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D8.5 Scenario for a permanent fleets coordination platform



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1. Introduction

This deliverable takes place after three years of collective work within the WP8 *Foresight: Legacy and Roadmap* of Eurofleets+, which has led to a proposal for an AISBL (Association internationale sans but lucratif)-type association (International Non-profit Association) allowing the creation of a distributed European Marine Research Infrastructure (RI); EUROFLEETS RI. This proposal contains a roadmap for the implementation of such an RI, taking into account the work carried out in the Eurofleets+ project, in particular in Deliverable 8.3 *Report on feasibility study for implementation of a transnational access system including business plan*, and the current low level of formal integration and cooperation between the European marine research infrastructure owners and operators.

2. Expression of interest survey conducted in 2023

On 10 January 2023, an expression of interest was widely circulated to the community of Eurofleets+ beneficiaries and non-Eurofleets+ partner fleet operators, in addition to ERVO and OFEG members.

By March 10 2023, 19 responses had been received. The analysis of these responses (see appendix 1) shows a great diversity among the organizations or entities that responded. Few non-Eurofleets+ partner fleet operators participated.

We note that the organizations that responded are willing to contribute in kind to the management of the AISBL, to establish working groups, to operate the IT infrastructure, to communication or even dissemination of results. This is important for the structuring of the future AISBL, because it means that the contributions in kind will probably be able to cover the basic functions of running the EUROFLEETS RI, even if certain budgets (travel, regulatory costs for managing an association...) must be covered by a minimum financial contribution. The provision of personnel which seems acceptable for these organizations is however limited since most organizations accept the idea of annual time quotas of the order of a quarter of a man-year. This preaches for a light organizational structure.

The expression of interest offered a choice of funding levels between 5,000 and 10,000 euros per member per year. Very few of the organizations that responded said they were prepared to fund the AISBL for more than €5,000 a year, and most of them did not wish to make a multi-year commitment. This should encourage the promoters of the AISBL to imagine, initially at first, an inexpensive operation.

The appetite for training activities is significant, and the organizations consulted favour floating universities. This is a point to remember, which leads to imagining a strong link with universities, training organizations or with initiatives already in place at European level.

The questionnaire was only a first survey of the community of operators and beneficiaries of European marine research vessel fleets and Large Exchangeable Instruments (LEXIs). This survey must therefore be treated with a little perspective as to the fear of a possible weak motivation of the European community in marine research for

the emergence of an EUROFLEETS RI. Finally, this survey calls for a step-by-step approach to the implementation of the EUROFLEETS RI, aimed at gradually mobilizing and raising awareness among Eurofleets+ partners, but also other major European research vessel and/or LEXI operators, of the advantages of implementing EUROFLEETS RI under an AISBL-type legal structure.

3. Implementation plan for EUROLLEETS RI

The missions and business plan proposed in deliverable 8.3, from which the implementation proposal in this deliverable is derived, are clearly in line with two cornerstones identified over the last four years in order to lead to better coordination of the European research vessel fleets and LEXIs.

The **first cornerstone** is the collective recommendations made in the European Marine Board's report "Next generation European Research vessels - Current Status and Foreseeable Evolution", published at the end of 2019, which very clearly set out the following recommendations (executive summary, page 7):

- Information and data on the capabilities and equipment of the European research vessel fleet should be kept up to date and continue to be made available through the EurOcean Research Infrastructure Database. This data should be periodically reviewed by the infrastructure owners with support from the European Research Vessel Operators (ERVO) group) in order to remain able to support science needs, and to keep users, decision makers and funding agencies informed about status and trends;
- For the European research vessel fleet to remain capable and fit-for-purpose, both the fleet and its scientific equipment and instruments should be renewed and developed as a matter of urgency. Given the timeframes involved, this will require ongoing strategic planning through communication with all relevant stakeholders;
- The research vessel community should continue on its path towards greater collaboration in order to aim for equal access to research vessel time based on excellent science not (constrained by) the country of origin of the scientist, for more effective use of resources, for appropriate training for all parties, and for strategic planning of the research;
- Funding agencies should engage in discussions with the research vessel and marine science communities as well as other relevant stakeholders to identify key funding needs. This could for example be achieved through formal invitation of relevant agencies to future International Research Ship Operators (IRSO) and ERVO meetings. These needs will cover fleet renewal and development, training, transnational access for ship-time, and joint research programs;
- The research vessel operators' community should continue to look forward to the emerging science and technological developments (e.g. towards real-time data delivery, new autonomous systems, new science frontiers) and work together with relevant parties to ensure that the fleet is ready to support these.

The **second cornerstone** is Eurofleets+ deliverable 8.2, published in 2021. It has identified five main themes that have been major advances in the creation of a European community of operators and users of oceanographic fleets, and that the promoters of the various Eurofleets projects (1, 2 and +) wish to pass on:

- Providing European researchers and their partners with access to cruises on board high performing research vessels (RVs) flying various national flags, based on scientific excellence in addition to promoting innovative e-access to RVs during scientific cruises,
- Updating a consolidated view of the European RV fleets, thus building a European shared strategic vision of the foreseeable evolution of this infrastructure,
- Fostering coordinated and development of European RV fleets, thanks to new interoperable software and innovative underwater vehicle payloads. enable better structuring and coordination of fleets through a relevant information platform such as EVIOR,

- Developing training and education at sea with young scientists and/or technicians,
- Promoting greener and more sustainable RV and underwater vehicle operations and design.

Every few years, similar observations and recommendations are made by representatives of organisations of diverse origins that cover the field of marine research in Europe fairly broadly. There is no single organisation that meets these objectives: ICES focuses on fisheries issues, the European Marine Board covers a much wider field than research fleets, while ERVO is an active but relatively informal group for the exchange of information and best practice between operators. This reinforces our view that **there is a vital need and a central place for EUROFLEETS RI around the following missions, as set out in 2022 at the One Ocean Summit in Brest, France.**

- Provision of easy access to up-to-date information on the European RV Fleet: maintaining and validating European RV and LEXI information in the EurOcean research infrastructure database, hosting technical groups and supporting R&D projects for low emissions RVs operation.
- Provision of education and training courses, activities, opportunities, programs, summer schools, etc. (both theoretical and practical).
- Updating a consolidated view of the European RV fleets, thus building a European shared strategic vision of the foreseeable evolution of this infrastructure and share that vision with funding agencies through discussions involving the research vessel and marine science communities as well as other relevant stakeholders to identify key funding needs.
- Participation in a "market- place" for those offering access to RVs and/or LEXIs, and those looking for charter, barter or in-kind contribution to research projects, monitoring activities, logistical functions, etc.
- Provision of funded Transnational Access (TA) opportunities on board high performing RVs flying various national flags, on basis of scientific excellence, in addition to promoting innovative e-access to RVs during scientific cruises.

The key to EUROFLEETS RI's success will be in getting a large number of RV fleet operators on board, not only those from the Eurofleets community, but also those who have never wished to join up until now and who represent a significant proportion of the national resources available in Europe.

So, it's not a question of imposing on, but of persuading a large and representative community of fleet operators from all over Europe that EUROFLEETS RI has a role to play in building a future for marine science research on the continent.

As it seems difficult to embark on the immediate implementation of the business plan proposed in deliverable 8.3 due to insufficient visibility on the financial commitments that the future members of the AISBL will be able to support on a long-term basis, we are favouring a two-phased approach:

- an implementation phase (phase 1) and running-in of the first four missions between 2024 and 2026,
- a phase 2, covering the implementation of the fifth mission (Transnational Access) from 2027.

3.1 Phase 1 (2024 - 2026)

We propose implementation over three years according to the following timetable:

Steps	Beginning	End
Joint proposal by MI, Ifremer and CNR to launch a design phase of the AISBL "EF RI" from 2024, using their own funds, and inviting other organizations to join them.	September 13 2023	
Launch of the design phase of the AISBL "EF RI"	January 1st, 2024	
Work on the missions, the budget of phase I, and on the statutes of the AISBL	January 1st, 2024	May 2024
ERVO 2024. Presentation of the missions, budget and statutes of the AISBL proposed for the first phase.	June 2024	
Adjustment of missions, budget and statutes based on feedback from ERVO.	July 2024	November 2024
Presentation of the statutes, the BP and the missions of Phase I, during a European event. Opening of memberships.	October 2024	
Closing of memberships	March 2025	
Signature of the founding agreement of the AISBL during UNOC 2025 in Nice	June 2025	
Establishment of the AISBL and the first 4 missions	From July 2025	

The design launch will take place in January 2024. A consulting firm, which has already worked on setting up such associations, will be chosen and appointed by the prefiguration group. Work will be carried out face-to-face (a one-day kick-off meeting in January 2024, and a one-day finalization meeting in May 2024), and remotely (a

monthly meeting). The members of the prefiguration group will focus on defining the services that can be assigned and/or transferred to the EF RI (cf. § 3.3), on defining the governance (cf. § 3.4) of the statutes and on a Business Plan adapted from that proposed in deliverable 8.3.

3.2 Services offered by EUROFLEETS RI phase 1

- 3.2.1 **Provide its members with an executive secretariat** to coordinate all the services offered by the AISBL. This executive secretariat (see also §3.4) could be responsible for organizing ERVO's annual meetings, managing and making available online the documentary resources inherited from Eurofleets, and editing the technical and strategic reports produced in the future by EF RI. Regarding reports and position papers, coordination should be established with the European Marine Board (EMB) to avoid duplication and to increase the impact of documents produced by EF RI. The co-publication of certain documents with the EMB could therefore be envisaged.
- 3.2.2 **Manage a fleet information portal.** To date, there is a portal called EVIOR, managed by Eurofleets+, which provides access to a certain amount of information on European research vessels and their planning. To date, it is only fed by some of the Eurofleets+ members and gives a very partial view of the technical and operational situation of the European RV fleets, particularly in the absence of information on other fleets that are not members of Eurofleets+. If we want to create common services and encourage coordination of programming or operations at sea between European operators, the information in this portal needs to be updated on a regular basis. The challenge will therefore be to transfer this EVIOR portal to the EF RI (or create a new portal) and to ensure that the majority of the 62 European RV fleet operators are involved in the regular updating of the various information accessible on the site.

The main information themes available on the portal should be as follows:

- Cruise programs database,
- European research vessels database,
- European LEXI database,
- Cruise Summary Reports database,
- Charter opportunities,
- Ship time exchange (Barter) opportunities,
- Spare berths available on research vessel cruises,
- Eurofleets heritage documents,
- Technical and strategic reports from the different Working Groups of EF RI

- 3.2.3 **Coordinating European training mechanisms.** During the Eurofleets projects, onshore and offshore training courses were proposed by consortium members. Based on feedback from previous training courses, the proposal for EF RI is to develop training proposals (1) under the aegis of EF RI alone, and (2) in cooperation with research organizations or universities already involved in training programs, some of which are already Eurofleets Partners:

- AISBL members offer training courses for researchers and/or technicians, mainly by opening up their own courses to outside users. This would keep costs down, within the limits of available places,
- Get closer to the All-Atlantic Floating University Network (@SeaNetwork) (see appendix 3), which was set up at the end of 2022 with the aim of developing training proposals on an Atlantic scale. This network brings together numerous countries, European and non-European organizations. To date, GEOMAR in Germany, CNR in Italy, NOCS in the UK, IPMA in Portugal and Ifremer in France are members of this network. Ifremer, for example, plans to open access to the “Ecoles Bleues Outremer” network, whose first edition in 2022 welcomed 80 young students, scientists and professionals from a variety of backgrounds for a month on board the RV Marion Dufresne. The participation of numerous universities in @SaeNetwork is an opportunity to develop transnational links between training organizations and fleet operators around the training of researchers and technicians. The EF RI representative(s) to @SeaNetwork would act as facilitator(s) on behalf of the other members.

