

# EUROFLEETS+

# EuroGOOS 9<sup>th</sup> International Conference



Eurofleets RI - an alliance of organisations and research vessels to strengthen integrated and sustained observations in the ocean and support innovative new technology validation to further advance observing competencies and capabilities

European Research Infrastructures

Breakout Session 9

Wednesday, May 5th 2021

Aodhán Fitzgerald

Eurofleets+ Project Coordinator

Research Vessel Operations, Marine Institute



*Foras na Mara*  
*Marine Institute*



This project has received funding from the EU H2020 research and innovation programme under Grant Agreement No 824077



- Air
- Water
- Land
- Life

# Research Vessels Central Infrastructures in Ocean Science



# RV Central Infrastructures in Ocean Science

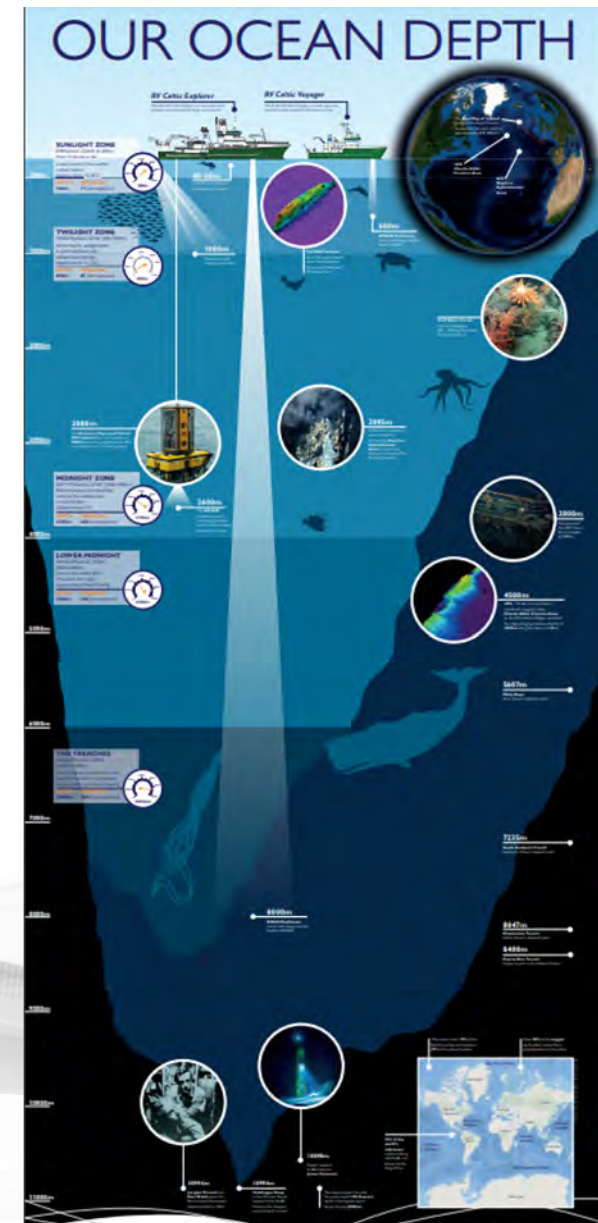
- Multimillion Euro State-of-the-Art Infrastructures
- Provision of access to seas and Global oceans
- Floating Laboratories collecting a wide variety of data and samples from the atmosphere, the ocean surface, the water column and the seabed
- Provision of realtime, high quality, accurate data from a suite of onboard sensors and equipment including Large EXchangeable Instruments (LEXIs)

