considering both the geographical coverage and duration in the use of RVs and/or equipment. The Agenda is a "living document", it will be updated based on stakeholder needs identified through a steady dialogue to agree on challenges to be addressed in the long-term (10 years) through the research vessel infrastructure.

The drivers in identifying the main actors have been set with the purpose of contributing to the EU and International policies, in the matter of meeting the urgent environmental, political and economic challenges. This process ultimately will lead to a definition of outlined priorities that will reflect a vision of the future co-designed by several actors coming from science, industry sector, technological services and by social and economic realities. The path will facilitate the Consortium designing services phase, via a broad multi-stakeholder strategic dialogue. It will be set around the Grand Societal Challenges which will enable the consortium to maximise the benefits associated with its activities as well as to ensure efficiency and policy consistency. The following challenges with a global scope have been identified within the main EU challenges impacting project activities: climate actions, energy, transport, together with the need to change the current ways of using essential natural resources, and also the need to anticipate and adapt to Societal Changes as well as to the economic transformations. These global challenges are mainly related to the human overexploitation of crucial natural resources. The long-term sustainability is key to ensure economic growth based on intelligent use, conservation and renewal of natural resources and ecological systems. To date, the most significant part of industrial activities impacts on natural resources and the continuity of natural cycles. Another dimension considered is linked to the new converging technologies that emerge from multidisciplinary collaboration which are drastically changing the entrepreneurial ecosystems and transforming markets.

Furthermore, the identification of the significant stakeholders cannot be separated from the need of addressing Marine Strategy Framework Directive (MSFD), Water Framework Directive (WFD), and UN Sustainable Development Goals (SDGs). Integrating Eurofleets+ foreseen actions within the implementation of selected SDGs specific targets is an important step to align project outcomes within a policy coherence framework for Sustainable Development.

Specific contributions to SDG targets have been identified mainly for the following: SDG9 (Industry, Innovation and Infrastructure); SDG13 (Take urgent action to combat climate change and its impacts); SDG14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development). All these are in a cross-connection with relevant targets for the SDG17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development).

SDG9: Strategic issues linking SGD9 to Eurofleets+ also are the entrepreneurial ecosystems and the transforming markets. Current economic model is transforming, and the growth starts being measured

not just through economic and financial indicators, but also by using social, environmental, and governance benchmarks. Furthermore, the World Economic Forum underlines that global competition is increasingly innovation-driven. Universities and public research labs generate cutting-edge knowledge and also facilitate commercialisation. Moreover, the need for innovative digital tools as well resources (i.e. data access) is increasing, and technology is catalysing public and private sector initiatives aimed at creating a more holistic global entrepreneurial ecosystem. It enables more sharing, learning and access at a massive scale.

SDG13: In line with the Paris Agreement and collaborating with other stakeholders (including the shipping industry), contributing to sustainable transport systems, developing fuel-efficient ships through the integration of Intelligent Transport Systems and ships usage to achieve a reduction in CO_2 emissions from transport.

SDG14: Contributing to conserve and sustainably use the oceans, seas and marine resources means opportunities for shared marine research values and activities with academia, research institutions and also private companies. Research and technology are crucial components to both, protect marine biodiversity and ecosystems to stimulate a blue growth economy. Increased transfer of marine technology can increase European innovation capacity. Moreover, optimising the usage of the fleet will contribute to reducing acoustic pollution, exposure to invasive species, and greenhouse emissions such as carbon dioxide (CO_2), nitrogen oxides (NO_X), sulphur dioxide (SO_2) and particulate matter (PM2.5), which are the main cause of acidification. Ocean observation also supports the analysis and valuation of natural marine "capital" and ecosystems; these studies support strategic and operational decision making in ocean governance. The Table 1.1 describes the links between Eurofleets+ and SDGs (9, 13 and 14).

SDGs	Links with Eurofleets+	Main linked targets (World Ocean Council Briefing report 2015 adapted)
SDG9 Industry, Innovation and Infrastructure	Strategic issues linking SDG9 to Eurofleets+ also are the entrepreneurial ecosystems and the transforming markets. Current economic model is transforming, and the growth starts being measured not just through economic and financial indicators, but also by using social, environmental, and governance benchmarks. Furthermore, World Economic Forum underlines as the global competition is increasingly innovation-driven. Universities and public research labs generate cutting-edge knowledge and also facilitate commercialisation. Moreover, the need for new digital tools as well as for resources (i.e. data access) is increasing, and technology is catalysing public and private sector initiatives aimed at creating a more holistic global entrepreneurial ecosystem. It enables more sharing, learning and access at a massive scale	8.4: decouple economic growth from environmental degradation 9.1: develop sustainable and resilient infrastructure 12.4: environmentally sound management of chemicals and wastes 12.6: integrate sustainability into a company's reporting cycle 14.2: Sustainably Manage and Protect Marine Ecosystems 17.6: improve knowledge and technology sharing 17.16: enhance multi-stakeholder partnerships
SDG13 Take urgent action to combat climate change and its impacts	In line with the Paris Agreement, and in a framework for multilateral co-operation towards climate change mitigation, collaborating with other stakeholders (also the transportation industry) to sustainable transport systems, through the integration of Intelligent Transport Systems and efficiency of ships usage to achieve an indirect reduction in CO_2 emissions from transport	All target applicable

SDG14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Contribute to conserve and sustainably use the oceans, seas and marine resources means opportunities for shared marine research values and activities with academia, research institutions and also private companies. Research and technology are crucial components to both, protect marine biodiversity and to stimulate a blue economy. Increased transfer of marine technology can increase European innovation capacity. Moreover, optimising the usage of the fleet will contribute to reducing exposure to invasive species, and greenhouse gases, which cause acidification. Ocean observation also supports the analysis and valuation of natural marine 'capital' and ecosystems; these studies support strategic and operational decision making in the ocean governance	12.2: sustainable management of natural resources 14.1: prevent marine pollution 14.2: Sustainably Manage and Protect Marine Ecosystems ▪ Healthy and resilient ecosystems ▪ Blue economy ▪ Ecosystem-based management ▪ Ocean Health Index 14.a Increase Scientific Knowledge to ▪ underpins many ocean policies ▪ IOC Criteria and Guidelines on the Transfer of Marine Technology 17.6: improve knowledge and technology sharing 17.9: facilitate capacity building 17.16: enhance multi-stakeholder partnerships

Table 1.1. Links between Eurofleets+ and SDGs (9, 13 and 14)

1.2 Objectives of the Stakeholder Engagement Plan

One of the key aims of the Eurofleets+ project is to involve a wide range of stakeholders to inform on the development, operation and strategic direction of the large and well-equipped European research vessel fleet. An initial register of stakeholder needs will be created, of relevance to a catalogue of high quality and integrated services.