A link with the Ocean Training Partnership (<http://www.oceantrainingpartnership.org>) also seems appropriate, to ensure a strong link between this initiative led by [Partnership for Observation of the Global Ocean \(POGO\)](#) in collaboration with the [Strategic Marine Alliance for Research and Training \(SMART\)](#) and the [Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research \(AWI\)](#). The project is funded by the [Nippon Foundation](#) and hosted by [Marinettraining.eu](#).

3.2.4 Manage a permanent strategic working group on European fleets to 2030.

The European Marine Board's report "Next generation European Research vessels - Current Status and Foreseeable Evolution", published at the end of 2019 (<https://www.marineboard.eu/publications/next-generation-european-research-vessels-current-status-and-foreseeable-evolution>), provided a better understanding and shared view of the state of the European fleets, their distribution by type of vessels, by geographical area, and by country. This report highlighted the urgent need to renew European fleets, to ensure that our continent remains at the forefront of marine science research (see table 2.1 of this report).

Some vessels in the fleet of 99 research vessels listed in this report is indeed old, and the average age of the vessels is increasing (25 years in 2019, compared with 19 years in 2007). Since its publication, only a small number of vessels (less than 10) have been ordered or acquired. Given that in 2019 36 vessels were over 30 years old, if nothing is done within the next 10 years, a quarter or even a third of the European fleet will disappear, leading to a drastic reduction in European research capacity.

Moreover, oceanographic fleets are more than just vessels, and while the 2010 - 2020 decade saw the entry into the fleet of a significant number of underwater robots, and heavy equipment (seismic), the introduction of innovative scientific equipment has slowed considerably. This positive trend has been sharply retracted since.

In addition to this general trend in 2019, which unfortunately continues unabated, other major events are now taking place that are having a major impact on our vision of the future:

- ✓ Rising health and political crises on a global scale are resulting in soaring energy prices and a general increase in costs, that without additional support of several million euros from their supervisory ministries, the activity of most fleets would have been virtually reduced to zero by 2023. In the years to come, the question of covering rising fuel costs will once again arise since most RV fleet operators do not have the capacity to adapt to these new economic conditions in such a short space of time, for a variety of reasons (technological, social, level of service).
- ✓ Since 2020, environmental issues (climate change, anthropogenic impact on marine biodiversity, ocean pollution, etc.) have become a major concern for society, in view of the tangible consequences that our civilization must face. Existing RV and LEXI development plans in several countries do not take into account innovative solutions for decarbonization. A change of scale is now essential, and this is reflected in the need to define ambitious objectives for reducing the environmental impact of RV fleets by 2030 (-40%).
- ✓ New technological developments have reached maturity, or are about to enter the industrialization stage, such as coastal and offshore surface drones. The emergence of new means of land-sea communications will enable the development of telepresence and teleoperation, which will enrich the sharing and processing of information acquired during marine research campaigns.

Organizing together to overcome and emerge stronger from the looming crisis.

The major objectives for access to the oceans set by the European Community and its member states, as well as the end-of-life deadlines for our resources, remain valid. We are therefore witnessing a paradigm shift, the consequences of which are clearly the urgent need to accelerate the energy transition of research vessel fleets, adapt to new economic conditions and introduce new tools. We need to rethink the future of Europe's national RV and LEXI fleets, based on achieving scientific objectives in line with the scientific forecasts of research and public policy support organizations for 2035, while accelerating the decarbonization of the business. This (r)evolution will be achieved through a change in behaviour and working methods, supported by technological innovations expected in the medium and long term (vessels, autonomous systems, etc.).

EF RI is therefore taking the initiative of launching a foresight study open to all European research organizations and fleet operators, with a dual objective: (1) to identify the levers for accelerating the environmental transition of fleets, while respecting the scientific needs of our users, and (2) to propose a joint and concerted roadmap in terms of innovative investments.

To carry out this work, the working group will consult with the European Marine Board and its members to develop a scientific "baseline" forecast that RV fleets will need to meet by 2030. It will also share the technological perspectives arising from the work of its members and address the subject of transnational partnerships that could make sense in order to reduce transits and pool campaigns, with the aim of reducing the overall environmental impact of our activities (cf. appendix 2).

This fundamental work will take several years and will be carried out in a participative and iterative way. It could be the subject of an annual progress day, at the EF RI General Assembly, to which the national supervisory bodies and stakeholders of each of the 62 current operators of research vessel fleets in Europe would be invited as observers, in order to share with them the fruits of our reflections and involve them more closely than at present in the construction of a shared vision of research vessel fleets.

3.3 What governance for EUROFLEETS RI "phase 1"?

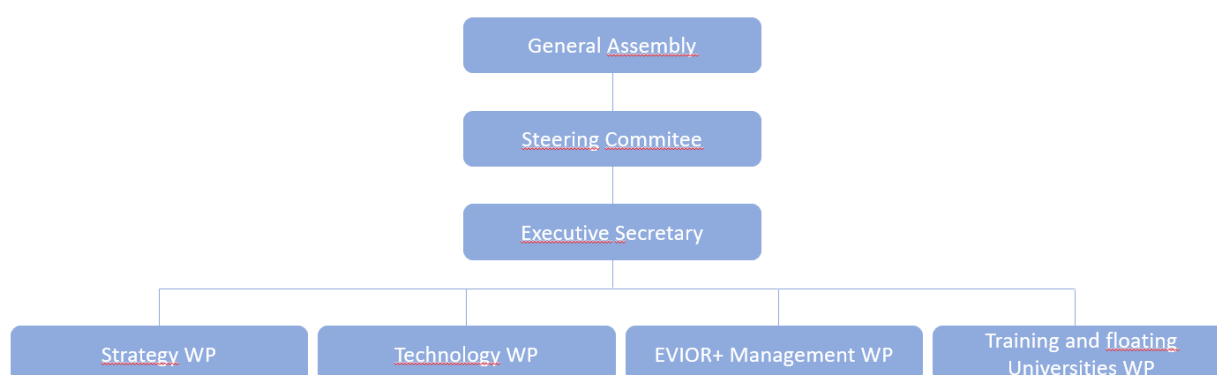


FIGURE 1 EUROFLEETS RI GOVERNANCE STRUCTURE

General Assembly

All European public RV fleet operators can become full members of the AISBL, while universities, research organizations and institutional bodies can become associate members. New memberships will be approved at the general meeting following the application.

On the recommendation of the Chairman of the EUROFLEETS RI Steering Committee, the General Assembly:

- Validates strategic orientations, organizational changes, and new services,
- Validates appointments to the Board of Directors, and the choice of the Executive Secretariat,
- Validates the annual budget and the re-issue of last year's accounts. It also validates annual membership fees.

The AISBL holds its annual general meeting the day before or the day after ERVO and takes its decisions by a simple majority.

Steering Committee

The Steering Committee is the steering body of the AISBL. It meets once a quarter and oversees the work of the AISBL. It approves budgetary commitment decisions in excess of the ceiling delegated to the AISBL Executive

Secretary. The agenda for the meetings of the Steering Committee is agreed between the Chairman of the Steering Committee and the Executive Secretary of the AISBL, who is responsible for the minutes of the Steering Committee meetings.

The Steering Committee consists of the Chair, one Vice Chair, and up to four members elected by simple majority of members attending the General Assembly. The Steering Committee will consist of:

- Three persons qualified in the field of research vessel fleets,
- The Chair of ERVO,
- A representative of OFEG,
- A representative of the ESFRI FORUM executive board.

They are committed to serving for two years in their role.

The Steering Committee will elect its Chair from among the three qualified candidates. The Chair will act as the formal EF RI representative to other groups and programs. The outgoing Chair will support the incoming Chair for a period of 6 months.

The Steering Committee may invite experts to assist on specific matters, as required. The members of the Steering Committee cannot serve for more than two consecutive terms.

Executive Secretary

It coordinates all the services offered by the AISBL. To avoid the Secretary being taken over permanently by one of the members, and to avoid the need for one or more permanent hires, it is proposed that the Secretary be provided on a rotating basis by the members, who would make available to the AISBL a person responsible for coordinating and running the various services offered by the AISBL. The Member providing the Secretary would do so for a period of four years, and provide the necessary accommodation and logistical environment, which would be billed in full or in part to the AISBL.

Permanent working groups

The tasks identified in the previous paragraph will be carried out by four permanent working groups:

- EVIOR+ Management WG,
- Training and Floating Universities WG,
- Strategy WG,
- Technology WG.

A coordinator and a co-leader will be appointed for each WG. The annual workload for each of them is estimated at three man-months. They will therefore be made available to the AISBL for the corresponding proportion of their time by their employing organization within the framework of the AISBL's constitutive agreement, and their operating expenses (travel, registration for presentation conferences, etc.) will be covered by the AISBL. The

expenses of the other members of the WGs, who will contribute to their operation and to the production of the various services, will be paid by their employer organizations.

In this scheme, the AISBL's initial operating budget corresponds (1) to the valuation of two annual Full Time Equivalent (FTE) (1 FTE for the Executive Secretary and 4 quarter FTEs corresponding to the working group coordinators), (2) the valuation of the secretariat's accommodation, (3) an operating budget (missions, travel expenses, website hosting and development, document formatting and printing, miscellaneous administrative expenses) of the order of at least 50/60 k€.

3.4 Phase 2 (beyond 2026)

Phase 1 is a relay phase between Eurofleets+ and a larger structure. EF RI Phase 1 shall have a limited but lasting scope, which will enable us to maintain and develop the community of oceanographic fleet operators and their users around the proposed services, in a strong link with the annual ERVO meeting. But this phase cannot be a final objective in itself.

Phase 1 should, in particular through the work of the Strategy WG, pave the way for the next stage, which is clearly of an operational nature. The Strategy WG should propose one or more orientations for the future Phase 2:

- On a voluntary basis, move towards ESFRI by (1) setting up Transnational Access (TA) via the pooling of ship time between several operators/countries, and (2) opening up additional days on existing campaigns to transnational sub-projects,
- Strengthen the coordination of zonal scheduling between research vessel operators working in a given zone, in order to avoid unnecessary transits and reduce the overall environmental footprint of operations in the zone. This hypothesis does not necessarily imply TA, and could be based on the principle of vessel time exchange developed by OFEG,
- Imagine partnership scenarios between countries and/or operators for the purchase and operation of innovative equipment such as Unmanned Surface Vehicles (USVs), independently of ship scheduling

At the end of phase 1, the Steering Committee and General Assembly will have to decide which scenarios should be given priority, and if necessary, the objectives and statutes of the AISBL will have to be reviewed.

4 Conclusions

This deliverable, like deliverable 8.6 which focuses on the phase 2 proposed in this report, reflects the desire of the members of Work Package 8, which is dedicated to the strategy and preparation of the follow-up to Eurofleets +, to open up a path of compromise that will make it possible to structure the European fleets over the long term.

