



AIRCENTRE
ATLANTIC INTERNATIONAL RESEARCH CENTRE



MANAGEMENT AND FINANCIAL REPORT

2025

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1. AIR CENTRE 2025 IN A NUTSHELL

In a single sentence we can say that 2025 was the year the AIR Centre reached cruise speed. To do so, it was essential the combination between third party projects, namely those related with the ocean, climate and space strategies of the European Union (EU) or the European Space Agency (ESA), and our own initiatives, designed to serve the priorities defined by the member-states.

The cooperation with global agendas like the All-Atlantic Ocean Research and Innovation Alliance (AAORIA), the Marine Biodiversity Observation Network (MBON), or the United Nations Decade of Ocean Science for Sustainable Development, are a cornerstone of the organization since the early days. The active role of the AIR Centre in major global events (e.g. UNOC, AAORIA, COP30, AGU, ESA Digital Planet) has been strategically important. It has enabled the sharing of experience with leading countries and organizations, while, more importantly, strengthening the relevance of our partners in the Atlantic context, and supported the effective development of national capacities through enhanced regional and bi-lateral cooperation.

The main thematic programs of the AIR Centre are consolidating (Ocean Policy and Stakeholders Engagement; Biodiversity and Blue Economy; Space Systems and Applications; Data Science, Cloud Infrastructure and Development; Ocean Modelling and Observation; Coastal Communities; and One Blue Health) but their relevance is highly dependent on the way they are able to support the strengthening of the whole community, and their improvement depend on the increased cooperation between our team and our members. We know that infrastructures are very important but the most important of all is the “human infrastructure”.



Figure 1 - AIR Centre became a Supporter for the All-Atlantic Ocean Research and Innovation Alliance at the Alliance 2025 Forum

Activities developed during 2025 contributed for a closer cooperation among members, in most cases this allowed to extend the cooperation to new organizations at the national level, that find at the AIR Centre a way to increase visibility and upgrade their capacity to serve their regions and their citizens.

Our services, either “Atlantic” or national, only can be advantageous to citizens and the economy, if they are grounded on robust research. Main research topics must reflect the present and future needs of the organization, as a guarantee that the mutualized services correspond to the “best science available” and thus are valuable. Due to the small size of the core team, research programs, partially funded by competitive projects, must rely on a strong cooperation with research groups of the Atlantic area, either academic or based on non-profit private research organizations. There is a growing alignment with competitive research groups in the Atlantic area [2025_60] as well as a decision by the Board of Directors (BoD) to include in the AIR Centre Bylaws a formal role for “affiliated organizations”, which represents an importante step in this direction.

2. STRENGTHENING THE ATLANTIC COMMUNITY

During 2025 we witnessed the development of new cooperation initiatives engaging the AIR Centre partners, aligned with the priorities defined at national level, most of them, widely representative. A more active interaction was also fostered by common participation in funded initiatives (mainly associated with Horizon Europe or InterReg), participation into high impact public events (e.g. “One Ocean Science Conference” and “United Nations Ocean Conference” at Nice, “AAORIA Forum” at Brussels, “International Conference on Sustainable Fisheries and Aquaculture” — CIPAS in the original language — at Luanda, “Cabo Verde Ocean Week” at Mindelo) and into our own initiatives like the “Atlantic Aquaculture Forum”, the “MBON Workshop”, the “JuliaEO2025 Workshop” and the “Internal Wave Service Workshops”. We must also emphasize the effort made to prepare research and innovation proposals for the existing funding schemes (e.g. Horizon Europe), where priority was given to increase the participation of AIR Centre partners. Every proposal, either funded or not, was always an opportunity to share experience, identify problems that need additional effort, or identify synergies that can be developed for the benefit of all the community.

Meetings held in Luanda, Mindelo, Rio de Janeiro, Nova Friburgo, Abuja, La Palma, Pretoria, Ponta Delgada, Angra do Heroísmo, Nice, Brussels, and other locations, included the participation of our core team, enabling progress in the identification of needs and in the definition of new research and/or operational initiatives [2025_53]. These activities were complemented with more direct contacts through video calls, fostering the continuous follow-up across the different programs [2025_54]. Numerous video-conferences, particularly those organized within the well known “Networking Fridays”, complemented this effort and widely disseminated the messages, the outcomes and the ambitions of the Atlantic community.

2.1 Central Office

The Central Office of the AIR Centre includes the Headquarters at Terceira Island, Azores and the Secretariat at Lisbon. During 2025 the team was improved with the enrollment of two new researchers that are now integrated into the programs: Space Systems and Applications, and Data Science, Cloud Infrastructure and Development.

Terceira Data Centre is now fully operational and is being increasingly used, not only by our team, but also by organizations of our network. Most of the services that are described in the next chapters are now being implemented in our servers, despite the use of cloud services, when needed, or the resources made available through the participation of the AIR Centre in Portugal’s National Center for Advanced Computing (CNCA).

Most of our research team is affiliated with competitive research groups [2025_61] and the number and impact of research publications that are related with the work programs is steadily increasing [2025_62].

2.2 AIR Centre Associates

2.2.1 Angola

The Marine and Fisheries Institute of Angola (INIPM in Portuguese) is the partner representing Angola at AIR Centre General Assembly. It is a public institution for scientific and technological research that supports the fisheries sector, focused on the sustainable management of aquatic biological resources, and on the control of the sanitary quality of seafood products and their by-products. Within AIR Centre programs two priorities were defined. The first one related with stock assessment and the second with aquaculture development, in cooperation with the Aquaculture Directorate of Angola.

During 2025, INIPM researchers participated at the ICES Workshop on the Development of Quantitative Assessment Methodologies (WKLIFE XIV), held at Faial on September, and during the following month in a full week of hands-on work at Luanda, dedicated to the assessment of the state of the main fisheries of Angola, and the possible future catches, following the most advanced assessment strategies. This represents a landmark result.

It is important to note both the impact of the new research vessel *Baia Farta* which was used to conduct the first fisheries research missions entirely managed by INIPM, and also the previous data obtained by Research Vessel Nansen, in cooperation with FAO. Collaboration with the University of the Azores, with similar challenges concerning stock assessment, was very fruitful and will be further promoted in the future.



Figure 2 - INIPM researchers participated at the ICES Workshop on the Development of Quantitative Assessment Methodologies (WKLIFE XIV) held at Faial

The National Director of Aquaculture of Angola participated actively at the Atlantic Aquaculture Forum (AAF), on 12-13 November 2025, in Terceira Island, Azores. The follow-up for this cooperation was already discussed after the participation of AIR Centre at CIPAS, the International Conference on Fisheries and Aquaculture, that took place in Luanda on November 2025.

One first step to the development of useful services for the development of Angola blue economy was the launch of a [web app](#) deploying information on the state of the Ocean, based on CMEMS services, that is now available through the INIPM [website](#).

2.2.2 Azores

The Regional Government of the Azores is one of the partners of AIR Centre. The location of our Headquarters at Terceira Island, and the increasing cooperation with other innovation and research stakeholders in the Portuguese Autonomous Region, creates the ground for the development of prototype services and/or products that can, afterwards, be expanded to the whole network. The presence of this member in the network, also extends significantly our capacities due to the strong cooperation with the local University, that hosts a very competitive research group on marine science (Okeano) and a maritime training school (Escola do Mar) who partner with the AIR Centre, and bring valuable research skills in Earth Observation and Oceanography, which are of great interest to our organization.

In 2025, three main AIR Centre events took place at Terceira Island, with relevant international participation:

- (1) The annual JuliaEO25 meeting (6-10 January) gathered together researchers from the United States of America and Europe to showcase new applications developed with JULIA language related to Earth Observation. Te JULIA highlighted performance advantages compared to Python-like approaches. Several dozens of participants shared their experience and the whole meeting was streamed by YouTube and Spotify.
- (2) The Internal Waves Service (IWS) Workshop (3-4 April), marked a milestone in the development of a revolutionary global platform that uses Sentinel-1 satellite imagery to detect oceanic internal waves, with significant implications for maritime safety, underwater navigation, offshore platforms, and sediment transport across continental shelves.
- (3) The second edition of the Atlantic Aquaculture Forum (12-13 November), bring together researchers, investors and regulators from the Azores, Senegal and Angola, that openly discussed the development of aquaculture in their countries and the need to replace the declining catches of wild fisheries.

The first two initiatives were co-funded by the Luso-American Foundation for Development (FLAD) and the Municipality of Angra do Heroísmo.

The AIR Centre team also participated in third-party initiatives, like the *EXPER Project meeting* (18-19 February), an event aimed to bridge the gap between society, public entities, academia, and businesses, focusing on Blue and Green Research and Innovation (R&I) priorities; the *1st Regional Meeting of the Azores Space Teachers Network (ASTN)*, on São Miguel Island, Azores (16-17 July), to reinforce the commitment to space education in high-level schools; and the *Symposium by NEREUS Regions* (2–3 October), at Ponta Delgada, São Miguel Island, Azores, where our team showcased the latest work on satellite-based whale monitoring.

We can also emphasize the cooperation with initiatives led by FLAD (International Lajes Conference) on 18-19 september 2025, the participation in the AtlantECO Final Scientific Conference in Ponta Delgada (15-19 February) and the launch of a new project within the European Initiative Science+Technology+Arts, connecting the scientific understanding of the Ocean system with Art.

2.2.3 Brazil

The Government of the State of Bahia is a partner of AIR Centre with which we had a large number of on-going collaborations in the fields of data science, oceanography and environmental health. The cooperation is being organized with a growing role of FAPERJ, and involvement of universities like UERJ, or large research based organizations like FIOCRUZ and LAMCE. In October 2025 a “*Scientific and Technological Cooperation Agreement*” to enhance research collaboration was signed between the AIR Centre and the São Paulo Research Foundation (FAPESP).

Most of the developments that occurred during 2025 related to oceanographic modelling, that will be made available soon to all partners, were possible due to the integration of “Escola de Sagres” high performance computing system into the “[Atlantic Cloud](#)”. The team of UERJ has been very active, contributing with their skills in numerical modelling to the development of fine-tuning of the oceanographic services that are needed to support the blue economy in the Atlantic.

Regarding LAMCE team, they contributed to the development of the Internal Waves Service (see section 7.3).

The existing collaborative agreement with INESC P&D Brasil (Institute for Systems and Computer Engineering, Research and Development of Brazil) was renewed up to 2030, creating the ground for new initiatives related with marine engineering, planned for 2026.

On February the 19th, the growing role of FIOCRUZ within the AIR Centre activities was emphasized by the signature of a Memorandum of Understanding (MoU) on the scope of the *XIV Luso-Brazilian Summit*, held in Brasília, enhancing the collaboration in the One Blue Health program and fostering ties between both countries. This summit, led by the Portuguese prime-minister Luís Montenegro and Brazilian president Lula da Silva, highlighted the bilateral cooperation in the fields of health, science and technology, economy and justice, as well as the commitment to cooperate within the AIR Centre programs.

Despite the diversity of initiatives, 2025 was marked by the realization of 30th Conference of the Parties (COP30) promoted by UNFCCC at Belém, State of Pará, from 10 to 21 November, where mitigation of climate change and, in particular, the follow-up of the application of the Paris Agreement were addressed. The AIR Centre was represented by the Environmental Secretary of the State of Bahia.

2.2.4 Cabo Verde

The Cabo Verde Marine Institute (IMar) is a partner of the AIR Centre. It is located at São Vicente Island, and has a highly dynamic team with extensive experience in international marine research. They are developing a fruitful relationship with the *Universidade Técnica do Atlântico*, at Mindelo, and co-managing the Ocean Science Centre of Mindelo with the German Institution GEOMAR — Helmholtz Centre for Ocean Research Kiel.

The commitment of IMar with the AIR Centre is very strong, as they participate in several third-party projects. As a member they play an active role in almost all of the initiatives related with all programs, and the Institute is an important player as they host and co-organize regional and international events where the Ocean is the main topic.

Among the research projects involving IMar, it is worth emphasizing their participation in the RedBEAM (Red Bancos de Ensayo del Atlántico Medio) project, an InterReg initiative, that aims to create a distributed hub of testbeds for developing, testing, and validating emerging and disruptive ocean technologies in the Macaronesian region and West Africa, and in the EO4SURE project, an ESA contract where the use of Earth Observation Data to monitor the evolution of the Sustainable Development Goals is assessed and implemented, namely related to SDG14. In this case it is important to note the involvement of the Fisheries Directorate and the National Statistical Institute in the living lab at Mindelo, and the opportunity to strengthen the cooperation between the ocean community.



Figure 3 - Nortuna fish farm infrastructure at Cabo Verde. Seafood production and safety is a priority for IMAR, the Cabo Verde Marine Institute.

During 2025, on the UNOC meeting in Nice, on June 12, an important initiative was developed by Cabo Verde Ministry of the Sea and IMar with the cooperation of AIR Centre. The event joined the Portuguese-speaking African Small Island Developing States (SIDS) committed to establishing Centers of Excellence in Marine Sciences. The event gathered distinguished participation from key government officials and scientific leaders. Ministers from three African nations participated: H.E. Jorge Santos, Minister of Sea of Cabo Verde; H.E. Nilda Borges da Mata, Minister of Environment, Youth, Sustainable Tourism of São Tomé and Príncipe; and H.E. Viriato Soares Cassamá, Minister of Environment, Biodiversity, and Climate Action of Guinea-Bissau. International organizations were represented by Mr. Vidar Helgesen, Executive Secretary of the Intergovernmental Oceanography Commission (IOC) and Assistant Director-General of UNESCO, and Professor Dr. Katja Matthes, Director of GEOMAR.

A second highlight is the São Vicente Cabo Verde Ocean Week, on November 2-7, an event that was highly participated by the public in the aftermath of the August extreme event. The AIR Centre had a significant role, also focusing on the technological innovation needed for ocean monitoring as part of the conference on “Ocean and Climate: Science and Cooperation for an Innovative Future.”

The tragic meteorological event that struck IMar during August, with fatalities in the Island of S. Vicente, and the partial destruction of IMar premises challenged our Cabo Verde colleagues and needed further attention from the international community. Nevertheless, the actions planned were fully achieved and there is growing cooperation between the Institute and the private sector, namely in aquaculture, which is a priority for the AIR Centre.

2.2.5 Colombia

On 26 March, a meeting was held between the AIR Centre and the Colombian Embassy in Portugal. The meeting was attended by the Chargé d'Affaires of the Colombian Embassy, Dr. Pedro Arboleda, and the Minister Plenipotentiary, Martha Patricia Medina, Commercial and Cooperation Attaché, to promote

collaboration between the AIR Centre and Colombia, and clarify which institutions the AIR Centre should prioritise in its strategy.

2.2.6 France

There were preliminary contacts with Pôle Mer Bretagne Atlantique on aquaculture issues with African countries, and on-going initiatives related to the Global Gateway Initiative, in the scope of the West Africa Sustainable Ocean (WASOP) Programme. There is room for further cooperation.

