



23rd ERVO Annual Meeting – June 01st - 02nd, 2021 *Online meeting*

v.01 – draft

The 23rd ERVO (European Research Vessels Operators) Annual Meeting was held online from the 1st to the 2nd of June 2021 due to the world sanitary emergency.

After a short introduction about the ERVO Group, some updates regarding numbers, activities and the near future expectations, the meeting was officially opened by the chairman Lieven Naudts.

Tuesday 1st June 2021

Theme 1: RV builds, Modifications and performance

14:15 - 14:30 – Status and plans for a new coastal research vessel– P. Nieuwejaar (Institute of Marine Research, Norway)

Per Nieuwejaar reported some updates on the project of building a coastal RV, from the choice of the hydro-acoustic instruments to install on a keel blister to the signature of the building and outfitting contract with Holland Shipyard Group. The delivery is expected in November 2022.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

14:30 - 14:45 – RV Tom Crean update on project progress – A. Fitzgerald (Marine Institute Foras na Mara, Ireland)

Aodhan presented the state of the project in progress regarding the new ship building “Tom Crean” and the several challenges they faced, mainly due to the pandemic. An overview of the main specifications and features of the ship follows, as well as the equipment choice and main suppliers. The second part of the presentation is dedicated to the scientific capabilities in terms of acoustic survey equipment (MBES, SBP, Fisheries ES, ADCP, USBL, net monitoring), oceanographic and sampling equipment (frames and winches). Aodhan concluded the presentation with some additional information on the ship's capabilities (DP, drop keel....) and on the roadmaps for the year. The launch is expected in November 2021 and the ship is expected to come into service in 2022.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

14:45 - 15:00 – The second life of the RRS Ernest Shackleton ... the RV Laura Bassi becomes a multipurpose research polar ship – R. Codiglia (OGS, Italy)

A quick overview of the activities in progress at the shipyard in Trieste was given. Riccardo reported on the implementation of a complete instrumentation suite for acoustic surveys on RV Laura Bassi (MBES, SBP, ADCP Fisheries ES.). The presentation continued showing some pictures of the installation of three new winches supplied by Ibercisa (the biggest one will be used with the 1500m streamer for seismic survey) and ended with an overview of the costs of the entire operation, which is around 5 million euros.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:00 - 15:15 – RV Aranda – New Technologies on 30 years young vessel – J. Haukilehto (Finnish Environment Institute SYKE, Finland)

Joonatan showed the evolution of the RV Aranda in recent years, from the refitting in 2017/18 to the ambitious project to install an hybrid propulsion system based on 700kWh of Li-Ion batteries (to enable limited periods of zero emission and silent sailing). Furthermore, the project called "MARANDA", which is funded by 7 European partners for the development of a system based on cells hydrogen fuel, was presented as well.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:15 - 15:30 – New Research Vessel for Spanish Institute of Oceanography (IEO) – J. Sorribas (UTM-CISC, Spain)

Jordi started his presentation talking about the Singular Scientific and Technological Infrastructures (SSTI) under which Spain operates 9 research vessels (2 ocean-going, 3 regional and 4 local). He then presented the project (started in 2008) for a new global fisheries &

multipurpose research vessel. The tender was published in December 2020 and the offers evaluation phase is in progress. Afterwards, the presentation focused on the decision-making process for defining the characteristics of the ship as the main dimensions, propulsion type, class requirements, space for labs, working decks and so on, which lead to the price estimation of 70.000.000 Euro.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:30 - 15:45 – RV Svea – experiences after the first 20 months of operation – B. Lindell (Swedish University of Agricultural Sciences, Sweden)

After a summary of the steps that led from the project to the building of the NR Svea in Vigo (Spain), Bjorn talked about the joint project between the main public entities that are involved in the management and use of the ship (SLU, SwAM and SMHI), with functional diagram explaining the tasks performed by them. Then he reported the success factors and the mistakes/underestimations of the whole project (mainly due to scheduling and budget issues). Some words were spent on Covid-19 successful policy adopted. Looking ahead, the main objectives focus on the energy consumption optimization and improving communications. Nevertheless the final verdict was positive.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:45 – Coffee break

16:00 – 16:15 – Building of the new, multipurpose, Greek Research Vessel – D. Sakellariou (Hellenic Centre for Marine Research, Greek land)

Dimitris gave an overview of the long process started in 2013 to obtain the new RV. The main difficulties and delays are due to bureaucratic issues: although today the contract is already signed by the European Investment Bank and the Greek Minister of Economy, the money is not yet available. The specifications of the new Vessel take into account scientific capability, the operational criteria and comparison with similar ships. The preliminary drawing and the main specifications of the Vessel were then compared with the old RV Aegaeo. The results of the above analysis were reported as well as the expected costs and an estimated timeline.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