It is the fruit of a number of seminars and working meetings that have enabled us to compare opinions, to listen to sometimes opposing positions, and to propose solutions on which there is consensus. Our ambition now is to provide the initial impetus needed for the AISBL proposed in this deliverable to see the light of day in 2025 and to be deployed from that date. Our ambition is also to convince as many ship operators and LEXIs as possible that it is in their and their users' interest to join AISBL EUROLLEETS RI.

Appendix 1

Eurofleets RI EOI Survey Response Report

Niamh Flavin (Marine Institute)



EUROFLEETS

**RESEARCH
INFRASTRUCTURE**

**EXPRESSION OF INTEREST
RESPONSE REPORT**

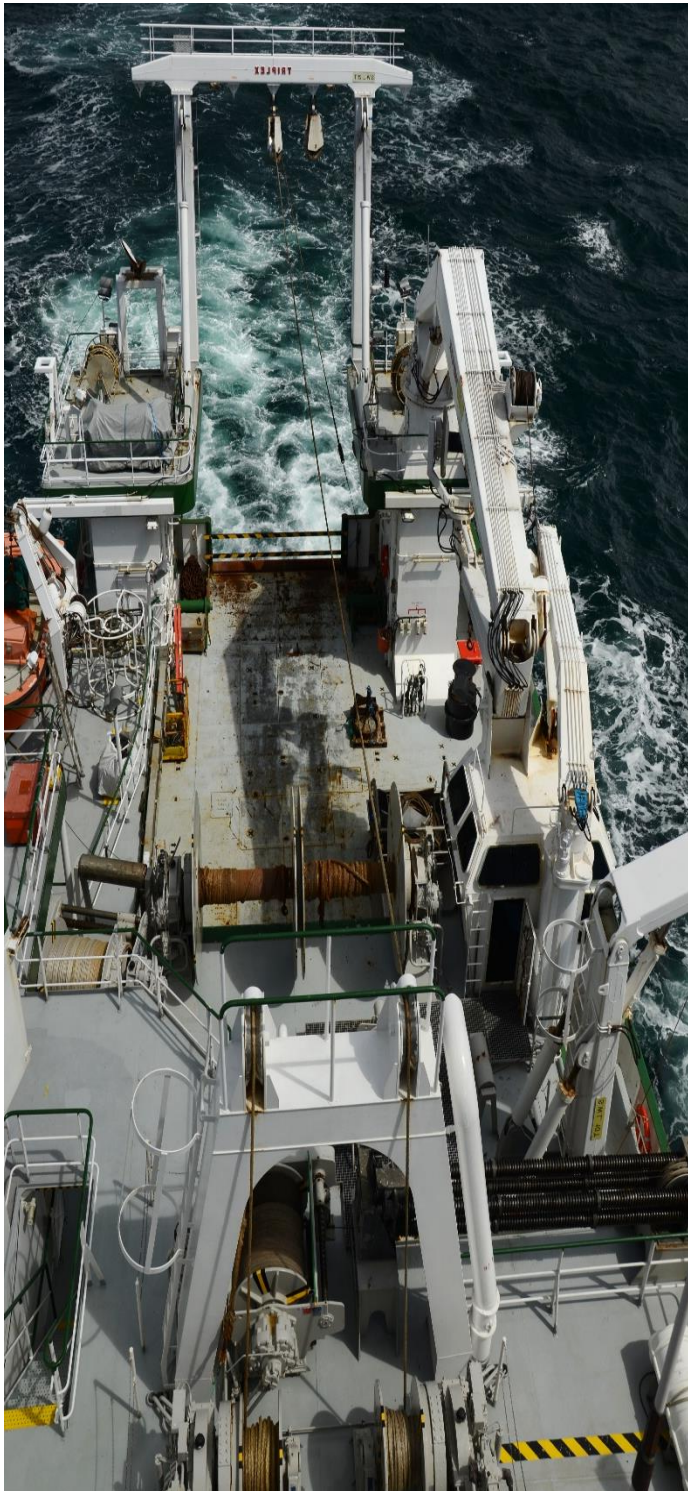


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INTRODUCTION

The Eurofleets RI Expression opened on 10th of January 2023. An initiative of the Eurofleets Research Infrastructures Working Group (WP1 & WP8) launched the call for Expressions of Interest for the planned inauguration of the Eurofleets RI. The EOI was distributed to each European Research Vessel Operator to ascertain interest in membership of Eurofleets RI and gather feedback from each potential member on what proposed services were of interest to them.

The EOI was issued with a Cover Letter (Annex I), Eurofleets RI Overview (Annex III) with links to access the online survey. A link to register for a supporting webinar, scheduled for 14 February was also included.

Twenty-seven individual organisations were contacted directly, with some requesting a soft copy of the EOI survey to be provided (Annex II).

A reminder to register for the Webinar was sent on 25/01/2023 and registrations closed at 13:00hrs CET on the day of the event.

A total of Twenty-Seven people attended the event, representing 15 organisations. The event Webinar agenda featured a short presentation providing an overview of the proposed Eurofleets RI, from the concept origin as far as the proposed structured as reported in Eurofleets RI Business Plan Deliverable 8.3. This was followed by a Q&A session where participants provided feedback and comments on the information provided and the structure of the survey.

These comments were taken into account and changes were made to the survey, with the addition of supplementary questions, and a soft copy was issued to all of the original Twenty-seven organisations included in the circulation list. In addition, based on feedback and requests for additional information on the proposed financial plan, a copy of the Eurofleets+ Deliverable 8.3 Report on Feasibility Study and Business Plan was circulated.

The original deadline for submission of EOI surveys was extended twice, firstly by two weeks to the end of February at the request of participants. This deadline was extended further the 10th of March to accommodate some interested parties.

In total 19 responses were received, 11 electronically, six replied using the softcopy survey provided and a final two provided feedback via email due to their organisations position with regard to joining an AISBL. This represents a total response rate of 70%.



RESPONSE ANALYSIS

Survey Results Section One: Organisation Details Questions 1-6:

Organisation	Role of Org Rep	Type of Organisation	Legal Entity	Location
MI	Administrator	Research Performing Organisation; Research Funding Organisation; Research Infrastructure Operator;	Yes	Ireland
IOPAN	Deputy Director for Research	Research Performing Organisation;	Yes	Poland
SOCIB	Director	Research Performing Organisation; Research Infrastructure Operator;	Yes	Spain
DTU Aqua	Fleet Manager	Research Performing Organisation, ;Research Infrastructure Operator ;	Yes	Denmark
IPMA	Coordinator of the Research Vessels and Ocean Observatories Group	Public Institute;	Yes	Portugal (Lisbon)
VLIZ	Manager Research Infrastructure Division	Research Infrastructure Operator ;Research Performing Organisation;	Yes	Belgium
RBINS	Coordinator RV Belgica	Scientific institute;	Yes	Belgium
SLU	Ship Manager	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Sweden
Ifremer	Director of the French Oceanographic Fleet	Research Performing Organisation; Research Infrastructure Operator ;	Yes	France
CNR	Director of Research Support and Grant Office	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Italy
OGS	Director of Maritime Research Infrastructures	Research Infrastructure Operator ;	Yes	Italy



Organisation	Role of Org Rep	Type of Organisation	Legal Entity	Location
HCMR	Director of the Institute of Oceanography	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Greece
SYKE	Director of research infrastructures	Research Performing Organisation;	Yes	FINLAND
MFRI	Chief Officer of Finance and Operation	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Iceland
NMF, part of NIOZ	Head of NMF department	Research Infrastructure Operator	No	Netherlands
CSIC	Director UTM	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Spain
UGOT	Ship Manager	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Sweden
TUBITAK	CHIEF SENIOR RESEARCHER, TEAM LEAD RESEARCH VESSEL R/V TUBITAK MARMARA	Research Performing Organisation; Research Funding Organisation; Research Infrastructure Operator;	Yes	Turkey
GeoEcoMar	Director General,	Research Performing Organisation; Research Infrastructure Operator ;	Yes	Romania

Survey Results Section Two: Contact Persons Questions 7-12

Organisations were asked to provide details for the following personnel in their organisations:

- that you include their role within the organisation, and
- that one of them is a legal representative.

This information has not been included in this report in accordance with data privacy guidelines.



Survey Results Section Three: Decision Making in your organisation. Questions 13-14

Each organisation was asked to indicate at what level in their organisation decision with regard to memberships of formalised RI entities were made. The options were as follows (respondents could choose more than one):

- Organisational level (i.e. Board Approval)
- Regional Government Level
- National Government
- Ministerial Level

14 Organisations required Organisational level only.

2 Organisations required both Organisational level and Ministerial Level approvals

1 Organisation require Ministerial Level Approval

2 organisations did not reply to this question.

7 of the respondents was either responsible for/entitled to taking policy decisions on behalf of their organisation, 10 were not and a further 2 did not reply.

Survey Results Section Four: Infrastructure and Expertise Questions 15-19

Question 15 Respondents were requested to outline their organisation's area of expertise and available infrastructure that will be made available to support prospective European Funded Transnational Access:

Organisations Core Activities

- Research (Environmental, Oceanography, geophysics, multidisciplinary, technology, climate change, biodiversity loss, overconsumption, pollution and eutrophication)
- Monitoring
- Education & Science Communication,
- Data & information Centre,
- Policy support,
- Research Infrastructure operations and Management
- Freshwater Research

Question 16 What infrastructure would your organisation be interested in making available through Eurofleets RI for prospective European Funded Transnational Access?



Choices give included,

Research vessel Regional: 8

Research vessel Ocean: 12

Research vessel Global: 1

Remotely Operated Vehicle: 5

Autonomous Underwater Vehicle: 2

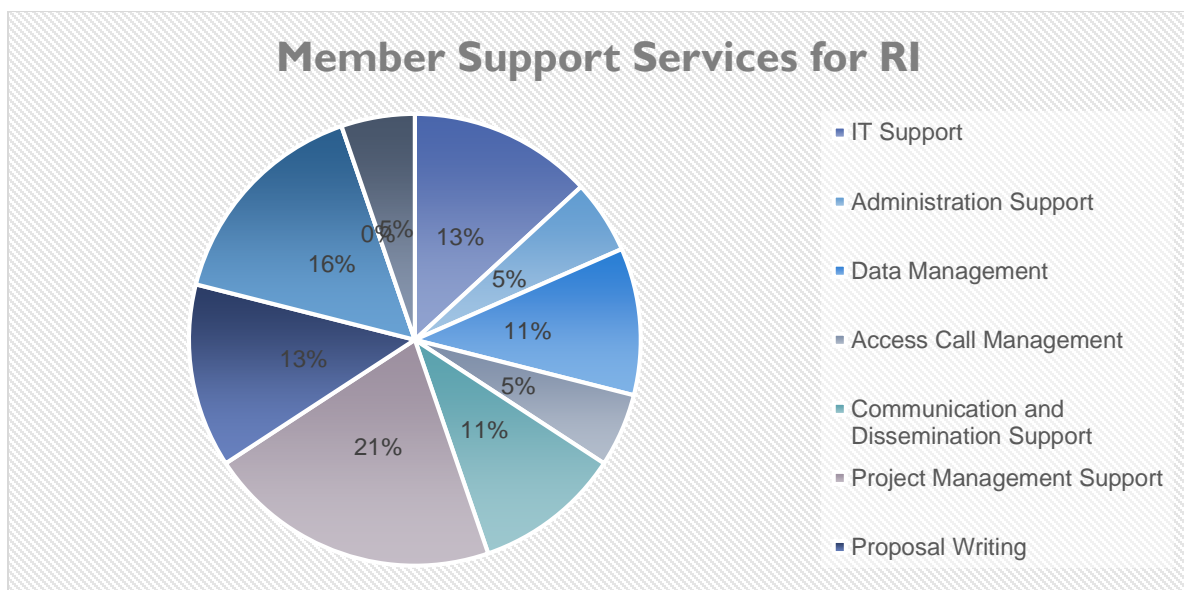
Glider: 3

Other: Sea Turtle taking, Uncrewed surface vehicle

Question 17. Sought to establish interest in advertising spare capacity via the Eurofleets RI “Information and opportunity platform”

16 respondents responded that they would be interested advertising spare capacity via a Eurofleets RI Platform (one with a caveat that spare capacity would be offered through OFEG in the first instance. One organisation did not wish to avail of the service and two did not respond.