Stakeholder dialogue will be fostered through three main approaches: a) semi-structured interviews, b) web-based discussion forum, and c) two international workshops. Besides this, a series of smaller meetings will be held as virtual meetings, aiming to prepare the various stakeholders for a fruitful exchange of information and coordinated actions to foster the cross-fertilization between different research infrastructures in the Marine Domain. See Chapter 4 for details.

This strategic agenda will frame stakeholder engagement and define common priorities between the different players. The agenda will be a living document, to define key global challenges, scope, potential for different types of joint actions and clustering, geographical coverage, and survey durations: Short (less than 3 years), Medium (5-6 years), and Long (10 years). The agenda will be updated based on stakeholder needs identified through dialogue in order to agree on Global Challenges to be addressed in the long-term (10 years) through the research vessel infrastructure. It will consider EU directives and International policies, such as MSFD, WFD, SDGs and Ocean Investment Platform from the World Ocean Council (WOC), and key initiatives promoted by the Intergovernmental Oceanographic Commission (IOC) and UNESCO, such as UN Decade of Ocean Science for Sustainable Development (2021-2030).

The Eurofleets+ stakeholder engagement plan is a circular process. The starting point is the strategic agenda and the consistent dialogue with the stakeholders' categories to foster their engagement and interaction. The aim of this approach is to focus on their needs, and then to find suitable solutions to these needs planning actions to solve them (Figure 1.1 depicts this cycle).

STAKEHOLDER ENGAGEMENT

Figure 1.1. Stakeholder engagement cycle

The target stakeholders of interest for Eurofleets+ can be classified in the following categories:

- Governments
- Research and Education
- Industry
- Civil society
- European and International networks and programs. The Figure 1.2 illustrates each of these categories.

TARGET STAKEHOLDERS

Government:
Regional and local governments
National and EU policy-maker

Research and education:
Research institutions, academia
European Research Infrastructures
High education institutions

Industry:
Technology developers
Innovators
Marine Engineering Companies

Civil society:
NGOs
Journalists, documentarists
General public

European and International networks and programs:
ERVO, OFEG, IRSO, UNOLS, JPI OCEANS, AtlantOS, ARICE, EUMarineRobots,
SeaDataCloud, EUDAT, EOSC, ODIP and ODIPII, GEOSS, IODE ODP, POGO,
EMODnet, R2R, WOC, WMO, WWF, GEBCO, UNCLOS, Habitat Mapping,
EOOS, ONC, DONET, ECSSOS, MACHO, IMOS, OOI, OceanSITES,
EuroGOOS, JERICO-Next, Copernicus, Mercator Ocean and marine meteorology
JCOMMOPS, Go Ship, AORA, ASMIWG

Figure 1.2. Target stakeholders

2 Overview of stakeholder engagement

2.1 What is stakeholder engagement?

The theory of Stakeholder Engagement first became popular in the 1980's when in his book *"Strategic Management, a Stakeholder Approach"* R. Edward Freeman identifies and models the groups which are stakeholders of an organisation, and both describes and recommends methods by which due regard can be given to the interests of those groups. There are many definitions of stakeholder engagement but in its simplest form "Stakeholder Engagement" involves building and maintaining reliable relationships with all those with an interest or concern in a business, community or network. Stakeholders can affect or be affected by the organization's actions, objectives and policies and can be both internal and external. Not all Stakeholders are equal and can have varying degrees of interest and influence depending on their level of investment. The process used by an organization to engage relevant stakeholders for a clear purpose to achieve agreed outcomes is crucial for the development of future strategic goals.

In the Horizon 2020 Programme stakeholder engagement has come to the fore with public engagement being designated as one of six key elements in "Responsible Research and Innovation" (RRI). RRI is a concept which anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation. RRI is seen as an interactive process by which societal actors and innovators become mutually responsive to each other with a view on the (ethical) acceptability, sustainability and societal desirability of the innovation process.

Through Stakeholder Engagement an understanding each stakeholder's motives and agenda can emerge and it becomes possible to identify the Eurofleets+ community strengths and opportunities but also its threats and weaknesses providing the prospect for consolidation and growth based on the stakeholder needs identified through a steady dialogue to agree on challenges to be addressed in the long-term (10 years) through the research vessel infrastructure.

Effective stakeholder engagement has many benefits:

- It offers those who will affect or be affected by the outcomes a chance to voice their opinions.
- It ensures that an RI/Network has greater clarity and a shared vision amongst its key influencers.
- It enables an RI/Network to identify who their key stakeholders are and understand the relationship they have with the them.
- It brings people together to pool knowledge, experience, and expertise to co-create solutions.
- It helps build collaborative partnerships and new relationships that generate value.
- It can identify strategies to gain competitive advantage.
- It helps to reduce the level of risk within an RI/Network and informs future strategic goals.

Stakeholder Engagement is conducted with the principle purpose of continuous improvement and the approach should be cyclical and unbroken. Although many variations of the paradigm have emerged four key steps remain key to a successful engagement process:

- Engagement and Interaction with Stakeholders.
- Stakeholder issues identification and clarification.
- Development of resolutions and key actions.
- Outcomes and dialogue.

2.2 Principles for an effective stakeholder engagement

Before the stakeholder engagement process can being it is important to understand those whom you seek to engage with. Allowing the key principles of stakeholder engagement to guide the process will provide structure and consistency throughout thus delivering a positive a successful experience to all participants.

Understand: Identify and Analyse

Before aiming to engage a stakeholder, it's crucial to seek to understand their perspective and their potential level of interest and level of engagement with the RI.

Be Inclusive

Ensure that the wider network of stakeholders is reached ensuring that broad participation is encouraged and supported by appropriate participation opportunities. No willing stakeholder should be excluded from the process of engagement.

Communicate: Early and Often

Choose a method of communication through which they would expect to hear from you, that will be easy to access and communicate early and often in the process.

Build Relationships: Take a long-term view

Utilise the process as an opportunity to build new relationships and strengthen existing ones, thereby increasing the level of interest they have in the RI.

2.3 Stakeholder engagement considerations

Some stakeholders will need to be cultured about the concept of engagement itself, as well as on the complex issues requiring specialised and technical knowledge. Language barriers across the stakeholder groups, technical language, acronyms and other cultural considerations should all be accounted for in the planning process.

Choose the Appropriate Approach

Key to the success of the stakeholder engagement process is matching the approach used to the purpose of the engagement and the desired outcome. The most common methods used are:

- **Provision of Information** online, through social media engagement and in print to spread knowledge/inform stakeholders about the stakeholder engagement process and progress.

