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## D8.6 Eurofleets+ roadmap and guidelines



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<b>Author</b>	Giuseppe Magnifico & Lorenza Evangelista (CNR), Niamh Flavin and Aodhán Fitzgerald (MI), Per W. Nieuwejaar (IMR) and Olivier Lefort (IFREMER)
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<b>Activity Coordinator</b>	Giuseppe Magnifico	CNR	18.08.2023
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## 1. Introduction

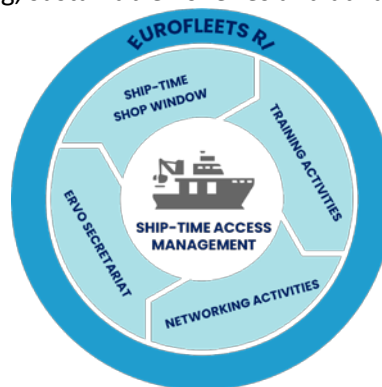
This deliverable (D8.6) reports the findings and results of work performed under tasks 8.1 and 8.2 of Work Package 8 “Foresight: Legacy and Roadmap” over the project lifetime, aiming at developing a roadmap of future actions necessary to set up a long-term, sustainable European Transnational Access (TA) system to facilitate access to Research Vessels (RVs) and Large Exchangeable Instruments (LEXIs).

The four-year Eurofleets+ project has identified this as crucial in order to enable such a long-term and sustainable structure within a framework of European-led and executed marine research.

At the end of the Eurofleets+ project, in October 2023, the three consecutive Eurofleets projects will have received 12 years funding from the European Commission (EC). The establishment of a pan European Research Infrastructure, called EUROFLEETS RI, could facilitate a partial financial independence from the European Commission (EC) with regards to TA to RVs and LEXIs in Europe.

To this aim, the EUROFLEETS RI business idea, proposed in D8.3, includes the 5 mechanisms/services, each independent of the other, reported in **Figure 1**, identified as core activities for the ship-access management that will cover the implementation of TA activities funded by the EC. The four secondary services will guarantee additional revenues, along with grants and other national and European contributions, as well as crowdfunding activities.

In the view of providing researchers with TA to RVs and LEXIs on behalf of the EC, EUROFLEETS RI will play a central role in delivering the European Union Missions by the provision of access to our Seas and Oceans through facilitation of multidisciplinary science teams tackling changing climate, supporting bio medical research, ocean monitoring, sustainable fisheries and advancing the European Green Deal.



**Figure 1:** Key activities of EUROFLEETS RI

To ensure future access to the European Research Vessel Fleet and associated activities the strategy below has been devised:

1. Establish a legal structure that will support the core activities of the EUROFLEETS RI. After examining different legal forms relevant for EUROFLEETS RI, (reported in D8.1), the arguments are strongly in favour of establishing an International non-profit association under Belgian law, a so-called *Association Internationale Sans But Lucrative* (AISBL) because the primary objective is to increase the integration of and broaden access to the existing network of RVs and LEXIs rather than acquiring, owning and operating facilities,
2. Apply for European funding to cover activities external to the self-financing perimeter of this structure beyond the current Eurofleets+ project, above mentioned and extensively described in D8.3. "Progress on the sustainable legal structure" together with lobbying by partners with their national representatives are two crucial prerequisites to ensure EC additional funding for access to the RV infrastructure. The process of developing the EUROFLEETS RI roadmap was done in full consultation with the Eurofleets+ project consortium, identified key stakeholders, and relevant private sector organisations (see D7.7).

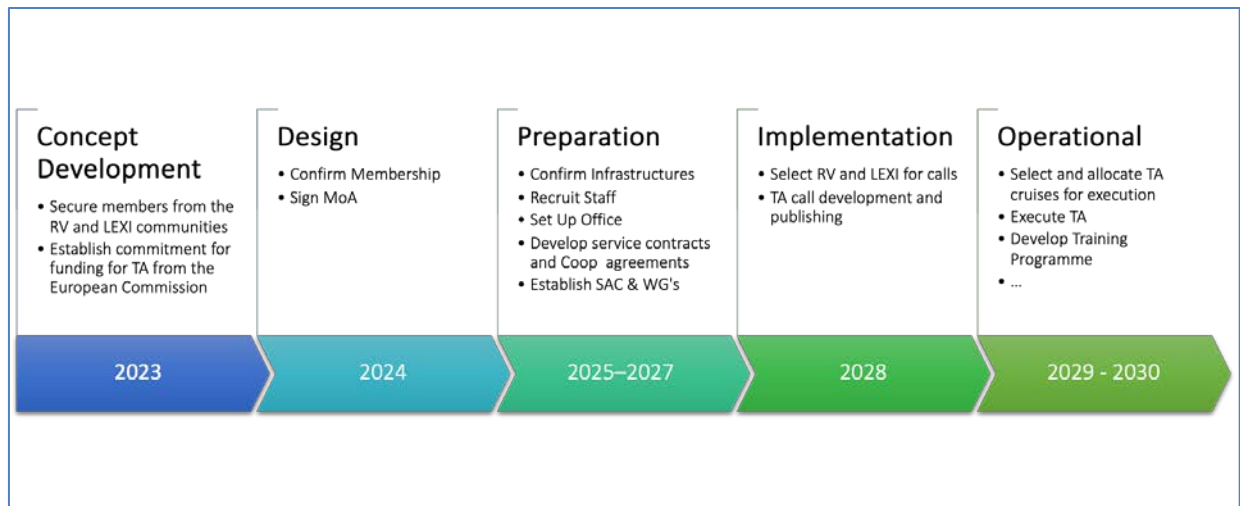
Two international stakeholder workshops (see D5.2 and 5.4) were conducted to consult with interested parties, which outcomes have been taken into consideration when developing the roadmap. Additionally, participation in numerous international events and initiatives have given opportunities to present and discuss WP8 objectives, work plan and outcomes. The full list is reported in Annex 1.