Question 18: Organisations were asked to indicate if there were any other services their organisations could provide to support Eurofleets RI through in-kind contributions. The choices given were:



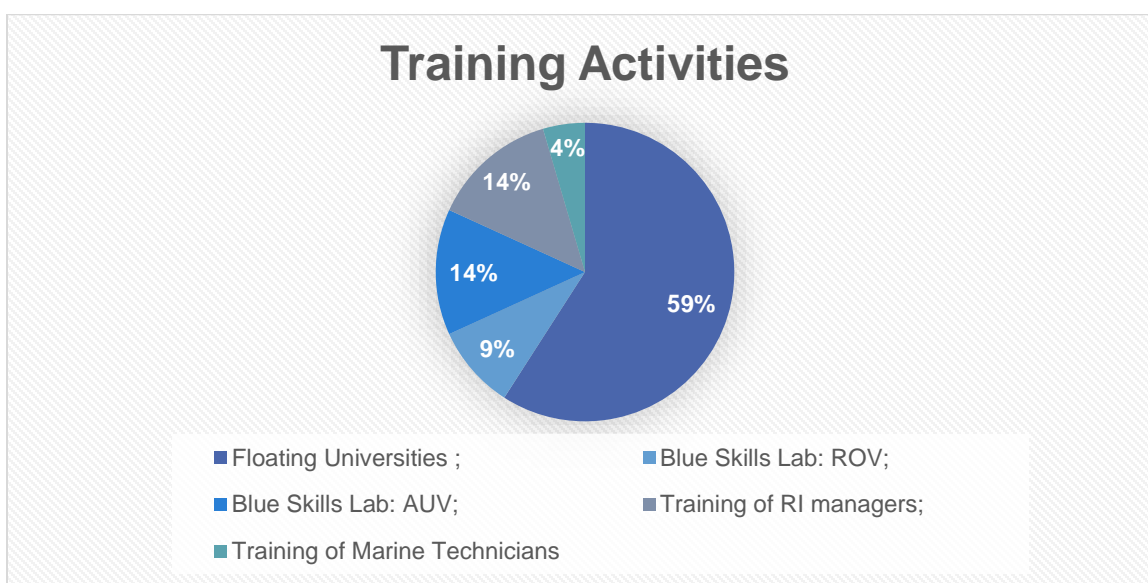
In Kind Contribution Support	
IT Support	5
Administration Support	2
Data Management	4
Access Call Management	2
Communication and Dissemination Support	4



Project Management Support	8
Proposal Writing	5
Technical Group Leadership	6
Legal Expertise	0
Financial Expertise	2

Other: it might be of interest to support scientists from less-equipped countries with proposal writing. Two organisations did not respond.

Question 19. Organisations were asked to indicate what Training Activities their organisations could support through in-kind contributions to the Eurofleets RI:



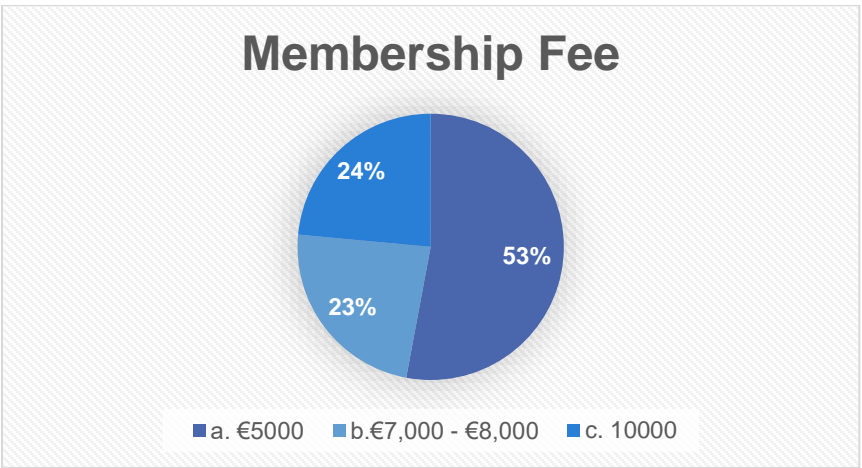
Training Activities	
Floating Universities	13
Blue Skills Lab: ROV	2
Blue Skills Lab: AUV	3
Training of RI managers	3
Training of Marine Technicians	1



Survey Results Section Five: Contributions towards establishment and development of RI

What membership fees (in-kind and/or cash) would your organisation be happy to contribute to support a Eurofleets RI.

Question 20 Each organisation were asked to indicate what finical contribution was most acceptable as an annual contribution?

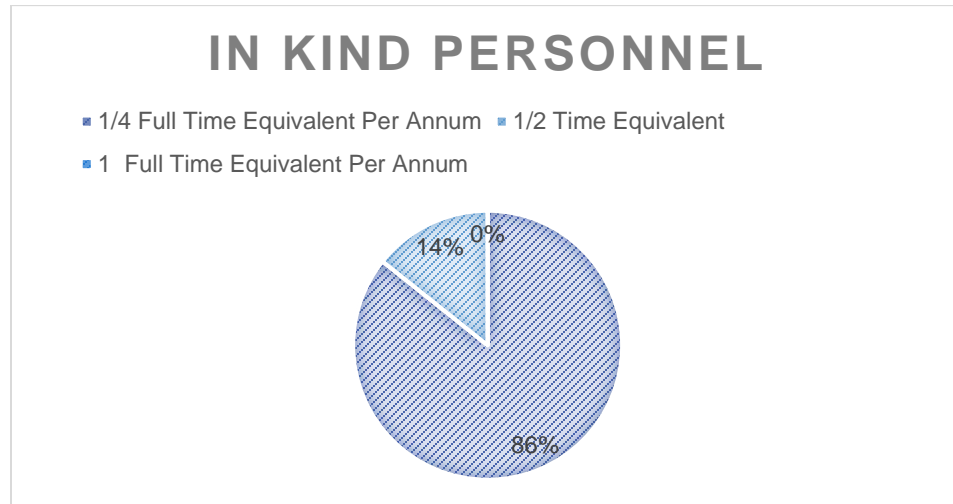


Membership Fee	
a. €5000	9
b.€7,000 - €8,000	4
c. 10000	4

Other: A suggested membership fee of €500 was made by one respondent.

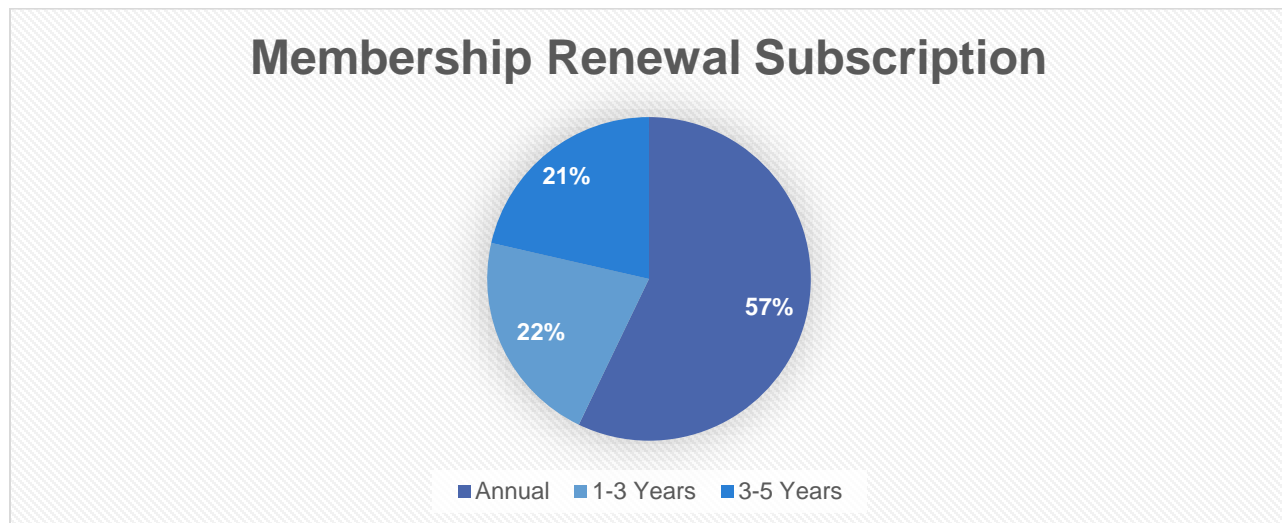


Question 21 Each organisation whether in addition to the above membership fee could their organisation provide human resources/personnel time to the RI



Question 22. Related to the preferred timing for Membership Renewal

This question was added after the webinar so there are some respondents who did not complete this question. A total of 14 responses were received with 57% in favour of an annual membership renewal.



Two additional free text questions were asked to gather general comments and feedback.

Question 23 Are there any services, supports or assistance that your organisation would value that could be provided by Eurofleets RI?

11 responses were received, with the suggestions summarised below.



Training was the most requested, including general training, Training for Marine Technicians, RI Managers and for training opportunities for person from non-equipped countries. Funding of projects and the provision of Transnational access to vessels and associated equipment (LEXIs and autonomous vehicles). Cooperation in the management and utilisation of associated equipment as well as developing common procurement procedures, share expertise on research vessel construction and operation and closer collaboration in general was suggested. Finally, Proposal writing for European projects was suggested.

Question 24 Is there any other feedback you would like to provide with regard to the EOI or the Eurofleets RI Concept?

Question 24 was added following feedback at the webinar similar to Question 22 above. 12 responses were collected in total from the 19 respondents. The feedback of two organisations who did not submit a full survey have been captured here.

- Some felt that a membership fee of €5,000 was high and that it was not 100% clear what the contribution would be used for.
- Three respondents had a preference for the forming an ERIC or other structured rather than an AISBL.
- Reasons given: Better option for joining the ESFRI, however there are many AISBL's on the ESFRI roadmap already, the other was that it is regulated by national legislation in their country and one did not provide a reason just that their institution, although a member of other AISBL's advised caution and preferred to wait for a second phase in the process.
- A Eurofleets RI would be beneficial for European oceanographic research
- Possibility to participate in AISBL legal entity depends on the level of legal and financial liabilities (limitations arise from the national law).
- One respondent felt that it was unclear what the membership fees would be used for and did not see value for their institution in the non TA services that a potential Eurofleets RI would provide.
- There was a word of caution from another member that every step regarding with future policy decisions could require Top Managements' Approvals starting from Ministry Level to Institutional Level.