- **Questionnaires** are means of eliciting the opinions, beliefs and attitudes of participants. It can be structured or unstructured. A questionnaire is usually concise with a pre-planned set of questions designed to yield specific information to meet a particular need for research information.

- **Interviews** in person, phone or group interviews based on a standard series of questions pertaining to the topic.

- **Focus/Working Groups** usually involve a planned discussion with a small (4 to 12 members) group of stakeholders facilitated by a skilled moderator. It is designed to obtain information about preferences and opinions in a relaxed environment.

- **Conferences** or Meetings for discussion of a topic, especially one in which the participants both form an audience and make presentations.

Other considerations which should be considered are:

Securing stakeholder participation and expected engagement

Securing participation from stakeholders is often difficult for many reasons. Stakeholders' perceived level of engagement with the process can often be overestimated by those seeking their input. Additionally, the process takes time and we live in a time poor society, and as the stakeholder engagement process has grown in popularity so too has consultation fatigue. Participants may tire of the processes especially if their opinions and concerns are not taken into consideration.

Evaluation of the stakeholder engagement process

As outlined in section 2.1 above the stakeholder engaging process must be continuously assessed throughout so that its impact can be measured, and improvements implemented to further refine the methodology used. This process will inform future efforts and provide valuable insights into each stakeholder group.

3 Stakeholder identification and analysis

3.1 Defining stakeholders

In developing the stakeholder engagement process, it is focused on those who are stakeholders in the success of the Eurofleets+ project. With the added value of the success of a future long-term and sustainable coordinated system of European Research Vessels (hereafter *LTS_CS*). In this view, we have defined our stakeholders as "Any organization, group, entity or people with an interest or stake in the Eurofleets+ results and the success of a long-term and sustainable coordinated system of Research Vessels", as shown in Table 3.1.

STAKEHOLDER	Any organization, group, entity or people with an interest or stake in the Eurofleets+ results and the success of a LTS_CS of Research Vessels.
INTEREST	How will the stakeholder benefit from the Eurofleets+ outputs? How will Eurofleets+ impact the stakeholder?
THEIR NEEDS	What are stakeholders' needs? What expectations do they have?
OUR NEEDS	What does Eurofleets+ need from this stakeholder? Input? Endorsement? Commitment? Resources? Visible public support?
FUTURE ROLE	Each stakeholder may assume one or more roles and may be a user of the *LTS_CS*
AGENDA	How will Eurofleets+ work with this stakeholder? How Eurofleets+ will communicate and how frequently?

Table 3.1. Stakeholder identification approach

From the beginning of the proposal-writing stage, Eurofleets+ has engaged with key actors who are implementing competitive marine initiatives at a European and International level; key stakeholders are already known to Eurofleets+ due to the involvement of its partners in many European and International initiatives operating in the field of marine science (Figure 3.1).

Figure 3.1. European and International initiatives operating in the field of marine science

Building on a brain-storming session and on desktop research, taking into consideration all stakeholders' potential requirements according to their specific interactions with the project, we have conducted an analysis of the Eurofleets+ stakeholders, identified the following categories:

1. Pan-European Research Infrastructures
2. Projects (EU, National, International)
3. Networks, Organisations and Frameworks
4. Research and Education
5. Industry
6. Governments
7. Media
8. Public
9. NGO's.

The different categories of stakeholders have been described below in Table 3.2.

Stakeholder categories	Description
Pan-European Research Infrastructures	European Research Infrastructures in the ESFRI Roadmap (Landmarks and Projects) and Pan-European Research Infrastructures
Projects	On-going projects which have received funding under EU or national programmes
Networks, Organisations and Frameworks	Initiatives with or without legal status (i.e. loose networks) at European and international level in the field of marine science relevant to RVs
Research and Education	Research Institutions and academia and high education institutions
Industry	Innovators, technology developers, marine engineering companies

Government	Decision-makers, policy makers, public agencies, funders, planners, legislators, regulators
Media	Media-services providers, science writers, journalists, documentarists
Public	Trade association
NGO's	Representatives of national and European non-governmental organizations; representatives of international non-governmental environment organizations (i.e. WWF)

Table 3.2. Overview stakeholder categories

3.2 Stakeholder database

Building the stakeholder database has been a collaborative effort between project partners. Taking advantage of the achievements of the previous projects, a mapping exercise has been carried out and the project partners shared their knowledge within existing networks and organizations at European and International level.

Further tools have been used to find relevant stakeholders:

- Visiting websites of well-established institutions that deal with marine science.
- Examining conference/seminar/workshop agendas and respective participants lists from events.
- Filtering information from the published paper, reports and deliverables on research infrastructures and marine science.

The database is a living spreadsheet that will be updated periodically by the consortium within the project's lifetime.

Table 3.3 shows the structure of the database, containing the information about legal seat, type of entity, thematic and addressed and services provided relevant to Research Vessels and geographical coverage.

Stakeholder categories	Country	Type of entity	Thematic type	Geographical coverage
Pan-EU Research Infrastructures	Legal Seat	RIs and legal status supported by European Commission (if any; i.e. ERIC, AISBL)	Theme addressed and services provided relevant to Research Vessels	Operational area at the sea basin scale and/or location of the Regional facilities
Projects	Legal Seat of Project Coordinator	Type of programmes (i.e. Horizon 2020) and topics (i.e. INFRAIA, BG)	Topics and activities of interest for the Research Vessels	Operational area at the sea basin scale or dimension of the project consortium

Networks, Organisations and Frameworks	Legal Seat	Networks, Organization, Coordinated framework and legal status (if any)	Activities and services and/or topics of interest for Research Vessels	Operational area (i.e. European, international)
Research and Education		Type of stakeholders (i.e. Research Institution, University)	Main activities (i.e. education, research)	Not relevant
Industry		Type of stakeholders (i.e. Innovators or Company)	Products and services of interest of Research Vessels	Market size
Government		Legal Status (i.e. Public, Private)	Type of activities (i.e. Funding Agency)	Operational area (i.e. national, European)
Media		Type of stakeholders (i.e. Media-services provider)	Theme addressed of interest for Research Vessels	Not relevant
Public	Legal Seat	Type of association and legal status (i.e. Public or Private)	Activities and/or topics of interest for Research Vessels	Operational area (i.e. national, European)
NGO's		Type of stakeholders and legal status (i.e. NGO)	Activities and/or topics of interest for Research Vessels	Operational area (i.e. national, European, international)

Table 3.3. Database structure

A total of 358 different stakeholders have been identified including useful information in context of the project. Figure 3.2 shows the stakeholder categories to which they belong.

