

Meeting Minutes of the 34th International Research Ship Operators meeting held at the Grand Hotel Casselbergh, Bruges, Belgium, 16-20th October, 2023

Host organization – The meeting was co-hosted by Flanders Marine Institute (VLIZ) and the Royal Belgian Institute of Natural Sciences (RBINS)

Introduction – A total of 126 participants from 23 countries attended this 34th IRSO meeting that confirms efficient sharing of information and resolution of problems of common interest for the research ship operators. This allows the marine scientific community's research efforts at sea to be ever better supported.

We are extremely grateful to André Cattrijsse, Flanders Marine Institute (VLIZ), and Lieven Naudts, Royal Belgian Institute of Natural Sciences (RBINS), who offered to host the meeting. Thanks also go to Heidi and Nathalie for their assistance with planning and for their help with running the meeting, and all of you that made the effort to attend. The presentations were excellent with lots of valuable and interesting information shared.

All things considered, the meeting was a great success, and it was fantastic to enjoy once again the IRSO family.

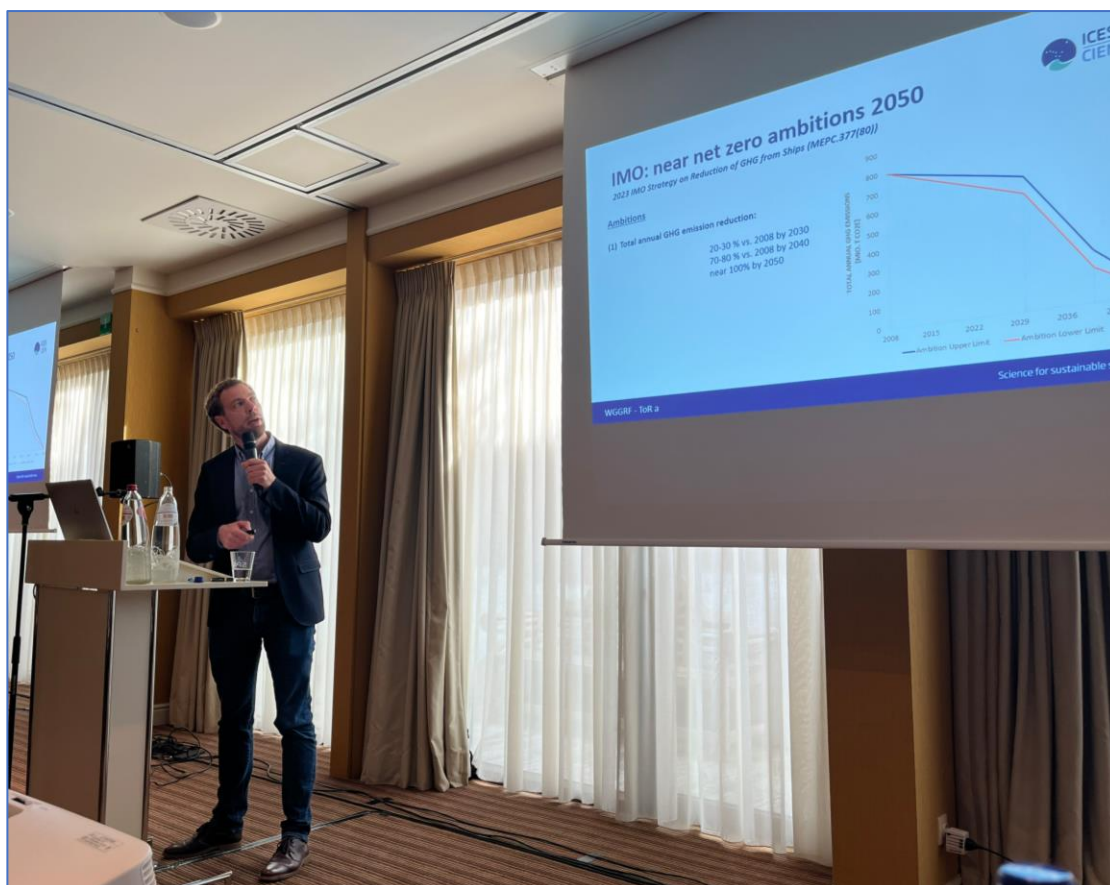


Monday 16th October-2023 - Workshop

A two-hour open discussion on “ICES working group on Greening the RV fleet...a workshop for vessel operators” was hosted by Aodhan Fitzgerald.