## In addition to supporting:

Transnational Access to scientists, research and industry

Deployment and recovery of mobile ocean observation equipment

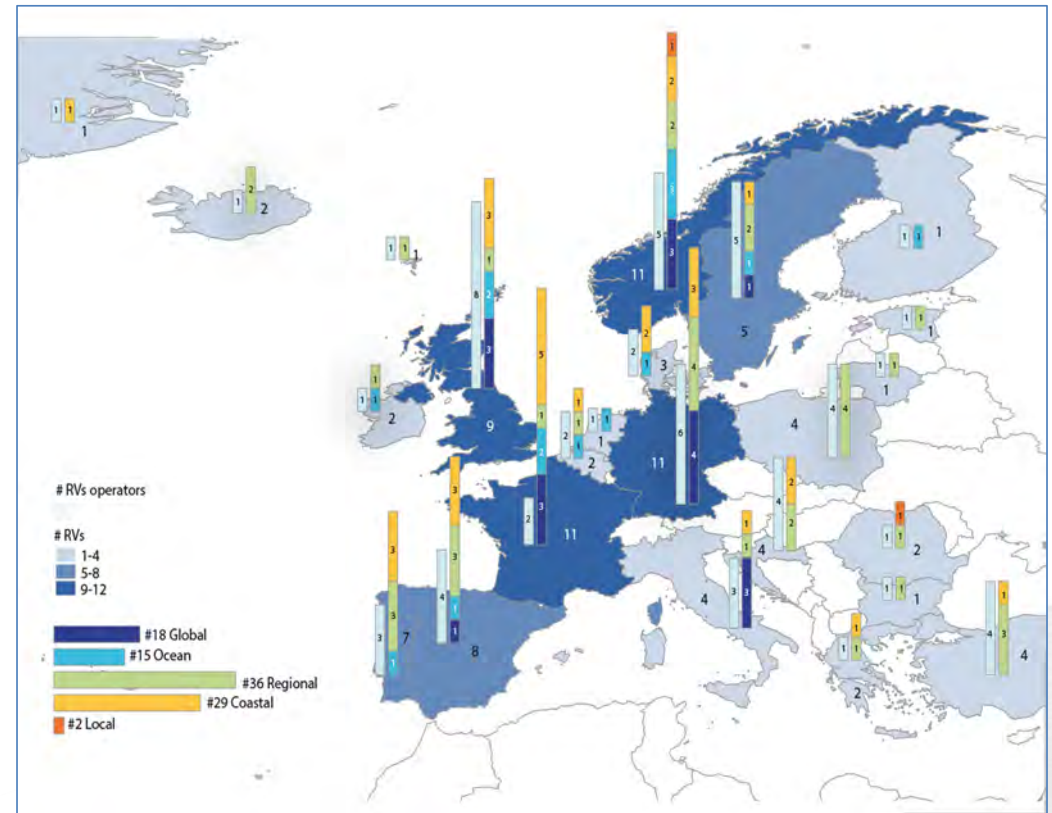
Service of fixed point platforms and remote sensing tools





# European Research Vessel Landscape

- Since 2010 the network of Research Vessel Operators have produced two reports, the latest of which is EMB's Position Paper 25, 2019)
- Currently 99+ Research Vessels in operation across Europe
- Includes Global (18%), Ocean (15%), Regional (36%), Coastal and Local vessels (31%).
- Working towards a more efficient use of available resources



*Geographical overview of the numbers and classes of European research vessels per country (Source: EMB's Position Paper 25, 2019)*

# EMB Position Paper 25 Findings

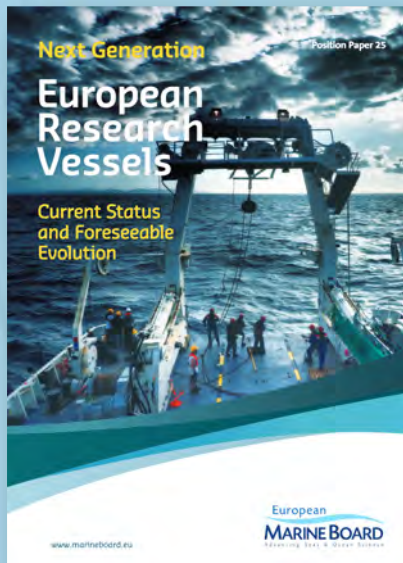
Current **European Research Vessel (RV) fleet** is **highly capable to provide excellent support** to European marine science

Options do exist for **improving efficiency** and **collaboration**

The European RV fleet is ageing (with a current average age of 24 years) and should continue to be **modernized** and **renewed**

**Funding agencies** should **engage** in discussions with the **RV** community and other relevant **stakeholders** to identify **key funding needs**

**Transnational Access (TA) mechanisms** based on excellent science should be developed





## Unique Challenges for Eurofleets RI

- **Costly Asset** – to build, manage and maintain
- **National Assets** – owned by a single national entity or in some cases jointly owned by multiple national entities
- No common **ownership** across the fleet (62 different RV operators manage 99 RV's from 23 countries, source *(EMB's Position Paper 25, 2019)*)
- Research Vessels **National Flag**
- **Funding** (Primarily from National Governments but differs across Europe)



(Source: EMB's Position Paper 25, 2019)



# The Evolution of EUROFLEETS

## Eurofleets 2009-2013

- FP7
- 5 Ocean Research Vessels
- 14 Regional Vessels
- 24 Partners
- Funding of €7.2 m

