



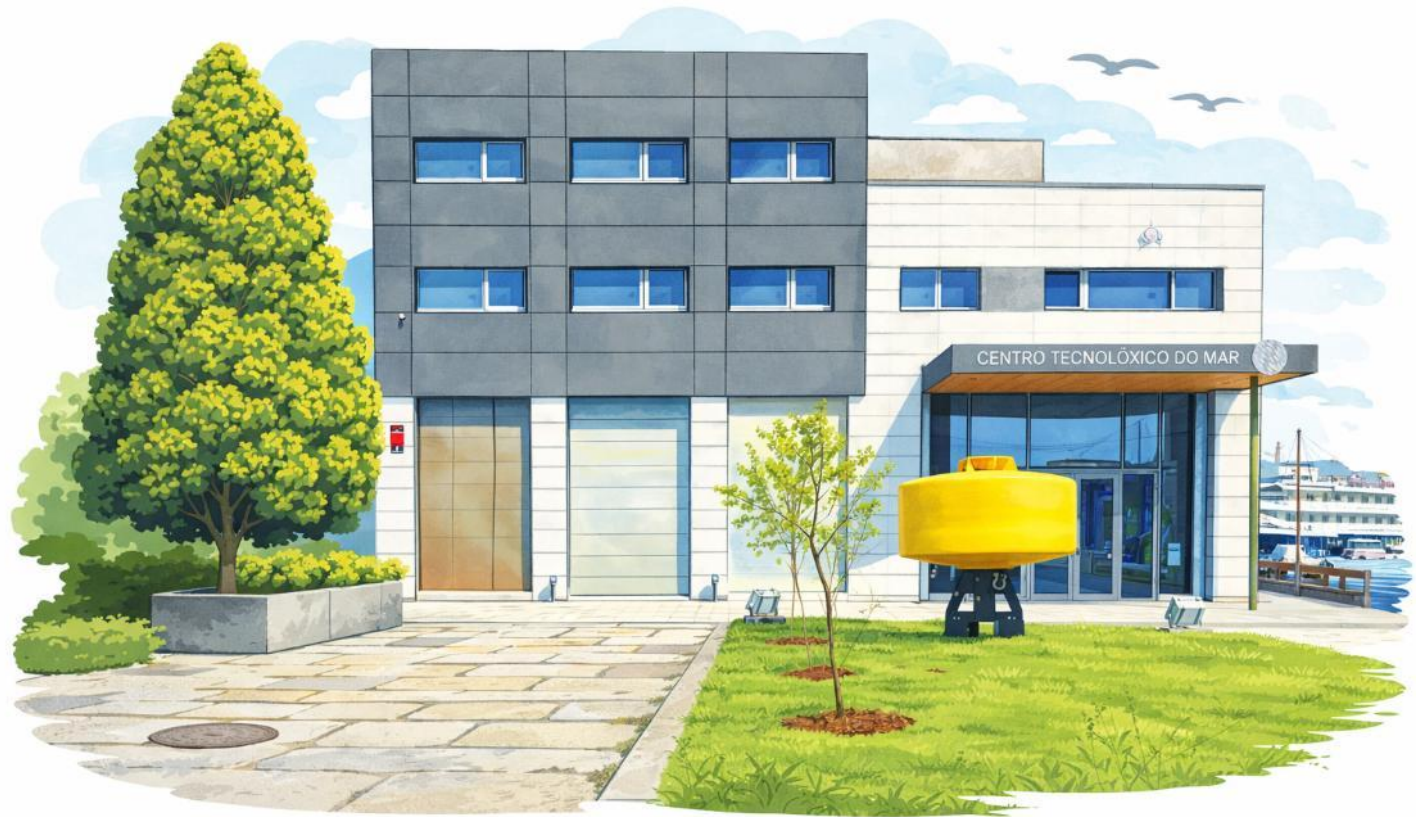
REPORT 2025



CETMAR
CENTRO TECNOLÓGICO DO MAR

Editing, text and images
Centro Tecnológico do Mar-Fundación CETMAR

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PROLOGUE

Dear reader,

In the following pages, we present an overview of the work carried out by the exceptional team at the *Centro Tecnológico do Mar–Fundación CETMAR*. A multidisciplinary team, made up of women and men committed to the sea, who work daily to support the fishing, shellfish gathering and aquaculture sectors, the blue economy sectors, public administrations, professional, scientific and social organizations, and, above all, all those whose lives and futures depend on our marine ecosystems.

More than fifty professionals work together every day with a common goal: to drive innovation, sustainability and knowledge applied to the sea, generating a real impact in Galicia and contributing to the advancement of a more responsible and resilient blue economy.

Throughout 2025, CETMAR has continued to lead and participate in key initiatives to tackle the major challenges of our time: adaptation to climate change, energy transition, sustainable management of fishery resources, fight against marine pollution, ocean observation, specialized training and strengthening of maritime governance.

We have worked side by side with universities, technology centres, industry, public administrations and organizations from over thirty countries, consolidating partnerships and building shared solutions based on scientific rigor and cooperation. Not to mention our important work in exporting all this knowledge and expertise about the sea in Galicia to countries in Africa and Latin America.

This year has also marked a special milestone for the Foundation: the approval of our Equality Plan, a firm commitment to continue moving towards a fairer, more inclusive and diverse working environment, reflecting the values we uphold and promote in all our activities.