ANNEX I EUROFLEETS RI COVER LETTER

EurofleetsPlus Project
Coordination Office
Marine Institute,
Rinville,
Galway,
Ireland,

10, January 2023

To whom it may concern,

The Eurofleets Research Infrastructures Working Group is launching a call for Expressions of Interest for the planned inauguration of the Eurofleets RI. The EOI will be distributed to each European Research Vessel Operator and Large Exchangeable Equipment Operator to ascertain interest in membership of Eurofleets RI and gather the feedback from each potential member on what proposed services they would value.

The context

Based on the experience from and the results achieved through the three European Union (EU) funded Eurofleets projects (<https://www.eurofleets.eu>) and the European Research Vessel Operators Network (ERVO) activities, see <https://www.ervo-group.eu>, there is a common understanding among European Research Vessel (RV) operators that it is necessary to bring the coordination and utilisation of the European funded activity of the RV fleet up to a new and more sustainable level after the third Eurofleets+ project ends in October 2023. In order to achieve this, it is proposed to inaugurate a legal entity named EUROFLEETS RI that provides a formal structure for cooperating on a Pan-European level.

The Eurofleets RI aims to bring together world-class RVs and LEXIs from European partners to facilitate access to unique marine infrastructure for a broad user community, enabling excellent research, increased cooperation in technical development and sharing of knowledge in RV and LEXI operations & management, and providing a clear and sustainable framework for the continued integration and advancement of the European RV fleet.

Eurofleets RI will play a central role in delivering the EU Missions and Challenges through the provision of access to our Seas and Oceans through facilitation of multidisciplinary science teams to handle a variety of challenges such as tackling changing climate, supporting bio medical research, ocean monitoring, sustainable fisheries, advancing the European Green Deal and more.

This EOI survey aims to determine your institution's interest in membership of the Eurofleets RI, the level at which the decision to join will be taken in your organizations governance structure and to gather details of key contacts persons. Additionally, feedback is being sought on infrastructures that could be made available for Transnational Access should funding be secured and interest in advertising spare capacity. Information is also being sought on what services provided by the RI could be supported by your



organization such as hosting training opportunities or the provision of professional services to support the RI general Assembly. Finally, feedback on membership fees is also sought. The survey can be completed electronically at the link below and should take no more than 8 minutes.

[Eurofleets RI Expression of Interest Survey](#)

A Eurofleets RI information webinar will take place on Tuesday 31st of January at 15:00 CET, providing an overview of the Eurofleets projects achievements since 2009, business plan developed and submitted to the European Commission and the proposed roadmap to inauguration. This webinar would be particularly beneficial to decision makers in your organization involved in assessing the future benefits of Eurofleets RI membership.

Registration for this event is available [here](#) and closes on 30th of January at 13:00hrs CET.

<https://www.eventbrite.ie/e/eurofleets-ri-expression-of-interest-webinar-tickets-511688783927>

The Eurofleets RI Working Group would like to thank you in advance for your commitment to the initiative thus far and look forward to taking the next steps on this journey together.

The deadline for receipt of completed EOI surveys is Tuesday 14/02/2023.

In the interim if you have any questions or require further details to complete the EOI survey please do not hesitate to contact any member of the Eurofleets RI Working Group or email eurofleetsplus@marine.ie

Please note, the submission of expression of interest neither establishes a claim to, nor is it a prerequisite for joining the Eurofleets RI on its establishment

Aodhan Fitzgerald (Marine Institute)

Eurofleets+ Coordinator

Olivier Lefort (IFREMER)

Eurofleets+ Work Package 8 Task Leader

Lorenza Evangelista (CNR)

ERVO European RVs economics, management processes and spare capacity Co-Chair

Giuseppe Magnifico (CNR)

Eurofleets+ Work Package 8 Leader

Per Nieuwejaar (IMR)

ERVO European RVs economics, management processes and spare capacity Co-Chair

Niamh Flavin (Marine Institute)

Eurofleets+ Project Manager



ANNEX II EOI SURVEY

Expression of Interest Form Guidelines

Guidelines for completion of Expression of Interest Form

The survey will take approximately 7 minutes to complete.

Guidelines for completion of Expression of Interest Form

The Eurofleets+ project invites current project beneficiaries and the wider ERVO community for expressions of interest for the proposed Eurofleets Research Infrastructure outlined above.

The form below has six steps focusing on:

- Organization Details
- Contact person(s) in your organisation
- Decision making in your organisation related to membership of RI's
- Managed/operated Infrastructures and or areas of expertise
- Contributions towards establishment and development of the Eurofleets RI
- Opportunity to provide feedback to the Eurofleets RI working group

This is a preliminary explorative step, and the submission of a completed EOI neither confirms membership or will be deemed as an application for Eurofleets RI membership at this time.



Expression of Interest Form

Section One

Your Organisation Details

Please provide some background details for your organization below.

1. Name of your organisation: Click or tap here to enter text.

2. Your Name: Click or tap here to enter text.

3. Your Role in the Organisation: Click or tap here to enter text.

4. Type of Organisation: Click or tap here to enter text.

☐ Research Performing Organisation

☐ Research Funding Organisation

☐ Research Infrastructure Operator

☐ Project

Other: Click or tap here to enter text.

5. Please indicate whether your organisation is a legal entity?

☐ Yes

☐ No

Other: Click or tap here to enter text.

6. In which Country is your organisation based/Headquartered?

Click or tap here to enter text.



Section Two

Organization Contact Persons

Please provide the following details: Name, Surname, email address. You may add more than one individual, but please make sure:

- a. that you include their role within the organisation, and
 - b. that one of them is a legal representative.
-

7. Lead Contact Name: Click or tap here to enter text.

8. Lead Contact Role: Click or tap here to enter text.

9. Lead Contact Email Address: Click or tap here to enter text.

10. Legal Contact Name: Click or tap here to enter text.

11. Legal Contact Role: Click or tap here to enter text.

12. Legal Contact Email Address: Click or tap here to enter text.



Section Three

Decision Making in your organisation

13. At what level in your governance structure are decisions to join entities such as the proposed Eurofleets RI taken?

☐ Organisational level (i.e. Board Approval)

☐ Regional Government Level

☐ National Government

☐ Ministerial Level

Other: Click or tap here to enter text.

14. Is the person completing the EOI survey responsible for/entitled to taking policy decisions on behalf of the organisation?

☐ Yes

☐ No

Other? Click or tap here to enter text.

Section Four

Infrastructure and Expertise

Outline below your organisation's area of expertise and available infrastructure that will be made available to support prospective European Funded Transnational Access:

15. What are your organisation's core activities and services?

Click or tap here to enter text.

16. What infrastructure would your organisation be interested in making available through Eurofleets RI for prospective European Funded Transnational Access?

☐ Research Vessel Regional



- ☐ Research Vessel Ocean
- ☐ Research Vessel Global
- ☐ Remotely Operated Vehicle
- ☐ Autonomous Underwater Vehicle
- ☐ Glider

Other: [Click or tap here to enter text.](#)

17. Would your organisation be interested in advertising spare capacity via the Eurofleets RI “Information and opportunity platform”?

- ☐ Yes
- ☐ No

18. Please indicate below if there are other services your organization can support through in-kind contributions to the Eurofleets RI:

- ☐ IT Support
- ☐ Project Management Support
- ☐ Proposal Writing
- ☐ Technical Group Leadership
- ☐ Legal Expertise
- ☐ Financial Expertise

Other: [Click or tap here to enter text.](#)

19. Please indicate below if there are Training Activities your organization can support through in-kind contributions to the Eurofleets RI:

- ☐ Floating Universities
- ☐ Blue Skills Lab: ROV
- ☐ Blue Skills Lab: AUV
- ☐ Training of RI managers



Other: Click or tap here to enter text.

Section Five

Contributions towards establishment and development of RI

As outlined in Chapter 5 above the Eurofleets RI office costs will be covered by membership fees (in-kind and/or cash) from Eurofleets RI partners. During the first three years, the governance structures of Eurofleets RI will be secured by in-kind contributions from the partners, formalised through a commitment/mandate letter.

Additional revenues are expected from service fees, grants, and other national and European contributions, as well as crowdfunding activities:

20. Which of the following would be most acceptable to your organisation to contribute to the Eurofleets RI as Annual Membership Fee:

☐ €5,000

☐ €7,000-€8,000

☐ €10,000

Other Click or tap here to enter text.

21. In addition to the Membership would your organisation be in a position to provide human resources/personnel time to the RI

☐ ¼ Full Time Equivalent Per Annum

☐ ½ Full Time Equivalent Per Annum

☐ 1 Full Time Equivalent Per Annum

22. Membership Renewal – Preferred Duration

☐ Annual

☐ 1-3 Years

☐ 3-5 Years

Other Click or tap here to enter text.



Section Six

Open Feedback Question

What service or support would you value from the Eurofleets RI

23. Are there any services, supports or assistance that your organisation would value that could be provided by Eurofleets RI?

Click or tap here to enter text.

24. Are there any Is there any other feedback you would like to provide with regard to the EOI or the Eurofleets RI Concept

Click or tap here to enter text.



ANNEX III EUROFLEETS RI EOI SUMMARY

Based on the experience from and the results achieved through the three European Union (EU) funded Eurofleets projects (<https://www.eurofleets.eu/>) and the European Research Vessel Operators Network (ERVO) activities (<https://www.ervo-group.eu>), there is a common understanding among European Research Vessel (RV) operators that it is necessary to bring the coordination and utilisation of the European funded activity of the RV fleet up to a new and more sustainable level after the third Eurofleets+ project ends in October 2023. In order to achieve this, it is proposed to inaugurate a legal entity named EUROFLEETS RI that provides a formal structure for cooperating on a Pan-European level.

An Expression of Interest (EOI) is now being sought from potential members of the Eurofleets RI. This call is intended to welcome potential RV operators and owners, Large Exchangeable Instrument (LEXI) operators and associated partners to indicate interest in joining a Eurofleets RI.

The Eurofleets RI aims to bring together world-class RVs and LEXIs from European partners to facilitate access to unique marine infrastructure for a broad user community, enabling excellent research, increased cooperation in technical development and sharing of knowledge in RV and LEXI operations & management, and providing a clear and sustainable framework for the continued integration and advancement of the European RV fleet.

Eurofleets RI will play a central role in delivering the EU Missions and Challenges through the provision of access to our Seas and Oceans through facilitation of multidisciplinary science teams to handle a variety of challenges such as tackling changing climate, supporting bio medical research, ocean monitoring, sustainable fisheries, advancing the European Green Deal and more.

This EOI aims to determine your institution's interest in the potential services offered by the Eurofleets RI.

[Eurofleets RI Expression of Interest Survey](#) Deadline for completion: 14 February 2023

An information webinar providing an overview of the proposed plan for the establishment of a formal Eurofleets Research Infrastructure will take place on Tuesday 31st January online with registration available at the following link:

<https://www.eventbrite.ie/e/eurofleets-ri-expression-of-interest-webinar-tickets-511688783927>

Please note, the submission of expression of interest neither establishes a claim to, nor is it a prerequisite for joining the Eurofleets RI on its establishment.