This document presents the planned roadmap, outlining the actions required to formally establish EUROFLEETS as a Research Infrastructure. The roadmap constitutes:

1. A useful tool to provide support and positioning to the RV and LEXI operator community when the Eurofleets+ project comes to an end,
2. A shared vision, to inspire coordination among the RV and LEXI operator community, and collaboration and integration between several marine research infrastructures at a European level.

## 2. Roadmap towards Eurofleets RI

As detailed in D8.3, the development of the EUROFLEETS RI will follow the ESFRI Lifecycle Approach, beginning in January 2024, with the aim of being operational by January 2029, and launching the first EUROFLEETS RI TA call program. A planned roadmap has been developed and is detailed in Figure 2.



**Figure 2:** EUROFLEETS RI's development as per ESFRI Lifecycle Approach <sup>1</sup>

As outlined in the following, the Concept Development phase partially runs during the Eurofleets+ project, setting the basis of the Design phase.

### 2.1. Concept Development

The Concept Development phase addressed:

- Securing members from the RV and LEXI communities.
- Determining costs for establishing an EUROFLEETS RI support office.
- Establishing commitment for funding for TA from the European Commission.

As part of the activities in WP8, a preliminary expression of interest was widely circulated on January 10, 2023, to the Eurofleets+ beneficiary community, as well as to other non-Eurofleets+ RV operators, ERVO and OFEG members.

The survey was aimed at exploring the potential commitment of RV and LEXI communities in terms of infrastructure availability, in-kind contribution to secure the operation of the EUROFLEETS RI, and an annual fee amount (ranging from €5,000 to €10,000) to set up the RI services and central office, and to secure the financial sustainability during the first year of the RI lifetime.

19 responses were received and the analysis of these responses (carried out by the Marine Institute and available as an appendix to D8.5) shows a great diversity among the responding organizations or entities. Few non-Eurofleets+ partners and/or OFEG members responded.

<sup>1</sup> <http://roadmap2018.esfri.eu/strategy-report/the-esfri-methodology/>

Moreover, few of the responders are willing to finance the EUROFLEETS RI structure for more than 5,000 € a year, and most do not wish to make a multi-year commitment.

This questionnaire was an initial survey of the community of operators of the RV fleet and LEXIs and should therefore be updated to collect the motivation of the European scientific community for the emergence of a EUROFLEETS RI.

It does however call for a step-by-step approach to implementing the EUROFLEETS RI, aimed at gradually mobilizing and raising awareness of the benefits of moving to an EUROFLEETS RI-type legal structure, not only among Eurofleets+ partners, but also among the major European RV and LEXI operators.

The four-year Eurofleets+ project has provided several opportunities to start a dialogue with the EC to present the EUROFLEETS RI strategy, and D9.13 was published with a summary of achievements and recommendations for policymakers.

In 2024, a regular and consolidated dialogue with the EC will be necessary to establish and secure a commitment to fund TA in the long term, in addition to the annual funding that could be expected and the overhead that could be foreseen if an EUROFLEETS RI is established in order to act as the TA management office, in addition to establishing a Scientific Review Board and a Logistics Committee in the same manner as in the three Eurofleets projects using the “tool box” developed in these projects for TA management.