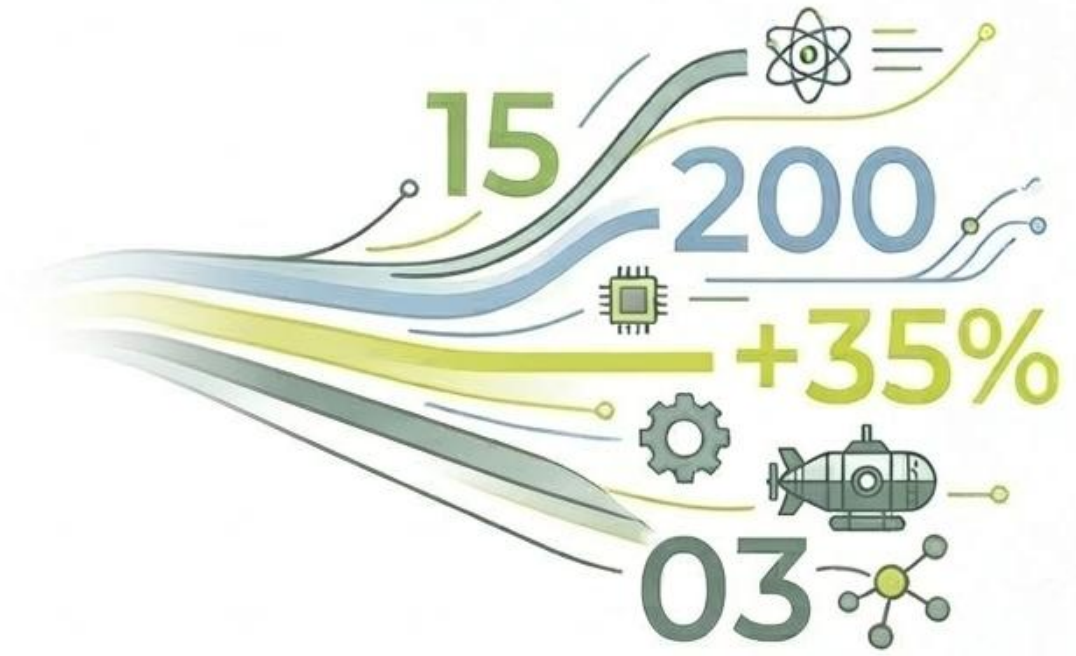
All of this has been made possible thanks to the effort, knowledge and dedication of the people who make up CETMAR. Their passion for the sea, their capacity for innovation and their commitment to public service continue to form the basis of our work and the guarantee to keep on contributing meaningfully to the sustainable development of the maritime and fisheries sector.

We now look to the immediate future

with particular enthusiasm: in 2026 we will proudly celebrate CETMAR's 25th anniversary, a quarter of a century devoted to marine knowledge management, training and cooperation, with a renewed commitment to continue supporting those who make their living from the sea, promoting knowledge and strengthening the sustainability of our oceans. Thank you for joining us for another year on this shared journey.