It should be noted that 23% of the stakeholders belong to the "Industry" category. This can be explained by the fact that they are large organizations/companies with a high interest in increasing the market and in exploring new possibilities for innovation and product development. In addition, these organizations/ companies are often easy to find on the internet or via the partner network. The second most represented stakeholder category is "Research and Education", which can be explained by the fact that most of the project partners in the field of marine science are from research institutes. Government, Media, Public and NGO's are still underrepresented.

More organizations and entities from these stakeholder categories will be approached in future activities coupled with a focus on expanding the geographical distribution of respondents. The latter is shown in Figure 3.3 and detailed in Table 3.4. Identified Stakeholders are mainly from Europe; however, stakeholders from Japan, New Zealand, Taiwan and USA have been also identified. In Europe, the countries strongly represented are Spain, Italy, Belgium, France, Germany, Norway and the UK. This is a reflection of the operational areas n of partners who participated in the mapping exercise.
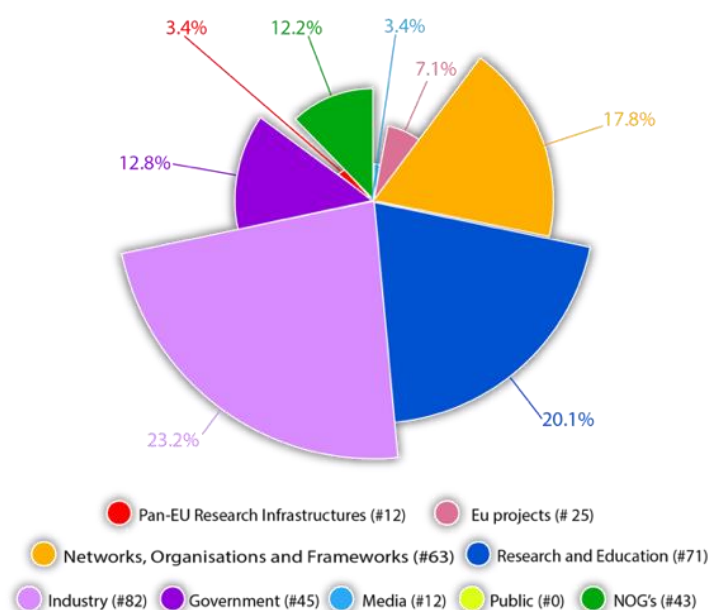
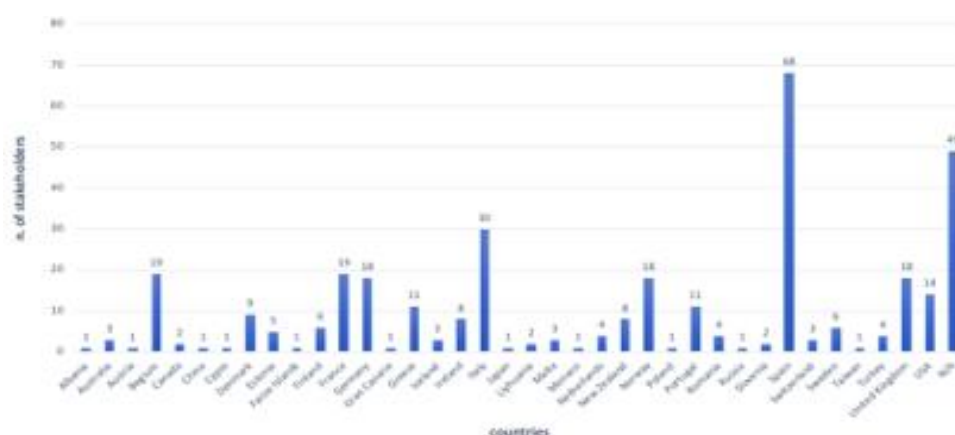**Figure 3.2.** The number of stakeholders per identified stakeholder category

Figure 3.3. Stakeholder's geographical distribution

Countries	Pan-EU Research Infrastructures	EU projects	Networks, Organisations and Frameworks	Research and Education	Industry	Government	Media	Public	NGO's
Albania				1					
Australia			3						
Austria				1					
Begium			6	9	2	2			
Canada			1		1				
China			1						
Cypro				1					
Denmark			2	2	2	3			
Estonia				2		3			
Faroe						1			

Islands									
Finland	2	1	3						
France	3	2	5	3	5	1			
Germany	1	3	1	9	2	2			
Gran Canarie					1				
Greece		2	1	1		2			5
Iceland				1	1	1			
Ireland			2	3	1	2			
Italy	2	4		10	4	5			5
Japan			1						
Liyhuania		1				1			
Malta		1		1					1
Monaco			1						
Netherlands			1	1	1	1			
New Zealand			3	2		3			
Norway	2	1		7	6	2			
Poland						1			
Portugal		3				2			6
Romania	1	1		1		1			
Russia				1					
Slovenia		1		1					
Spain	1	3	6	10	38	4	6		
Switzerland			2						1
Sweden				3		3			
Taiwan			1						
Turkey				3		1			
United Kingdom		1	1	3	8	4			1
USA			5		7				2
N/A		1	17		3			6	22

Table 3.4. Stakeholders' categories

3.3 Stakeholder analysis

The stakeholder analysis has been carried out to better understand stakeholders' influence and interest in the project and its perspective of a LTS_CS of Research Vessels.

As a first step, the analysis has been performed through desk research analysis and evaluating stakeholders' recent activities, interest in marine science, technology, innovation etc.

During analysis the following criteria has been taken into consideration:

1. Potential '**Interest**' to participate in Eurofleets+ activities. It indicates the level of engagement of the stakeholder with the results of the project and their hope for the LTS_CS of Research Vessels to succeed. How likely is it that the stakeholder will be interested to participate in Eurofleets+ activities or use Eurofleets+ tools?

2. Potential '**Influence**' of the stakeholders towards Eurofleets+ project and results. It indicates their ability to play an active role in its tasks, actions, results and success, such as committing resources.

