

Next Generation European Research Vessels: Current Status and Foreseeable Evolution

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RV Ángeles Alvariño and Argo float



RV Celtic Explorer © Marine Institute

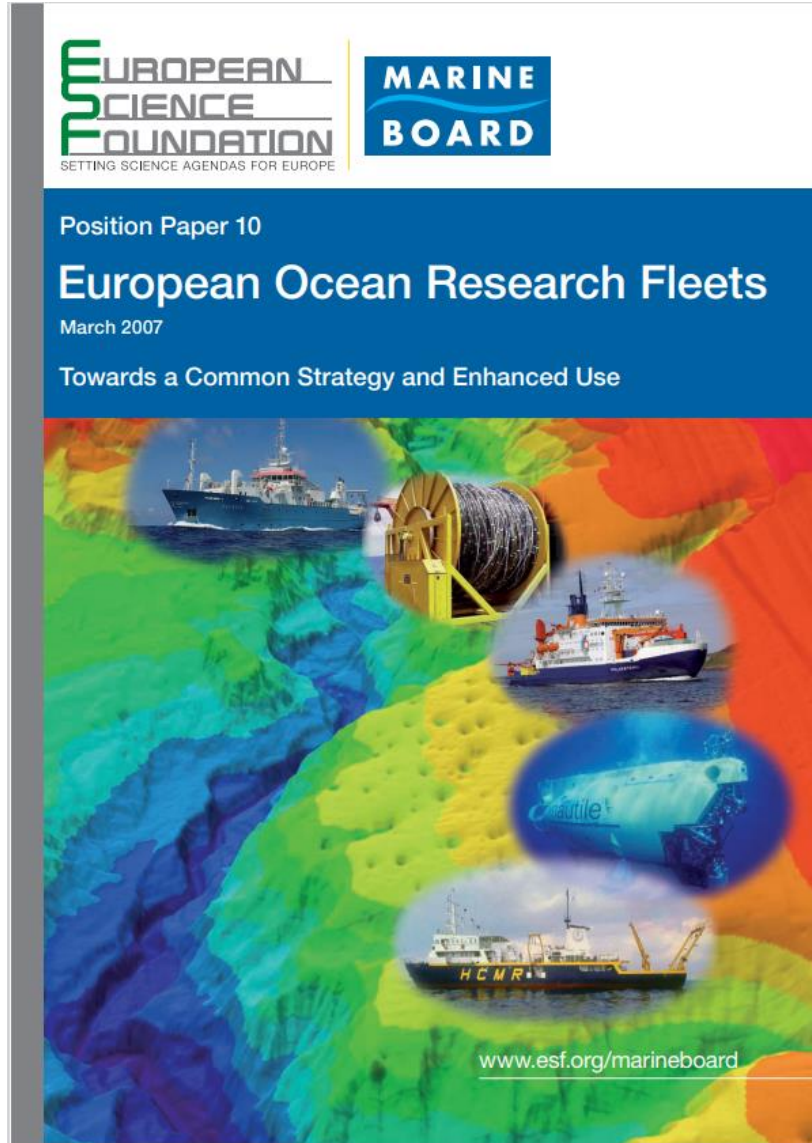
Eurofleets+ Research Vessel Management Workshop

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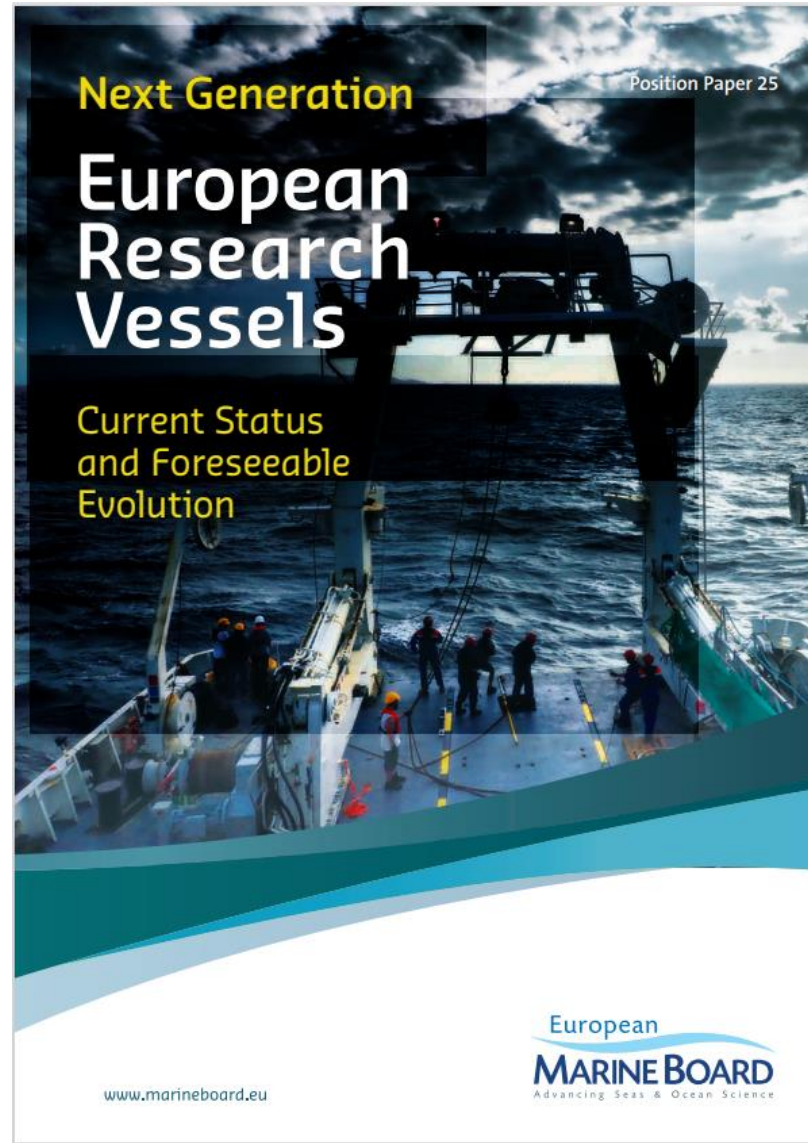
Tallin, Estonia