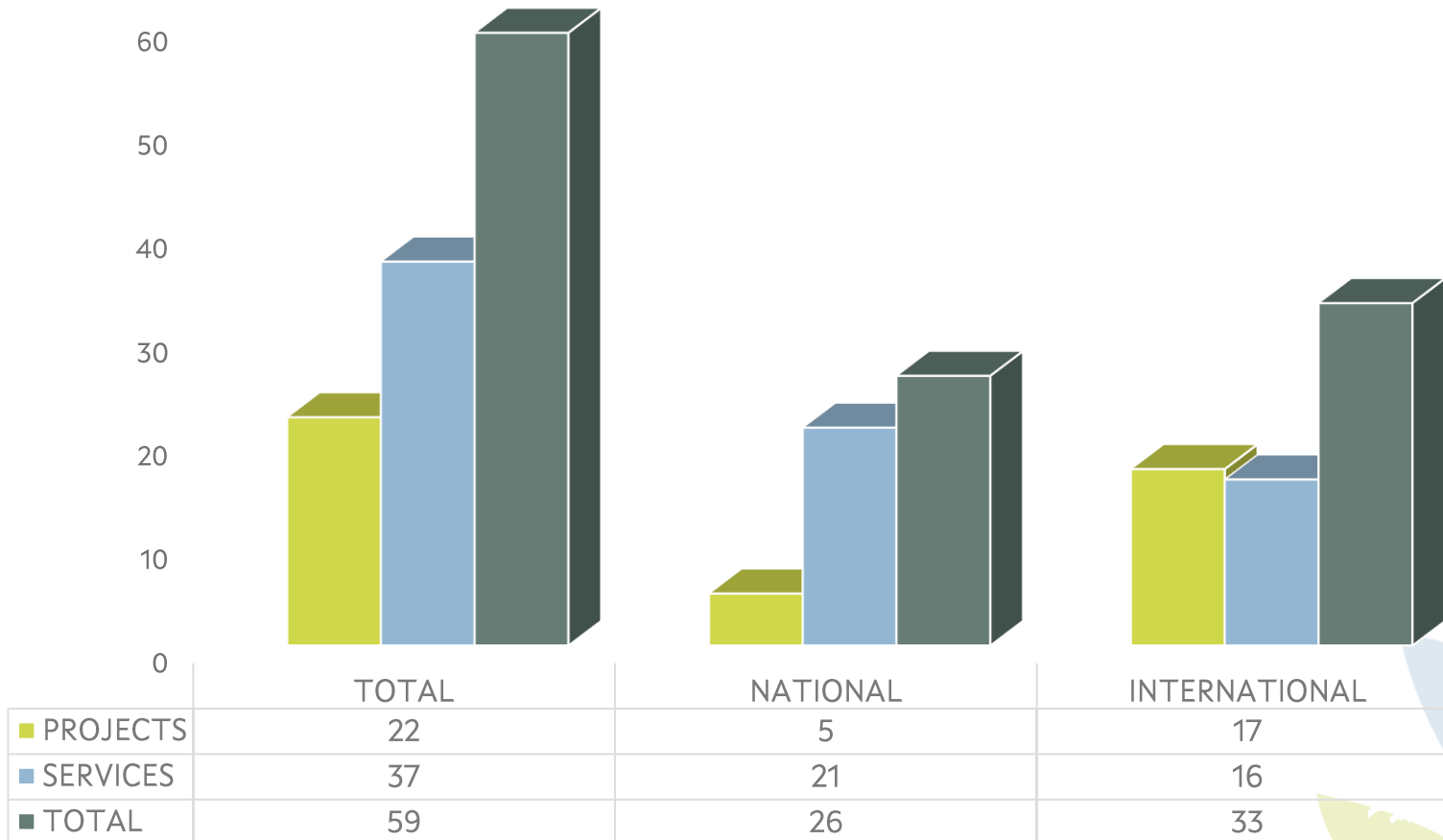
Rosa Chapela Pérez, Managing director



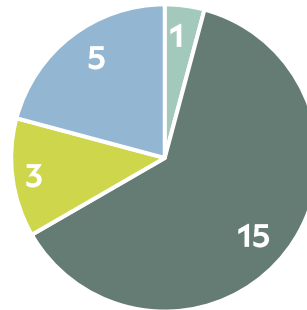


FIGURES

TYPE AND SCOPE



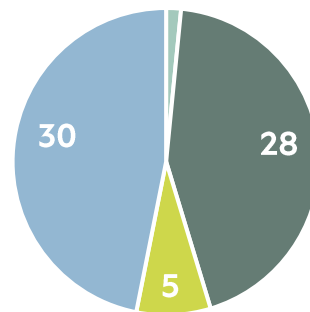
SOURCES OF FINANCING



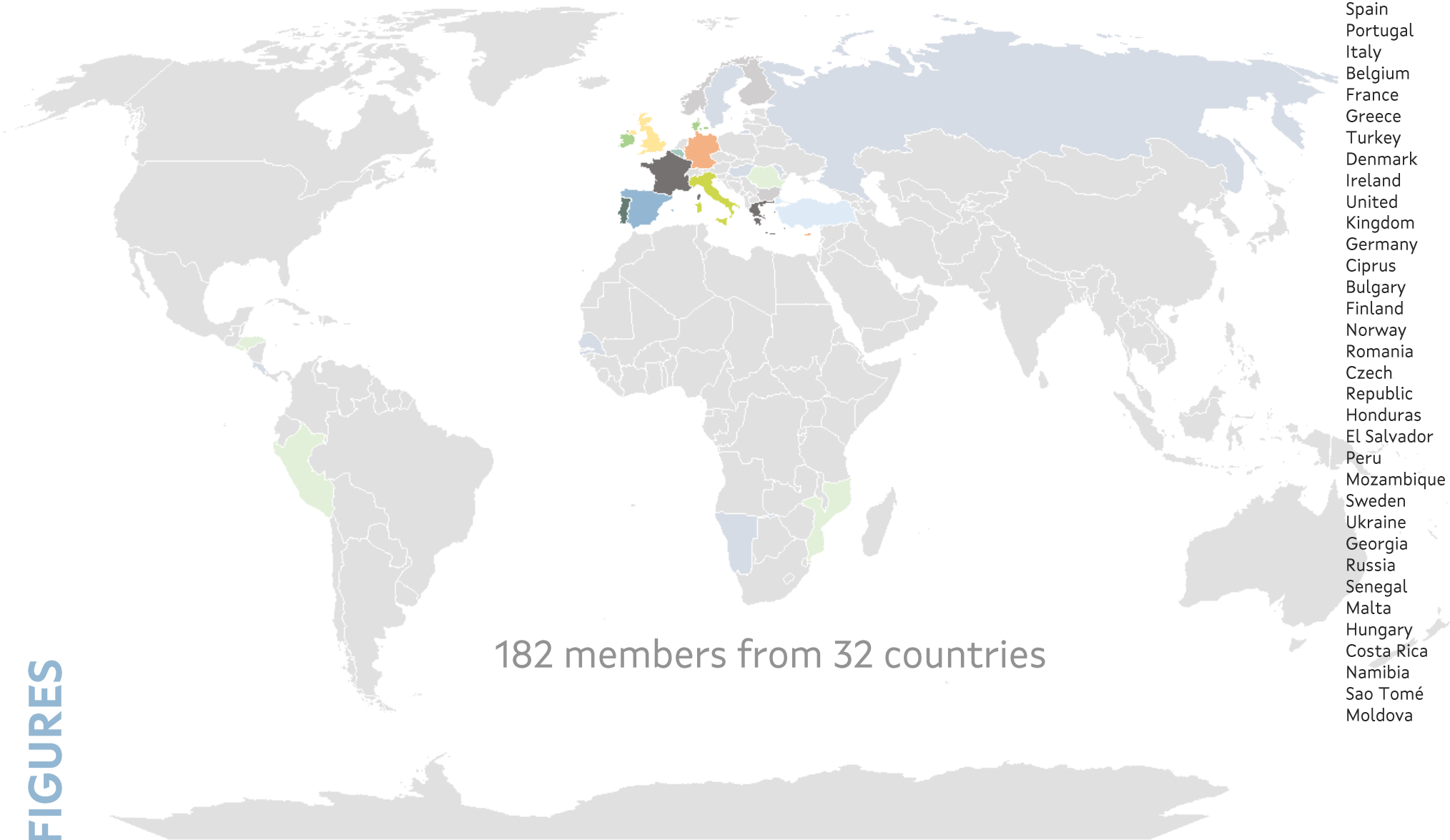
INTERNATIONAL ■ EUROPEAN ■ NATIONAL ■ REGIONAL



