



36th International Research Ship Operators (IRSO) Meeting & Workshop Meeting & Workshop Minutes

Dates: 22–25 September 2025

Location: Scandic Bergen City Hotel, Bergen, Norway

Host: Institute of Marine Research (IMR)

Introduction

The 36th IRSO Meeting and Workshop was hosted by the Institute of Marine Research (IMR) in Bergen, Norway. The IRSO Chairs, Giuseppe Magnifico (Italy) and Jennifer Vollrath (Canada), formally opened the meeting and welcomed 133 delegates from across 25 countries in the international research vessel community. This meeting set a new record for participants at an IRSO meeting.

IRSO extends a sincere thanks and appreciation to Inge André Utåker, Deputy Director General, Institute of Marine Research (IMR), and to the IMR organizing team for their excellent hosting, logistics, and warm hospitality throughout the week. The organization of the meeting, workshop, and social events greatly contributed to productive discussions and strong engagement among participants.



IRSO 36th group photo, Bergen, Norway

Workshop – Monday, 22 September 2025

Participants: 88

Workshop Theme:

“Looking into the crystal ball: the role of the Research Vessel in the coming years”

The afternoon workshop was facilitated by Leigh Storey, Eric King, and Einar Vegsund. Discussions focused on:

- The evolving role of research vessels in a rapidly changing technological and operational landscape
- Integration of autonomy, remote operations, and advanced sensors
- Workforce skills, collaboration, and future-proofing fleets
- Balancing flexibility, sustainability, and scientific capability

The workshop encouraged open dialogue and perspectives, and utilized Slido technology to poll participants to evoke answers during the three sessions:

Session #1: Emerging Technologies, Robotics, Automation, Crewless and Unmanned Vessels
Facilitator: Leigh Storey, Future Marine Research Infrastructure (United Kingdom)

Session #2: Intelligence at Sea
Facilitator: Erik King, Schmidt Ocean Institute (USA)

Session #3: Sustainable Propulsion
Facilitator: Einar Vegsund, Kongsberg Maritime (Norway)

Action Item: Working Group established to write a position paper for all three themes. Draft report/white paper with a presentation to be tabled at next year’s IRSO.



Leigh Storey facilitating during the workshop.

Icebreaker Event

An informal icebreaker was held at Nøsteboden, an historic venue originally constructed as a boathouse circa 1645. The event provided delegates with an opportunity to network and reconnect ahead of the formal meeting and was generously sponsored by Kongsberg.



Nøsteboden, venue of the IRSO icebreaker.

Day 1 – Tuesday, 23 September 2025

Opening of the 36th IRSO Meeting – The meeting was formally opened by Giuseppe Magnifico (Chair) and Jennifer Vollrath (Vice Chair), who welcomed members and noted how wonderful it was to reconvene in person following the previous meeting in Vancouver, Canada.

Giuseppe Magnifico highlighted the strong international participation at the 36th IRSO Meeting, which brought together 133 participants from 25 countries, with a comprehensive program featuring 47 oral presentations and 24 posters delivered over the three-day meeting.

During the opening remarks, Giuseppe presented former IRSO Chair Greg Foothead (New Zealand) with a commemorative plaque and the IRSO Vancouver group photograph in recognition of his valuable leadership and significant contributions to IRSO.

The meeting also marked an important milestone for the organization, as it was the first IRSO meeting chaired by Giuseppe Magnifico and the first for Jennifer Vollrath in her role as Vice Chair. In keeping with IRSO tradition, Giuseppe formally presented Jennifer with the covenant bell, symbolically entrusting her with the responsibility of assisting in keeping presenters within their allocated time.



Greg Foothead and Giuseppe Magnifico.

Host Welcome and Opening Remarks – Inge André Utåker, Deputy Director General, Institute of Marine Research (IMR) welcomed the IRSO participants and provided an overview of the meeting logistics.

Adopt of agenda of 36th IRSO – Giuseppe Magnifico (Chair) invited attendees to put forward any additional agenda items, none given. The agenda was adopted as written, although during the meeting some changes occurred. Toni Moate (Australia) and Erik King (USA) nominated and second the nomination to approve the minutes.

Accept minutes of 35th IRSO, Vancouver – No changes to the minutes suggested. Aodhan Fitzgerald (Ireland) nominated and Zeynep Erden (Netherlands) second the motion to approve the minutes.