Starting from information, we develop a tailored approach and strategy for the identified stakeholders (as shown in Figure 3.4), and an indication of where to prioritise our engagement efforts.
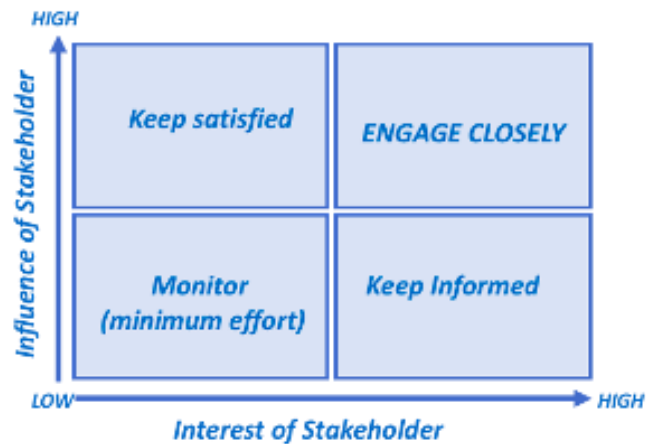
Figure 3.4. Activity prioritisation on the Influence/Interest matrix

The placement of stakeholders across the quadrants provides an indication of their status to the project. In order to attribute the stakeholders to the four different "quadrants", we have used a scale of four values which identify the amount of influence and interest a stakeholder might have:

Influence

4	**A lot of power** (formulates or contributes to the formulation of EU's policies towards Eurofleets+)
3	**Some power** (is involved in structural consultations on the EU's policies towards Eurofleets or is regular contact with EU policy-makers)
2	**Little power** (publishes on or informs about Eurofleets+)
1	**No power** (has no influence on EU policies towards Eurofleets+)

Interest

4	**High interest** (behaviour is highly oriented towards the activities of Eurofleets+)
3	**Some interest** (behaviour is to some extent oriented towards the activities of Eurofleets+**)**
2	**Little interest** (behaviour is hardly oriented towards the activities of Eurofleets+)
1	**No interest** (behaviour is not oriented towards the activities of Eurofleets+)

Our preliminary analysis of the stakeholders identified emphasizes their roles as users of Eurofleets+ and the level of Influence/Interest that they have in conducting activities at sea, as shown in Figure 3.5.

As above, this matrix is also a living document, which can be adjusted for new understanding throughout the progress of the work package activities.

As described in Figure 3.5 above, the three core stakeholder categories for the Eurofleets+ are "Industry", "Research and Education" and "Pan-EU Research Infrastructures". The categories contain private and public organizations who are acting in different contexts, and at different levels of experience, from beginner to expert.
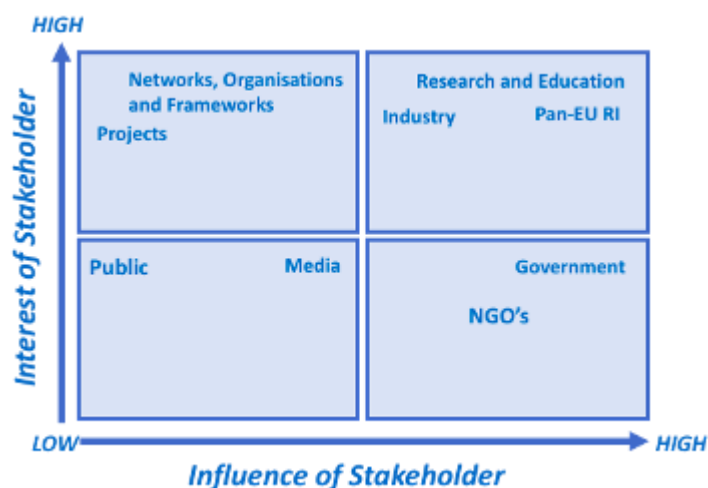
Figure 3.5. First draft of the Eurofleets+ Influence/Interest matrix

The use of scale values allowed us to identify four different "types" of stakeholders with regard to the interest versus influence matrix and identify the actions to be taken towards them (Table 3.5).

Influence/Interest of Stakeholder	Key actions towards such stakeholders
Key stakeholders: high influence and high interest	● Goal is to collaborate and closely manage this group ● Directly engaged at the earliest possibility ● Continuous communication built by sending project updates, consulting their opinions, inviting to events, etc.
Influential stakeholders: high influence but low interest	● Goal is to keep this group's needs satisfied ● Efforts taken to make them Key stakeholders ● Communication actions stressing Eurofleets+ benefits
Interested stakeholders: low influence but high interest	● Goal is to keep this group informed ● Continuous communication to inform about project progress, actions and results ● Potential consultation regarding areas of stakeholders' interest
Passive stakeholder: low influence and low interest	● Goal is to monitor this group with minimum effort ● No specific actions taken to address this group ● Might get informed through general communication actions of the project (e.g. website)

Table 3.5. Stakeholder influence/interest and actions taken towards them

4 Stakeholder engagement approach

4.1 Interviews

Semi-structured interviews will focus on the identification of the stakeholders' needs and offers, on the overlaps between stakeholder and Eurofleets+ missions and strategy, and on mutual collaboration opportunities. The semi-structured interviews aim at establishing a direct contact with the stakeholder and to identify a first list of specific needs that will be further elaborated during the two workshops (see paragraph 4.3). Furthermore, this will also lay the foundations for a lasting communication channel between Eurofleets+ and the stakeholder. The interviews will contain a set of standardised questions per stakeholder, useful to compare the answers, and a set of specific questions for the type of stakeholder interviewed.

At least 20 interviews with Key Stakeholders will be carried out, organized into a 2-step interview process - online questions (Annex §5.1) and face-to-face questions (Annex §5.2) - using Virtual rooms (like Zoom platform) - and will be conducted into two rounds.

Three stakeholder categories have been selected for the first round of semi-structured interview: Research Infrastructures, Research and Education and Industry.

Identified stakeholders have been contacted by email, providing the relevant information on the work carried out and the approach used, asking for availability to participate in an on-line questionnaire. Based on questionnaire responses select participants will be invited to take part in an interview to further explore the answers provided.

Based on the results of the Survey a sample group of respondents will be invited to participate in a semi-structured interview to further expand and explore mutual synergies from which there may be potential to build future partnerships.

4.2 Web-based discussion forum

A discussion platform has been established on the Eurofleets+ website to enable interested parties to interact with project participants:

https://www.eurofleets.eu/forums/forum/stakeholder-forum/

The Web-based discussion forum will gather all relevant stakeholders and RV operators in one virtual place and will connect the work done for the interviews with those for the preparation of the international workshops. A set of topics relevant to project activities has been built. Eurofleets+ Work Package Leaders have been engaged as moderators. during a dedicated Forum Training Webinar run in November 2019. The outcomes of this activity will be a starting point of the workshops, where the discussion will continue and specific topics will be further investigated.

4.3 International Workshops

Two international workshops will be organized as described in Eurofleets+ DoA (Description of Actions). The aim of the 1st Workshop is to connect the main operators and stakeholders for the benefit of greater coordination that will undoubtedly translate into efficiency and more and better data and connecting to public/society concerning climate change for example - integrating fixed observatories and vessels - portable observatories. The aim of the second Workshop will be to bring together different stakeholders with a broad industry spectrum (e.g., marine biotechnology, ocean energy, telecom, offshore industry, seabed mining, pharmaceuticals) that have a high potential for sustainable jobs and blue growth.