ACTIONS BY FOUNDER

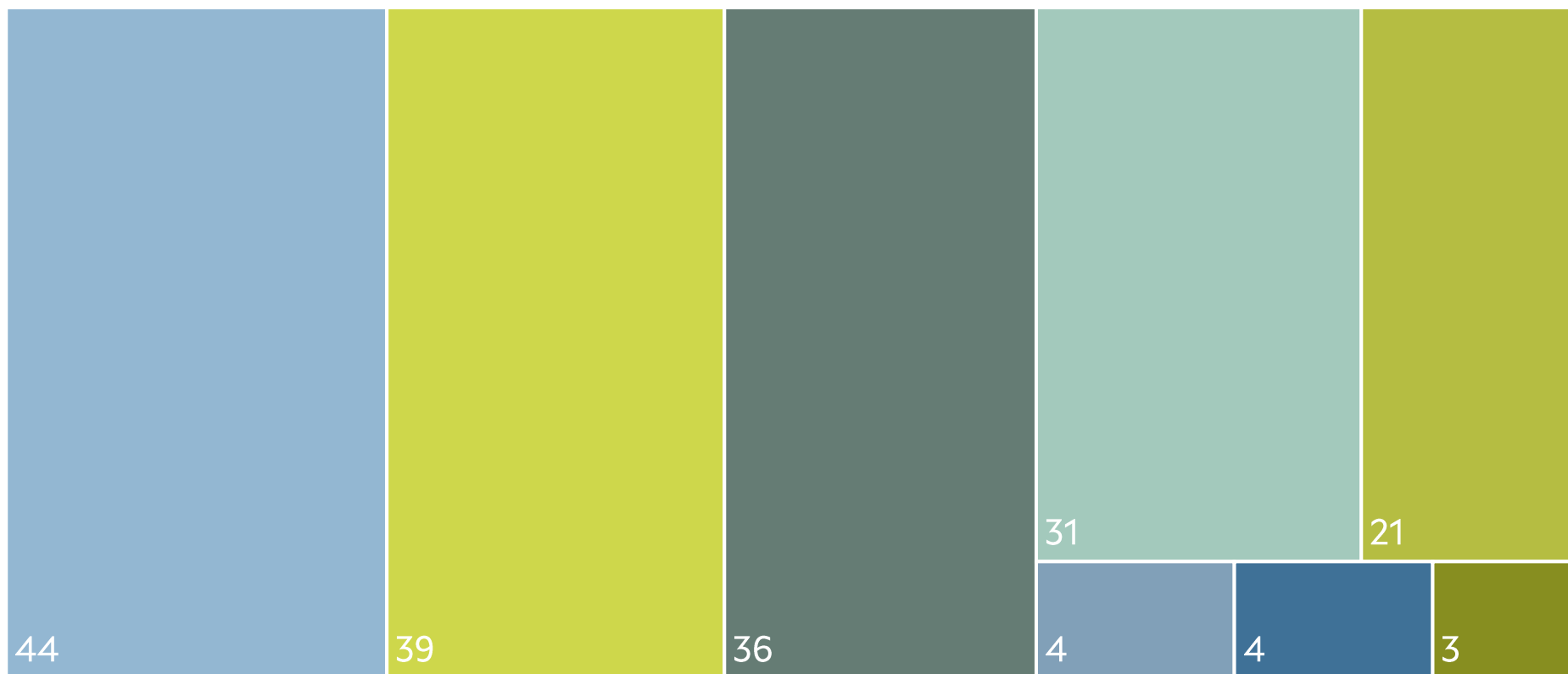


INTERNATIONAL ■ EUROPEAN ■ NATIONAL ■ REGIONAL



Spain	41
Portugal	21
Italy	14
Belgium	13
France	11
Greece	11
Turkey	8
Denmark	7
Ireland	7
United Kingdom	6
Germany	4
Ciprus	4
Bulgary	3
Finland	3
Norway	3
Romania	2
Czech Republic	2
Honduras	2
El Salvador	2
Peru	2
Mozambique	2
Sweden	1
Ukraine	1
Georgia	1
Russia	1
Senegal	1
Malta	1
Hungary	1
Costa Rica	1
Namibia	1
Sao Tomé	1
Moldova	1

- RESEARCH CENTER
- ADMINISTRATIONS
- FOUNDATIONS
- OTHER ENTITIES AND ASSOCIATIONS
- INDUSTRY
- MARITIME AND FISHING SECTOR
- UNIVERSITIES
- TECHNOLOGICAL CENTERS





PROJECTS AND SERVICES

MANIFESTS GENIOUS

MANIFESTS Genius aims to strengthen preparedness and response capabilities for integrated management of coastal water pollution. The main focus will be on the release of HNS (hazardous noxious substances), including alternative fuels such as HVO, ammonia, methanol and LNG, which could form a toxic gas cloud and potentially drift towards the shoreline and impact local communities. Two scenarios will be considered: 1) a subsurface leak from a pipeline and 2) a leak at water surface from a port fuelling station or a coastal facility.

PERIOD: 2023/2025

BUDGET: 929.583 euros

FINANCING: European Commission's
Humanitarian aid and Civil Protection
department (ECHO).



Free-LitterAT

Free-LitterAT will achieve litter-free coastal communities by combining knowledge, tools and technology with pilot actions with multi-stakeholder engagement. It tackles marine litter, a transnational challenge demanding an integral approach involving prevention, monitoring and removal if feasible of accumulated marine litter. The objective is to protect biodiversity by implementing innovative approaches to prevent and reduce marine litter, emphasizing ALDFG and microplastics, contributing to reduce inputs, locate sources and hotspots, enhance monitoring capabilities and raise awareness. Outputs include guidance, tools and joint solutions for waste management, marine litter monitoring, modelling, clean-up and removal, and action plans transferred to the competent authorities and maritime stakeholders.