Round the room introductions of participants

Day 1 presentations:

1	No man is an island (John Donne, 1624)	Per W. Nieuwejaar – Invited Speaker
2	Kaharoa II - First year of operation	Greg Foothead & Sol Fergus - New Zealand Research Vessels Ltd
3	A new research vessel for the Pacific	Robert Christie - Pacific Community

4	I-MASTER project: the Italian MASS Test Area at the Lake of Nemi	Salvatore Mauro & Massimo De Lauro - CNR
5	JAMSTEC's New Research Vessel	Ken Yatsu - JAMSTEC
6	Enhanced Ocean Observations of Ocean Carbon uptake from Research Vessels - can you help	Richard Sanders - ICOS Ocean Thematic Centre
7	RV Investigator Mid-Life Refit: Lessons Learned from a Major Modernisation	Toni Moate - CSIRO
8	Updates from NOC: vessels, schedules, and autonomy	Eleanor Darlington - NOC
9	Remote & Autonomous Research & Survey vessel(s)	Erik Leenders - Kongsberg Maritime AS
10	Aquarius and Polaris projects updates	Aodhan Fitzgerald – Marine Institute
11	Sailing Beyond Borders: EurOcean RID's Global Reach	Sandra Sá - EurOcean
12	Transforming Research Ship into a Smart Ship: How Seadronix's AI Navigation Assistant Enhances Exploration	Kyongsoo Noh - Seadronix
13	Deep-sea SMART cables: an innovative approach to Global Ocean monitoring	Juan Jose Dañobeitia - CSIC-UTM
14	Natural Refrigerants – Back to the Future	Jan Nordvik & Björn M. Holo - Teknotherm Marine

Poster sessions and scheduled breaks facilitated informal technical exchanges and networking.



Per W. Nieuwejaar

Close of Day 1

The day concluded with summary remarks from the IRSO Chairs, noting the strong engagement from both operators and industry partners.

Day 2 – Wednesday, 24 September 2025

Day 2 presentations:

1	Icebreaker Laura Bassi - status of the art after six years of operations	Franco Coren - OGS
2	Maritime Comms and Cyber Security: Key updates for operational readiness	Marwan Chartouny - OmniAccess
3	Learning Partner & New Fuel Advisor	Mustafa El Zein - Glander International Bunkering
4	MFP - from Application to Post-Cruise: Managing Data Flows and Science Opportunities	Beiko Maas - MFP
5	From cruise planning to database. Example from NIOZ operations	Zeynep Erdem - NIOZ
6	CNR RV Gaia Blu update	Lorenza Evangelista – CNR; Pietro Rosiello & Giovanni De Vita- Argo
7	What Will the French Oceanographic Fleet Look Like in the Future?	Maximilien Simon - IFREMER
8	ABB Dynafin Model Test Results	Sampo Viheriälehto & Mikael Lindfors - ABB
9	Development and Application of an Integrated Planned Maintenance System (iPMS) for Research Vessel Operations	Haili Wang - Xiamen University
10	Canada’s new Major Research Facilities Framework – Implications for Ocean Sciences and Ship-Time	Alexandre Forest - Amundsen Science
11	JAMSTEC’s Latest and Upcoming Operational Activities	Gupta Lallan Prasad - JAMSTEC
12	Progress report on the construction of a zero-emission hydrogen hybrid research vessel at Scripps Oceanography	Bruce Appelgate - SCRIPPS
13	Planning for the refit of the RV Simon Stevin	André Cattrijsse - VLIZ
14	USBL optimisation	Duncan Rigg- Sonardyne
15	Trends in vessel technology - Are we building for the future?	Santiago Sío Dopeso - DNV
16	The carbon footprint of oceanographic fleets	Aodhan Fitzgerald – Marine Institute; Maximilien Simon - IFREMER

Conference Dinner

The conference venue was transformed in the evening to host the conference dinner, which provided an opportunity for continued informal discussion and the strengthening of professional relationships. During the dinner, Geraint West (United Kingdom) delivered a colourful and engaging presentation on the history of IRSO, highlighting the organization’s growth over its 39-year history and recognizing participants who have attended ten or more meetings.

A special presentation was also made to Per W. Nieuwejaar (Norway) in recognition of his tremendous contributions to IRSO. He was formally awarded IRSO Emeritus Status, accompanied by the presentation of a commemorative plaque.



Presentation to Per W. Nieuwejaar at the conference dinner.