## Eurofleets2 2013-2017

- FP7
- 22 Research Vessels (8 Global Ocean RV, 14 Regional)
- 31 Partners
- Funding of €9m

## Eurofleets+ 2019-2023

- H2020
- **27 research vessels** (13 Global/Ocean and 14 Regional), **7 ROVs**, **5 AUVs**, and a **telepresence unit**
- 42 Partners
- Funding of €9.9 m

## Eurofleets RI Beyond 2023...

- Develop Eurofleets as a Legal Entity
- Established full time central coordination office
- Horizon Europe

European Research Vessels Operators (ERVO) 1999-Present



# Eurofleets+ Project Overview (2019 to 2023)

The ultimate goal of Eurofleets+ is to facilitate access to unique marine infrastructure, enable excellent research, increase ocean literacy, and provide a clear road map for the continued integration and advancement of the European research fleet.

## 1. Project Management (MI)



## 2. Transnational Access (MI)



## 3. Joint Research Activities (CISC)



## 4. Call Management & Evaluation (AWI)



## 5. Stakeholder Engagement (EMSO)



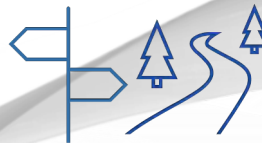
## 6. Education and Training (OGS)



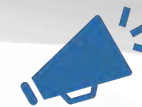
## 7. Innovation Management (RIBNS)



## 8. Legacy and Roadmap (CNR)



## 9. Dissemination and Communication (EUROCEAN)







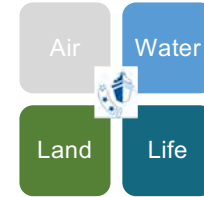
# Eurofleets RI – A long-term sustainable coordination System

- **central coordination** point for **Trans-national access** funded by the EU
- To be a "**market place**" for those offering access to RVs and/or LEXIs
- To coordinate **sharing or pooling** of sophisticated/expensive facilities to **optimize** their use
- To host permanent or temporary **technical** groups
- To **support** research and development projects for **eco-designed** and **eco-responsible** European fleets of the 21st century.

## MISSION



# Eurofleets Infrastructure Locations in the European RI Landscape



EU RI Landscape								
Ireland	✓	✓	✓	✓	✓			
France	✓	✓	✓	✓	✓		✓	✓
Spain	✓	✓	✓	✓	✓	✓	✓	✓
Portugal	✓	✓	✓	✓		✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓	✓	
Greece	✓	✓	✓	✓	✓	✓	✓	
Romania	✓							
Germany	✓	✓	✓					✓
Netherlands	✓	✓	✓		✓	✓		✓
Belgium	✓		✓			✓	✓	✓
Denmark	✓		✓					✓
Finland	✓	✓	✓		✓			✓
Norway	✓	✓	✓	✓	✓		✓	✓
Sweden	✓		✓					✓



# Eurofleets RI – HUB for Oceanographic Research

## Survey Planning

Vessels Schedules and infrastructure databases published online and easily accessible

## Training

Floating Universities, Blue skills Workshops, Access and Exchange for Technicians and E-Learning Resources

## Data Provision

FAIR Data Policy implemented across all funded cruises. Underway data available on request.

## Transnational Access

Transnational Access to state-of-the-art research vessels and LEXI across Europe and Internationally



## Remote Access

Facilitation of Remote Access to Eurofleets vessels for scientists, RI's and industry to maximize the impact of each funded Translation Access cruise

## Technical Groups

Coordinate working groups on topics such as long coring, icebreakers, training for RV managers and instrument technicians, updates of EMB Position Paper 25

## Industry Liaison

Eurofleets, ERVO and RV Operators work closely with industry developing new technologies through JRA, RTA and consultation

**Presentation based on paper:**

*Eurofleets RI - an alliance of organizations and research vessels to strengthen integrated and sustained observations in the ocean and support innovative new technology validation to further advance observing competencies and capabilities*

**Authors**

Aodhán Fitzgerald,  
Giuseppe Magnifico,  
Lorenza Evangelista,  
Niamh Flavin,  
Olivier Lefort,  
Per Wilhelm Nieuwejaar,  
Bernadette Ni Chonghaile.



[www.eurofleets.eu](http://www.eurofleets.eu)

**Email:**  
[eurofleetsplus@marine.ie](mailto:eurofleetsplus@marine.ie)



This project has received funding from the EU H2020 research and innovation programme under Grant Agreement No 824077