EMB Position Papers on Research Vessels



EMB PP 10 (2007)



EMB PP 25 (2019)



Position Paper Content

- Kicked off May 2018, Position Paper 25 launched 6 November 2019
- The position paper includes the following main chapters:
 - Research vessels as a platform and interface for ocean technology
 - Deep sea
 - Polar regions
 - Towards an end-to-end European Ocean Observing System (EOOS):
A research vessel perspective
 - Training the next generation of professionals
 - Management processes in the countries and partnerships developed in Europe



RV L'Atalante and ROV Victor 6000 © Ifremer, S. Lesbats



RV Kronprins Haakon © Norwegian Polar Institute, Ø. Mikelborg



Background – Status pr 2019 (EMB PP 25)

THE FLEET IN FIGURES

99
VESSELS



Operated by 62 operators
in 23 different European countries.
6 countries own more
than 5 vessels


25
YEARS

Average age of the fleet is 25 years.
The fleet is split equally into 1/3 Local
and Coastal Class, Regional Class, and
Ocean and Global Class

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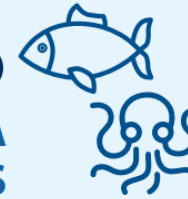
1/3 Regional Class

1/3 Ocean and Global Class

8 DEEP-SEA VESSELS that can deploy a full set of
deep-sea equipment and a total of 16 vessels that
can conduct some research in the deep sea

9 POLAR VESSELS with ice-breaking capability and
a total of 24 vessels that have some ice-going capability

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RV Fleet developments 2019 - 2022

- Greenland – Tarajoq (61m)
- Faroes - Jákup Sverri (54m)
- Ireland – Tom Crean (52.8m)
- Belgium – Belgica II (71m)
- Sweden – Svea (69.5m), Skagerak (49m)
- Italy – Laura Bassi (80m) (ex- Ernest Shackleton), Gaia Blu (82.9m) (Ex- Falkor)
- Norway – Prinsesse Ingrid Alexandra (35m), Geologen (23m), Beret Paulsdatter (24.6m)
- UK – Sir David Attenborough (125m)



RVs «in the pipeline»

- Iceland – Bjarni Sæmundsson replacement (2024).



- Germany – Meteor IV (2026).



- Netherlands – Pelagia replacement (2024/2025)



- Spain – New RV for IEO (2024)



- Germany – Polarstern II (2027)



Main Recommendations (1)

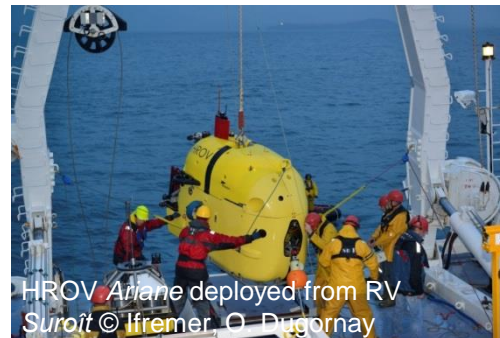
- Ensure **periodic collection and updating of information** (to be made publicly available) **to keep funding agencies and decision makers informed** about status and trends on:
 - European research vessel fleet
 - Research vessel fleet capabilities
 - Available Large EXchangeable Instruments (LEXI) and other equipment
 - Vessel operation and management trends

e.g using the EurOcean Research Infrastructure Database (RID),
www.rid.eurocean.org

- **The European RV fleet is ageing and should continue to be modernized and renewed** to ensure it can still support science needs of today and in the foreseeable future in terms of both quantity and capabilities.



- **The research vessel community should look towards future requirements**, including being able to support the next big technological and digital developments such as:
 - Demand for near real-time data delivery
 - SMART sensors
 - Increasing autonomy and interaction of autonomous equipment
- The essence of Research Vessels in the EOOS should be consolidated through the **establishment of a prominent role of the RV operator networks in the EOOS management.**



Main Recommendations (3)

- **The research vessel community should continue on its path towards greater collaboration** in order to aim for:
 - **More effective and efficient use of resources and equipment:** cooperation already exists for Global and Ocean Class vessels, but collaboration on a regional level is limited
 - **Sharing resources on a national level**, by creating national pools of equipment, instruments and maritime crew
 - **Appropriate training** for all parties involved in research vessel activities
- ERVO should take an active role in **promoting activities for training** of instrument technicians, crew and shore-base staff, and should seek partnerships (IOC, OTGA) to develop courses on all aspects of vessel operations.
- **Transnational Access (TA) mechanisms based on excellent science** should be further developed to give access to European Research Vessels and enlarge the community of users, in particular for deep-sea and polar Research Vessels which exist in a limited number.



More information available online:

<http://www.marineboard.eu/european-research-vessels>