2.2.7 Guatemala

The relation between AIR Centre and Guatemala are beginning to gain momentum due to the challenge of sargassum, as Guatemala is frequently affected by sargassum wash-ups, which have a significant impact on its coastline. It is expected that sargassum will become more relevant in the near future and in fostering the relationship among the AIR Centre and the Caribbean countries.

2.2.8 Madeira

ARDITI, the Regional Agency for the Development of Research, Technology and Innovation of Madeira is now a partner of AIR Centre. Cooperation already exists in several third-party projects (e.g. RedBEAM) and several proposals were prepared during 2025 joining the resources of several partners. We foresee the focus on two of our programs: Biodiversity and Blue Economy, and Ocean and Coastal Modelling. The new facilities that are operated by ARDITI including a new research vessel and highly sophisticated unmanned underwater vehicles, also point to their role on promoting ocean monitoring programs, to benchmark and fine-tuning of operational oceanographic models, an area where its team excels.

2.2.9 Morocco

The University Abdelmalek Essaadi at Tétouan is the partner of AIR Centre. Besides the preparation of proposals for external funding, the highlight for 2025 is the participation of the AIR Centre in the high-level international conference that took place on December 11–13, at Rabat, Morocco, under the theme “Atlantic Dialogues” where political actors discussed the perspectives of the development of the “New South”, as a main player for the next decades.

2.2.10 Namibia

The Benguela Current Convention (BCC) is a multi-sectoral intergovernmental organisation established by the Republics of Angola, Namibia and South Africa to promote a coordinated approach to long-term conservation, protection, rehabilitation, enhancement, and sustainable use of the Benguela Current Large Marine Ecosystem. During 2025, the AIR Centre had several meetings with Maria de Lourdes Sardinha, Executive Secretary of the BCC, to discuss fisheries and aquaculture in the geographical area covered by the BCC. There is room for further cooperation.

2.2.11 Nigeria

The National Space Research and Development Agency (NASRDA), the space agency of Nigeria is the partner of AIR Centre. It is a very dynamic and active partner, and a world class research and development center, participating in most of our programs: Biodiversity and Blue Economy, Space Systems and Applications, Data Science, Cloud Infrastructure and Development and Ocean and Coastal Modelling.

Among the initiatives developed we can emphasize the participation of NASRDA team into the “Internal Wave Service” development, by the manual detection of Internal Waves where needed. This is a valuable contribution to the service, revealing the presence of internal waves close to the coasts, which have impact both on fisheries and biological productivity, by enhancing vertical mixing, but also impact on offshore structures, a topic that is being handled by the Centre.

NASRDA coordinates with other national agencies the participation in the different initiatives, namely in what concerns the blue economy. To do so, a collaboration agreement was signed with the Fisheries Society of Nigeria (FISON) to strengthen fisheries management, promote sustainable practices, and support innovation in Nigeria’s blue economy. There are already initiatives in preparation.

2.2.12 Peru

On 15 May, took place a virtual meeting between AIR Centre and CONCYTEC (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). The AIR Centre presented its programmes and projects. CONCYTEC invited to the meeting Instituto del Mar del Peru (IMARPE), Instituto Geofísico del Perú (IGP) and Universidad Católica de Santa María (UCSM). These three institutions presented works in areas such as fishing and oceanography, climate change, marine biodiversity and Peruvian research in Antarctica. The AIR Centre and CONCYTEC agreed to seek future opportunities for collaboration.

2.2.13 Portugal

The Portuguese Science Foundation is the partner of AIR Centre. It acts as the hosting country and there is a network of research centres that also support the activity of the association. These include CIIMAR (active on MBON), INESC TEC and CEIIA (which will have a role on the future marine and space engineering initiative), CCMAR, CESAM and OKEANOS (very helpful for the program “Biodiversity and Blue Economy”), IST and IDL (now active on the program “coastal and oceanographic modelling”), and the Portuguese Space Agency.

As a sequel of the project Newspace Portugal, a large event called “Earth Observation for Municipalities” took place at the University of Algarve’s Gambelas Campus in Faro, on March 8. This event, organized by the Portuguese Space Agency, concluded a two-year national tour that has engaged approximately 400 participants across six regions, giving the opportunity to showcase some of the developments achieved by the program “Space Systems and Applications”, related with whale detection, marine litter and internal ocean waves. The AIR Centre also participated in the 8th New Space Atlantic Summit 2025 from May 13 to 14, bringing together influential stakeholders from across the global space sector. Under the theme “The Future of Space in Portugal,” this landmark event convenes industry leaders, policymakers, researchers, and entrepreneurs to explore strategic opportunities and challenges in Portugal’s rapidly evolving space ecosystem. One of the outcomes of our “Data Science Program” was presented at Santarém for AGROGLOBAL’s 10th edition (10th September), where “Vinhas de Santa Maria e da Terceira” project, implemented within the framework of SFT-EDIH – Digital Innovation Hub for the Agri-Food Sector, was presented.

On March 24 a Memorandum of Understanding was signed with Biopólis program, a network of twining labs devoted to biological conservation with most of them located in African countries. There is a clear synergistic relationship focused on coordinating activities across Atlantic countries as some of the countries host “Biopolis twin labs” and are partners of AIR Centre.

The Portuguese initiative for the deployment of “smart cables” was also followed by our team, as it will change the landscape of deep sea observation. It is now an initiative also endorsed by IOC-UNESCO and our team participated in initiatives held in Lisbon and Madrid to discuss the implications of the new smart cable connecting the Portuguese mainland with Azores and Madeira, covering an important area of NE Atlantic.

Finally we must emphasize the invitation received from FCT to organize a thematic session at Ciência2025, Portugal’s flagship science and innovation gathering called “Scientific Cooperation with the Global South”.

2.2.14 São Tomé and Príncipe

São Tomé and Príncipe is a recent member of the AIR Centre, being represented by the Ministry of Education, Culture and Sciences. Nevertheless, their participation at the Portuguese-speaking African Small Island Developing States (SIDS) Conference held during UNOC Nice, and the possibility opened by the ESA project related with the monitoring of Sustainable Development Goals (EO4SURE) created the ground for their integration into our community. Initiatives like those related with seafood or marine biodiversity are also considered priority.

2.2.15 South Africa

The Department of Science and Innovation (DSI) is partner of AIR Centre and Dr. Selby Modiba incorporates the Board of Directors. We foresee a growing role of SAEON on our ocean programmes and preliminary contacts have been developed in this sense. AAORIA is also an initiative where both the AIR Centre and South Africa are involved.

2.2.16 Spain

The Oceanic Platform of the Canary Islands is the representative of Spain at the AIR Centre. Due to the geographical (and political) proximity, most of the cooperation is organized within the InterReg and MAC European funding schemes. In January, a kick off-meeting of the the RedBEAM (Red Bancos de Ensayo del Atlántico Medio) project, aiming to create a distributed hub of testbeds for developing, testing, and validating emerging and disruptive ocean technologies in the Macaronesian region and West Africa, took place at PLOCAN headquarters at La Palma.



Figure 4 - ‘AtlanticArray’ meeting, which took place in the Department of Earth Sciences – University College of London.

2.2.16 United Kingdom

The AIR Centre maintains regular contact with the British Embassy in Lisbon (e.g. participation in the Embassy’s Annual Contacts) in order to foster the cooperation between the AIR Centre and UK researchers. On November 10th, the AIR Centre promoted a meeting between Frederico Lyra (British Embassy) and Ana Ferreira (University College London) in the scope of the Atlantic Array project, that aims to cover the Atlantic seafloor with seismo-acoustic sensors over 10-12 years.

2.3 Extending the network

During 2025 cooperation started or was intensified with five Atlantic countries [2025_55]. These are Argentina, Benin, Costa Rica, Mexico and Senegal.

On June, the 6th, The AIR Centre welcomed an Argentine high-level delegation including Ambassador Paola Di Chiaro, Secretary for Malvinas, Antarctica, Ocean Policy and South Atlantic Affairs of Argentina, Ambassador Federico Barttfeld, Argentine Ambassador to Portugal, and Secretary Noel Borsellino. Representing Portugal’s maritime interests, the AIR Centre hosted Marisa Lameiras da Silva, Director-General of Sea Policy, and Pedro Gonçalves, Director of Strategy Services, demonstrating the institutional commitment to strengthening bilateral maritime relations. This was an important starting point, already followed by direct contacts with institutions like the Argentina Space Agency. New initiatives are foreseen.

Following a meeting with Benin authorities at Cotonou during 2024, our colleagues already participated in several propositions that are now under evaluation. We must emphasize that this is a partnership that would gain synergy from the Biopolis twin lab.

Senegal, while not being a formal partner, has been very active in all initiatives related with aquaculture. They participated in the two “Atlantic Aquaculture Forum” and, seeing their role in the coordination of aquaculture in western Africa, we foresee that they will have a pivotal role in this domain. The 2026 event will be held in Dacar.

Several meetings were held between the AIR Centre staff and Points of Contact [2025_56], in the framework of the different proposals or our own initiatives.

2.4 AIR Centre Programs

The activities of the AIR Centre are organized on thematic programs addressing the priorities defined by the community. Each program is coordinated at the central or node level by a senior staff member, being the actions developed by all partners of the association.

- Ocean Policy and Stakeholders Engagement: Coordinated by Valerie de Liedekerke
- Biodiversity and Blue Economy: Coordinated by Natalia Ospina-Alvarez
- Space Systems and Applications: Coordinated by André Valente
- Data Science, Cloud Infrastructure and Development: Coordinated by João Pinelo

During 2025 two new programs were launched:

- Ocean and Coastal Modelling, with major contributions from Azores/OKEANOS, Madeira/ARDITI, Brazil/UERJ, Nigeria/NASRDA, Portugal/IDL, Portugal/INEGI, Portugal/INESC TEC and Portugal/+ATLANTIC
- Blue One Health: with major contributions from Brazil/FIOCRUZ

One important point is the promotion of cross cooperation between program teams [2025_07]. Every year an informal meeting with all the staff is organized to openly discuss the main outcomes of the association and prepare for the next challenges. The 2025 meeting was held at PLOCAN premises in La Palma Gran Canaria.

In the following chapters we present the advances done by all programs that are now managed by AIR Centre. To allow the cross reference between objectives and achievements, each objective defined by the General Assembly is tagged in the form [2025_XX].

3. OCEAN POLICY AND STAKEHOLDER ENGAGEMENT

Objective: To support the implementation of key international ocean research and policy frameworks, including the Belém Statement under the All-Atlantic Ocean Research and Innovation Alliance (AAORIA), the EU Mission "Restore our Ocean and Waters," the EU Green Deal, and other partnerships. This will be achieved by promoting international cooperation and multistakeholder collaboration, enhancing the understanding of oceanic and polar challenges, and enabling innovation in sustainability solutions. The objective is to foster ocean resilience, increase biodiversity, and contribute to the All-Atlantic Fora through maximizing project impacts, advising on governance frameworks and transition agendas, and facilitating structured stakeholder dialogue and training. Additionally, the work plan aims to deliver impactful "Networking Friday" events to build capacity, raise awareness, strengthen ocean governance and promote action on ocean restoration, resilience, and the blue economy.

3.1 Implementation of the Belém Statement Under AAORIA

To promote the implementation of AAORIA the European Commission launched the project OKEANO with the motto "Connecting-Cooperating-Acting". During 2025 the AIR Centre committed its resources [2025_01] which action, combined with the participation into AA-MARINET. Through the identification of common priorities and guide the setting of strategic research priorities in AAORIA partner countries and jurisdictions and potential future research investments.

3.2 EU Missions and Green Deal

3.2.1 Restore our Ocean and Waters

In the context of restoring marine ecosystems and using nature-based solutions, as well as the implications for the food chain and the circular economy, the AIR Centre, as an Atlantic Contact Node at the SBEP, co-organised an Atlantic Workshop in 2025: "Blue Economy for All Atlantic;" as a side event at the *European Maritime Day* in Cork, Ireland (22 May 2025). The workshop, reaching over 100 registered participants, strengthened the spirit of cooperation essential to advancing a resilient and sustainable blue economy, reaffirming the role of the AIR Centre in supporting long-term maritime sustainability. Its outcomes are expected to inform ongoing strategic discussions and promote strengthened partnerships through AAORIA and other key fora dedicated to Atlantic maritime development.

The AIR Centre as the Atlantic and Arctic lighthouse for the Mission Ocean, via the BlueMissionAA project, organised a Governance workshop at the *European Maritime Day* across all four basins inviting the Commission and other stakeholders to present best practices and ways to align across Europe further strengthening stakeholder relations and positioning us as a leader in creating new governance frameworks for the Atlantic and Arctic. We have been asked to present our work at the upcoming European Ocean Days 2026.



Figure 5 - Graphic abstract of the key discussions during the workshop (designed by Robyn Deasy)

During 2025 [2025_02], the AIR Centre developed four “policy briefs” as part of the LABPLAS project, addressing the following topics: (1) the problem of tyre particle emissions, (2) the issue of biodegradable plastics, (3) plastic additives and (4) guidelines for analytical methods of plastics.

As part of the BlueMissionAA project we developed (1) RECOMMENDATIONS - to the European Commission on smarter alignment of Smart Specialisation Strategies with Ocean Mission objectives; (2) RECOMMENDATIONS - to the Atlantic and Arctic Regional Authorities on smarter alignment of Smart Specialisation Strategies with Ocean Mission objectives and (3) POLICY BRIEF: Advancing Ocean Research: The Responsible and Sustainable Research Reflection Tool for Ocean and Waters.

These policy briefs are specifically designed to provide recommendations to better align Smart Specialisation Strategies and Mission Ocean goals, assist projects with incorporating SDGs, spread best practices of innovative restoration solutions, strengthen stakeholder engagement, and transfer knowledge on plastic pollution to policymakers and other relevant stakeholders.

Within the context of the Atlantic & Arctic Lighthouse [2025_02], a consolidated set of governance reflections was successfully developed, a key deliverable for reporting to the EC. This work synthesised strategic, legal, and implementation-focused insights to guide the development of robust and scalable governance frameworks in the Atlantic and Arctic. Reflections emphasise impact-driven and ecosystem-based strategic thinking, the need for adaptive and coherent legal structures, and the importance of meaningful stakeholder participation. They also outline priorities for strengthening science-policy-society interfaces, establishing common monitoring and reporting systems, and enabling evidence-based decision-making. Together, these two governance framework outputs provide a structured foundation for advancing discussions, roadmaps, and work plans that respect regional diversity while supporting broader European governance ambitions. The reports have been submitted to the EC and will also be presented in person by Valerie de Liedekerke on the 5th of March in Brussels, Belgium during the European Ocean Days 2026.