Between the two workshops, a series of reduced meetings will be done as virtual meetings such as audio-conferencing, multimedia conferencing, screen sharing etc., aiming to prepare the various stakeholders a fruitful exchange of information and coordinated actions to foster the cross-fertilization between different research infrastructures in the Marine Domain to achieve a productive and large second and final workshop.

5 Annex

5.1 Step 1 - Online questions

Fields marked with an * are required

Please complete the form below as the first of the 2-step application (Step 1-Online questions, Step 2-Remote interview).

We are contacting you as you or your organisation have been identified as potential stakeholders of the Eurofleets + Project, its partners and the greater European marine research community. Eurofleets+ is "An alliance of European marine research infrastructure to meet the evolving needs of the research and industrial communities." The project facilitates open free of charge access to an integrated and advanced research vessel fleet. The project includes 42 partners, and involves the use of 13 global ocean research vessels, 14 regional vessels, 7 Remotely Operated Vehicles (ROVs), 5 Autonomous Underwater Vehicles (AUVs) and a telepresence unit.

One of the key aims of the Eurofleets+ project is to involve a wide range of stakeholders to inform on the development, operation and strategic direction of the European research vessel fleet. The Eurofleets+ Work Package 5-Stakeholder Engagement is dedicated to this activity.

There are 8 sections, it will take you 10-15 minutes to complete, thank you for taking part, your input is important to us. We kindly invite you to take a look at the website, and please subscribe to the newsletter and our social media channels.

Please be assured that your details and survey responses will be treated as confidential, as detailed in our Privacy and Data Protection policy. All data reported on will be harmonised when published.

General Information

Please complete sections 1-3 to provide general information relating to you, your organisation and your operations.

Section 1. Personal Details

Please provide your personal details and contact information.

First Name*

Last Name*

Organisation Name*

Department*

Job Title*

Role

Email*

Phone

Section 2. Organisation Details

Please provide the details of your organisation.

Address 1*

Address 2

City*

County/Province*

Postcode/Zip*

Country*

Is this address your operational main base?*

- Yes
- No

Please select your organisation type*

Please select the number of employees at your organisation*

On which level do you generally operate (please select all that apply)*

- Local
- National
- Regional
- International

Which of the following stakeholder groups do you associate with (please select all that apply)*

- Scientific Community (Higher Education, Research)
- Industry
- Civil Society
- General Public
- Policy Makers
- Media
- Investors
- Customers
- Other (please specify below)

Please specify the "Other" stakeholder groups that you associate with

Section 3. Areas of Research/Activity

Please provide details of your areas of research/activities.

Please select your areas of research/activities from the list below (select all that apply)*

- Biogeosciences§
- Earth and Space Science Informatics§
- Education§
- Global Environmental Change§
- Natural Hazards§
- Ocean Sciences§
- Science and Society§
- Technology
- Other

§ Categories from the AGU. Follow the links for further information on each category.

Current Status

Please provide further information about the current status of your engagement with research cruises and funding streams.

Section 4. Research cruises and funding in the last 5 years

In the last 5 years, have you engaged in any research cruises?*

- Yes (please enter the number and indicate the funding types in the fields below)
- No (Please explain why in the field below)

If yes, please enter the number of research cruises that you have engaged with in the last 5 years.

If yes, please indicate the estimation of number of days of duration in the past 5 years.

- 1-7
- 8-15
- 16-30
- >30

If yes, please indicate how the cruises were funded (please select all that apply).

- National
- European
- International
- Other

If no, please explain why you have not been engaged in any research cruises in the past 5 years.
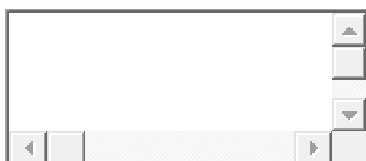
100 of 100 Word(s) left

Section 5. Awareness of funding programmes

There are possibilities to get funding for the use of research vessels for research activities or for training, such as in Europe Eurofleets+.

Can you identify any new National European or Global level funding instruments for research vessels, sea-going activities or technology development related to ocean research since 2009?*

- Yes (please specify below)
- No (please go to the next question)

If yes, please specify

300 of 300 Word(s) left

Are you aware of any National, European or International funding instruments for research vessels or sea-going research-based marine training?*

- Yes (please specify below)

- No (please go to the next question)
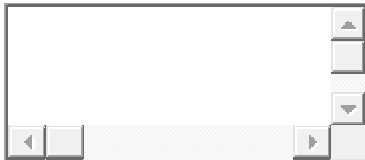
If yes, please specify.

[text box]

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Are you aware of any National or International initiatives for chartering, exchanging or sharing vessels/ship time between European partners?*

- Yes (please specify below)
- No (please go to the next question)

If yes, please specify.

[text box]

300 of 300 Word(s) left

Section 6. Primary source of funding received to cover the cost of ship time between 2009 and 2019

Please provide details of the primary source of funding to cover the cost of ship time in the period 2009-2019.

Have you received funding to cover the cost of your ship time during the period 2009 to 2019?*

- Yes (please complete section 6)
- No (please continue to section 7)

Please indicate the type of funding from the list below:

- Regional
- National
- European
- International
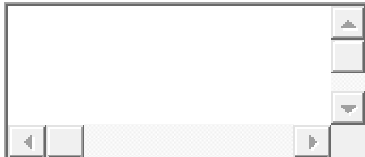- Private

Section 7. Current Access

Over the years, the European Commission has strongly supported the opening-up of existing national facilities at a EU level. Within research projects granted under EU funding programmes (e.g., FP7 and H2020), Transnational Access (TA) activities have been implemented with the aim

of providing transnational access free of charge to researchers or research teams, to one or more infrastructures operated by the Eurofleets+ project Partners.

Have you ever secured access to a Research Vessel (R/V) through a Transnational Access (TA) funding programme?*

- Yes
- No

If yes, please specify.