I.1 About EUROFLEETS RI

Research vessels (RVs) are key research infrastructures offering vital access to the sea for conducting marine science and ocean observing. Their work ranges from fisheries surveys to seabed mapping, and from climate studies to deep-water/ocean observations, allowing collection of a wide variety of data and samples from the atmosphere, the ocean surface, the water column, seabed, and the ground below it, as well as facilitating exploration of the vast expanses of relatively unexplored and unobserved ocean.

As reported in the European Marine Board Position Paper 25 (Nieuwejaar, P. et al., 2019), the European Research Fleet consisted in 2019 of 99 RVs (31 Local & Coastal Class, 36 Regional Class, 14 Ocean Class and 18 Global Class), manned and operated by 62 different RV operators, public and private, in 23 countries.

Despite the size of the European RV Fleet, its community of operators is less well-developed when compared with other European science communities that have evolved towards Pan-European initiatives for the coordination of research infrastructures such as the European Research Infrastructure Consortia (ERICs): EMSO, EPOS and EURO-ARGO, and the Association Internationale sans But Lucratif (AISBLs): EUFAR, EuroGOOS, SeaDataNet and EOSC.

Networking activities amongst the European RV operators is through the ERVO Group, which has an informal nature, no legal status or financial support. To date the level of coordination in planning and execution of cruises on board European RV's has been low, resulting in fragmentation and at times duplication of effort. Furthermore, researchers in some European countries cannot access the most capable RVs and LEXIs as their institution or country do not own or operate such infrastructure suitable for their scientific needs.

Since 2009, EU has funded three RV Transnational Access (TA) oriented projects, aimed at consolidating efforts and resolving the challenges described above: the FP7 projects Eurofleets (2009-2013) and Eurofleets2 (2013-2017), and the ongoing H2020 project Eurofleets+ (2019-2023). These projects have been the cornerstone of the European RV fleet cooperation over the last decade with significant success across diversified thematic areas.

Based on the experience from and the results achieved through the Eurofleets projects and ERVO activities, there is a common understanding among European RV operators that it is necessary to bring the coordination and utilisation of the European funded activity of the RV fleet up to a new and more sustainable level on conclusion of the Eurofleets+ project in October 2023 through the inauguration of a legal entity, named **Eurofleets RI**, that provides a formal structure for cooperating on a Pan-European level. This infrastructure should take the form of an AISBL.

Eurofleets RI aims at operating the following services:

- Provision of funded EU Transnational Access (TA) opportunities on board high performing RVs flying various national flags, on basis of scientific excellence, in addition to promoting innovative e-access to RVs during scientific cruises.
- Provision of education and training courses, activities, opportunities, programs, summer schools, etc. (both theoretical and practical).



- Participation in a "market- place" for those offering access to RVs and/or LEXIs, and those looking for charter, barter or in-kind contribution to research projects, monitoring activities, logistical functions, etc.
- Provision of easy access to up-to-date information on the European RV Fleet: maintaining and validating European RV and LEXI information in the EurOcean research infrastructure database, hosting technical groups (exchanges of best practices, operational standards...) and supporting R&D projects for low emissions RVs operation.



I.2 Governance Model & management

Eurofleets RI will have a robust management structure to ensure strategic oversight and excellence in all transnational access (TA), training, and networking and joint research activities in addition to act as the ERVO secretariat. A preliminary governance structure is proposed for this AISBL, similar to the governance structures of other existing AISBL Organisations (such as EuroGOOS, EMB and EUFAR), see figure 1 for details.

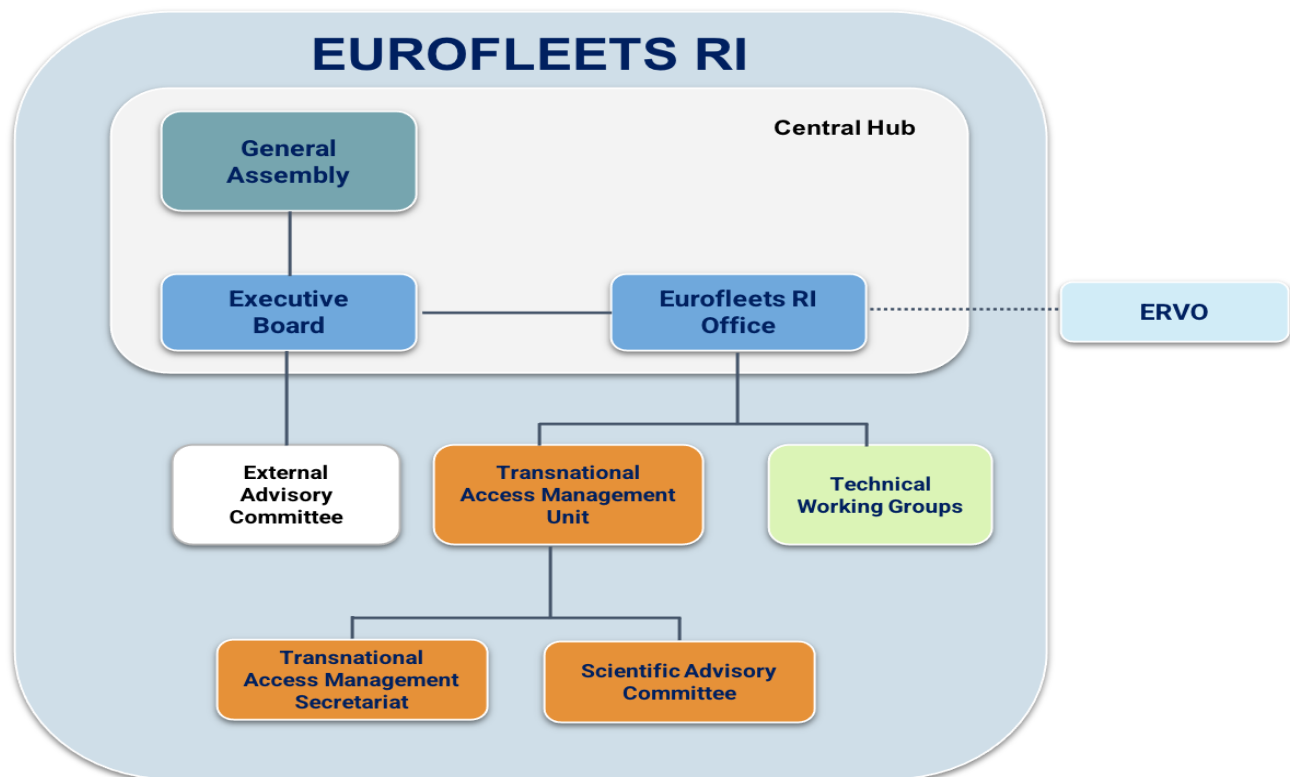


Figure 1 Eurofleets RI proposed governance

The key roles and responsibilities of each unit is described in figure 2 below, including the key activity areas including administrative, strategic, technical and TA. It is a requirement under AISBL to have both a General Assembly, which acts as the highest decision-making body of the association, and an Executive Board which acts as the executive body managing the applicable laws and decisions made by the General Assembly.



Eurofleets RI Proposed Management Structure



Figure 2 Eurofleets RI Management Structure

*C: Compulsory under AISBL Governance Structure



Key Resources

Potential partners

Primary potential members of Eurofleets RI are the following:

- **RV and LEXI operators** (managers of RVs and LEXIs),
- **RV and LEXI owners** (institutions funding and controlling the use of the RVs and LEXIs).

The benefits in becoming a member should be clear and largely off-set members' contributions. The benefits would differ from member to member. The list below summarises the main potential benefits in becoming a member of the Eurofleets RI.

- To support access to cruises on board high performing RVs and LEXIs in an integrated European framework, in particular for scientists from less equipped countries.
- To share and exchange new developments, best practices and common standards and protocols in the fields of scientific instrumentation and equipment development, and data management.
- To contribute to an updated consolidated view of the status, plans and outlook for the European RV Fleet, thus building a European shared strategic vision of the foreseeable evolution of this infrastructure.
- To foster coordinated development of the European RV fleets, thanks to new interoperable software and innovative autonomous vehicles, thus enabling better structuring and coordination of RV fleets through a relevant information platform.
- To support and promote greener and more sustainable RV and autonomous vehicle designs and operations.

Technical resources

To date the principle 'technical' resources identified for the Eurofleets RI are:

- RVs and LEXIs for the TA and training activities, with the engagement of the following service providers:
 - RV operators for the management and operation of the vessels,
 - LEXI operators for the management and operation of the instruments/equipment,
 - National cruise planning committees/entities for the scheduling/validating of cruise programmes,
 - RV and equipment information manager(s),
- Central Hub
 - Premises (initially "virtual"),
 - IT infrastructures and software.

Human resources

The main 'human' resources have been identified based on the proposed future governance structure of Eurofleets RI, which will be composed of decision-making and executive bodies and an adequate number of staff to guarantee the service provision, operating in the core perimeter of the RI. Additional "human resources" will act in advisory and technical bodies.



I.3 Market Analysis

The majority of European monitoring and research activity at sea is carried out using publicly owned RVs, instruments and equipment. Most RVs are owned, manned and operated by public research institutions, some with shared ownership across multiple institutions. Often the associated scientific instruments and equipment are operated and managed by the same institutions. So, the “market” in this case is predominantly public research institutions and universities, and most of the “suppliers” are public institutions owning and operating the RVs and LEXIs.

In some cases, commercial vessels are chartered, e.g., fishing vessels and offshore vessels to perform very basic or very specialised operations when it has not been possible to accommodate cruises on RVs due to non-availability of ship time, or because it is cheaper and more efficient to charter a vessel, e.g. for logistics operations in the Antarctica, surveys of fish stocks etc.

A relatively new and still developing “market” is stationary observation and sampling installations, either cabled systems connected to shore for power supply and transfer of data, or autonomous battery powered systems located on the ocean floor or anchored in the water column or on the ocean surface. These installations require vessel support for deployment, service and recovery, but most existing RVs are not well equipped for such work. It can therefore be an option to leave this “market” to commercial vessels already supporting the offshore oil, gas and/or wind farm industry rather than building publicly owned and operated RVs that are either purpose built for this type of activities or capable of performing these services in addition to scientific data collection and sampling.

Such decisions must first be taken on an institutional or national level but can also be evaluated from a multinational European public perspective. There are potential benefits to the development of a limited number of RVs able to take on such tasks, either as their primary mission or as one of several different monitoring and research tasks, in order to serve large geographical areas that include multiple European countries’ installations both in their territorial waters, on their continental shelf, in deep ocean areas of their Exclusive Economic Zones (EEZs) and/or in international waters.

In this way many institutions and nations can deploy and service such installations without having to invest in a dedicated vessel or build large and complicated RVs to include such capabilities for operations that may only be required on an irregular basis, maybe with several months between each mission, and instead be a co-owner of one or more such support/research vessel(s) and/or enter into long term service contracts with others who own and operate such specialised observation system service capable vessels.