To mobilize and consolidate a diverse community of stakeholders an online open access platform called WaveLinks (WaveLinks.eu) has been created. It serves as a central digital platform designed to map and connect the research and innovation landscape of the EU Mission “Restore our Ocean and Waters.” Its purpose is to foster collaboration across projects, strengthen links between funders, academia, industry, and society, and ensure that knowledge, solutions, and stakeholder activities are easily discoverable and shared. The platform enables users to find projects, citizen-science initiatives, engagement methods, stakeholders, events, policies, and funding opportunities, supporting collective progress toward ocean and water restoration and climate resilience by 2030.

To assess progress on ecosystem restoration and climate resilience initiatives a comprehensive framework has been delivered under BlueMissionAA. It demonstrates that achieving the Mission Restore our Ocean and Waters requires not only implementing actions but generating high-quality evidence and shared learning to guide continuous improvement. By integrating quantitative indicators, qualitative insights, and contextual interpretation within a coherent multi-level governance structure, the framework advances the Mission from conventional reporting toward transformative accountability. This deliverable provides both a robust technical blueprint and a forward-looking strategic vision, enabling Europe to monitor, understand, and accelerate its collective transition toward healthy, resilient, and climate-neutral ocean and water systems by 2030 and beyond. The monitoring methodology will be presented at the European Ocean Days 2026 on the 6th of March, as well as the continuation of the work in the form of an impact monitoring template for Horizon Europe funded projects.

As part of our commitment to strengthening the skills, knowledge, and practical capacity of stakeholders engaged in ecological restoration and sustainable management, a series of targeted training sessions and workshops were successfully delivered during the reporting period. These activities were designed to build technical expertise, promote shared learning across regions, and support the implementation of the EU Mission “Restore our Ocean and Waters.”

A flagship activity was the *Workshop on Nature Restoration and Recovery (WKREST)*, held 4–7 March 2025 in a hybrid format at ICES Headquarters and online. The workshop brought together experts, practitioners, and policymakers to review current evidence on active and passive restoration of marine habitats and species, including the ecosystem functions they support. Participants explored definitions, methods for initiating and monitoring restoration, criteria for assessing success, and factors influencing recovery rates across diverse ecosystem components such as fish, marine mammals, benthos, and seabirds. The workshop also examined restoration challenges in varied physical conditions, including eutrophication in the Baltic and Black Seas, and highlighted linkages with terrestrial and freshwater systems.

WKREST contributed directly to BlueMissionAA by advancing methodologies essential for developing short-, medium-, and long-term monitoring indicators aligned with EU policy frameworks, including the Restoration Law. The workshop also assessed how existing ICES processes and data streams can support evidence needs, identifying knowledge gaps and priority areas for future research. Co-chaired by international experts and attended by a broad stakeholder community, the event strengthened regional capacity and provided actionable insights for restoration planning in the Atlantic and Arctic Lighthouse regions.

In all over 20 similar training events were organised. Together, these training activities have enhanced stakeholder capabilities, fostered cross-regional collaboration, and equipped practitioners with the tools and knowledge required to implement effective, science-based ecological restoration and sustainable management practices

3.2.2 European Green Deal

The European Green Deal is a comprehensive strategy launched by the EU to make Europe the first climate-neutral continent by 2050. It outlines a roadmap for achieving sustainability through initiatives across various sectors such as energy, industry, agriculture, and transport. Most of the objective [2025_03] was achieved in the framework of the other initiatives.

3.3 Partnership For Atlantic Cooperation

The Partnership for Atlantic Cooperation was signed by thirty-two coastal Atlantic countries in New York under the leadership of the United States, and with the participation of several AIR Centre members. There is a commitment to “a peaceful, prosperous, open, and cooperative Atlantic region, while preserving the ocean as a healthy, sustainable, and resilient resource for generations to come”. During 2025 the Partnership there were no major initiatives. Nevertheless, the AIR Centre [2025_04] keep the interest on the transatlantic cooperation and acknowledges the support given to a sea mission conducted by its partner INIPM, on board of the research vessel Baía Farta.

4 SPACE SYSTEMS AND APPLICATIONS

Objective: To support the development of applications based on satellite data, to detect and monitor events of interest on the ocean or coastal areas, and to study physical, chemical, and biological ocean processes which have a surface signature. Space is the only mean to address the scale needed for monitoring the Atlantic basin. We will also consider the design of innovative satellite platforms or sensors, tailored for the needs of basin-wide ocean observation, and the development of innovative approaches to measure essential ocean variables.

4.1 Ocean Monitoring With Hr Imagery

In 2025, AIR Centre actively advanced cooperation and capacity-building across the Atlantic space community by fostering connections, knowledge exchange, and skill development. To bring experimental products closer to meaningful societal applications [2025_08] a series of webinars were prepared with the National Space Research and Development Agency (NASRDA, Nigeria) on managing coastal communities for a sustainable Blue Economy, as well as high-level institutional discussions with the Argentina National Space Activities Commission (CONAE), the Mexican Space Agency, the Consejo Nacional de Ciencia, Tecnología e Innovación (CONCYTEC, Peru), and research groups from the University of Cape Coast and the University of Ghana.

AIR Centre also contributed to regional capacity development through training, including the “Remote Sensing Applied to Oceanography” course in Côte d’Ivoire, organized by CURAT and promoted by UNESCO’s Intergovernmental Oceanographic Commission (IOC) and IOC/AFRICA.

In 2025, the AIR Centre contributed to the co-design of the beta version of the OCEANIDS Platform (<https://black-island-0597a3903.6.azurestaticapps.net/>), identifying key user needs and technical requirements and formulating well-defined use cases in Atlantic regions, to support climate-responsive maritime spatial planning and integrated seascape management. In the scope of the EO4SURE ESA project it also implemented workshops in Cape Verde and São Tomé and Príncipe to support local use of Earth Observation for monitoring and reporting on the United Nations Sustainable Development Goals [2025_09].

In 2025, the AIR Centre advanced the development of pre-operational Earth Observation information products and services across Atlantic countries [2025_10]. Contributions under the LABPLAS project included the successful completion of the open-source floating debris detection pipeline POS2IDON (<https://github.com/AIRCentre/POS2IDON>), implemented in Python and Julia, which automates the acquisition, preprocessing, and classification of high-resolution Sentinel-2 imagery, providing an operational framework for floating plastic debris detection. Results were presented at the SPARSE Workshop, with the abstract selected for an oral presentation. Under the BioEcoOcean project, workflows for macroalgae and seagrass mapping were further developed, including an intertidal area mapping web application, and models for intertidal macroalgae detection combining UAV flight data and Sentinel-2 imagery are being developed. In addition, the AIR Centre organized a workshop on macroalgae and seagrass mapping with Sentinel-2 attended online by over 200 participants. In Clin-BluFeed, tests continued on detecting zooplankton swarms using satellite ocean color data (NASA PACE, Copernicus Sentinel-3) and LiDAR (NASA ICESat-2), while a Multi-Satellite Ocean Color Visualization Dashboard was developed to support the operation of unmanned gliders during the 2024 field survey (https://giustiandrea91.github.io/ClinBlueFeed_OceanColour/). Finally, ROKAMURAE_AZ concluded successfully, with AIR Centre contributions including the testing of remote sensing technologies to monitor the invasive alga *R. okamurae* in the Azores, providing critical data for regional monitoring.

4.2 New Vhr Based Space Applications

Following the development of the tasks planned, funded by the Portuguese Recovery and Resilience Plan [2025_11] the AIR Centre contributed for the orbital design of the VHR and HR constellations developed in the scope of New Space Portugal initiative. These activities consisted in iterative analysis of ground coverage for different orbital configurations, performing trade-offs between several proposed configurations. The outcome of these studies were recommendations for the optimal orbital configurations for the specific application for

each constellation. Also in the scope of the New Space Portugal activities, funded by the Portuguese Recovery and Resilience Plan, the AIR Centre progressed toward operational VHR services for the Atlantic countries. In collaboration with +Atlantic and GEOSAT, the team developed AI-based whale detection classifier prototype, including a comprehensive training library and a full processing pipeline capable of ingesting new imagery with GEOSAT characteristics (multispectral imagery at up to 1 m spatial resolution), running inference, and supporting expert supervision. The prototype was presented to different Atlantic stakeholders through an online session where feedback was solicited about its current configuration for further developments.

During 2025, under the Atlantic Whale Deal, the AIR Centre continues the development of a feasibility study of satellite-based whale detection to inform ship-strike risk mitigation in Azores and Canary islands whale habitats. This included testing an image classification workflow on GEOSAT image archived data over the Canary Islands and the Azores (2021–2024 coverage) and assessing the spatial/temporal availability of VHR constellations to evaluate operational feasibility in the regions.

In parallel, and as a way to prioritize the cooperation with the Azores University [2025_12] we participated in the SATSDIFACTION project, providing satellite imagery and deep-learning models to validate the Azorean solar panel database. This work provides a tested framework for the use of Earth Observation data in support of regional energy policy, specifically the Azorean Energy Strategy 2030 (EAE2030), and for the implementation of SOLENERGE, a financial support program that finances up to 100% of the acquisition and installation of photovoltaic panels.

4.3 Mpa Monitoring

As a community of practice, the MBON facilitates the coordination of individual monitoring programs and existing networks focused on local, regional, and thematic aspects of marine biology and biodiversity, to improve standards and best practices in the collection, management, and publication of marine biodiversity data and the status and trends of ecosystems and their services, with MPAs emerging as relevant focus areas. In 2025, [2025_12] the AIR Centre and the MBON Secretariat consolidated their participation in the Local (Macaronesia) Stakeholder Working Groups of the Horizon Europe Projects Blue Connect and Pharos. These collaborative groups involve key regional stakeholders (e.g., University of the Azores, Blue Azores Program, ARDITI, PLOCAN, IMAR) in marine protection and conservation efforts, aiming to foster cooperation and share responsibility for marine conservation, ensuring that the process is driven by local needs and perspectives, and ensuring initiatives, including monitoring, are aligned. These groups support the strategic alignment and implementation of co-management elements for MPAs in the region. Periodic meetings have been held along the year, where experiences were shared, and challenges were identified. An action plan has been defined, with specific objectives such as creation of a management plan library, mapping of relevant data holders, listing of the entities in charge of enforcement and surveillance in the region. In parallel, the AIR Centre has been combining data bases of oceanographic, fishing activity (based primarily in AIS data) and species occurrences (mammals primarily) to assess the impact of oceanographic conditions on fisheries activities and species occurrences, as well as the risk of collisions between vessels and cetaceans.

The AIR Centre proceeded with the development of an interactive tool using emerging solutions offered by the Julia programming language packages PyramidsScheme.jl and GLMakie. With these resources, the tool will enable fast, on-the-spot data processing and visualization, paving the usage of NRT data. This development is being conducted under the Atlantic Whale Deal Project. The AIR Centre has previously developed a dashboard that displays “Seascapes” and species occurrence information in MPAs in the Azores. The Seascape Pelagic Habitat Classification System available from NOAA ERDDAP, also referred to as MBON Seascapes (Marine Biodiversity Observation Network Seascapes) was the product employed. As a further development, the AIR Centre has been developing secondary metrics that take into consideration not only the occurrence of oceanographic (seascape) conditions, but how the change from one seascape class to another may cause to variables of interest, such as fishing effort.

The AIR Centre is developing an interactive tool [2025_13] using emerging solutions offered by the Julia programming language packages PyramidsScheme.jl and GLMakie. With these resources, the tool will enable fast, on-the-spot data processing and visualization, paving the usage of NRT data. This development is being conducted under the Atlantic Whale Deal Project.



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The AIR Centre has previously developed a dashboard that displays “Seascapes” and species occurrence information in MPAs in the Azores. The Seascape Pelagic Habitat Classification System available from NOAA ERDDAP, also referred to as MBON Seascapes (Marine Biodiversity Observation Network Seascapes) was the product employed.

5 DATA SCIENCE, CLOUD INFRASTRUCTURE AND DEVELOPMENT

Objective: To support the cooperative development of applications based on the analysis of large volumes of data, environmentally meaningful, the integration of data centres across the AIR Centre partners, the combination between data analytics and IoT as a tool towards the design of effective earth system twins, and the development of bilateral and multilateral initiatives to promote the use of ML and AI tools for Earth Observation and to improve capacities at node level.

5.1 The Atlantic Cloud

The Atlantic Cloud is a transatlantic computation network created, developed, and operated by the AIR Centre and its associates. This innovative infrastructure combines data storage, high-performance computing (HPC), and web servers to enhance the efficiency and effectiveness of scientific collaboration across the Atlantic region.

The Atlantic Cloud is a hybrid cloud solution that combines the benefits of on-premises infrastructure with public cloud services, offering a flexible and scalable IT environment for associates. It leverages an API-first approach and microservices-based architecture to provide seamless integration and modular functionality. This architecture allows for efficient resource allocation, improved scalability, and enhanced security by enabling organisations to keep sensitive data on-premises while utilising resources from associates and public cloud services for less critical workloads. Additionally, it allows for seamless data sharing across associates.

During 2025 a new node was created [2025_21] at INPE Brasil. <https://www.aircentre.org/atlantic-cloud/>. And an api was created [2025_22] to promote the operational use of the data centre. It is now available at <https://services.aircentre.org/access/>. The services now available include:

- IaaS (Infrastructure as a Service)
- SaaS (Software as a Service)
- Earth Observation (EO) data
- API access
- Ocean modelling at supercomputer *Escola de Sagres* at IPRJ (Brazil)

5.2 Expansion of Lorawan Technology

While global agendas provide essential frameworks for cooperation and capacity building, regional and local priorities are often where tangible impact is achieved. LoRaWAN technology offers an effective means to connect these scales. The main areas of application concern the conservation and restoration of marine ecosystems, marine litter (marine anthropogenic litter is one of the most pervasive environmental pollution problems), with actionable information that directly supports coastal and island communities. By enabling low-cost, long-range communication networks. LoRaWAN can operate both on land and at sea, supporting local decision-making through real-time environmental monitoring and early-warning services.

The previous work related to the fishing industry in the Azores [2025_23] is still waiting for a new funding opportunity, despite the good collaboration with LOTAÇOR and DRMP-Açores.

The prototype developed related to Terceira Vineyards was upgraded and expanded to the Island of Santa Maria [2025_24] in cooperation with Smart Farm Colab to support decision-making regarding the health of vines considering the weather and the development and protection from harmful vine diseases. All information is now available at the live platform <https://services.aircentre.org/agrodigital/azores/>

In cooperation with the major Farmers Cooperative of the Azores (UNICOL), a Support Warning System Defense Against Facial Eczema caused by the presence and ingestion of harmful spores of the fungus *Pithomyces chartarum* on the pastures, is available online. We maintained the support to the operational real-

time logging platform where the Regional Laboratory of Veterinary logs the results of analyses directly on the SAU's database, also supporting Thermal Stress [2025_27].