PERIOD: 2023/2026

BUDGET: 3.765.474,20 euros

FINANCING: Atlantic Area Transnational
Cooperation Program.



BLUEWATER

BlueWater aims to improve the quality of fluvial, transitional and coastal water bodies, through the control, monitoring and reduction of emissions of microplastics and contaminants of emerging concern (CECs) into the aquatic environment, through the improvement of the efficiency of urban wastewater treatment plants (WWTP) in both regions, thus guaranteeing a sustainable use of water resources and contributing to the implementation of the European regulations.

PERIOD: 2023/2026

BUDGET: 2.095.847,24 euros

FINANCING: Programa de Cooperación
Transfronteriza Galicia-Norte de Portugal
(POCTEP).



ORDEA MAR LIMPO III

Technical support to develop a funding program for the collection of waste, including washed-up seaweed, the evaluation of the applications submitted, and the control of the collecting and the reporting actions .CETMAR is responsible for updating the MarLimpo plan to adapt it to FEMPA and providing technical support to draw up the subsidy regulation. Additionally, it evaluates the applications submitted and carries out control visits to supervise the waste collections performed by the selected associations as well as to raise awareness of marine litter.

PERIOD: 2023/2026

BUDGET: 414.646,68 euros

FINANCING: Xunta de Galicia. Consellería do Mar.



PT PROTECMA

Technology Platform whose aim is to develop and implement a research, technological development and innovation strategy for protection of the coast and the marine environment, as well as for prevention, response and mitigation of marine pollution caused by anthropogenic activity, and control and improvement of marine, coastal and transitional waters. This strategy intends to improve the technological capacity and competitiveness of the Spanish organizations which carry out their activity in this field and to contribute to the implementation of the environmental legislation in force and the regional and international agreements for sea and coastal protection.

PERIOD: 2020/2026

BUDGET: 80.000 euros

FINANCING: Ministerio de Ciencia, Innovación e Universidades. Agencia Estatal de Investigación.





MARINE GOVERNANCE

CAPTA

Most human activities lead to greenhouse gas emissions, while nature offers us carbon sinks such as salt marshes or seagrass meadows known as "Blue Carbon Ecosystems". These high- biodiversity ecosystems offer traditional services such as fishing or shellfish gathering, which already today become affected by climate change. CAPTA aims to establish the basis for the development of joint policies and planning instruments to achieve climate neutrality and strengthen coastal ecosystem services, improving their resilience. CAPTA will allow the creation of a framework for cross-border cooperation, making available homogeneous procedures and comparable information on climate risks so as to define joint actions.

PERIOD: 2022/2026



BUDGET: 2.452.183,79 euros

FINANCING: Fondo Europeo de Desarrollo Regional FEDER. Programa Interreg V-A España-Portugal (POCTEP).

REMAP

Facilitating the application of the Marine Spatial Planning Directive (MSP) in the European Union by developing innovative responses to face specific challenges in each of the Member States (MS) is the objective of this action, which focuses on the follow-up, evaluation and review of the plans presented by each of the MSs. Given the shared nature of the challenges of the MSP, the proposals that come out of this call must be able to be applied at a European maritime demarcation level. CETMAR's main actions focus on developing a module for monitoring socioeconomic and governance aspects and co-development activities with stakeholders, as well as communication and dissemination of project results.

PERIOD: 2021/2025



BUDGET: 1.917.105 euros

FINANCING: European Climate, Infrastructure and Environment Executive Agency (CINEA).

POEM II

Commissioned as part of the actions to improve fisheries and aquaculture management and marine spatial planning within the framework of the maritime spatial plans (POEM) designed and approved by the Ministry for Ecological Transition and Demographic Challenge (MITERD). The tasks to be carried out within the framework of this service are technical work to: provide support in the coastal maritime planning processes in which the regional administration participates, if required; update and optimize the MARPLAN tool; study the suitability of areas of the Galician coastline other than the estuaries where aquaculture activities can be developed, and mapping of marine and inland aquaculture in Galicia.

PERIOD: 2023/2026



BUDGET: 255.236,01 euros

FINANCING: Xunta de Galicia. Consellería do Mar.

MARINE GOVERNANCE

RCG SECRETARIAT

Technical assistance for: Regional Coordination Groups (RCGs) North Atlantic, North Sea and Eastern Arctic (RCG NANS&EA); Baltic (RCG Baltic); Large Pelagics (RCG Large Pelagics); Long Distance Fisheries (RCG LDF); Mediterranean and Black Sea (RCG Med&BS) and Economic Affairs (RCG ECON) to support administrative, organizational and communication procedures. By planning and executing administrative tasks, developing the branding and online visibility of RCGs and developing mechanisms and proposals the intention is to establish a long-term Technical Secretariat structure.

PERIOD: 2022/2023



BUDGET: 150.000 euros

FINANCING: European Commission. DG MARE and Regional Coordination Groups (RCG).

GALICIA BLUE ECONOMY STRATEGY

Service for the creation and launch of the technical office 'Galicia Blue Economy Strategy', as well as the supporting governance and dialogue structures, including the promotion of communication on its progress to the public. CETMAR identifies and maps the actions of the organizations involved and collects the information needed to monitor the implementation and achievement of results. It will also establish follow up indicators and measure results, identifying risks and opportunities for improvement or emerging needs. Additionally, it will enable the performance of the governance structure and information flows, as well as the development and content of communication and outreach material.

PERIOD: 2025/2027



BUDGET: 541.272,82 euros

FINANCING: Xunta de Galicia. Consellería do Mar.