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Is access to Research Vessels an important enabler in the execution of your research activities?*
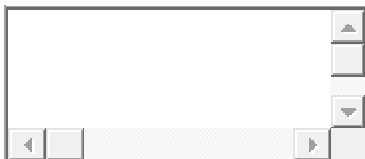
- Yes
- No

Section 8. Collaboration

By coupling research and innovation, Horizon 2020 set a goal to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovation. With that in mind:

Do you feel that there is close collaboration between researchers and industry & technology developers in developing new products and solutions (e.g., solving problems for RV operators to increase RV capability and/or for users to optimize acquisition techniques)?*

- Yes
- No

In which areas do you feel the collaboration between Researchers and industry & technology developers is most important?*

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Do you give you consent for your email address to be added to Eurofleets+ mailing list (if not already)?*

- Yes
- No

5.2 Step 2 - Interview questions

Stakeholder Direct Interview

This document is intended as <u>an aid memoir for the Eurofleets+ interviewer to conduct direct interviews (face to face/virtual) with identified stakeholders. It contains both general and more specific questions for each Eurofleets+ activity area.</u>

Interview Steps

Section One

The questions below have been formulated and standardised to establish the interviewees knowledge, needs, offer and level of engagement with the Eurofleets+ Offer. They are related to a specific activity area of the Eurofleets+ project and will be asked to each interviewee.

1. **Do you have the same needs?** *(present the needs of the project for each individual section and explore whether the interviewee has similar needs in their (sector, industry, network, community).*

2. **Do you have other/specific needs?** *(Identify specific needs of the sector, industry, network, community; establish the current status of the interviewees sector, industry, network, community).*

3. **What barriers do you currently face around your needs**? *(Explore what are the barriers. Explore how can we better engage them).*

4. **Do you have identified similar or other solutions for your needs?** *(if the stakeholder has the same needs of the project, present the solutions/offers of the project for each individual section and explore whether the interviewee has similar or other solutions for their needs).*

5. **What are the benefits of Eurofleets+ activity area *'offers'* related to your specific needs?** *(present the offers of the project for each individual section and explore what is the interviewees (sector, industry, network, community) motivation, perceived advantages/benefits for engaging with the Eurofleets+ offer)*

6. **Can you give me an example of ongoing initiatives or successful experiences related to this issue/topic?** *(Establish if the interviewee is already engaged with Eurofleets+ or other related offerings, what has been their experience, positive or negative, get examples from other funded projects, regional, national or international initiatives).*

Section Two

Each activity area has more tailored questions from which the interview can choose based on response to the questions above to get a better understanding of the interviews needs, offer or barriers in relation to Eurofleets+ activities.

Confirm General information

- Name of the interviewer:
- Name of the interviewee:
- Name of the interviewee Institution/Organisation/Public body/Agency etc.:
- Department:
- Role of the interviewee:
- Country or Countries where the Organisation is operating:
- Size of the organization (number of employees):

Interview Questions

EF+ TOPIC #1 - ACCESS

Topic description:

Over the years, the European Commission (EC) has strongly supported the opening-up of the existing national research infrastructures (i.e. RVs-Research Vessels and AUVs-Autonomous Underwater Vehicles/ROVs-Remotely Operated Vehicles) at European Union level. The Eurofleets+ (EF+) project is the third successive project funded by EC (2019-2023), and will build on the achievements of Eurofleets (2009-2013) and Eurofleets2 (2013-2017).

Within research projects granted under EU funding programmes (e.g., FP7 and H2020), Transnational Access (TA) to key infrastructures are viewed as key enablers of research and innovation to address global environmental, social and economic challenges.

The Eurofleets+ project provides open access for research, industry and technical teams to an integrated and advanced research vessel fleet, designed to meet the evolving and challenging needs of its user community. A key objective of the project is to facilitate interdisciplinary research groups to access European and global seas and oceans to conduct excellent research. Access is cross disciplinary and provided through multiple channels, both physical and remote, while implementing the Findable, Accessible, Interoperable, Reusable (FAIR) data principles to ensure optimized use while maximizing impact.

RVs Operator Community's NEEDS	EF+ OFFERS
Maximizing the use of RVs and LEXI (Large EXchangeable Instruments[1])	Open access to an integrated and advanced research fleet (27 state-of-the-art RVs from European and International partners)
	Open access to new 5 AUVs and 7 ROVs
	Remote access through a telepresence system (first application in Europe)
	Remote Transnational Access

EF+ TOPIC #2 - JRA-Joint Research Activities

Topic description:

The EF+ JRA contributes to quantitative and qualitative improvements of the services provided by RVs and to develop new ones. The EF+ JRA contribute to quantitative and qualitative improvements of the services provided by RVs and to develop new ones. Eurofleets+ JRA are innovative and explore new fundamental technologies or techniques underpinning the efficient and joint use of the participating research infrastructures. They involve industry partners and Small Medium Enterprises (SMEs) to promote innovation and knowledge sharing through co-creation of needed technical solutions (explored further in Topic 4). Key focus areas include upgrade of the Eurofleets+ data management system (TRL 4-5) into a complete and qualified system (minimum TRL 7) for gathering, transmitting and publishing manual and automatic metadata and data from research vessels during cruises, study and conceptual development of equipment for deep sea operations from research vessels and develop innovative methods and strategies for intelligent exploration, mapping and control using cooperative navigation.

RVs Operator Community's NEEDS	EF+ OFFERS
(Near)-real-time transfer of data to shore	Advance shipboard data management system and data access through the EVIOR[2] platform
Deployment of large heavy equipment	Investigate and develop innovative equipment for deep-sea operations
Improving the resolution of 3D mapping AUV-ASV cooperation	Develop innovative methods and strategies for intelligent exploration, mapping and control using cooperative navigation system

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[1] **Large EXchangeable Instruments** – These large and valuable items of equipment are typically not permanently installed on the vessel but are portable and can be deployed from different vessels (source: EMB Position Paper 25 glossary : https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_PP25_Research_Vessels_Web_v10_0.pdf)
[2] https://evior.eurofleets.eu

TAILORED QUESTIONS: contributions from WP Leaders
[the question is addressed to the stakeholder' category and specific community highlighted in bold]
- EF+ will provide free and public access to en-route and research data as acquired and processed as part of EF+ funded TA cruises. The metadata and data will be published at the EF+ EVIOR platform and also shared with European and global marine data infrastructures. How do you appreciate this initiative and change of cruise data policy? **[Research & Education]**
- Are you interested in getting connected to the EF+ EVIOR platform for reporting en-route data during cruises? Connecting implies installing and configuring the EF+ EARS V2[3] shipboard module on top of your existing shipboard data system, with guidance and support of EF+. **[RV Operators]**
- What is your level of awareness of central databases of European Marine Infrastructure including RVs, Marine Equipment, Data and Cruise Programmes, such as EVIOR, SeaDataNet. **[Research & Education, Industry]**
- Do you think your organization would be willing to participate in the joint use (pool) of standardized deck rigs, such as winches, cables? Or on the contrary do you think it is more useful for everyone to have their own fixed equipment and use for example a bartering system to share mobile equipment? **[RV Operators]**
- Do you think in the future your regional vessels could work in deep sea with winches with cable from 6 to 8 kms? **[RV Operators]**

EF+ TOPIC #3 - Education and Training

Topic description:
EFs+ aims to consolidate, advance and extend the successful education and training actions delivered in the previous Eurofleets projects, to prepare the next generation of European marine scientists and professionals, and open up the world-class marine infrastructures beyond research communities. Education and Training activities will bridge the gap between highly-developed and less-developed regions to facilitate collaboration and global interoperability. The project is providing comprehensive training and exchange programmes for user communities and professional staff, while increasing ocean literacy, inspiring emerging researchers, and attracting women to science through targeted educational activities. These activities are addressed both to building capacity in European ocean science research and to knowledge transfer.