Laboratório Regional de Veterinária

Inserção de Dados de Esporulação *Pithomyces chartarum*

Número de Amostra 123456789	Data de Colheita 2024-01-01
Série da Múscula Indeterminado	Tipo de Erva Indeterminado

Condição da Erva

Constituição das Pastagens: An = Apenas An; ApAr = Apenas a Trave; TrAr = Trave e Apenas Ar; ErArBranco; Qr = Quidão; Q = Outro

Esporos por grama (milhares)

Dispersores

Ilha

Canoas Local Troncos Criações Pico Santa Maria São João São Miguel **Socorro**

Este sistema protótipo ainda está limitado à Ilha Terceira.

Localização

Letra do Setor Enchite	Número do Setor Localia
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Figure 6 - Digital Interface for the Pithomyces Warning System

The use of Artificial Intelligence is a powerful tool to upgrade the forecast of the risk of sporulation of the fungus *Pithomyces chartarum* in the pastures. A new AI-based model was developed [2025_26] with a better predictive capacity Its deployment will be made during 2026.

The expansion of similar systems to other partners of the network [2025_28] didn't show significant advances.

5.3 UNEP Grid Data Server

The AIR Centre became a UNEP Global Resource Information Database (GRID) node in 2022, with the view to mutually sharing data. The AIR Centre committed to hosting a geoserver on our data centre that allows for serving maps as tiled data. There is an ongoing technical collaboration with UNEP GRID Geneva to ensure the compliance of data and technologies between the AIR Centre and UNEP GRID systems, and the long-term flow of data in support of services.

During 2025 the planned prototype service [2025_29]—including data preparation, standardisation, access control API, monitoring, and documentation—was not developed. This work is now planned for 2026. Progress remains contingent on securing contracted operational support for the data centre and completing physical and digital infrastructure deployment.

5.4 Cooperation With Unctad On Enhancing Data Science Skills

The Portuguese Mission in Geneva, part of the Portuguese Ministry of Foreign Affairs (MNE), through UNCTAD, has funded capacity building centred around Earth Observation for sustainable development. The AIR Centre aims to continue this collaboration, with UNCTAD or other UN departments under the same auspices, to develop early prototypes of services with twinning potential and to strengthen data science skills across the Atlantic region.

During 2025 the JuliaEO workshop series continued with the organisation of JuliaEO 2026 [2025_30], held 4–9 January 2026 in Angra do Heroísmo. Julia is an easy-to-use language for scientific computing created at the Massachusetts Institute of Technology (MIT), with great potential for Earth observation. The AIR Centre has organised this annual event since 2023, drawing speakers from MIT, Harvard University, Oxford University, Max Planck Institute, EUMETSAT, JPL-NASA, DTU Space, and numerous other institutions. Programme details are available at <https://aircentre.github.io/JuliaEO26/>.

The planned follow-up training workshops in South Africa [2025_31], Brazil [2025_32], Nigeria [2025_33], and Ghana [2025_34] did not take place. A strategic shift redirected capacity-building efforts toward a new collaboration with the World Meteorological Organization (WMO), which is now under discussion. Collaboration with NASRDA Nigeria continued through monthly meetings, yielding practical outcomes including contributions to the Internal Waves Service through IW-mode image collection.



Figure 7 - The JuliaEO Workshop continues to establish the AIR Centre as a hub for innovative computational approaches to Earth Observation and climate research

This hands-on initiative on Terceira Islands is an opportunity for researchers to have direct contact with the team that develops Julia, and exchange experience on its use to design tools related to Earth Observation.

Other initiatives planned for South Africa [2025_31], Brazil [2025_32], Nigeria [2025_33] and Ghana [2025_34] were rescheduled or replaced by video-conferencing.

5.5 Supervised Learning Classification Platform

Supervised learning is the most widely used approach to applied artificial intelligence. The classification of images used to train models must be reliably executed, which, in a scientific context, often requires expert labelling and/or validation. The AIR Centre has developed a platform to support this expert classification process, ensuring quality control of both training data and inference outputs.

During 2025 the supervised learning expert classification platform [2025_35] was developed based on the single-expert classification prototype created by the AIR Centre in 2024 for the Internal Waves Service. The platform has been built as open-source software and will be made available on GitHub.

5.6 Insight Bay

Artificial intelligence is transforming many fields, including the applied sciences, but its practical use requires computation better performed by hardware accelerators such as Graphics Processing Units (GPUs). While inference may be carried out on traditional hardware, the training of models is particularly demanding and benefits substantially from GPU acceleration. This is especially relevant in scientific contexts, where training is frequently repeated for model optimisation. Sharing GPU resources with the scientific community through a cluster like Insight Bay represents a powerful approach to accelerating research and fostering innovation. By providing access to high-performance computing capabilities, researchers can explore complex hypotheses and analyse large datasets that would otherwise be challenging or impossible with limited resources.

During 2025 the Insight Bay GPU computing infrastructure [2025_36] became operational following hardware acquisition at the end of 2024. The machine is now available internally and to associates for machine learning training, scientific simulation, and data analysis workloads. Access is not yet self-service; requests are handled via email. Full operational capacity, including self-service provisioning, remains contingent on further development. A priority is securing contracted operational support for the data centre and completing physical and digital infrastructure deployment.

6 BIODIVERSITY AND BLUE ECONOMY

Objective: To support the cooperative development of an environmentally sustainable blue economy, with a focus on the economy of coastal communities, the preservation of the natural environment, particularly biodiversity, and the adaptation to climate change. Sustainable blue food is vital to feeding the worldwide population. However, with 90% of the fish stocks close to reaching their sustainable limits, it is urgent to work along the fish value chain and involve all stakeholders to promote sustainable practices and boost alternative food production approaches, such as aquaculture, while preserving the ocean environment.

6.1 Support to the Marine Biodiversity Observation Network

The Marine Biodiversity Observation Network (MBON) was established as a thematic activity within the Group on Earth Observations (GEO) Biodiversity Observation Network (GEO BON), supported by 110 member countries, to address the need to systematically assess the state of the ocean's biodiversity, including biological resources and ecosystems, to inform decisions about sustainable development and conservation. The MBON global community of practices links existing national and international efforts on marine biodiversity research, monitoring, and data management, fostering and coordinating the collection, curation, analysis, and communication of marine biodiversity data, and the development of information products that convey information about biodiversity and related services.

During 2025, the MBON Secretariat [2025_37] worked closely with partner organizations to support the flow of marine biodiversity data. The MBON Secretariat fostered advanced training and held a hands-on workshop on Terceira Island, focusing on enhancing marine biodiversity data collection and publishing. The objective was to help data holders understand the value of following good practices for standardising biological data, using widely accepted biodiversity standards such as Darwin Core. Additionally, a partnership between the World Maritime University, the MBON and the AIR Centre was established to develop a higher education curriculum on data for ocean biodiversity observing and capacity development to be integrated at universities and other institutions. Within the framework of the BioEcoOcean EU Horizon project and the Atlantic Whale Deal Interreg Atlantic Area project, the MBON secretariat was actively engaged in data alignment practices and in fostering the development and implementation of Essential Ocean Variables (EOVs).



Figure 8 - Example of in-situ biodiversity observation during MBON Azores workshop 2025. The AIR centre co-promotes the homogeneization of in-situ observations in the Atlantic through hands-on training and tool development.

The MBON Secretariat promoted the Azores Region [2025_38] as a focal point in international scientific and policy-related forums while supporting skilled employment and fostering economic and scientific development in the Region. It also encouraged initiatives involving the University of the Azores and supported the development of prototype services for marine biodiversity that add value locally. For instance, the Secretariat 1) collaborated with the University of the Azores for the development of the international training on marine biodiversity data mobilization in Terceira Island which improved the quality and availability of regional data on marine biodiversity, contributing to global capacity building efforts and fostering collaborative research among participants and organisations, 2) is currently collaborating in a Azores 2030 project focusing on innovative and inclusive approaches to experience Azorean biodiversity, and 3) is working on a local stakeholder working group for the Macaronesia demonstration site under the Horizon Europe Blue Connect and Pharos Project.

Over the past year, the MBON Secretariat has strengthened collaborations with key marine organizations [2025_39] and international networks through active engagement and coordinated leadership. This included organising and presenting at dedicated conferences and workshops, contributing to scientific publications in peer-reviewed journals, and pursuing funding opportunities through targeted proposals to marine biodiversity-related calls. The Secretariat continues to strategically link regional initiatives with thematic working groups focused on emerging ocean observation methods. Also, Secretariat representatives sit on a range of working groups, fostering partnerships that enhance technological research and development and support prototype data services that improve marine area management.

To promote international cooperation and community-building, the MBON Secretariat has organized and participated in multiple high-impact sessions and activities at major events, including the One Ocean Science Congress 2025, the UN Ocean Conference 2025, and the Living Data Conference 2025. These engagements have helped shape shared roadmaps of activity, expanded information exchange across regions and expertise areas, and reinforced the Secretariat's role as a hub for collaborations within the global MBON network.

The MBON Secretariat serves as the community of practice for the Marine Life 2030 United Nations Ocean Decade program [2025_40], led by the MBON National Oceanic and Atmospheric Administration (NOAA), making a significant contribution to the UN Decade of Ocean Science for Sustainable Development by facilitating the establishment of a globally coordinated system that delivers knowledge of ocean life to those who need it, promoting human well-being, sustainable development, and ocean conservation.

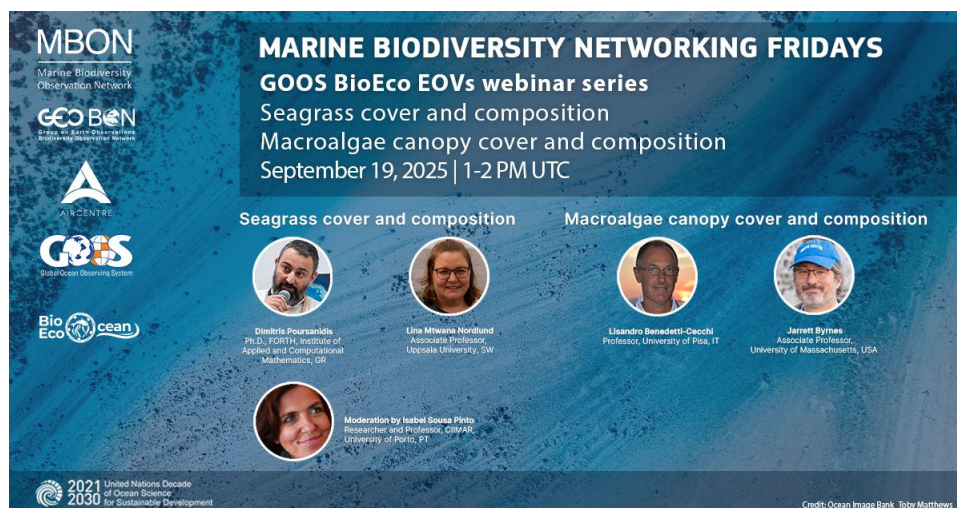


Figure 9 Poster of one of the organised Marine Biodiversity Networking Friday of the Webinar Series 'GOOS BioEco EOVS'

The MBON Secretariat promoted science outreach activities and fostered the connection and expansion of the marine biodiversity community [2025_41] through the "Marine Biodiversity Networking Fridays" webinar series. By its 33rd session, this series featured 110 panellists, attracted 5,405 registrations, 2,428 unique views, 3,346 total users, 6,461 YouTube views, and participants from 145 countries.

6.2 Sustainable Fisheries and Aquaculture

The AIR Centre advanced this objective [2025_42] by supporting bilateral scientific cooperation in Angola. A joint team from the AIR Centre, INIPM and the University of the Azores met in Luanda to prepare a scientific report underpinning the 2026 Total Allowable Catches (TAC) recommendations for small pelagic stocks. The work included joint analysis of stock assessment data, discussion of methodological challenges, and recommendations to strengthen the National Biological Sampling Plan, while also laying the groundwork for continued technical and scientific collaboration with INIPM.

Additionally, the participation in 2025 in international and regional working groups directly supports the AIR Centre's activity of strengthening bilateral and multilateral cooperation for the sustainability of fisheries, particularly with partner countries such as Cabo Verde, Angola, and Senegal. Specifically, engagement in the *Working Group on Sustainable Aquaculture* (I3-4 Blue Growth, BlueBio Alliance) enables regular technical exchange with research, industry, and policy stakeholders, supporting knowledge sharing, alignment with blue growth strategies, and the development of collaborative initiatives relevant to partner countries. Contributions to the *Working Group on IUU Fishing* (CCRUP), including participation of the AIR Centre as an invited speaker, strengthens policy-relevant dialogue on biodiversity and sustainable fisheries, enhances coordination among regions facing common challenges, and reinforces institutional cooperation.

Drawing on the experience and network established through the ASTRAL project, one of the AIR Centre's key accomplishments in 2025 has been the consolidation of the 'Atlantic Aquaculture Forum' [2025_43], as a fully branded AIR Centre event. The first edition took place in 2024 (AAF24) and the second edition (AAF25) was held on 12–13 November 2025 on Terceira Island in the Azores. The event was attended by 61 people (half in person and half online), 46% of whom were from Portugal, 29% from Ghana, 4% from Cabo Verde, 3% from Senegal, and the remainder from countries such as Angola, Belgium, Canada, France, Namibia, the Netherlands, Nigeria, Norway and the US.

The 'Atlantic Aquaculture Forum' serves as a strategic platform for expanding and consolidating the AIR Centre's cooperative network across the Atlantic basin. By convening policymakers, researchers, industry leaders, and technical experts from Europe, Africa, and South America, the Forum strengthens institutional linkages and fosters durable partnerships among AIR Centre members and associated stakeholders. This diversity of actors enhances trust, mutual understanding, and coordination among Atlantic partners, contributing to a more cohesive and operational cooperative network.



Figure 10 Group picture of the AAF25, Terceira Island, Portugal

The structured knowledge exchange across thematic sessions encourages the transfer of scientific, technical, and policy resources related to sustainable aquaculture production, including low-impact and ecosystem-based approaches consistent with Low-Trophic Aquaculture and Integrated Multi-Trophic Aquaculture principles. By integrating perspectives from science, policy, and industry, the AAF enhances access to complementary resources, such as regulatory experience, technological solutions, and operational know-how, that can be adapted and replicated across regions.

7 OCEAN AND COASTAL MODELLING

Objective: To promote the cooperative development of ocean modelling tools, including ocean-atmosphere and ocean-land interfaces towards the implementation of an Atlantic Twin. The European Digital Twin Ocean was announced by European Commission President Ursula Von der Leyen at the One Ocean Summit in Brest, in February 2022. When implemented, it will be a breakthrough for planners, policy makers, researchers and citizens, in the form of a highly sophisticated environment built upon historical and real-time data, and able to grossly “mimic” the behavior of the Ocean system. All areas related to habitat restoration, sustainable fisheries, nearshore aquaculture, or even maritime transportation will be deeply affected. The relationship between actions and impacts will be more clearly established, giving the support needed to science-based management. The AIR Centre will cooperate in this challenge both in what concerns the development of the research basis, the monitoring, support and follow-up, and the operation.