SECWEB 2.0

SECWEB 2.0 aims to develop and implement a set of innovative tools and services to improve the ability of Regional Coordination Groups (RCGs) to harmonize the collection, management and exchange of fisheries data. It will be achieved by improving the knowledge and communication management, implemented through the RCG secretariat to support these groups. There will be a particular emphasis on the CFP and the engagement of stakeholders.

This will contribute to the implementation of their aims, such as the sustainable use of marine resources, the protection of the marine environment and the promotion of a competitive and innovative fisheries sector.

PERIOD: 2023/2026



BUDGET: 345.945,98 euros

FINANCING: European Maritime, Fisheries and Aquaculture Fund (EMFAF).

MARINE GOVERNANCE

ENCOMENDA GALPS 23-26

For the new DLP into the FEMPA program, the Ministry needs the collaboration of CETMAR to continue the analysis of this axis with the following tasks: Technical support in the development of FEMPA priority 3; monitoring of projects, indicators and activities developed in the EDLP by the GALP; identification and quantification of the effects of DLP in the Galician fishing sector; development of a framework for the activities of the GALP in the strategic axes of digital and ecological transformation and sustainability; periodic analysis of the socio-economic impact of GALP, analysis of cooperation initiatives and dynamism in the framework of DLP, and preparation of technical reports for the Ministry.

PERIOD: 2023/2026



BUDGET: 529.134,85 euros

FINANCING: Xunta de Galicia. Consellería do Mar.

ENCOMENDA OPPs 2024

Assistance service to the Regional Department of the Sea to assess the annual reports of the Galician producers' organizations that apply for funding to FEMPA. CETMAR provides this service since 2022. Following the criteria by FEMPA, the Regional Department for the Sea considers that there is a need for an external evaluation by an entity of prestige, independent of the processing body, in order to report on its content. In addition, it must be analyzed the innovative nature of the proposals to assess their funding intensity. CETMAR is in charge of the analysis offering expert reports to help the Regional Ministry to take decisions.

PERIOD: 2024/2025



BUDGET: 50.294,29 euros

FINANCING: European Maritime, Fisheries and Aquaculture Fund (EMFAF).

MSP4BIODIVERSITY

This international service aims to incorporate biodiversity into marine spatial planning (MSP) through the development and analysis of scenarios. CETMAR will focus on the socio-economic module, which intends to simulate the socio-economic impact of MSP in a scenario analysis that essentially forecasts supply disruptions in 2040 in certain key sectors, such as fisheries, aquaculture, marine renewable energy, maritime transport and coastal tourism. All this will take place in three pilot areas: the Northern Tyrrhenian Sea (regions of Liguria and Tuscany); the Northern Adriatic Sea (Friuli-Venezia Giulia, Veneto, Emilia-Romagna and Marche); and the Strait of Sicily (FAO geographical subarea of the Strait of Sicily).

PLAZO: 2025

PRESUPUESTO: 7.630 euros

FINANCIADOR: Consiglio Nazionale delle Ricerche - Istituto di Studi sul Mediterraneo (CNR - ISMed).

BLUE SKILLS

The main objective of this study is to conduct a comprehensive assessment of the current and foreseen development of skills in the different sectors of the blue economy in the EU. Specifically, it will: Define blue skills and related skills requirements; Analyze current and future skills needs in the blue economy in all Member States; Map the current provision of blue economy education and training in the EU; Review EU-funded initiatives on blue skills to date; Provide recommendations to address identified skills gaps and support the development of a framework for blue skills.

PERIOD: 2024/2026

BUDGET: 215.050 euros

FINANCING: European Climate, Infrastructure and Environment Executive Agency (CINEA).





DATA ANALYSIS AND MARINE OBSERVATION

COASTAL OBSERVATORY

Learn oceanographic and meteorological information relevant to the sustainable management of the Galician aquaculture within the framework of the Coastal Observatory, by improving the network of automatic stations in Galician coasts (platform of Cortegada, buoy of Ribeira, Cíes, A Guarda, Muros and Rande Station). It will be executed through the purchase, implementation and monitoring of measuring equipment that provides data to assess the models and management support tools. CETMAR works to improve the cohesion of the Observatory: collaborating with the Technological Institute for the Control of the Marine Environment of Galicia (INTECMAR) and the General Sub directorate of Meteorology and Climate Change of the Regional Department of Environment and Territory.

PERIOD: 2022/2025



BUDGET: 499.000 euros

FINANCING: Xunta de Galicia. Consellería do Mar y Fondos FEMPA.

COASTAL OBSERVATORY COORDINATION

To carry out the coordination service of the actions and management of the Coastal Observatory of the Xunta de Galicia. Considering its evolution, a new stage is opened to consolidate it as a benchmark for the Galician society. It is aligned with the main international strategies: Decade of Ocean Sciences for Sustainable Development, Agenda 2030, European Union Mission: Restore our oceans and waters; and local strategies: Galician Climate Change and Energy Strategy 2050; Galician Digital Strategy 2030; Galician Artificial Intelligence Strategy 2030 or the future Galician Strategy for Blue Economy.

PERIOD: 2023/2025



BUDGET: 201.776,56 euros

FINANCING: Xunta de Galicia. Vicepresidencia Segunda e Consellería de Medio Ambiente, Territorio e Vivenda.

MOLL-E MALONE

The main objective of "MOLL-e MALONE" is to improve water quality assessment in the Ría de Arousa (Galicia, Spain), thereby supporting local aquaculture. The resulting service will be a comprehensive environmental data platform that integrates Copernicus marine monitoring and forecasting products, alongside coastal models and *in situ* observations provided by local suppliers. Everything will be combined with socio-economic data (both market data and data from *in situ* devices devoted to monitoring the growth and production of bivalves at aquaculture sites).