Day 3 – Thursday, 25 September 2025

Day 3 presentations:

1	Swedish Research Vessel Infrastructure for Marine Research	Louise Newman - University of Gothenburg
2	Evolution of Power systems - Norwegian Coastal Administration	Gaute Augestad - Kongsberg Maritime AS
3	Research and Practice on Autonomous Navigation for RV Zhuhaiyun	Yongling Zhu - Second Institute of Oceanography, MNR
4	Charting the Course: A Strategic Framework for Science Systems Uplift on RV Investigator	Andrew Martini - CSIRO
5	MOL's Initiatives for Japan's Arctic Research Vessel MIRAI II	Emi Watanabe & Haruki Anzai - Mitsui O.S.K. Lines, Ltd.
6	OceanOPS Ship Coordination Update	Martin Kramp - World Meteorological Organization /OceanOPS
7	The Challenges in Operation and Management of the R/V Legend: A Case Study on Propeller Repair	Shu-Heng Wu - Taiwan Ocean Research Institute
8	Forward look sonars for safe navigation and obstacle avoidance	Nick Swift - Wavefront Systems Ltd
9	EUROFLEETS AISBL	Olivier Lefort - IFREMER; Giuseppe Magnifico - CNR
10	French new projects update	Olivier Lefort - IFREMER
11	New Research vessel "Dohrn"	Simonepietro Canese - SZN
12	Update from Canada on Offshore Oceanographic Science Vessel	Anthony Redican - Fisheries and Oceans Canada
13	R/V FALKOR (too) - a new Science Bow and 6000m AUV	Eric King – Schmidt Ocean Institute
14	Experiences and lessons learned after the first year of operation of the Odón de Buen, and prospects for new vessels in Spain	Jordi Sorribas Cervantes - CSIC

15	The Role of the Technical Advisor in the Research Vessel New Build Process	Paul Read - Gelen Marine
16	INMARTECH 2025	Eleanor Darlington - NOC
17	Experiences and ideas for data sampling with unmanned surface vehicles	Inge André Utaaker – IMR
18a	IRSO 2.0 - Advancing IRSO's Future	Giuseppe Magnifico - IRSO Chair; Jennifer Vollrath - IRSO Vice-Chair
18b	IRSO 2026	Eleanor Darlington - NOC

IRSO Business (Closed Session)

A closed session for research vessel operators addressed:

- IRSO 2.0 and the future direction of the organization
- Review of action items
- Review of IRSO Terms of Reference
- Review of the IRSO website
- Planning for IRSO 2026

In celebration of IRSO's 40th Anniversary, the next meeting will be held in Oban, Scotland, marking a return to the United Kingdom where IRSO was originally founded.

Close of Meeting

The IRSO Chairs formally closed the 36th IRSO Meeting, thanking all presenters, delegates, industry partners, and the host organization for a highly successful meeting.

Optional Team-Building Day – Friday, 26 September 2025

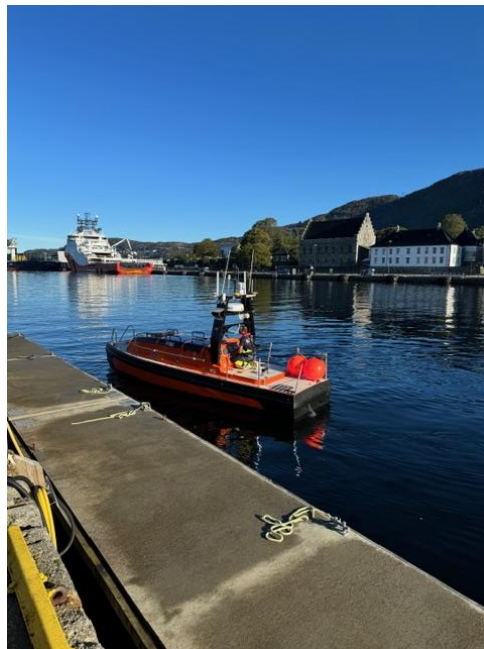
Optional activities organized by IMR included:

- A guided walking tour of Bryggen (UNESCO World Heritage Site)
- Visit to Mount Fløyen via funicular or hiking trails
- Demonstrations and presentations of unmanned surface and underwater vehicle operations at IMR facilities

These activities provided additional opportunities for informal knowledge exchange and collaboration.



Tour of IMR.



IMR autonomous vessel demo.

Summary

The 36th IRSO Meeting and Workshop in Bergen provided a valuable forum for sharing operational experience, technological innovation, and strategic perspectives across the global research vessel community. The meeting reinforced the importance of collaboration, adaptability, and forward planning as fleets respond to evolving scientific, environmental, and technological demands.

IRSO once again extends its sincere thanks to Inge André Utåker and the Institute of Marine Research (IMR) for their outstanding hosting and support.