Key points discussed;

- Terms of Reference.
- Presentation of data from an initial review of fuel usage and emission profiles of participating members.
- GHG emissions and emission reduction pathways for the RV fleet.
- Slido sessions to capture information from the attendees.
- Discussion on operational concerns and barriers.
- Review of current and upcoming legislation regarding emissions/greening.
- Discussion on the development of a voluntary agreement between RV operators in terms of environmentally sustainable operations.



Christian Freudinger (AWI) presenting data at the workshop.

Monday evening - Icebreaker

A very pleasant “ice-breaker” cocktail and snacks evening was held in the bar at Grand Hotel Casselbergh, very kindly hosted by VLIZ and RBINS.

Jan Mees, Director of VLIZ, and Patrick Roose, Operational Director at RBINS, both gave a welcoming speech. They spoke of the goals and aspirations of marine science community to contribute to the evolving societal needs and how the wider IRSO community strongly contributes to enhancing marine science and technology.

Tuesday 17th October-2023 - Day 1

Opening of 34th IRSO Meeting – Greg Foothead (Chair) opened the meeting and greeted the members, commenting that it was great to see everyone again in person after the meeting in Honolulu, Hawai'i, and that it was fantastic to see so many first time IRSO attendees in Bruges.

Welcome –

Adopt of agenda of 34th IRSO – Greg Foothead (Chair) invited attendees to put forward any additional agenda items, none given. Agenda was adopted as written, although during the meeting some minor changes occurred.

Accept minutes of 33rd IRSO, Hawai'i – Minutes were accepted.

Round the room introductions –

Day 1 presentations.

[Green fuel plans - First year of operation of Tom Crean + ERVO and Eurofleets update](#), Aodhan Fitzgerald - Marine Institute, Ireland
[Kaharoa replacement + RVONZA update](#), Rob Christie – NIWA
[Ifremer regional research vessel \(NSH\)](#), Sarah Duduyer - Ifremer
[Ifremer fleet update and USV's](#), Olivier Lefort - Ifremer
[Hydrogen Hybrid Zero-Emission Coastal Class RV: Project Update](#), Bruce Appelgate - Scripps
[The first state of the art research vessel in the UAE "JAYWUN"](#), Sara Almehairbi - Environment Agency Abu Dhabi
[RV Odón de Buen - Building progress and future plans](#), Jordi Sorribas - UTM-CSIC
[Introduction of Japan's Arctic research icebreaker](#), Kana Goto - Mitsui O.S.K. Lines, Ltd
[Coordinating a changing fleet](#), Ella Darlington - NOC
[Marine Autonomous Systems as force multiplier for the Belgian Research Fleet](#), Wieter Boone – VLIZ
[Marine Facilities Planning – Update](#), Beiko Maas - Maas Software Engineering
[Unique features of Voith-Schneider-Propellers for research vessels](#), Dr, Dirk Jürgens & Michael Palm - Voith
[Ocean Census - Working with Research Vessels Globally to Accelerate Discovery of Marine Life in The Deep Ocean](#), Sarah-Jane Walsh - Ocean Census
[UNOLS - addressing the Crewing Challenge](#), Doug Russell - UNOLS





Sara Almehairbi – Environment Agency Abu Dhabi



Sarah-Jane Walsh – Ocean Census

Wednesday 18th October-2023 – Day 2

Day 2 presentations.