7.1 Cooperation with MERCATOR

The creation of an intergovernmental organization for the Ocean based on the upgrade of *Mercator Ocean International* slowly evolved during 2025. Nevertheless, its products disseminated through the Copernicus Marine Service (<https://marine.copernicus.eu/>) can be directly used whenever the representation scale is adequate, or can provide boundary conditions for the development of higher resolution products, which can be of interest to people and the economy.

During 2025 a webapp was developed to ease the browsing of Copernicus oceanographic data for the coast of Angola, in cooperation with INIPM. This application is now available through its website. This is the first step to promote a large use of Copernicus services and to provide a workbench for the future services that will be developed by the AIR Centre and its partners.

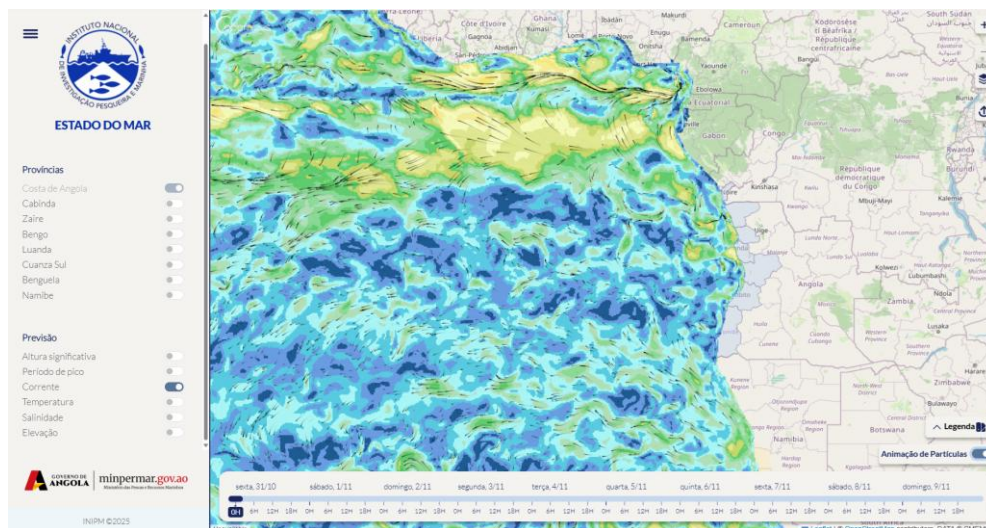


Figure 11 - Oceanographic Forecast for Angola based on Copernicus data developed in cooperation with INIPM. In the near future the resolution of the forecast will be upgraded to give better information for all activities related to blue economy.

During 2025 a working group was established with the cooperation of several research groups (Mafalda Carapuço, Manuela Juliano from OKEANOS, Ramiro Neves from IST/Maretec, Antonio Neto from UERJ, Filipe Albuquerque and Ricardo Tomé from IDL, and Teresa Dias and Francisco Campuzzano from +Atlantic). The objective is to develop a coupled ocean atmosphere model based on the codes MOHID, WRF and SWAN. Preliminary results were already obtained for the area of the Azores [2025_44] and checked against a set of data obtained by Unmanned Autonomous Vehicles from the University of Porto.

The dynamic downscale of NEMO was done resorting to MOHID model running at “Escola de Sagres” owned by the Instituto Politécnico da Universidade do Rio de Janeiro (IPRJ-UERJ) for the Azores area [2025_44]. This implied the MOHID compilation, software compilation (Fortran and Python) and testing. The results obtained were validated with ARGO floats.

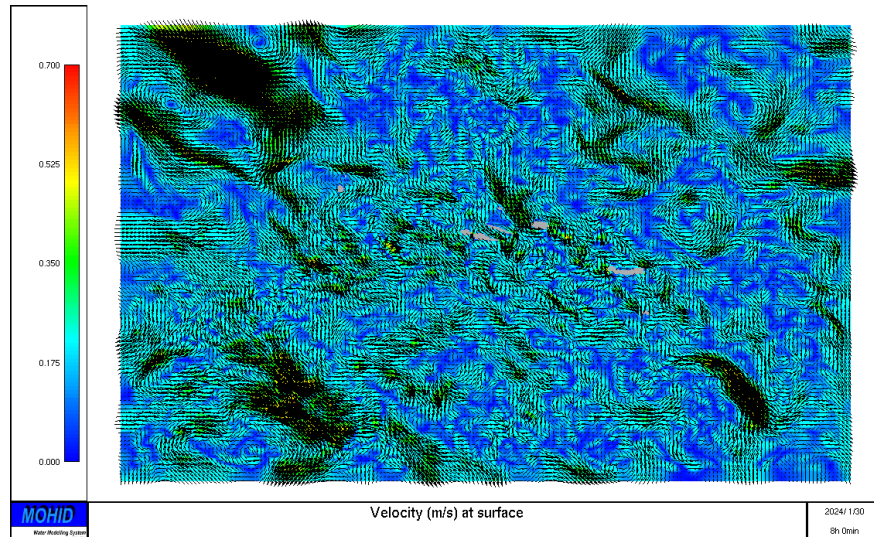


Figure 12 - Example of results obtained for surface velocity for the area of Azores

The second target area is Cabo Verde [2025_45] where there is a large amount of *in-situ* data to benchmark the numerical model.

MOHID SST vs Satellite SST (Microwave + Infra-red + In Situ)(*)

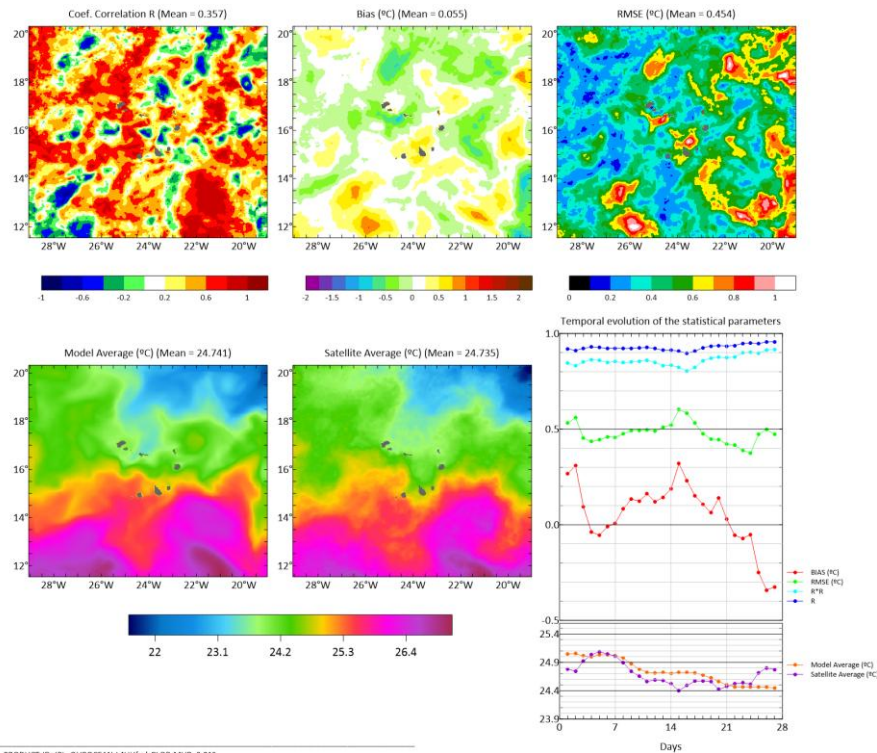


Figure 13 - Example of results obtained for surface velocity for the area of Azores

7.2 Extending the Copernicus Approach

Within the Framework Partnership Agreement on Copernicus User Uptake [2025_46], AIR Centre co-led the national interaction with Portuguese coastal users at “Observação da Terra para os Municípios” (Algarve, Portugal), expanding the coastal user database and identifying gaps and barriers to service uptake, and by organizing an online awareness and training workshop for South American maritime sectors in collaboration with the Portuguese Space Agency, IHCantabria, and INTA, combining Copernicus/CMEMS introductions with hands-on data-access exercises. In addition, during the European S+T+ARTS AQUA MOTION project, AIR Centre collaborated with an artist residency (Angra do Heroísmo, Terceira Island) and its institutional partners to support access to and processing of satellite Earth Observation data for project development. AIR Centre also presented its work at several Atlantic-scale and European events — including the OneOcean Workshop (Azores), ESA Lab Network General Assembly 2025, Commonwealth Clean Ocean Alliance (CCOA) webinar, and the European Space Conference — reinforcing its visibility and strengthening institutional collaboration across the Atlantic-wide space sectors.

7.3 Contribution to DTO Layers

The use of EO to monitor marine and maritime descriptors can benefit from the combination of VHR with high-resolution satellite imagery using machine learning. This adds value to high-resolution products existing at the AD AIR Centre library and can contribute to cost/effective approaches, particularly in the case of early warning future services. The first service which can be seen as a contribution to the Digital Twin Ocean is the Internal Wave Service [2025_47, 2025_48].

The AIR Centre's Internal Waves Service, launched in late 2024, represents a groundbreaking initiative in oceanographic research. Developed in collaboration with world-leading institutions such as the University of Porto and IFREMER, this innovative service harnesses the power of machine learning to revolutionize our understanding of oceanic internal waves (IWs). The service utilizes advanced supervised image classification algorithms to analyze all Sentinel-1 satellite Wave Mode (WV) vignettes, enabling the automatic detection of IWs across global oceans. By processing this vast amount of data in near-real-time, the service creates a comprehensive database of IW events, providing unprecedented coverage of their global distribution. This extensive monitoring is limited only by the few regions where WV mode satellite imagery is unavailable.

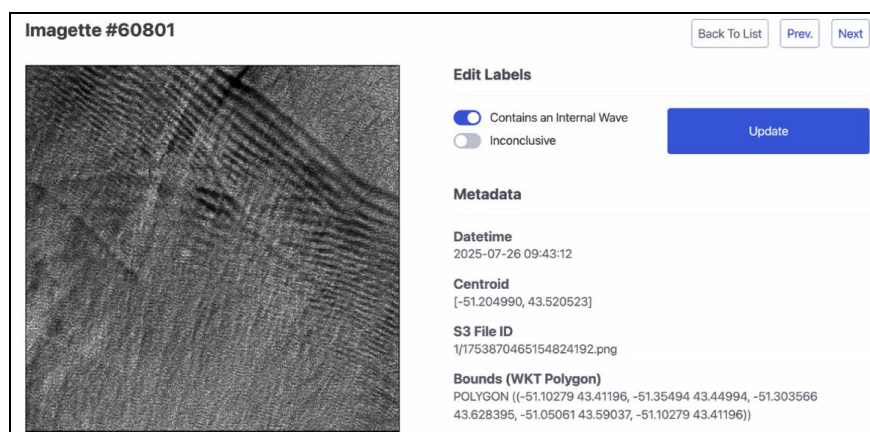


Figure 14 - Example of the interface from the Internal Wave Service. The goal is to enlarge the community and benefit from the service to develop further the understanding of processes on the water column and the interaction between the Ocean and physical structures

Internal waves play a crucial role in various oceanic processes, generating the highest vertical velocities in the ocean and strong horizontal shear currents. These phenomena can have significant impacts on human activities, potentially causing underwater navigation accidents and damage to sea platforms. Additionally, IWs contribute to sediment resuspension on continental shelves and induce intense mixing in the deep ocean, affecting marine ecosystems and nutrient distribution.

During 2025 we Improved the performance of the classification model [2025_15]. We now have over 2000 positives and a fully retained Julia classifier with equivalent classification performance (94%), but improved

usage of compute resources. We organized a Global Meeting with the IW Community [2025_16] engaging with leading experts in IWS and climatological oceanographers. This gave origin to several publications [2025_20]. One of the conclusions of the meetings was that the validation should be done only centrally [2025_17], and that validation should be structured I tiers based on alternative instruments.

An online platform to visualise the live map of ISW events was created (available at: <https://services.aircentre.org/iw/map>) [2025_17] highlighting the locations where the phenomenon is observed. The global visualisation is already providing valuable insights into the occurrence of ISW, such as their rate of occurrence and geographical distribution of the phenomena on Earth. We started exploring additional data sources by creating a manual for the manual detection of IW [2025_19] which was shared with the colleagues at NASRDA Nigeria and LAMCE Brasil who are collecting positive images for posterior model training.

8 ONE BLUE HEALTH

Objective: To promote a multidisciplinary collaborative effort among the AIR Centre members to ensure optimal health for humans, animals and the environment, while conserve and promote sustainable use of the oceans, seas and marine resources for sustainable development. New challenges come from climate change, causing changes on the geographical distribution and transmission of tropical diseases. Atlantic countries face complex environmental health problems that need to be address by stretgning the cooperation among parters.

8.1 Cooperation with FIOCRUZ

The Oswaldo Cruz Foundation (Fiocruz) has played a strategic role in strengthening the relationship between human health, marine ecosystems and global sustainability. Through the One Blue Health approach, it promotes understanding and integrated action on the impact of the oceans on planetary health.

During 2025 [2025_50] AIR Centre and Fiocruz established a program aimed at expands the concept of One Blue Health among AIR Centre members, explicitly integrating the Ocean as a vital component for planetary health. On February 19, 2025, the AIR Centre and Fiocruz signed a Memorandum of Understanding (MoU) in the scope of the XIV Luso-Brazilian Summit (Brasilia) enhancing the collaboration in the Blue One Health program and fostering ties between both countries.



Figure 15 - FIOCRUZ Headquarters at Rio de Janeiro. It is the leading scientific institution for research and development in medical and life sciences and considered one of the world's main public health research institutions.

The collaboration between both organizations aims to the development of projects, creation of platforms to spread knowledge about Blue One Health, to exchange researchers and students, to develop sustainable scientific activities and other common interest activities. AIR Centre's commitment to developing scientific activities through international cooperation as well as advancing research projects and promoting networks within the Atlantic Basin aligns with the Fiocruz's mission to promote health and social development as well as scientific and technological knowledge.

In the scope of the MoU it was established that Angola would be one of the priority countries for action under the One Blue Health program. Three actions were defined as priorities:

- Development of an Environmental Health Policy and Strategic Plan;

- Study of vector susceptibility to insecticides; and,
- Update of the entomological map study.

On August 19, 2025, took place a virtual meeting with representatives from AIR Centre, Fiocruz, Ministério da Saúde de Angola and Universidade de Coimbra to define the initial strategy for supporting the three above-mentioned activities. It was decided that a face-to-face meeting will be organized at Fiocruz to design a Work Plan for 2026, seeking to optimize the resources of the institutions involved. Until the meeting, Fiocruz agreed to identify ongoing actions in Angola to assess opportunities for maximizing resources, particularly in the training of Ministério da Saúde de Angola technicians and the possible geographical expansion of the The Observatory of Climate and Health (*Observatório de Clima e Saúde*).