RVs Operator Community's NEEDS	EF+ OFFERS
Attracting young people to marine science and technology	Floating University Course
Training the next generation of marine research and offering novel perspectives for pioneering research	Blue skill labs (ROV, Seismic, ROBOT and Telepresence)
Pool of highly experienced RV operators	Research Infrastructure Management Workshop

TAILORED QUESTIONS: contributions from WP Leaders
[the question is addressed to the stakeholder' category and specific community highlighted in bold]
- Are you aware of an international network where is possible to check: 1 - research cruise planning, 2 - spare berths availability on board related Research Vessels which are available for training, 3 - ship-time offered during transit and/or periodic monitoring/observation activities at sea? **[PAN-EU RIs, Networks, Research & Education]**
- Do you have any collaboration or program with industry related to practical training of young researchers and technicians on new technologies? If yes, is it devoted to internal personnel, or could it be accessible also to external? **[Networks, Research & Education, Industry]**

EF+ TOPIC #4 - Innovation Management and Exploitation

Topic description:
EF+ will expand the role and impact of RVs in the innovation chain and maximize the exploitation of data produced and/or collected by research cruises and project results. This activity is aimed at providing guidelines on innovation management and to reinforce collaboration with industry. The project aims to enhance innovation capacity; create new market opportunities for potential innovations facilitated by Translation Access and

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[3] **EARS V2**(Eurofleets Automatic Reporting System) is ship board system that is instrumental for gathering the full set of cruise data that is acquired during the operations of an Eurofleets+ TA cruise and transferring en-route data to the EVIOR portal.

strengthen ties with industry partners and stakeholders. Expert guidance from industry partners will guide potential innovations through the product development lifecycle, potentially accelerating a route to market by sharing experience and industry know-how.

RVs Operator Community's NEEDS	EF+ OFFERS
Ensuring a strong focus on innovation potential	High level of industrial collaboration
Fostering successful exploitation	Understanding of market and technological problem

TAILORED QUESTIONS: contributions from WP Leaders
[the question is addressed to the stakeholder' category and specific community highlighted in bold]
- Did any marine research activity in your Institution lead to a formal process of valorisation (e.g., patent, creation of spin-off)? Was it successful and why? **[Research & Education**
  What components in your experience leads to effective collaboration between Research Institutions and Industry? [PAN-EU RIs, Networks, Research & Education, Industry, RV Operators]

EF+ TOPIC #5 - Foresight Roadmap and Legacy

Topic description:
The EF+ project has the ambitious goal to promote a model to ensure the integration of the European Research Fleets as well as the long-term sustainability of the integrated research infrastructure services provided at European level. A key aim for the project is to identify and agree on a long-term sustainable fleets coordination system, with a view to consolidating a strategic and coherent vision of the European Research Fleet and outlining the future research infrastructure developments within the ERA key priorities. A strategic roadmap, business case, and business plan will be developed for the coordination and integration of the European research fleet, and practical guidelines produced to ensure sustainability beyond the project lifetime.

RVs Operator Community's NEEDS	EF+ OFFERS
Maximizing the use of RVs and LEXI	Defining strategic plan and roadmap for a long-term sustainable fleets coordination system
	TA pilot groups opening to spare vessel capacity
Optimization use of RVs	Encouraging sharing of knowledge and best practice

TAILORED QUESTIONS: contributions from WP Leaders
[the question is addressed to the stakeholder' category and specific community highlighted in bold]
- What would your motivation be to become engaged/interested in a long-term coordinated system of RVs? **[PAN-EU RIs, Networks, Research & Education, Industry, RV Operators]**
- How would you best be involved in the design/implementation of a long-term coordinated system of RVs? **[PAN-EU RIs, Networks, Research & Education, Industry, RV Operators]**
- What would be your contribution in the design/implementation process of a long-term coordinated system of RVs? **[PAN-EU RIs, Networks, Research & Education, Industry, RV Operators]**

EF+TOPIC #6 - Communication and Outreach

Topic description:
EFs+ promotes project results to raise awareness of the key role of the European Research Fleet and the its benefit for the environmental and social challenges. It aims to raise awareness of the vital role of Research Vessels in relation to advancing our knowledge of marine processes and resources and thereby our management of the ocean. This will be achieved through the transfer of know-how, private and public engagement initiatives, dissemination and communication through various channels. All available tools will be utilised to reach all key users and stakeholders so that the aim of delivering an enhanced understanding of ocean processes, fostering sustainability & integration. Further effort will be dedicated to the role of RVs in marine science.

RVs Operator Community's NEEDS	EF+ OFFERS
Inform key stakeholders	Dissemination and Communication plan
Supporting capacity building and ocean literary	Generation of dissemination material

TAILORED QUESTIONS: contributions from WP Leaders
[the question is addressed to the stakeholder' category and specific community highlighted in bold]

- Who are your stakeholders and how do you communicate with them? **[all]**
- What are your preferred channels of communication? **[all]**
- How do you currently keep up to date in relation to infrastructure access programmes for RVs? **[Research & Education, Industry]**
- Do you engage in any interactions with the wider public, such as: Teacher at sea; Students at sea; Lab at sea; Web interfaces, e.g., blogs/social media/website; Live connections to classrooms; Open days and visits onboard? **[Research & Education, Industry, RV Operators]**
- Are you interested in communicating the work you carry out on RV to stakeholders? **[Research & Education, RV Operators]**
- One of the main stakeholders groups of this project is the industry, and invariably is one of the hardest to tackle, what do you think is the best strategy to disseminate and communicate to this group? **[PAN-EU RIs, Networks, Research & Education, RV Operators]**
- Civil society, as the tax payers, are the real great funders of the Framework Programs, how would you define the "So what?" to this group of stakeholders and secure their support? **[PAN-EU RIs, Networks, Research & Education, RV Operators]**