16:15 – 16:30 – RV Mario Ruivo: performance after the modifications – M. Carapuco (IPMA – Intituto Portugues do Mar e da Atmosfera, Portugal)

Mafalda Crapuco continued to report about the RV Mar Portugal after the last two successful research projects, Demersal and EMSO-PT Oceanographic Campaign. These successful campaigns highlighted how the vessel would greatly benefit from instruments that will provide new capacities for the RV Mário Ruivo, such as a set of hull mounted acoustic sensors. This will be present in the next project promoted by the IPMA with partnership of IMR. An overview of the next campaign closed the presentation.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

16:45 – 17:00 – A Growing Community of Philanthropic RV Support Throughout Europe+ – E. King (Schmidt Ocean institute, USA)

Eric introduced the Schmidt Ocean Institute as a private non-profit operating foundation established in March 2009 for advance oceanographic research, discovery and knowledge. Eric showed also how it could support the European research community.

Schmidt Ocean Institute has recently acquired a new research vessel that will expand the organization's philanthropic science program and capability to explore the Ocean. The new ship re-named Falkor (too) is significantly larger and can travel further than Schmidt Ocean Institute's existing research vessel, Falkor. The old Falkor has been operating since 2012 and was the world's first year-round philanthropic research vessel made available for free to scientists. The presentation was close with a list of "Philanthropic Research Vessel Operator" (14), which came together in a meeting for the first time in 2019 and they represent a growing community.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

17:00 – 17:15 – The new RV Belgica – L. Naudts (RBINS-OD Nature, Belgium)

Lieven Naudts briefly presented an updated schedule for the building timeline of the New Belgica. The delay was due to Covid-19 and the delivery is scheduled for September 2021.

After a quick overview on the specifications and some noise test results, the presentation focused mainly on a very first ship's tour, with several pictures showing the ship inside and outside. The acoustic instrument suite installed on two drop keels and some conclusions on the successful project closed the presentation.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

Theme 2: Manning, Safety and training

17:15 – 17:30 – Operations during a pandemic Marine Institute experience – A. Fitzgerald (Marine Institute Foras na Mara, Ireland)

Aodhan presented how the Marine Institute dealt with the Covid-19 emergency. The mitigation measures, the modified operations of the two vessels with restricted numbers of scientists on board, PCR tests and private aircraft charters and transfers allowed to continue to work successfully, although there were some problems related to diplomatic permits. The completely remote student training worked well and it was said to be definitely preferable. For an improvement in the near future, some policies for vaccinated/unvaccinated personnel have to be changed and more detailed planning of port calls and vessel schedules has to be performed.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

17:30 – 17:45 – STCW light education for scientists that get onboard Dana – J. Sandager (Technical University of Denmark DTU, Denmark)

There has been discussions for some time about the training requirements for technicians on board research vessels and Jesper reported on the solution found for the vessel Dana through an agreement with the flag authority (DMA). Two categories (with and without vessel responsibility) have been identified to which correspond two different types of training. The certificate is valid only on Danish vessels, it lasts for five years and is cheaper than a standard STCW course.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

17.50 – End of day 1

Tuesday 2nd June 2023

Theme 3: Common issues around research vessels

14:05 - 14:15 – Proposal for a new ad-hoc ERVO working Group: European RVs economics, management process and spare capacity – G. Magnifico (National Research Council of Italy, Italy)

Giuseppe presented an analysis of some economic aspects that affect the management of research vessels, pointing out that they are often unclear and that there is very little information about it. A quick presentation of the results reported in PP25 in particular with regard to spare ship time was given. This introduced the objective of WP8 “Foresight: Legacy and Roadmap” to propose a business plan for a long-term sustainable coordination system for the European RVs (EUROFLETS RI).

From the introduction derived the proposal for a new ad-hoc ERVO WG to improve the exchange of information on operating costs. In this way it would be possible for everyone to compare their own aspects of RVs management, to work on the RV management process in Europe and to help the optimization of the RVs spare capacity.

Per intervened in the discussion and volunteered as well as Juha. It was decided to do a kick-off meeting as soon as possible.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

Dipclear incident R/V Bat Galim in Cyprus EEZ – G. Tibor (Israel Oceanographic & Limnological Research Inst., Israel)

Gideon's presentation is postponed, it is however available online at <https://www.ervo-group.eu/np4/np4/np4/46.html>

Theme 4: Cooperation and Outreach

14:15 – 14:25 – Update ARICE Project – V. Willmott (Alfred Wegener Institute, Germany)

Veronica Willmott gave an overview of the ARICE project and the progress made until today. After a short introduction of the ARICE's mission, the objectives and strategic policies for international cooperation were presented. Only a few goals (2) have been reached. Veronica then closed the presentation with the key outcomes to date and the Transnational Access proposals already implemented and planned in 2021. The incoming "All-Atlantic R&I for a Sustainable Ocean" conference was mentioned as well.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