[Update on the new Dutch Research Fleet](#), Zeynep Erdem - NIOZ, MNF
[Post 2024 New Scientific Ocean Drilling, IODP-cubed](#), Nobu Eguchi - MarE3/JAMSTEC
[The operation of RV Tan Kah Kee in support of training/education programs](#), Haili Wang - Marine Operations, Xiamen University
[The renovation of R/V Xiangyanghong 10 in 2023](#), Yongling Zhu - Second Institute of Oceanography, MNR
[KONGSBERG SHIP DESIGN – Protecting people and planet](#), Einar Vegsund – Kongsberg Maritime AS
[AIMS Research, RV Fleet and the Need to update and Refresh](#), Richard Brinkman - AIMS
[Designing the next generation of Regional/Coastal class Research Vessel for Northern Australia](#), Patrick Bunday - AIMS
[The advantages of secured multi-WAN maritime connectivity](#), Marwan Chartouny - OmniAccess
[OceanOps update and collaboration with RV operators](#), Martin Kramp - OceanOps
[Green equipment RV's](#), Lars Jørgensen – MacArtney A/S
[Progress of R/V Laura Bassi refit](#), Franco Coran – OGS
[R/V KEXUE - Cruises and typical operation cases in recent years](#), Qiao Xin and Yin Hong - Institute of Oceanology, Chinese Academy of Sciences
[Looking after our people](#), Toni Moate – CSIRO & Rose Dufour – NSF
[“R/V Falkor \(too\) - A platform to engage global science, art, fashion and community”](#), Eric King - Schmidt Ocean Institute
[RV Prinsesse Ingrid Alexandra](#), Inge André Utaaker - IMR
[AML Oceanographic - what can they offer to Science?](#), David Wilson – AML Oceanographic

Thursday 19th October-2023 – Day 3

Day 3 presentations.

[NIWA operations update](#), Sol Fergus - NIWA
[UK's Future Marine Research Infrastructure programme](#), Leigh Storey - NERC
[Risk Management, Insurance, and Admiralty Law](#), Jonathan Guttoff – UNOLS/Roger Williams University of Law
[Gaia Blu, the new multipurpose ocean research vessel of CNR](#), Frederica Foglini - CNR
[Marine Scientific Research Diplomatic Consent Process](#), Amanda Williams & Gabriella David - U.S. Department of State
[The new Skagerak Facility at the University of Gothenburg](#), Louise Newman – University of Gothenburg
[Underwater Radiated Noise \(URN\) and Quiet Vessel Initiative with Case Studies](#), Jackie Guo – Ocean Sonics Ltd
[Seabed 2030 update](#), Jamie McMichael-Phillips - Seabed 2030
[Ifremer – update on underwater systems](#), Olivier Lefort - Ifremer
[Silent marine research with Azipod propulsion](#), Janne Roivainen – ABB OY Marine & Ports

IRSO 2024 – A pre-recorded video was presented by Jennifer Vollrath, Natural Resources Canada, announcing that the 35th IRSO meeting will be hosted in Vancouver, Canada, September 23rd to 27th 2024. The news was very well received by the IRSO Community. Unfortunately, Jennifer could not attend the IRSO meeting in Bruges but we look forward to organizing IRSO '24 with Jen and her team.



Jonathan Guttoff, UNOLS/Roger Williams University of Law



Louise Newman – University of Gothenburg

RV Operators session –

An open forum discussion. Topics;

1. **Terms of Reference** – Rose Dufour asked for clarification about the environmental impact.

Action item: establishing a volunteer's group to draft a new version of the ToR to be presented during the next IRSO meeting.

2. **Membership** – For the industry representatives to attend we want to ensure that their participation is of benefit and value to the wider IRSO community. We would want to rearrange the participation of the industry representatives. Rose suggested limiting the industry participation to one day only, as was the case during the meeting in Anacapri.

Lieven suggested accepting a maximum number of presentations.

Toni proposed to review the ToR providing criteria for the participation of the industry component through guidelines.

3. **Website** – Greg presented examples of a potential new IRSO logo. We agreed on the need to revamp the IRSO website, recognizing that this has a cost and the need for resources.