9. SHARING KNOWLEDGE AND MEANS

9.1 Networking Fridays

To expanding the visibility of the work that is developed in the different programs and at all partners, the well known “Networking Fridays” initiative highly contributed to the share of experiences, culture and knowledge across the Atlantic. These webinars were opened to relevant research and social players of the Atlantic [2025_05].

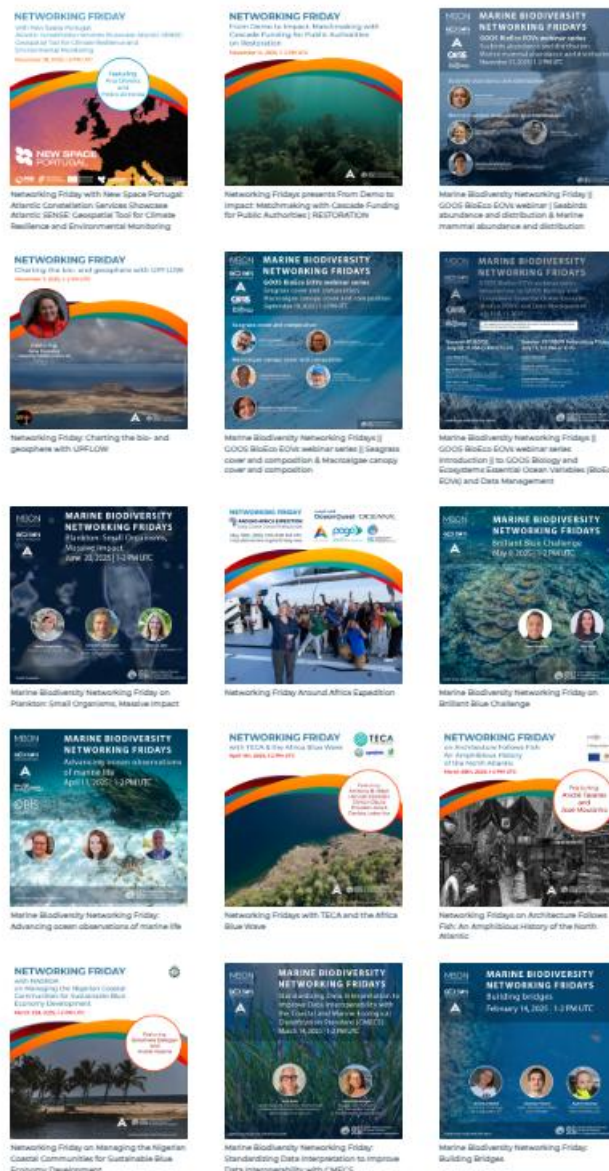


Figure 16 - Some of the "networking Fridays" organized during 2025

During 2025 a total of 21 webinar had 1965 on-line participants and 2714 youtube viewers. Topics discussed during these sessions included mangroves, marine pollution, space applications for ocean monitoring, sensing of deep Earth, marine biodiversity, macroalgae, etc.

9.2 Mobility to Share Knowledge

The Fulbright Award is funded by the Fulbright Commission in Portugal and the Portuguese Foundation for Science and Technology (FCT) under a Collaboration Protocol signed between the two institutions. The cooperation is still very active [2025_51] as it allows a strong transatlantic research cooperation aligned with our priorities. During 2025, and as a consequence of the changes in the political context of the United States concerning the Atlantic Partnership, the extension of the Fulbright program to a set of AIR Centre partners [2025_52] was re-scheduled to 2026.

9.3 Sharing Instruments and Platforms

9.3.1 Access to Autonomous Vehicles and Marine Sensors

The development of the “Escola do Mar” at Faial Island, in the Azores, its cooperation agreement with IMAR in Cabo Verde, and PLOCAN in the Canary Islands offers the possibility to create a first cluster that can grow fast by the incorporation of other players around maritime training, including marine robotics. During 2025 the emphasis was put on the cooperation with IMAR (Cabo Verde) related with the operation of the Research Vessel Islandia. This diagnosis began through a photographic survey of existing equipment and an evaluation of a platform for making the information available. However, it was found that external qualified support is needed to identify the equipment and its diagnosis (operational *versus* non-operational equipment). It was also identified that some equipment was donated or acquired by projects that have already ended and there are no in-house specialists who can support the survey.

During 2025 an oceanographic sound with sensors for water quality was acquired by the AIR Centre and made available to IMAR to support on-going research projects [2025_53]. This is the starting step to build a pool of instruments to be upgraded in forthcoming years.

9.3.2 Cooperation Between Research Vessel Operators

Observation and modeling of the Atlantic Ocean requires coordination and sharing of research vessels at the Atlantic level. This line of activity is starting to be tackled under AAORIA, namely under the AA-MARINET that the AIR Centre co-coordinates with IFREMER and under the @SeaNetwork, but it needs a particular effort to maximize the availability and use of the existing resources, combined with an instrument pool (eventually with associated technical support) [2025_52].

The survey for the All-AtlanticFleet began based on the information available on research vessels (RV) in the European Research Vessel Operators (ERVO) and International Research Ship Operators (IRSO) databases. The ERVO database, hosted at EurOcean (<https://rvinfobase.eurocean.org/>), does not include all RVs in the Atlantic area and it's not up to date. In the case of IRSO, they contributed to the founding of the OCEANIC research ships database (<https://researchvessels.org/>), but it was found that it is not up to date. As a result, the AIR Centre has been working with IRSO to update the international RV database, allowing for an efficient way to build the All-AtlanticFleet database, the first step towards the All-AtlanticFleet.

9.4 Outreach and Social Media

During 2025, the AIR Centre significantly strengthened its digital communications and outreach activities to better serve its growing community and expand its impact across the Atlantic region. The organization increased its social media presence by enhancing the frequency, quality, and reach of content across LinkedIn and X, promoting news, funding calls, and events from both the AIR Centre's network and current and potential partners. This expanded social media strategy resulted in increased engagement with diverse stakeholder groups including researchers, policymakers, industry partners, and the general public. The monthly newsletter continued its consistent release schedule, structured around news and events from the organization, project highlights, funding opportunities, and relevant developments from the broader network.

The new website strategy [2025_57] continues to be developed in close collaboration with the Board of Directors, designed to strengthen the organization's digital presence while authentically reflecting its core values and mission. The redesigned platform will ensure a more engaging, accessible, and user-focused experience that aligns with strategic objectives, improve navigation, showcase the network's impact, and

facilitate better communication with partners and stakeholders. Implementation is planned for 2026, representing a significant milestone in the AIR Centre's digital transformation.

During 2025 a meeting with all 30 AIR Centre PhD scholarship holders took place on 16-17 June 2025. All of them were encouraged to submit a point of situation concerning their research program. All elements received were merged into a publication that will be launched on the first trimester of 2026.

This publishing initiative was formally launched following a preliminary meeting held at the AIR Centre premises with PhD candidates and their supervisors, which brought together 30 PhD students from around the world to showcase their research as part of the organization's international PhD Scholarships Programme. This initiative is a first step towards a regular annual report on the environmental status of the Atlantic [2025_58].

In 2025, the AIR Centre successfully organized the first Internal Waves Workshop in Terceira Island, bringing together international experts to present and discuss current capabilities, limitations, and future directions of internal wave monitoring services. In partnership with the Government of the Azores (GRA) and Azores Sea School (EMA), the AIR Centre co-organized and provided comprehensive communications support for the second edition of the Atlantic Aquaculture Forum, held in the Azores in November 2025. In the same month, the AIR Centre, together with the Marine Biodiversity Observation Network (MBON), hosted and supported communications for the first workshop "Enhancing Marine Biodiversity Data Collection and Publishing" in Terceira Island. The AIR Centre also expanded its communications and organizational support to include numerous other AIR Centre events and co-funded project initiatives. Major supported activities included JuliaEO2025 (the annual international workshop on Earth observation with Julia programming), and project-specific events for OCEANIDS, MBON, SBEP, OKEANO, BlueMarkets, BlueMissionAA, BlueActionAA, FPCUPs, NextOcean, NewSpace Portugal, Azores EcoBlue, BioEcoOcean, CliN-BluFeed, among others [2025_59].

The provision of professional communications support – including social media promotion, website coverage and newsletter features – adds significant value to partner events and projects while amplifying the AIR Centre's network effects and reinforcing its role as an essential connector within the Atlantic research ecosystem.

10. FINANCIAL AND PROJECT MANAGEMENT

10.1 Main Account Policies

The financial statements were prepared according to the Sistema de Normalização Contabilística, approved by the Decree-Law 36-A/2011, of March 9th, and changed by the Decree-Law 98/2015, transposing the EU Directive 2013/34/EU of June 26th, 2013. Financial statements were prepared in accordance with the Accounting Normalization Principles, assuming continuity of the activities.

The main accounting policies applied to the current financial statements are:

- Tangible assets are valued according to cost, minus the accrued depreciations and impairment losses. Tangible assets where the cost is unknown are valued at just value, the value by which they are insured or by which they were written on the books.
- Depreciations are computed by the straight-line method.
- AD AIR Centre recognizes subsidies whenever there is a sufficient assurance that they will be received and that the entity will comply with the requirements.
- Transfers/subsidies that are related to current expenses and the depreciation of assets are deferred on the balance sheet, under the caption Deferrals, and registered as income of the period (caption Operational subsidies), proportionately to the incurred costs and the depreciation and amortization costs of assets during the project's lifetime, independently of the date of the transfer of the subsidy.
- Transfers/subsidies related to tangible and intangible assets are initially recognized under Equity, being afterwards recognized on the profit and loss statement (caption Allocation of subsidies for investments), on a systematic and rational basis during the timeframe necessary to balance them with their related costs. In the case where the subsidy is related to non-depreciable assets, it is kept under Equity, except in the case where its value is required to compensate for some impairment losses.
- Financial assets and liabilities are recognized in the balance sheet when the entity is aware of its contractual obligations. A financial asset is any asset in cash or a contractual right to receive cash. A financial liability is any liability that consists in a contractual obligation to deliver cash. The financial assets and liabilities are value at their cost minus impairment losses, namely: (i) Clients, suppliers, accounts receivable, accounts payable or bank loans, including those in a foreign currency; (ii) Loan contracts.
- Financial instruments traded in the market are valued at just value, and their fluctuations are recognized as part of the net results of the period.
- AD AIR Centre registers its income and expenses in accordance with the expense recognition principle, by which expenses and income are recognized when they are obtained or incurred, independently of the moment of the payment or receipt, being included on the financial statements of their respective periods.
- Management used value judgement when applying the accounting policies that had a major impact in the quantities recognized on these financial statements.
- Financial statements were prepared under the assumption that the activities of this entity will continue the next fiscal year, and according to its books. The assumption is based on the current knowledge of past and present activities of the entity, in the evolution of its business and its strategy for the future. The

management does not foresee, in a short or mid-term timeframe, any change that is able to alter the validity of its assumptions. Therefore, there are not expectable significant changes on the registered quantities of its assets and liabilities in the next reporting period.

10.2 Balance Sheet on the period ending on the 31st December 2025

Associação para o Desenvolvimento do Atlantic International Research Centre - AD AIR CENTRE

BALANÇO INDIVIDUAL EM 31 DE DEZEMBRO DE 2025 | BALANCE SHEET FOR THE PERIOD ENDED ON THE 31ST OF DECEMBER, 2025

valores em euros | figures in euro

RUBRICAS CAPTIONS	Notas Notes	2025	2024	2023
ACTIVO ASSETS				
Activo não corrente Non current assets				
Activos fixos tangíveis Tangible assets	1	353 241.89	427 202.39	407 961.04
Investimentos financeiros Financial investments	2	15 737.96	15 737.96	15 902.39
		368 979.85	442 940.35	423 863.43
Activo corrente Current assets				
Créditos a receber Credits receivable	3	16 389.81	25 160.32	51 354.46
Estado e outros entes públicos State and other public entities	9	5 608.99	27 715.62	-
Diferimentos Deferrals	4	55 850.97	37 025.00	40 802.93
Outros activos correntes Other current assets	5	22 486.57	13 453.96	4 598.19
Caixa e depósitos bancários Cash and bank deposits	6	2 029 951.63	2 121 677.84	1 246 784.78
		2 130 287.97	2 225 032.74	1 343 540.36
Total do Activo Total assets		2 499 267.82	2 667 973.09	1 767 403.79
FUNDOS PATRIMONIAIS E PASSIVO EQUITY FUNDS AND LIABILITIES				
Fundos Patrimoniais Equity funds				
Resultados transitados Retained earnings	7	230 482.43	149 125.01	133 221.71
Ajustamentos / outras variações nos fundos patrimoniais Other equity changes	7	352 050.56	427 461.06	407 961.75
Resultado líquido do período Net income for the period	7	- 34 160.73	81 357.42	15 903.30
Total dos Fundos Patrimoniais Total Equity funds		548 372.26	657 943.49	557 086.76
Passivo Liabilities				
Passivo corrente Current liabilities				
Fornecedores Suppliers	8	62 276.47	197 131.89	41 097.50
Estado e outros entes públicos State and other public entities	9	42 037.69	40 358.67	41 692.83
Financiamentos obtidos Loans	10	475.23	1 748.75	1 674.66
Diferimentos Deferrals	4	1 636 525.67	1 587 976.19	943 181.85
Outros passivos financeiros Other financial liabilities	11	209 580.50	182 814.10	182 670.19
		1 950 895.56	2 010 029.60	1 210 317.03
Total do passivo Total liabilities		1 950 895.56	2 010 029.60	1 210 317.03
Total dos fundos patrimoniais e do passivo Total equity funds and liabilities		2 499 267.82	2 667 973.09	1 767 403.79

The following notes apply:

#1 – Tangible Assets

valores em euros | figures in euro

ACTIVOS FIXOS TANGÍVEIS TANGIBLE ASSETS	2025	2024	2023
Equipamento básico Basic equipment			
Activo bruto: saldo inicial Initial balance	835 568.00	663 006.58	644 802.47
Activo bruto: aquisições Acquisitions	65 482.30	172 561.42	13 432.58
Activo bruto: transferências de investimentos em curso Transfers	-	-	4 771.53
Depreciações: saldo inicial Starting depreciations	- 411 726.30	- 258 567.49	- 107 253.66
Depreciações do exercício Depreciations for the period	- 141 840.04	- 153 158.81	- 151 313.83
Saldo final - Equipamento básico Final balance - Basic equipment	347 483.96	423 841.70	404 439.09
Equipamento administrativo Administrative equipment			
Activo bruto: saldo inicial Initial balance	54 197.16	52 182.03	52 182.03
Activo bruto: aquisições Acquisitions	1 875.70	2 015.13	-
Depreciações: saldo inicial Starting depreciations	- 50 836.47	- 48 660.08	- 42 272.34
Depreciações do exercício Depreciations for the period	- 928.46	- 2 176.39	- 6 387.74
Saldo final - Equipamento administrativo Final balance - Administrative equipment	4 307.93	3 360.69	3 521.95
Total líquido de Activos fixos tangíveis Net total for Tangible assets	351 791.89	427 202.39	407 961.04
Depreciações do exercício Depreciations for the period	142 768.50	155 335.20	157 701.57

valores em euros | figures in euro

INVESTIMENTOS EM CURSO ASSETS UNDER CONSTRUCTION	2025	2024	2023
Activos tangíveis em curso Tangible assets under construction			
Activo bruto: saldo inicial Initial balance	-	-	-
Activo bruto: aquisições Acquisitions	1 450.00	-	4 771.53
Activo bruto: transferências Transfers	-	-	4 771.53
Saldo final - Activos tangíveis em curso Final balance - Tangible assets under construction	1 450.00	-	-
Total de Investimentos em curso Total for Assets under construction	1 450.00	-	-