## 2.2. Design phase

Built on the achievement of the Concept Development phase, according to D8.5, the Design phase will be marked by the following actions:

1. Implementation of the EUROFLEETS RI business plan (D8.3) or definition of a first "step" of functions that can be transferred to the EUROFLEETS RI.  
Among the core activities of this first step for establishing the Eurofleets RI, the following will be proposed and agreed with the interested parties:
  - Take charge of a **permanent secretariat to support ERVO**, covering the annual ERVO meetings as well as coordinating the regular updating of the database of European RVs and LEXIs managed by Eurocean,
  - Set up and manage (based on the Eurofleets+ portal) an **information portal on available TA**, charter, barter, and berth opportunities available for **RVs and LEXIs**,
  - Set up and manage the logistics of a **Strategic working group** on European RV and LEXI fleets towards 2030.  
In view of the urgent need to decarbonize research activities, this working group will share technological perspectives (ships, drones, etc.), as well as new TA partnerships,
  - Prepare Phase II, with the aim of setting up permanent European TA and training mechanisms.
3. Presentation of the missions retained for the first phase and draft a Memorandum of Agreement or the statutes of the AISBL at ERVO 2024.
4. Signature of the AISBL's constitutive agreement, and implementation in 2025.

### 2.3. Preparation Phase

The Preparation phase will:

- Confirm the available Eurofleets RI infrastructure.
- Recruit staff.
- Set up the AISBL Governance, including a virtual office and technical support.
- Develop and implement service contracts and cooperation agreements.
- Establish a Scientific Advisory Committee (SAC) and Technical Working Groups (TWGs).

The planned actions and the timeline are presented in Table 1.

<b>ACTIONS</b>	<b>TIMELINE</b>
<b>Collect information about RVs and LEXIs that could be offered for TA activities in a TA proposal call.</b>	June - December 2025
<b>Recruit EUROFLEETS RI staff and members of the EUROFLEETS RI Steering Committee (one member from each member institution) and the Executive Committee (Chair and two Vice-Chairs selected from the Steering Committee members).</b>	January - December 2026
<b>Set up the physical office and technical infrastructure for the Eurofleets RI.</b>	April - September 2026
<b>Develop and implement service contracts for services provided for EUROFLEETS RI members and others such as EC for TA, EMSO and other European cooperating partners.</b>	June - December 2026
<b>Develop cooperation agreements with other cooperating bodies such as EurOcean, ERVO, EuroGOOS, POGO.</b>	January - June 2027
<b>Establish a Scientific Advisory Committee (SAC) and Technical Working Groups (TWGs) based on partner inputs and approval by the Eurofleets RI General Assembly (GA).</b>	July - December 2027

*Table 1: Planned actions of the Preparation phase*



## 2.4. Implementation

The Implementation phase has one key activity: Launch the EUROFLEETS RI Transnational Access program. To this aim the planned actions are reported in Table 2.

ACTIONS	TIMELINE
Select and allocate TA RV cruises and LEXI activities for execution.	January – June 2028
Develop and publish a call for TA to RVs and LEXIs.	July - December 2028
Select and allocate TNA cruises for execution in 2029/2030.	January - March 2029

*Table 2: Planned actions of the implementation phase*

## 3. Operation and growth

Once the construction has finished, the services of EUROFLEETS RI will become operational. This primarily implies the:

- Management of the annual TA calls and their implementation.
- Maintenance and improvement of the Ship Time Shop Window to expand functionality.
- Development and implementation of the Training Activity (Floating Universities, Technology Workshops, Marine Technician Training, and Infrastructure Management courses).
- Participation in European funded programs such as Horizon Europe.
- Development of new services via Networking activities such as Working Groups.
- Representation of the European Research Vessel community at European and Global level.

In parallel, in the view of a growth of Research Infrastructures, tailored actions will be implemented to:

- Enlarge the Eurofleets RI Membership - Attract and secure new members.
- Develop Crowdfunding activities.

## 4. Conclusions

This deliverable summarizes the work performed under Work Package 8 of the Eurofleets+ project.

The main objective was to develop a roadmap of future actions to establish a new Pan-European Research Infrastructure named EUROFLEETS RI to secure a Transnational Access (TA) system of Research Vessels (RVs) and Large Exchangeable Instruments (LEXIs) over the project lifetime.

To this aim, the project conducted several consultations and workshops where stakeholders contributed with their views on proposed roadmap actions. Furthermore, the roadmap actions were validated by the project management board.

To sum up the major results reported in this deliverable:

1. Identification of the ESFRI Lifecycle Approach to develop a EUROFLEETS RI.
2. For each ESFRI Lifecycle Approach phase, a set of actions which should support the establishment of the new infrastructure.