Key to the successful development and implementation of the Eurofleets RI will be the support of the European RV owners/operators who will recognise the benefits of a consolidated approach from their own experience of ownership and operation of RVs and associated scientific equipment/instruments to become an active partner in and contributor to the Eurofleets RI.



3.1 Target users

Eurofleets RI aspires to become a global entity by building on the internationally leading status of European marine science. In the fullness of time, Eurofleets RI will be able to establish an infrastructure that also will integrate partners and facilities from outside the EU and to develop a worldwide community of users.

The main targeted user communities are presented below:

1	SCIENTISTS	Senior, early career, etc., trained in one or more “disciplines” of marine science such as oceanography, biology, geology, etc. They look for funded TA opportunities on board RVs, that meet their requirements regarding scientific functions and equipment, number of science berths, the right geographical area and a suitable time frame for executing the cruise.
2	STUDENTS, TECHNICIANS, LAND BASED STAFF	University students, young scientists, maritime personnel and marine instrument technicians seeking opportunities for training on board RVs and/or at RV and LEXI operator institutions/departments/offices through TA. To have relevant experience is very often a prerequisite or an advantage when seeking employment as a scientist, RV crew, marine instrument technician or RV manager
3	PAN EUROPEAN RESEARCH INFRASTRUCTURES	European Research Infrastructure Consortia, among which EMSO, EPOS, EURO-ARGO, ICOS, LifeWatch, EMBRC, etc. On top of the activity covered by national fleets for the national nodes of those pan-European infrastructures, or for those who don't have access to national facilities, pan-European research infrastructures also require RVs in order to collect data or samples, map the ocean floor, test new equipment and instruments, etc
4	UNIVERSITIES	Performing basic research and student training that require access to RVs and LEXIs. Access to RVs and/or LEXIs is a necessity for many kinds of marine research such as biology, geology and geophysics and student training in the same disciplines.
5	INDUSTRY AND PUBLIC INSTITUTIONS	Commercial companies and public institutions looking for RVs available for charter in order to collect data or samples, map the ocean floor, test new equipment and instruments, etc. They need access to vessels and/or equipment in order to run an operation that they only do from time to time and therefore do not wish to invest in a permanent infrastructure but rather charter vessels and rent equipment when needed.

Figure 3 Eurofleets RI Target Users



3.2 Other identified potential parties with interest in the services provided by Eurofleets RI

National cruise planning committee/entity: It has a mandate from the parent ministry that finances the activity of the RI operators, and the construction of RVs and LEXIs. It ensures that available RVs and LEXIs will be programmed for the benefit of scientific users and/or scientific bodies and respect their interests. Sometimes rules for programming and/or evaluation of the scientific quality of the applications provide a basis for these decisions.

National Ministries: Funding agencies for all or parts of the procurement, upgrades and running costs for RVs and LEXIs managed and operated by public research institutions; moreover, the guarantors of the proper functioning of the global system and the actors of the European orientations for science.

European Commission (EC): Funding agency for Transnational Access (TA), enabling more efficient use of the European RV Fleet and LEXIs, and supporting access to RVs and LEXIs owned and operated by other nations, and in particular for scientists from less equipped countries. The EC has funded three Eurofleets projects with the goal to increase the integration of the European RV Fleet and make it more accessible to scientists from all member states.

3.3 Market strategy and access policy

Access to Eurofleets RI facilities, provided within the TA service will be delivered according to the “excellence-driven” mode as described in the European Charter for Access to Research Infrastructures¹. This implies that Eurofleets RI adheres to the definition of users/external researchers as individuals and teams from academic institutions, research centres, industry or other private and public institutions involved in marine science. The excellence-driven access mode is exclusively dependent on the scientific excellence, originality, quality, and technical and ethical feasibility of a cruise application evaluated through peer review conducted by internal and/or external experts. It enables users to get access, physical and/or remote, to the best facilities, resources and services wherever located. This access mode enables collaborative research and technological development efforts across geographical and disciplinary boundaries.

¹ “European Charter for Access to Research Infrastructures: Principles and Guidelines for Access and Related Services”, 2016, Directorate-General for Research and Innovation



3.4 Eurofleets RI access programs

Three Eurofleets RI access programmes are planned for users, covering a broad span of European and international seas and oceans, and offering a significant range of marine research infrastructure:

- **Ship-time access management** (SEA programme) for access to the RVs and LEXIs through a full ship-time application. The SEA programme will be complemented by the two additional programmes, namely Co-PI and Remote Transnational Access (RTA), thereby extending and widening the access to the Eurofleets RI facilities.
- **Co-Principal Investigator (Co-PI) programme** specifically aimed at early career researchers to implement their own research together with experienced scientists in Eurofleets RI scheduled cruises. Calls for the Co-PI programme will open in parallel to the SEA programme calls. A Call for the Co-PI programme will follow after a decision is granted in the SEA Programme offering the possibility to join and extend an already funded Eurofleets RI cruise. The Co-PI programme will also be open to applications in a continuous running call. Specific training on proposal writing will be provided to potential users from less equipped countries to support them through the application process. This initiative aims to increase the success rate of lead PIs from less equipped countries to secure funding for cruises.
- **Remote Access Programme** (RTA programme) to provide researchers with remote access to samples or data from Eurofleets RI fleet vessels. RTA programme applications will be submitted in a continuous running call and will be evaluated twice per year. Remote access allows smaller projects, sample and/or data needs, to be addressed when this can be accomplished with e.g. one day of ship time. Examples of RTA are the collection of data, samples or remote access to live ROV dive footage.

Procedures for submission and independent peer review evaluation of proposals have been successfully developed and refined in the three Eurofleets projects. A common access point and common evaluation of applications to all the vessels and equipment will be provided with the focus on ensuring a user-friendly online portal and system to provide support, information, and accessibility to potential applicants.

In addition to the TA service, the Eurofleets RI “information and opportunity platform” will function as a “market-place” for those offering access to RVs and/or LEXIs, and those looking for charter, barter or in-kind contribution to research projects, monitoring activities, logistical functions etc.



I.4 Operating Plan

A detailed implementation roadmap has been developed to deliver a seamless transition from a project-based community to a formal organisation. The roadmap sets out a step-by-step guide following the first four stages of the ESFRI Methodology Life Cycle Approach: Concept Development, Design, Preparation and Implementation with the aim of reaching stage five: Operation by 2026.

The four stages are outlined above and below, including detailed steps necessary for the Eurofleets RI

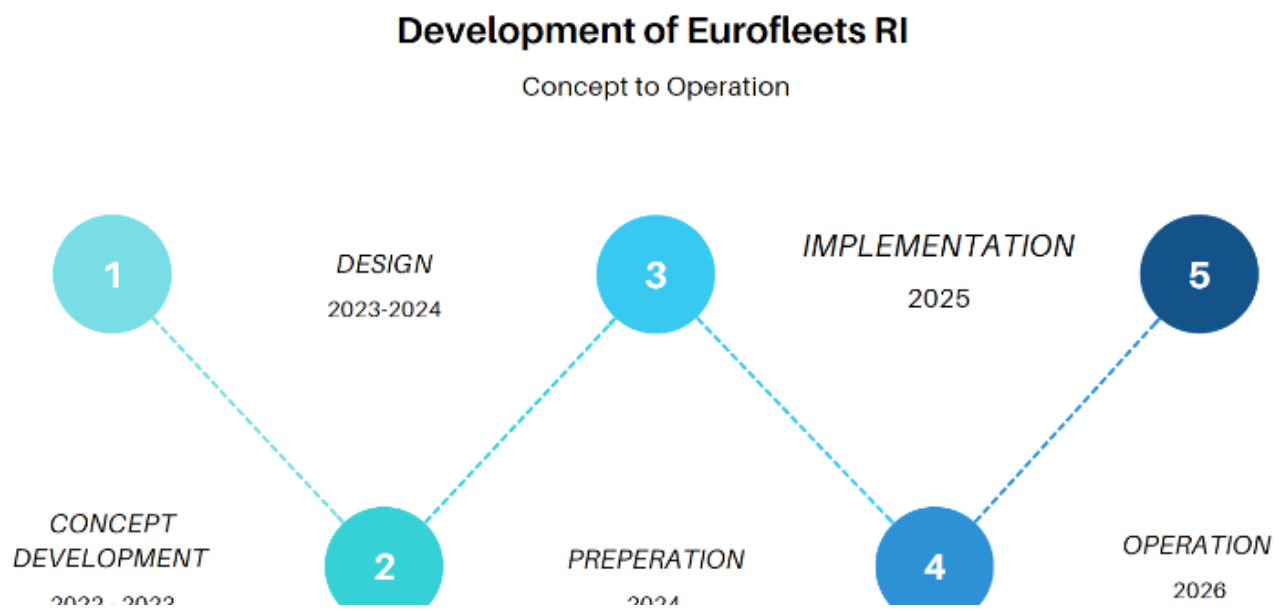


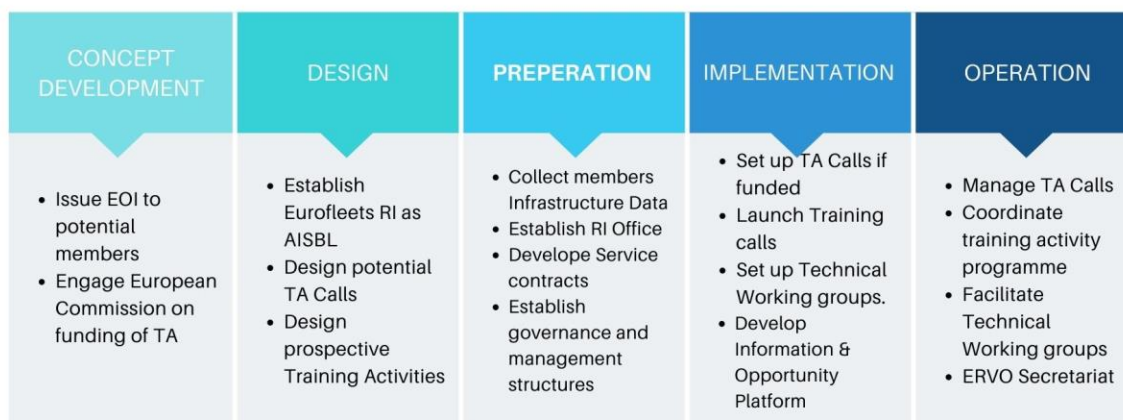
Figure 4 Eurofleets RI Development Lifecycle

to reach operation status before 2026 with the long term (6-10years) outlined in figure 5 and Table 2 below. In addition, detailed Key Performance Indicators (KPIs) and related targets have been developed around the common objectives of RIs as proposed by the ESFRI Working Group report “Monitoring of Research Infrastructures Performance”, December 2019.



Stages in the Development of Eurofleets RI

2022-2026



2022



2026

Figure 5 Development of Eurofleets RI - Concept to operation

Once operational with all structures in place the focus will be on managing annual transnational calls, growth of members and expansion of the Eurofleets RI “Information and opportunity platform” and the continuation of related training activities amongst those listed in Table 1 below.