#2 – Financial Investments

valores em euros | figures in euro

INVESTIMENTOS FINANCEIROS FINANCIAL INVESTMENTS	2025	2024	2023
Participações de capital: Geosat Financial participations: Geosat	100.00	100.00	100.00
Fundo de Garantia de Compensação do Trabalho Work compensation fund	15 637.96	15 637.96	15 802.39
Total de Investimentos financeiros Total for Financial investments	15 737.96	15 737.96	15 902.39

#3 – Credits Receivable

valores em euros | figures in euro

CRÉDITOS A RECEBER CREDITS RECEIVABLE	2025	2024	2023
Cientes gerais Clients	16 389.81	25 160.32	51 354.46
Total de Créditos a receber Total for Credits receivable	16 389.81	25 160.32	51 354.46

#4 - Deferrals

valores em euros | figures in euro

DIFERIMENTOS DEFERRALS	2025	2024	2023
Activo Assets			
Gastos a reconhecer: Seguros Deferred expenses: Insurance	32 499.37	17 253.00	16 593.04
Gastos a reconhecer: Medicina no trabalho Deferred expenses: Medicine at work		968.00	976.80
Gastos a reconhecer: Serviços informáticos Deferred expenses: IT Services	10 450.00	12 029.00	9 529.80
Gastos a reconhecer: Formação Deferred expenses: Training		-	955.90
Gastos a reconhecer: Deslocações e estadas Deferred expenses: Travel and accommodation		4 731.00	12 747.39
Outros gastos a reconhecer Other deferred expenses	12 901.60	2 044.00	-
Total de Diferimentos - Activo Total for Deferrals - Assets	55 850.97	37 025.00	40 802.93
Passivo Liabilities			
Outros rendimentos a reconhecer Other deferred income	1 636 525.67	1 587 976.19	943 181.85
Total de Diferimentos - Passivo Total for Deferrals - Liabilities	1 636 525.67	1 587 976.19	943 181.85

#5 – Other Current Assets and Liabilities

valores em euros | figures in euro

OUTROS ACTIVOS E PASSIVOS CORRENTES OTHER CURRENT ASSETS AND LIABILITIES	2025	2024	2023
Activo Assets			
Adiantamentos a fornecedores Advance payments to suppliers	4 605.09	4 605.09	4 598.19
Outros devedores Other debtors	17 881.48	8 848.87	-
Total de Outros activos correntes Total for Other current assets and liabilities	22 486.57	13 453.96	4 598.19

#6 – Cash and Bank Deposits

valores em euros | figures in euro

CAIXA E DEPÓSITOS BANCÁRIOS CASH AND BANK DEPOSITS	2025	2024	2023
Depósitos bancários Bank deposits			
Saldo inicial Starting balance	2 121 677.84	1 246 784.78	2 175 422.10
Débitos Debits	3 452 010.22	3 456 206.60	3 223 024.28
Créditos Credits	3 543 736.43	2 581 313.54	4 151 661.60
Saldo final - Depósitos bancários Final balance - Bank deposits	2 029 951.63	2 121 677.84	1 246 784.78
Total de Caixa e depósitos bancários Total for Cash and bank deposits	2 029 951.63	2 121 677.84	1 246 784.78

#7 – Equity Funds

valores em euros | figures in euro

FUNDOS PATRIMONIAIS EQUITY FUNDS	2025	2024	2023
Resultados transitados Retained earnings	230 482.43	149 125.01	133 221.71
Ajustamentos nos fundos patrimoniais Other equity changes	352 050.56	427 461.06	407 961.75
Resultado líquido do período Net income for the period	- 34 160.73	81 357.42	15 903.30
Total de Fundos Patrimoniais Total for Equity funds	548 372.26	657 943.49	557 086.76

#8 - Suppliers

valores em euros | figures in euro

FORNECEDORES SUPPLIERS	2025	2024	2023
Fornecedores gerais: Mercado nacional Suppliers: Internal market	60 531.76	185 367.47	35 856.09
Fornecedores gerais: Mercado externo Suppliers: External market	1 744.71	11 764.42	5 241.41
Total de Fornecedores Total for Suppliers	62 276.47	197 131.89	41 097.50

#9 – State and Other Public Entities

valores em euros | figures in euro

ESTADO E OUTROS ENTES PÚBLICOS STATE AND OTHER PUBLIC ENTITIES	2025	2024	2023
Activo Assets			
Imposto sobre o valor acrescentado Value-added tax	5 608.99	27 715.62	-
Total de Estado e outros entes públicos - Activo Total for State and other public entities - Assets	5 608.99	27 715.62	-
Passivo Liabilities			
Retenção na fonte de imposto sobre o rendimento Withholding of personal income tax	11 627.00	11 543.00	12 615.52
Imposto sobre o valor acrescentado Value-added tax	4 992.31	7 785.83	7 836.19
Contribuições para a Segurança Social Social security	25 418.38	20 844.60	21 241.12
Outros Others		185.24	-
Total de Estado e outros entes públicos - Passivo Total for State and other public entities - Liabilities	42 037.69	40 358.67	41 692.83

#10 - Loans

valores em euros | figures in euro

FINANCIAMENTOS OBTIDOS LOANS	2025	2024	2023
Corrente Current			
Cartão de crédito Credit card	475.23	1 748.75	1 674.66
Total de Financiamentos obtidos - Corrente Total for Loans - Current	475.23	1 748.75	1 674.66

#11 – Other Financial Liabilities

valores em euros | figures in euro

OUTROS PASSIVOS FINANCEIROS OTHER FINANCIAL LIABILITIES	2025	2024	2023
Credores por acréscimo de gastos: Remunerações (Vencimento+Encargos) Accruals: Salaries and Social Security	181 401.22	157 055.00	156 848.72
Credores por acréscimo de gastos: Comunicação Accruals: Communications	1 422.87	1 563.00	1 218.13
Credores por acréscimo de gastos: Auditoria Accruals: Audit	5 742.00	5 736.00	5 750.00
Credores por acréscimo de gastos: Rendas Accruals: Rent	2 436.00	1 218.00	1 218.00
Credores por acréscimo de gastos: Tecnologias Informáticas Accruals: IT services	463.79	558.00	324.40
Outros credores por acréscimo de gastos Other accruals	654.00	60.00	783.59
Credores diversos Other creditors	17 460.62	16 624.10	16 527.35
Total de Outros passivos financeiros Total for other financial liabilities	209 580.50	182 814.10	182 670.19

10.3 Profit and Loss Statement on the period ending the 31st December 2025

DEMONSTRAÇÃO INDIVIDUAL DOS RESULTADOS POR NATUREZAS | PROFIT AND LOSS STATEMENT
PERÍODO FINDO EM 31 DE DEZEMBRO DE 2025 | PERIOD THAT ENDED ON THE 31ST OF DECEMBER, 2025

valores em euros | figures in euro

RENDIMENTOS E GASTOS INCOME AND EXPENSES	Notas Notes	2025	2024	2023
Vendas e serviços prestados Sales and services provided	12	52 196.17	64 465.60	112 134.65
Subsídios, doações e legados à exploração Operating subsidies	13	2 164 205.68	2 025 465.17	1 803 910.29
Fornecimentos e serviços externos Supplies and external services	14	- 807 854.55	- 660 140.34	- 604 417.59
Gastos com o pessoal Staff costs	15	- 1 419 645.24	- 1 336 657.67	- 1 297 002.75
Outros rendimentos Other income	16	142 790.47	155 244.52	162 378.31
Outros gastos Other expenses	17	- 23 084.76	- 11 684.66	- 3 398.04
Resultado antes de depreciações, gastos de financiamento e impostos Net income before depreciations, interest and taxes		108 607.77	236 692.62	173 604.87
Gastos / reversões de depreciação e amortização Expenses / reversals of depreciation and amortization	1, 18	- 142 768.50	- 155 335.20	- 157 701.57
Resultado operacional (antes de gastos de financiamento e impostos) Operational net income (before interest and taxes)		- 34 160.73	81 357.42	15 903.30
Juros e rendimentos similares obtidos Financing income			-	-
Juros e gastos similares suportados Financing costs			-	-
Resultado antes de impostos Net income before taxes		- 34 160.73	81 357.42	15 903.30
Imposto sobre o rendimento do período Corporate taxes			-	-
Resultado líquido do período Net income after taxes		- 34 160.73	81 357.42	15 903.30

The following notes apply:

#12 – Sales and Services Provided

Valores em Euros / Figures in Euros

VENDAS E SERVIÇOS PRESTADOS SALES AND SERVICES PROVIDED	2025	2024	2023
(0010) Lisboa - Receitas Gerais	600.00		
(1104) MarBioME (EC)		662.11	59 360.00
(1303) ARI-ESAPOSTS A3		1 915.35	41.16
(1304) ARI - ESA ENERGY A2		464.04	-
(1305) PORTXO1 ESA		1 071.30	784.32
(1308) ATON		1 942.19	2 233.60
(1311) ECoatSEE (ESA)		12 796.17	19 345.48
(1312) GDAMarine (ESA)		39 045.50	32 886.54
(1801) Food4Sustainability (PFR) - Receitas gerais	8 400.17		
(2001) UNICOL - Sistema Alerta UNICOL		11 280.00	-
(2003) COP-BlueMarkets	20 196.00	2 244.00	
(2004) SATDISFACTION - Receitas gerais (3)	23 000.00		-
Total de Vendas e serviços prestados Total for Sales and services provided	52 196.17	64 465.60	112 134.65

Valores em Euros / Figures in Euros

IMPUTAÇÃO DE SUBSÍDIOS PARA INVESTIMENTO ALLOCATION OF SUBSIDIES FOR INVESTMENT	2025	2024	2023
(1001) FCT(geral)	78 988.82	136 169.23	22 729.86
(1002) ESALAB(geral)	-	-	122 922.99
(1101) MBON (PO Açores)	1 094.54	2 963.76	4 629.27
(1107) MBON (Geral)	686.60	286.08	-
(1203) LABPLAS (H2020)	553.28	230.53	-
(1205) BlueMission (H2020)	218.60	91.08	-
(1211) OKEANO (Horizon Europe)	2 329.88	970.79	-
(1401) MAGAL (PO Açores)	2 445.00	2 445.00	2 445.00
(1403) DFS	3 531.60	3 531.60	3 531.60
(1502) Atlantic Whale Deal	2 263.11	848.66	-
(1601) Rede LoRaWAN	1 358.28	1 358.28	1 358.28
(1801) Food4Sustainability (PRR)	564.06	-	-
(1802) New Space Portugal (PRR)	43 297.33	5 808.77	84.57
(2101) Contrato-programa Açores 2024-2027	5 437.40	373.46	-
Total de Imputação de subsídios para investimento Total for Allocation of subsidies for investment	142 768.50	155 077.24	157 701.57

#13 – Operating Subsidies

Valores em Euros / Figures in Euros

SUBSÍDIOS, DOAÇÕES E LEGADOS À EXPLORAÇÃO OPERATING SUBSIDIES	2025	2024	2023
(1001) FCT(geral)	1 130 125.05	843 367.72	594 196.74
(1002) ESALAB(geral)	-	-	155 536.54
(1003) CEZCOAST (FCT)	-	2 202.38	11 026.76
(1005) EUREKA (FCT)	-	-	147.60
(1006) CiIN-BlueFeed (FCT)	29 966.71	8 575.03	-
(1101) MBON (PO Açores)	-	16.79	135 232.66
(1103) RAEGE2020 (FCT)	-	-	78 332.47
(1105) Workshop Julia	-	329.46	21 479.45
(1106) Workshop Julia'24	-	18 398.77	8 630.58
(1107) MBON (Geral)	-	1 588.84	-
(1108) Workshop JuliaEO25	5 260.49	616.92	-
(1109) Internal Wave Service Workshop 2025	2 490.97	-	-
(1110) Workshop JuliaEO26	13 667.80	-	-
(1111) MBON WS2025	11 757.67	-	-
(1201) ASTRAL (H2020)	130.67	92 928.87	45 762.76
(1202) MISSION ATLANTIC (H2020)	28 565.88	10 310.32	11 685.16
(1203) LABPLAS (H2020)	20 539.65	64 019.87	71 474.83
(1204) NEXTOCEAN	-	20 025.97	40 915.03
(1205) BlueMission (H2020)	18 385.48	149 133.62	121 826.57
(1206) SBEP (H2020)	31 402.83	10 815.48	18 639.81
(1207) A-Agora (Horizon)	72 129.92	45 916.67	59 760.48
(1208) OCEANIDS (Horizon Europe)	32 432.30	18 684.93	-
(1209) ICEBERG (Horizon Europe)	52 912.00	22 110.47	-
(1210) BioEcoOcean (Horizon Europe)	73 923.86	39 215.20	-
(1211) OKEANO (Horizon Europe)	70 663.58	70 546.31	-
(1212) BIOPROTECT (Horizon Europe)	65 662.96	13 378.95	-
(1213) SBEP2 (H2020)	12 216.17	-	-
(1214) BlueActionAA (Horizon EU)	27 946.82	-	-
(1215) SEAGROW (Horizon)	5 688.81	-	-
(1301) HYPERS	-	99.72	-
(1302) FPACUP (ESA) Act. 2019-1-26 Portuguese users coordination and training P12	-	-	36 831.86
(1306) FPACUP (ESA) Act. 2020-3-05 Atlantic Ocean Interactions	-	149.70	11 240.82
(1307) FPACUP (ESA) Act. 2020-3-02 Business Innovation in Portugal	-	-	1 167.71
(1309) FPACUP (ESA) Act. 2020-2-02 Sustainable Fisheries Management	-	64 383.18	9 453.64
(1310) FPACUP (ESA) Action 2020-1-2: Portuguese users coord	1 869.82	-	-
(1313) ECOBLUE	-	1 481.17	15 018.74
(1315) FPACUP 2021-1-7: Cupernicus uptake in Portuguese HE	1 580.96	2 465.44	4 144.31
(1316) FPACUP 2021-2-39: Cupernicus user uptake in Africa	3 971.93	4 083.64	8 072.85
(1317) FPACUP 2021-2-42: Cupernicus uptake maritime sector	6 732.39	6 016.72	14 107.92
(1318) FPACUP 2021-2-47: Coastal coord. of user needs	1 996.16	2 650.20	4 404.66
(1401) MAGAL (PO Açores)	-	-	3 306.46
(1402) INTAIRSECT (PO Açores)	-	-	36 969.67
(1404) K2D (PO Açores)	-	-	27 612.41
(1405) AEROS (PO Açores)	-	113.12	16 167.27
(1406) SAP (PO Açores) Sistema Alerta Pthomyces	-	42.37	47 016.26
(1407) COAST (FRCT)	7 383.81	5 787.46	-
(1501) ESDIES (INTERREG)	-	1 023.36	18 546.05
(1502) Atlantic Whale Deal	43 091.27	25 747.21	-
(1503) Red BEAM	25 583.40	-	-
(1601) Rede LoRaWAN	-	2 109.40	-
(1602) Vinhas da Terceira	-	11 316.71	7 451.49
(1701) Custodian	-	22 877.19	55 321.44
(1801) Food4Sustainability (PRR)	48 981.96	23 793.98	2 725.46
(1802) New Space Portugal (PRR)	164 126.48	304 368.84	109 703.83
(1803) PBDH - Portugal Blue Digital Hub (PRR)	12 991.08	16 977.35	-
(1901) S+T+ARTISAQUAMOTION (Other EU Grants)	41 423.53	-	-
(2101) Contrato-programa Açores 2024-2027	59 099.08	102 048.22	-
(2102) Contrato-Programa Açores 2024-2027 (MBON)	17 773.27	-	-
(2103) Contrato-Programa Açores 2024-2027 (IWS)	6 539.54	-	-
(2104) Contrato-Programa Açores 2024-2027 (Aquaculture)	4 680.00	-	-
(2105) Contrato-Programa Açores 2024-2027 (Julia)	5 881.20	-	-
(2201) SOLAR-Az (Açores 2030)	4 130.18	-	-
(2202) BioMust4All (Açores 2030)	500.00	-	-
Total de Subsídios, doações e legados à exploração Total for Operating subsidies	2 164 205.68	2 025 465.17	1 803 910.29