Rose confirmed UNOLS' willingness to support the maintenance of the IRSO website. We would want to open a discussion forum. Giuseppe proposed the establishment of an IRSO Ex-Com, including the secretariat, to support the administrative activities.

Action item: launch a survey to choose a new IRSO logo and re-activating the discussion forum already existing.

4. **Working Groups** – We would want to promote regular virtual working group meetings to improve the discussion and enlarge the geographical spread. Rose proposed the establishment of a Working Group on cybersecurity. We confirmed the Working Groups on the following topics:
 - a. MFP
 - b. Heath & Wellbeing

Greg provided an overview of INMARTECH 2023, hosted by CSIS in Barcelona 20-22 June. The event was supported by 8 sponsors (Kongsberg, Macgregor, Scanmar, Hawboldt Industries, Sonardyne, Oceansonics, EIVA, BoxFish Research).

The successful event was attended by 114 people from 60 institutions and companies.

40 technical talks were held over the two days, 19 posters were presented and there were 4 workshops and 8 technical sessions demo and show rooms of the industry representatives.

Guided city tour and canal boat trip – The participants were divided into groups of 12 people to join a guided tour of the historical city of Bruges that included a canal boat trip. The guided tour started from Burg Square to Grote Markt, discovering the Madonna of Bruges, the marble sculpture by Michelangelo of the Virgin and Child, the Lake of Love, and walking along the Chocolate Boulevard.



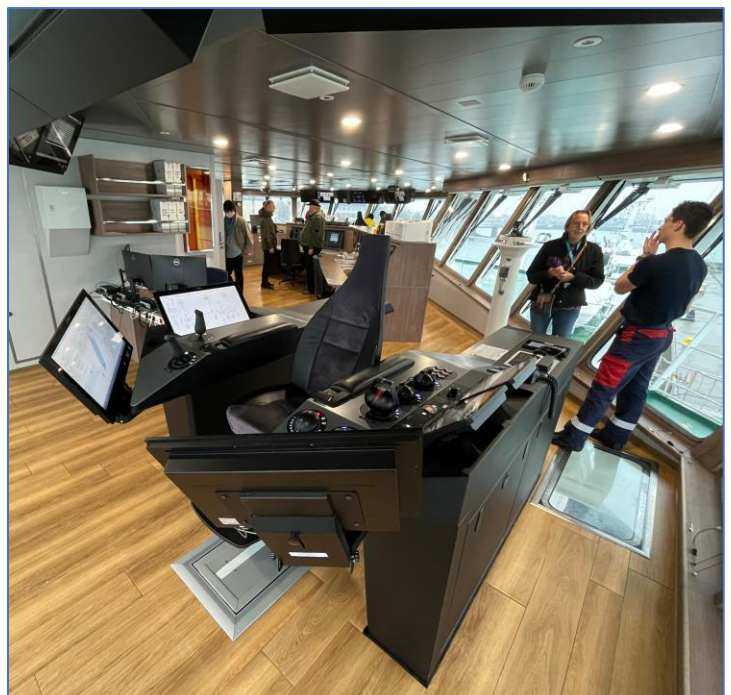
Conference Dinner at Brewery Halve Maan – Dinner was preceded by a guided tour of the brewery. The dishes were accompanied by a beer tasting: 4 beers from 4.5% up to 11% alcohol. Participants had also the opportunity to experience the art of tapping a beer and the competition was playfully organized. A wonderful evening, great food, excellent entertainment. Everyone thoroughly enjoyed it.





Tuesday 20th October-2023 – Day 4

Optional Excursion – In the morning participants had the opportunity to visit the research vessels RV Belgica and RV Simon Stevin that were docked at the Zeebrugge Naval Base. Guests were able to explore the ships freely, touring the laboratories, meeting rooms and cabins. A light lunch was offered aboard the RV Belgica.



The social activities moved to Boltra and Rodenbach Beer. Participants learned how to peel Belgian shrimp with three simple moves, drink beer and enjoy the traditional ball game Boltra.



A very pleasant tour of the local countryside by horse and cart.