OPERATION AND GROWTH (6-10Yrs)
<ul style="list-style-type: none"> • Manage annual TA calls and their implementation • Expansion of membership – Retain existing and attract and secure new members • Maintenance and improvement of the Information and Opportunity Platform to expand functionality • Develop and implement training activities (Floating universities, technology workshops, marine technician training and infrastructure management courses) • Develop crowdfunding activity • Participation in European funded programmes such as Horizon Europe • Development of new services across networking activities through establishment of working groups • Representation of the European RV community at both European and global level

Table 1 Development of Eurofleets RI - Operation and Growth (6-10 years)



I.5 Funding Model and Financial Plan

The funding model for Eurofleets RI is based on the following assumptions (Figure 6):

- Eurofleets RI will act as the central hub for the coordination and management of EU TA funds to the benefit of end-users. The Eurofleets RI will coordinate available ship-time offered by RI partners, including LEXIs, promote grant proposals to the EC for TA funds, manage TA calls and coordinate TA refunds to partners for the RV and/or LEXI time made available. The Eurofleets RI office will retain overheads from the TA grants to cover ship-time and/or LEXI access management.
- The Eurofleets RI office costs will be covered by membership fees (in-kind and/or cash) from Eurofleets RI partners. During the first three years, the governance structures of Eurofleets RI as described in Chapter 2, will be secured by in-kind contributions from the partners, formalised through a commitment/mandate letter.
- Additional revenues are expected from service fees, grants, and other national and European contributions, as well as participation in EU-projects and crowdfunding activities.

Operational costs refer to the coordination activities required to run the Eurofleets RI office, to link Eurofleets RI partners, and for the management of the services provided (e.g., personnel, services, equipment, travel, training, facilities, etc.).

At the preliminary stage of establishing the RI only partner fees and In-Kind contributions are expected. In the future, it will be possible to consider additional revenue streams such as service fees, grants and other national and European contributions, or crowdfunding, that will generate a revenue stream which will lower the net operational costs covered by contributions (in-kind and cash) from the Eurofleets RI members.

Revenue	Description	Amount (Euro)
Partners fees	Cash and/or in-kind contribution from the individual European member institutions to run the Eurofleets RI office (and cover the Total cost for NA services)	Est.154.400,00€ per year
TA funds	Monetary and in-kind contribution to cover the ship-time access for academic research	(to be defined)
TA management overheads	5% over the TA funding (evaluated in the EFS+ project)	(to be defined)
Service fee	Fee provided by third parties to benefit from the Eurofleets RI services	(to be defined)
Grants and other national and European contributions	Grants from participation in Horizon Europe projects	(to be defined)
Crowdfunding	-	(to be defined)

Table 2 Preliminary revenue streams of Eurofleets RI

Appendix 2

Technology and partnership foresight

State of the art of technologies

With regard to ships, a technological forecast was carried out by certain members, which made it possible to cover all the main fields concerned by the objective of building ships with low environmental impact: construction materials, prospects for optimization energy, bio-fuels, energies and alternative modes of propulsion to all diesel. A review and consolidation of this existing work is therefore already feasible.

However, technological foresight cannot be reduced to that relating to ships. The appearance or the rise of new technologies will be likely to modify the conduct of scientific activities at sea, either by replacing ships for certain tasks, or by allowing a densification of data acquisition over a given period of time and in a given area. Here too, based on the work of its members, at least two topics could be addressed:

- Scenarios for the introduction of drones for coastal or offshore observation,
- Impact of tele-presence and tele-operation.

Updated partnership strategy

The current scope of national oceanographic fleets may be the result of strategic partnerships chosen for some 30 years ago, either at the national level (sharing of vessels between research and Defense for example) or international (OFEG). But very often research vessels are operated by isolated operators, without consideration of structuring partnerships, in logic of continuity with a historical situation.

However, with a view to reducing environmental impacts by 40% by 2030, technological solutions alone will not suffice and a credible avenue concerns better rationalization of the use of the various national resources in a given geographical area, or access to isolated areas.

A work of capacity description, geographical and thematic positioning of the various European operators, associated with an inventory of the strategic interests of each could lead to formulating recommendations on the inflections to be given to the current partnerships, or even to imagine between EUROFLEETS RI members possible alliance scenarios.

Appendix 3

All-Atlantic Floating University Network (@SeaNetwork) Terms of Reference



All-Atlantic Floating University Network (@SeaNetwork)

Terms of Reference

The following are the All-Atlantic Floating University (@SeaNetwork) Terms of Reference as approved at the December 2022 meeting in Cape Town:

Rationale

Training at sea is critical for preparing the new generations of Early Career Ocean Professionals. Multiple training at sea opportunities and programs are in operation globally that target different needs and requirements for different academic and maritime sectors.

To strengthen and develop further training at sea in the Atlantic region, greater exchange and collaboration between new and existing programs is essential, including sharing of best practices. This is the purpose of the creation of this All-Atlantic Floating University Network (@SeaNetwork), in the scope of the [All-Atlantic Ocean Research and Innovation Alliance](#).

This cooperation network is in line with the Galway (2013) and Belém (2017) Statements and also the Washington AAORIA Declaration (2022) by engaging partners from the whole Atlantic region with a common objective and purpose. In addition, @SeaNetwork contributes to the objectives of the UN Decade of Ocean Science for Sustainable Development and the European Mission “Restore our Ocean and Waters by 2030”.

Objectives

The All-Atlantic Floating University Network (@SeaNetwork) will:

Build on, and bring together, highly successful training at sea programs from various countries bordering the Atlantic Ocean, and from countries and organizations that promote training at sea in the Atlantic pole-pole region;

Jointly identify and address capacity development gaps and needs in training at sea across the Atlantic;

Promote transatlantic innovative and targeted training at sea, building on best practices;

Seek to develop and promote an internationally recognised accreditation system between Training at Sea Programs.

Explore funding possibilities to support trainees and trainers mobility.



ALL-ATLANTIC OCEAN RESEARCH ALLIANCE

Creating an Atlantic Ocean Community
by Implementing the Galway
and Belém Statements

@SeaNetwork will seek to:

Facilitate, optimize and maximize training at sea opportunities within the Atlantic region, taking into account regional and gender balance, and with a focus on opportunities for developing countries;

Promote a higher level of cooperation across existing initiatives and exploit synergies between them;

Promote coordinated training at sea at various levels (final year undergraduates, postgraduates, young researchers and technicians), with an All-Atlantic perspective, in a gender balanced, multidisciplinary, transdisciplinary, multicultural and intergenerational environment;

Promote pole to pole Atlantic mobility of trainers and trainees within the network;

Create innovative and targeted approaches in Capacity Development to overcome ocean issues, including promoting opportunities for Science-Policy dialogue at sea;

Encourage and provide knowledge/support to new and emerging Training at Sea programs;

Benefit from thematic and calendar complementarities of the various training at sea programs in the Atlantic and beyond;

Annually compile and publicize training opportunities;

Contribute to the achievement of the objectives of the UN Decade of Ocean Science for Sustainable Development and the European Mission “Restore our Ocean and Waters by 2030” objectives as well as the goals of Galway and Belém Statements and the Washington AAORIA Declaration (2022).

Membership

@SeaNetwork is an open-ended network. Membership is open to all institutions and organisations that run existing training at sea programs in the Atlantic, as well as those that support or seek to implement future training at sea programs, and organisations that support ocean-related capacity development programs. Representatives from similar programs worldwide are also welcome to join this network.

Membership is free and does not include any annual meeting costs.

@SeaNetwork organization

As a cooperation network @SeaNetwork is an opportunity for information and best practices exchanges among its members. As such, it is a member-driven group.

The @Seanetwork organization is composed of the Steering Committee and an Advisory Group that will include ECOP representatives.



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The Steering Committee consists of the Chair and up to four Vice Chairs, from at least 3 different regions, elected every two years by simple majority of members attending the annual meeting and are committed to serving for two years in this role. The outgoing chair will support the incoming chair for a period of 6 months.

The Steering Committee will elect its Chair, that will act as the formal @SeaNetwork representative to other groups and programs. The Steering Committee may invite experts to assist on specific matters, as required. The members of the Steering Committee cannot serve for more than 2 consecutive terms.

The Steering Committee is responsible for:

setting the agenda and chairing the annual meeting;

proposing and overseeing working groups and/or workshops as necessary;

ensuring that an annual compilation of training opportunities is carried out and publicized;

the recording and production of meeting minutes;

ensuring that minutes are circulated amongst members;

maintaining the membership and contact list;

accepting new membership applications;

the Chair of the Steering Committee will act as the formal @SeaNetwork representative

Preparing the election procedures for the next Steering Committee.

Inviting experts and ECOP representatives to form the Advisory Group.

Annual Meeting

@SeaNetwork will hold an annual plenary meeting. The meeting minutes shall be circulated among members no later than two calendar months after the meeting.

Relations to other groups and programs

@SeaNetwork seeks to develop strong links with similar programs worldwide.

Annex: List of Founding Members



ANNEX: LIST OF FOUNDING MEMBERS

ARGENTINA

Servicio de Hidrografía Naval

BELGIUM

Department of Geology, Ghent University

BENIN

Institut de Recherches Halieutiques et Océanologiques du Bénin (IRHOB)

BRASIL

Laboratórios de Ensino Flutuantes (Floating Teaching Laboratories) - LEF

Federal University of Rio Grande - FURG

Federal Fluminense University – UFF

Federal University of Pernambuco – UFPE

Federal University of Maranhão - UFMA

CANADA

SOI Foundation

CAPE VERDE

Master Program on Climate Change and Marine Science, Universidade Técnica do Atlântico

COTE D'IVOIRE

Université Félix Houphouët-Boigny

EGYPT

National Institute of Oceanography and Fisheries –Training @Sea Program for Africa

GERMANY

NOSOAT Programme – Polarstern Atlantic Transit Training GEOMAR Helmholtz Centre for Ocean Research Kiel

IRELAND

University of Galway

SMART (Strategic Marine Alliance for Research and Training) Program



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and Belém Statements

ITALY

Consiglio Nazionale delle Ricerche

MOROCCO

Université Abdlemalek-Essaâdi, Tangier

NAMIBIA

Regional Graduate Network in Oceanography (RGNO), University of Namibia

NIGERIA

Lagos State University

NORWAY

The Norwegian Marine University Consortium

PORTUGAL

UA@Mar, CESAM, University of Aveiro

Hydrographic Institute from the Portuguese Navy (IH)

Portuguese Institute for the Sea and Atmosphere (IPMA)

Institute of Marine Sciences - OKEANOS, University of the Açores

SPAIN

University of Cadiz

SOUTH AFRICA

SEAmester Program, University of Cape Town

SWEDEN & NORWAY

Sailing4Science UN Oceandecade project, founded by NTNU and University of Gothenburg

UNITED KINGDOM

Plymouth Marine Laboratory

National Oceanographic Centre, Southampton Keen Marine Limited, Isle of Man

URUGUAY

Centro Universitario Regional del Este-CURE, Universidad de la República

USA

Schmidt Ocean Institute



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and Belém Statements

VENEZUELA

Center for Oceanology and Antarctic Studies of the Venezuelan Institute of Scientific Research (COEA-IVIC)

Large European/International Programmes

POGO – Partnership for Observation of the Global Ocean

Eurofleets+ - An Alliance of European Marine Research Infrastructure.

Atlantic International Research Centre - AIR CENTRE

The Early Career Ocean Professional (ECOP) Network Programme

Maritime Sector

Keen Marine Ltd. (UK)

Appendix 4

Organisation chart