#14 – Supplies and External Services

Valores em Euros / Figures in Euros

FORNECIMENTOS E SERVIÇOS EXTERNOS SUPPLIES AND EXTERNAL SERVICES	2025	2024	2023
Subcontractos Subcontracts		-	35 000.00
Serviços de consultoria e IT Consulting services and IT	123 022.75	98 471.88	140 747.74
Serviços administrativos, financeiros, jurídicos e de auditoria Administrative, accounting, financial, audit and tax services	129 662.00	103 200.95	103 535.10
Publicidade e propaganda Advertising services	7 871.72	2 012.22	16 167.50
Honorários Professional fees	7 714.00	4 170.00	5 365.00
Materiais Tools	4 560.82	4 213.84	2 041.92
Energia e outros fluidos Energy and other fluids	5 926.59	4 180.67	4 546.12
Deslocações e estadas Travel and accommodation	280 091.72	239 387.98	160 690.83
Comunicação Communications	36 002.75	20 527.94	18 125.77
Conferências, seminários e outros eventos Conferences and other events	43 577.45	2 474.16	1 574.64
Rendas e alugueres Rents and leasing	92 481.77	73 233.35	19 410.55
Outros serviços Other services	76 942.98	108 267.35	97 212.42
Total de Fornecimentos e serviços externos Total for Supplies and external services	807 854.55	660 140.34	604 417.59

#15 – Staff Costs

Valores em Euros / Figures in Euros

GASTOS COM O PESSOAL STAFF COSTS	2025	2024	2023
Remunerações do pessoal Staff salaries	1 138 106.24	1 049 961.87	971 514.16
Prémios Bonuses		-	61 224.00
Indemnizações Severance		16 671.34	605.86
Encargos sobre remunerações do pessoal Social security: staff	237 703.07	226 450.00	223 826.05
Seguro de acidentes de trabalho e de saúde Insurance	15 189.46	28 499.45	27 125.44
Outros gastos com o pessoal Other staff costs	28 646.47	15 075.01	12 707.24
Total de Gastos com o pessoal Total for Staff costs	1 419 645.24	1 336 657.67	1 297 002.75

#16 – Other Income

Valores em Euros / Figures in Euros

OUTROS RENDIMENTOS OTHER INCOME	2025	2024	2023
Rendimentos suplementares Additional income		-	4 421.74
Correcções relativas a períodos anteriores Corrections from previous periods		167.28	-
Imputação de subsídios para investimentos Allocation of subsidies for investment	142 768.50	155 077.24	157 701.57
Outros não especificados Other non-specified income	21.97	-	255.00
Total de Outros rendimentos Total for Other income	142 790.47	155 244.52	162 378.31

#17 – Other Expenses

Valores em Euros / Figures in Euros

OUTROS GASTOS OTHER EXPENSES	2025	2024	2023
Impostos indirectos e taxas Indirect taxes and other fees	1 720.32	1 778.20	2 102.71
Correcções relativas a períodos anteriores Corrections from previous periods	2 500.34	911.51	1 037.48
Donativos Donations	9 448.99	5 000.00	-
Quotizações Membership fees	4 263.85	3 640.44	-
Perdas em investimentos financeiros Losses in financial investments		164.43	-
Multas e penalidades Fines and penalties		75.00	21.00
Despesas não devidamente documentadas Expenditure not properly documented		115.07	214.13
Outros não especificados Other expenses	5 151.26	0.01	2.21
Total de Outros gastos Total for Other expenses	23 084.76	11 684.66	3 398.04

#18 – Depreciation and Amortization Costs

Valores em Euros / Figures in Euros

GASTOS DE DEPRECIAÇÃO E DE AMORTIZAÇÃO DEPRECIATION AND AMORTIZATION COSTS	2025	2024	2023
Activos fixos tangíveis: Equipamento básico Basic equipment	141 840.04	153 158.81	151 313.83
Activos fixos tangíveis: Equipamento administrativo Administrative equipment	928.46	2 176.39	6 387.74
Total de Gastos de depreciação e de amortização Total for Depreciation and amortization expenses	142 768.50	155 335.20	157 701.57

10.4 Final Comments

During 2025, the volume of activity of AD AIR Centre, here including “operating subsidies” and “sales and services provided” reached 2,216,401 € (see section 10.3 “Profit and Loss Statement”), in-line with the approved workplan [2025_55] but the contribution from Portuguese Agencies was 51%, higher than the foreseen objective of the workplan (45%). This is due to the significant increase of the networking activities described in the Section 2 of this Report that are not covered by competitive funding.

If we consider the period 2023-2025 there is a positive trend of the activity of the AD AIR Centre:

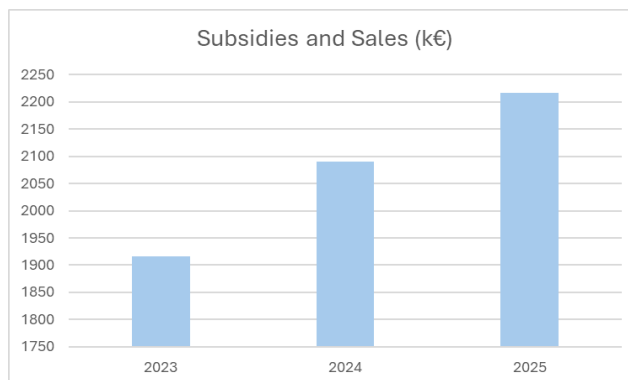


Figure 17 - “Operating Subsidies” and “Sales and Services Provided” for the period 2023-2025 (k€)

The re-scheduling of the decision on the new Statuts of the organization postponed the implementation of in-kind contributions [2025_56].

The costs of the “Staff Costs” were 6% higher than in the previous year due to inflation and the need to increase the administrative staff, now in charge of the financial management of all the projects developed by the organization and so allowing a much more productive activity of our research and operational staff.

Concerning the “Supplies and External Services” we must emphasize the importance of the costs associated with outsourcing of project management services, important due to the stage of maturity of the different initiatives that ask for improved auditing and reporting to the funding organizations, and the increase in the costs of “travel and accommodation” that reflect both the increase in the activity of the AIR Centre and the growing unit costs of transportation and hotels.

10.5 Information required by Legal Diplomas

In accordance with the article 21st, number 1 of the Decree-Law 411/91, of October 17th, AD AIR Centre confirms that it does not have any outstanding payments due towards Social Security and the Tax Authorities. The net income for the 2025 period is negative 34.160,73 euro and will be transferred to the caption Retained earnings. The auditing firm is Martins Pereira, João Careca e Associados, SROC, Lda. which will earn, in 2025, for its fees of services rendered in 2025, the amount of 4,950.00 euro plus VAT.

11. ACRONYMS

+Atlantic, Collaborative Laboratory (Portugal).

AA-MARINET, All-Atlantic Marine Research Infrastructure Network, joint activity contributing to the implementation of the Belém Statement and AAORIA.

AAF, Atlantic Aquaculture Forum

AAORIA, All-Atlantic Ocean Research and Innovation Alliance. Initiative following the political Declaration, signed on July 2022 in Washington DC.

AGU, American Geophysical Union

ARDITI, Agência Regional para o Desenvolvimento da Investigação, Tecnologia e Inovação. Madeira.

ASTN, Azores Space Teachers Network

ASTRAL, All Atlantic Ocean Sustainable, Profitable and Resilient Aquaculture. Horizon 2020 Funded Project.

BCC, Benguela Current Convention

BIOECOOCEAN, Co-Creating Transformative Pathways to Biological and Ecosystem Ocean Observations. Horizon Europe Funded Project.

BLUEMISSIONAA, Building a Coordination Hub to Support the Mission Implementation in the Atlantic and Arctic Basin. Horizon Europe Funded Project.

CCMAR, Centro de Ciências do Mar, Marine Sciences Centre (Algarve, Portugal)

CEIIA, Engineering and Product Development Centre (Matosinhos, Portugal)

CESAM, Centro de Estudos do Ambiente e do Mar (Aveiro University, Portugal)

CIIMAR, Interdisciplinary Centre of Marine and Environmental Research (Porto, Portugal)

CIPAS, Conferência Internacional sobre Pesca e Aquicultura Sustentável (Luanda, Angola)

CMEMS, Copernicus Marine Environment Monitoring Service

CONAE, National Space Activities Commission (Argentina)

CONCYTEC, Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica (Peru).

COP 30, UN Climate Change Conference - Belém, November 2025

COPERNICUS, Earth observation component of the European Union's Space programme.

CURAT, Centre Universitaire de Recherche et d'Application en Télédétection (Abidjan, Ivory Coast)

DSI, Department of Science and Innovation (South Africa).

DTU Space, Department of Space Research and Space Technology (Denmark)

EO, Earth Observation

EO4SURE, Earth Observation for Sustainable Use of Resources.

EOV, Essential Ocean Variable.

ERVO, European Research Vessel Operators.

EUMETSAT, European Organisation for the Exploitation of Meteorological Satellites

FAO, Food and Agriculture Organization of the United Nations

FAPERJ, Rio de Janeiro Research Foundation (Brazil).

FAPESP, São Paulo Research Foundation (Brazil).

Fiocruz, Oswaldo Cruz Foundation (Brazil)

FLAD, Luso-American Foundation for Development (Portugal)

GEO, Group on Earth Observations

GEO BON, Biodiversity Observation Network

GEOMAR, Helmholtz Centre for Ocean Research Kiel

GPU, Graphics Processing Units

H2020, Previous European research and innovation funding programme, ended in 2020.

Horizon Europe, European research and innovation funding programme, started in 2021.

ICEBERG, Innovative Community Engagement for Building Effective Resilience and Arctic Ocean Pollution-Control Governance in the Context of Climate Change. Horizon Europe Funded Project.

ICES, International Council for the Exploration of the Sea.

IDL, Dom Luiz Institute (Portugal)

IFREMER, Institut Français de Recherche pour l'Exploitation de la Mer (France)

IOC, Intergovernmental Oceanographic Commission

IPRJ, Polytechnical Institute of Rio de Janeiro

IRSO, International Research Ship Operators

IST, Instituto Superior Técnico (Portugal)

IMar, Cabo Verde Marine Institute

INESC P&D Brasil, Institute for Systems and Computer Engineering, Research and Development of Brazil

INESCTEC, Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (Porto, Portugal)

INIPM, Marine and Fisheries Institute of Angola

INPE, Instituto Nacional de Pesquisa Espacial (Brazil)

INTERREG, European Programme for Regional Cooperation.

IWS, Internal Waves Service

JPL-NASA, Joint Propulsion Laboratory

LABPLAS, Land-Based Solutions for Plastics in the Sea. Horizon 2020 Funded Project.

LAMCE, Laboratório de Métodos Computacionais em Engenharia (Rio de Janeiro, Brazil)

MBON, Marine Biodiversity Observation Network

MOHID, Water Modelling System

MIT, Massachusetts Institute of Technology

MoU, Memorandum of Understanding

MISSION ATLANTIC, Towards the Sustainable Development of the Atlantic Ocean: Mapping and Assessing the present and future status of Atlantic marine ecosystems under the influence of climate change and exploitation. Horizon 2020 Funded Project.

NASRDA, National Space Research and Development Agency (Nigeria)

NEMO, Nucleus for European Modelling of the Ocean. Global model operated by MERCATOR.

NEREUS, Network of European Regions Using Space Technologies.

NOAA ERDDAP, Free and Open Source (Apache and Apache-like) Java Servlet from NOAA (USA)

OKEANOS, Institute of Marine Sciences at Faial (Açores, Portugal)

PLOCAN, Oceanic Platform of the Canary Islands.

RedBEAM, Red Bancos de Ensayo del Atlántico Medio.

SAEON, South African Environmental Observation Network (South Africa)

SBEP, Sustainable Blue Economy Partnership, is a European Partnership. Horizon Europe Funded Project.

SIDS, Small Island Developing States.

SDG, Sustainable Development Goals (United Nations)

SFT-EDIH, Digital Innovation Hub for the Agri-Food Sector (Portugal)

SWAN, Wave model that computes random, short-crested wind-generated waves in coastal regions and inland waters.

UERJ, State University of Rio de Janeiro (Brazil).

UNCTAD, intergovernmental body established by the United Nations General Assembly in 1964 for Trade and Development

UNEP, United Nations Environment Programme

UNESCO, United Nations Educational, Scientific and Cultural Organization

UNFCCC, United Nations Framework Convention on Climate Change

UNICOL, Farmers Cooperative of the Azores

UNOC, United Nations Ocean Conference

WASOP, West Africa Sustainable Ocean.

WMO, World Meteorological Organization

WRF, Weather Research and Forecasting weather prediction model.