14:25 – 14:40 – EurOcean RID – S. Sa (EurOcean, Portugal)

Sandra Sa reported the evolution of the Research Infrastructures Database, focusing on the last version 3.0 and its main characteristics as harmonized and integrated system, streamlined update process and Improved the filtering and the displaying functions. The Database now includes 15 categories from 35 countries and 888 infrastructures and is one of the most complete database of its kind with the objective for the future of obtaining more users, new functionalities and more data.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

14:40 – 14:55 – Exploring collaboration opportunities among RV operators: from Italian EEZ to Med Sea – Lorenza Evangelista (National Research Council of Italy, Italy)

Lorenza started her presentation by reporting on the RV Dalla Porta 2021 scientific campaign, then moved to the main topic speaking about the existing collaboration among the Italian and European RV operators and about the exploring collaborations among European Organizations (Sea Plastic 2021, ZEMED2021, MOOSE-GE and FOCUS G1). The presentation concluded with some considerations of future activities.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

14:55 – 15:25 – RVONZA (Research Vessels Of New Zealand and Australia – R. Christie, NIWA)

Rob presented RVONZA as a non-legal entity aimed at sharing professional information and best practice regarding design, management and operation of research ships and associated scientific equipment, explore and develop opportunities for collaboration and benchmark their research ship and associated equipment operations with other comparable operators. The first meeting took place in New Zealand in 2018 and was attended by CSIRO, AAD, UTAS, AIMS, but all interested parties are welcome.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

Theme 5: Remote Operations inc. Operations with Autonomous Vehicles

15:25 - 15:40 – Procurement of two AUV Munin and USV Sounder – P. Nieuwejaar (Institute of Marine Research, Norway)

Per Nieuwejaar reported on the purchase of 2 Munin AUVs + 2 Kongsberg USVs mainly for coastal waters use. After an overview of the specifications of the vehicles, the main topic was how they could be used on board of different vessels, mentioning different issues from launch and recovery to the control systems as well as communications, electrical power and recharge systems. Some specific problems of the SVU were then mentioned such as rules and regulations for operation of remote controlled surface vehicles, a very topical subject. The presentation was concluded by mentioning the intention to build the command, control and communication systems in 10-foot container units.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:40 – 15:55 – A new concept project: Surface UnmaNed multipurpose research maRine vEhicle (SUNMARE) – F. Mezzani (Sapienza University of Rome)

Federica presented the SUNMARE project and its main objectives: the definition of technical, operative and functional requirements for an innovative multipurpose research USV. The topic is dealt with by separating into four degrees of autonomy the different possibilities of operating and defining as autonomous the vessel without seafarers on board. The first result of the project was a feasibility analysis and a functional design for which the main specifications were provided.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

15:55 – Coffee break

Theme 4: Cooperation and Outreach – Eurofleets+JRA session

A short introduction by Colm Mulcahy precedes the session

16:25 – 16:40 – JRA 3.1 EARS – T. Vandenberghe (RBINS-OD Nature, Belgium)

Thomas presented through some schematic pictures what EARS is within the Eurofleets project, how it works and which facilities are currently involved. The deployment of the system is planned for Celtic Explorer (PORO-CLIM) and Pelagia (iMar). The presentation closed with an example of how data from 6 ships can be shared on shore through the 52N sensor observation service dashboard of UTM-CSIC DATA HUB.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

16:40 – 16:50 - JRA 3.1- Colm Mulchany (Voyager IP, Ireland)

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As part of the Eurofleets, Joint Research Activity (JRA), Colm reported on WP 3.1.5 “Optimizing solutions for telepresence and real time data transfer”, where VIP was to establish whether it’s advantageous for research vessels to use a common platform for satellite communication services. A first positive response has been given operating R.V. Celtic Explorer and R.V. Celtic Voyager in a dedicated shared pool of satellite bandwidth for communication.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

16:50 – 17:20 - JRA 3.2

Also in WP3 "Investigation and development of equipment and facilities for deep sea operations by research vessels" two leading companies presented the results of their activities. MacArtney presented a portable deep sea electric winch and Seaonics presented a supply system for a dual multi-purpose launch and recovery system for oceanographic research instruments and equipment such as (but not limited to) ROVs, grabs, drop cameras and seabed observatory components through moonpools and/or on the ship’s side.

For more details, see the presentation at <https://www.ervo-group.eu/np4/np4/np4/46.html>

17:25 – Closing 21st ERVO meeting – Lieven Naudts (RBINS-OD Nature, Belgium)

Liven thanked all meeting participants for the good job done during this meeting.

17.40 – End 2021 ERVO meeting