PERIOD: 2025-2026

BUDGET: 159.001 euros

FINANCING: Mercator Ocean International.

DATA ANALYSIS AND MARINE OBSERVATION

EMODNET

The main objective of EMODnet Human Activities is to make available the necessary information about the geographic location, spatial extent and the characteristics of a wide range of marine and maritime human activities across Europe. Particular attention is paid to providing, where possible, historical time series to indicate the temporal variation of activities such as fishing, shipping density, and port traffic. The web allows users to view, query and download data and metadata from public and private sources across Europe, through a single entry point.

PERIOD: 2020/2025

BUDGET: 1.000.000 euros

FINANCING: Comisión Europea. DG MARE.



EUMOFA

Participation in the network of market experts from the European Fisheries and Aquaculture Observatory. EUMOFA is a market intelligence tool aimed at increasing its transparency and efficiency, analyzing the dynamics of community markets, supporting business decisions and the creation of policies. EUMOFA allows direct monitoring of volumes, values and prices of seafood products, from the first sale to the retail stage, including imports and exports. The data come from countries of the European Union, Norway, Iceland and European institutions and are updated every day.

PERIOD: 2019/2022

BUDGET: 12.000 euros

FINANCING: Comisión Europea. DG MARE.

EU BLUE ECONOMY OBSERVATORY

The aim of the observatory is to provide scientific data to support the sustainable transformation of the EU's blue economy, in line with the transition agenda. The objective is to support decision-making, governance and policy-making by collecting, analyzing and communicating knowledge and economic data to improve understanding of the EU's blue economy across the value chain and in the EU's coastal regions. The objectives of this contract are mapping, acquiring, collecting and processing data by sector; developing *ad hoc* analyses and drafting reports; as well as supporting to the EC services and CINEA in the outreach and communication of results.

PERIOD: 2025/2027

BUDGET: 953.177,78 euros

FINANCING: European Climate, Infrastructure and Environment Executive Agency (CINEA).



WHISTLE

The aim is to improve marine modeling in the Western Iberia Buoyant Plume (WIBP) region through collaboration between Portugal and Galicia (Spain). The WIBP, a year-round low-salinity water mass influenced by several river plumes, affects coastal circulation, water stratification, nutrient distribution and marine biogeochemical processes. WHISTLE will improve operational models by harmonizing meteorological and hydrological data from both regions.

The project is developing two case studies: improving the response to marine pollution in Galicia and ensuring water quality in the North Coast Natural Park in Portugal.

PERIOD: 2025-2026

BUDGET: 196.810,36 euros

FINANCING: Mercator Ocean International.

CUI BIODIVERSIDAD

The service will focus on improving payload technologies enabling mission autonomous systems with USV. The main activity is the evolution and improvement of the payment load for the control of water quality in emergency situations by means of: Support in the definition of the biodiversity missions with the USV and Identification of the appropriate sensor for the biodiversity missions. Integration of the teams and analysis of the collected data: Inclusion of BABCOCK's multiparameter. Integration of complementary sensors. Surface water sampling system for the subsequent evaluation of biodiversity parameters, and supporting the calibration of the multiparameter measurements. Integration of CETMAR's Side Scan Sonar and evaluation of the use to distinguish diverse types of habitats.

PERIOD: 2021/2025

BUDGET: 147.200 euros

FINANCING: Xunta de Galicia. Axencia Galega de Innovación.





APROMEX

Assigned by the Consellería do Mar to give support through CIMA. Objectives: Support to the development and fine-tuning of systems for the analysis of mussel populations in rocky intertidal habitats. Use of low-cost geospatial techniques. Evaluation of the usefulness and performance of long-lines with collecting ropes in mussel production areas. Mussel production under controlled hatchery conditions for introduction into pan culture. Dissemination and extension of work and

PERIOD: 2022/2023

BUDGET: 319.808,05 euros

FINANCING: Xunta de Galicia. Consellería do Mar. Fondo Europeo Marítimo y de Pesca (FEMP).



BATEAS

Support service to improve the information available on the dynamics of mussel cultivation in the Galician estuaries by collecting environmental and production information from the mussel sector. CETMAR collaborates to improve knowledge of the environmental and production conditions in the rafts and in the collection of information through the mussel associations. This action gives support to the Regional Department for the Sea to collect systematic information on mussel cultivation, considering the variability among the different cultivation areas and to detect extraordinary episodes or significant incidents in mussel cultivation.

PERIOD: 2024/2026

BUDGET: 699.000 euros

FINANCING: Xunta de Galicia. Consellería do Mar.



RESOURCE MANAGEMENT

OSTRA RIZADA

Service commissioned by the Regional Department of the Sea for the monitoring of potential populations of Gigas Oyster (*Magallana gigas*) that may establish in the coastal areas of the three southernmost estuaries of Rías Baixas (Arousa, Pontevedra and Vigo). The aim is to determine and control the populations of the species *Magallana gigas* in these areas and its natural recruitment by fixing seeds of the species. It is also planned a comparative study of the culture of diploid and triploid specimens of Gigas Oyster in rafts.

PERIOD: 2024/2026

BUDGET: 201.569,92 euros

FINANCING: Xunta de Galicia. Consellería do Mar.



LIFE CIBBRINA 2.0

The main objective is to minimize and, where possible, eliminate bycatch of priority endangered, threatened and protected (ETP) species through cross-border and cross-sectoral cooperation of industry, science, authorities and other stakeholders to establish coordinated mitigation, monitoring and evaluation programs at the regional level. Based on the review of current approaches and existing national programs a toolkit will be developed involving new pilot projects performed in a "safe environment" of mutual trust and cooperation among stakeholders, to integrate it into public policy improvements and the implementation of best practices.