## **Annex 1 - List of international events/initiatives in which WP8 objectives, work plan and outcomes have been presented and discussed.**

- 21st ERVO annual meeting (11-13 June 2019, Hamburg, Germany): *Setting up a strategic plan for the European RVs Operators Community: first outcomes from the Eurofleets+ WP8: “Foresight and roadmap”*, attended by 50 experts from the European RV operator community,
- Joint European Marine Board (EMB) - EurOcean Open Session “The Future of Europe’s Research Vessel Fleet” (6 November 2019, Berlin, Germany),
- EMSO Conference “Preparing for UN Decade of Ocean Science” (12-14 February 2020, Athens, Greece),
- ERVO Webinar “Long-term vision for the European Research Fleet” (19 October 2020), attended by 25 experts among RV operators and Eurofleets+ beneficiaries,
- Eurofleets+ 1st International workshop - Combining fixed and mobile ocean observing systems and their link with satellite observation (13 April 2021). Stakeholder engagement workshop, focusing on combining fixed and mobile ocean observing systems and their link with satellite observations and how an Eurofleets RI can service the sector needs,
- European RI synergies hosted by EU Marine Robots (15 April 2021) to elaborate on a joint view on RI projects and identify synergies & convergence,
- EuroGOOS International Conference 2021 - European Research Infrastructures session (5 May 2021) focused on the status of European marine RIs, a key mechanism to sustain observing systems in Europe,
- Cooperation Framework Between Marine Research Infrastructures - Side event of the EuroGOOS International Conference 2021 (5 May 2021) to convene scientists and operators from marine RIs and marine research communities across Europe, to discuss a future strategy under a collaborative plan within the landscape of the United Nations (UN) Decade of Ocean Science and the European Ocean Observing System (EOOS),
- 23<sup>rd</sup> ERVO Annual Meeting (1-2 June 2021): *EUROFLEETS RI: Progress made in EFs+ WP8 “Foresight: Legacy and Roadmap towards a long-term sustainable coordination model for the European RV”*, attended by 67 experts from the community of European RV operators,
- Marine robotic infrastructures network: Lessons learned and future developments - All Atlantic 2021 side event (2 June 2021), which explored the lessons learned and building on the success of the EU Marine Robots project with a view to all-Atlantic exploration, observation, sustainable exploitation, and new science and services enabled by innovative technology,
- European Conference of Aix-Marseille University: Protect Our Oceans, The Challenge of Europe's Global Leadership (16 June 2021), addressing the role RVs can play in the challenge addressed by the panel discussion: *Can science help prevent further impact of climate change on marine ecosystems?*,
- EMSO JRU Workshop “Toward a 4D vision of the ocean: synergies and integration of the Italian initiatives” (7 October 2021, Naples, Italy). The aim of this workshop was to explore a common path to better coordination and to start an integration process of the multiple infrastructures and initiatives to give a more leading role to Italy in marine research in Europe,
- One Ocean Summit (11 February 2022, Brest, France). A side event was organized titled “Achieving Better Coordination of the European Research Fleets”,

- 24<sup>th</sup> ERVO Annual Meeting (5-7 September 2022): *Eurofleets RI Roadmap and Guidelines - Next Steps September 2022 to October 2023*, attended by 47 experts from the community of European RV operators,
- 2nd International Stakeholder Workshop: Synergies with the Atlantic Mapping program, was held online on the 26th September 2022. The workshop aimed at promoting synergies with the Atlantic Mapping program linking with AORA, EMODnet bathymetry and Belém statement,
- GROOMII Marine RI Webinar 13 October 2022, stakeholder engagement meeting with the GROOMII consortium providing an update on the Eurofleets+ RI Roadmap progress,
- Long-term Sustainability of Small and Mid-Scale Distributed RI Projects (ICRI Conference) 19 October 2022. The workshop aimed to showcase different avenues for addressing the sustainability of RI projects and their services,
- 33<sup>rd</sup> International Research Ship Operators Meeting 24<sup>th</sup> to 26<sup>th</sup> October 2022, EUROFLEETS+ update and next steps attended by 84 experts from the international vessel operator's community,
- Stakeholder Engagement Meeting with EuroGO-SHIP project (5<sup>th</sup>, May 2023) representing the European Hydrography Community to establish mutual interest, shared objectives, and synergies,
- European Maritime Day (EMD) 2023 Workshop "Ocean Observation Reporting Obligations, (20th June, 2023) Eurofleets+ Long-term sustainable access to our ocean and seas,
- 25<sup>th</sup> ERVO Annual Meeting (12-14 June 2023): *Eurofleets RI – "Results of Expression of Interest Survey"*, attended by 61 experts from the community of European RV operators,
- "Ocean Observation Coordination and Synergies " Invitational Stakeholder meeting with Directorate-General for Maritime Affairs and Fisheries (MARE) (10<sup>th</sup>, July 2023) to present the Eurofleets+ Project and the role Research Vessels play as key infrastructures in Ocean Observation. The meeting was attended by representatives from EC, EMD-European Marine Board, EuroGOOS, EMODnet and EOOS.