PERIOD: 2021/2028



BUDGET: 12.511.544,24 euros

FINANCING: European Union. LIFE Program.

REDUCE

REDUCE aims to reduce bycatches of marine megafauna (birds, turtles, elasmobranchs and cetaceans) and to increase the possibilities of improving the information for sustainable fisheries management in the Atlantic coasts of the Iberian Peninsula to the East Central Atlantic area off the coast of Africa. CETMAR's role in the project consists mainly in facilitating and boosting the participation of all stakeholders in the discussion processes and in the co-design of bycatch solutions, with the ultimate goal of multiplying the opportunities for the impact of the knowledge and research results generated, and their effective transfer to end users.

PERIOD: 2023/2027



BUDGET: 8.927.513,75 euros

FINANCING: European Union. Horizon Europa.

RESOURCE MANAGEMENT

GALICIA SHELLFISH HARVESTING PLAN 2026-2031

The Regional Department for the Sea has commissioned CETMAR to draw up the Action Plan for the Management of Shellfish Harvesting in Galicia 2026–2031, co-funded by the EMFF. It aims at strengthening the sustainable management of shellfish gathering, a key activity for more than 7,000 people and fundamental to Galicia's blue economy. The plan seeks to assess the current situation, propose measures to restore productivity, improve environmental sustainability, strengthen governance and ensure the well-being of coastal communities. The plan is designed through a participatory and consensus-based process that integrates scientific and traditional knowledge, involving all social, economic and cultural stakeholders linked to shellfish harvesting.

PERIOD: 2025/2026



BUDGET: 207.629,18 euros

FINANCING: Fondo europeo Marítimo, de Pesca y de Acuicultura (FEMPA). Xunta de Galicia, Consellería do Mar.

RESOURCE MANAGEMENT

TRANSFORMAR

Transformar will provide solutions to boost adaptation to climate change. It will promote cooperative innovation to trigger social transformation in six regions, through nature-based measures, innovative technologies, financing, insurance and governance models, awareness raising and behavioral change. In Galicia the project will develop a case study aimed at sectors regarding mussel farming and shellfish gathering.

PERIOD: 2020/2026

BUDGET: 11.872.256,88 euros

FINANCING: Unión Europea. Horizonte 2020.



SOL-OUXA

This project aims to increase knowledge about the presence of the fish *Myliobatis aquila*, locally known as 'Ouxa', along the Galician coast. This animal is traditionally considered one of the main predators of bivalves and represents a serious concern for Galician shellfishing. Consequently, it is necessary to increase knowledge about this species present in the Galician marine ecosystem; to verify the fisheries community's view on its impact and, finally, to lay the foundations for a program of activities to allow the assessment of the impact on bivalve areas.

PERIOD: 2024/2025

BUDGET: 37.676,75 euros

FINANCING: Xunta de Galicia. Consellería do Mar.



TECHNOLOGY MANAGEMENT AND TRANSFER

BRIDGE

The project aims to know the situation of the Black Sea marine ecosystem, to evaluate its resilience and to create the necessary mechanisms to manage these ecosystems sustainably. BRIDGE-BS is based on a unique concept that links oceanographic dynamics to resilience, ecosystem services, multiple stressors and blue innovation. The results of the project will be intended to demonstrate how a resilient ecosystem in the Black Sea can be sustained while promoting the development of blue economy sectors. The Centro Tecnológico del Mar-Fundación CETMAR co-leads knowledge transfer activities with a special focus on the connection between science and public management.

PERIOD: 2019/2025



BUDGET: 9.000.000 euros

FINANCING: European Union. Horizon 2020.

PREP4BLUE

Framed in the "Oceans, Seas and Waters Mission" of the European Union, the objective of the PREP4BLUE project is to develop the necessary R&D implementation modalities to achieve the objectives of the Mission and facilitate a successful first phase (2022-2025). The results of the project will allow the missions to develop and pilot technological and social innovation, business models and governance; emphasizing the methodologies that will allow the co-design and joint implementation of solutions with citizens and interested agents. To this aim work will be carried out in collaboration with the fishing and scientific sectors.

PERIOD: 2021/2024



BUDGET: 4.997.690 euros

FINANCING: European Union. Horizon Europa.

EUROPEAN MARINE BOARD

The EMB is a strategic pan-European marine science forum. It functions as an independent and non-governmental advisory body, which identifies scientific and technological challenges and opportunities through foresight activities and other studies to offer policy recommendations. CETMAR participates in the initiative representing the joint interests of the academic organizations of its board; in particular, the three Universities of Galicia and the CSIC and coordinating their efforts in this context with the IEO (with its own representation).

PERIOD: 2018/2023



BUDGET: 35.000 euros

FINANCING: Centro Tecnológico del Mar-Fundación CETMAR.



SHOREWINNER

The project aims to establish a community of practice in five Centres of Excellence in Vocational Education and Training (CoVEs) in Portugal, Spain, Italy, Greece and Cyprus, with a focus on the marine renewable energy sector. These CoVEs will collaborate to improve the training of the workforce, sharing resources and strategies to adapt the training to the needs of the industry. CETMAR participates in the Spanish CoVE, led by the University of A Coruña, developing training materials on the occupations with the highest demand, and participating in awareness campaigns and dissemination events with the consortium. It also promotes the creation of working groups on training in marine renewable energies linked to the Skills Pact.

PERIOD: 2023/2028

BUDGET: 4.975.531 euros

FINANCING: European Union. Erasmus Plus.



GREEN

GREEN, the European Network for Greener VET, aims to identify, develop, test and evaluate innovative approaches to "greener" education to reduce the environmental impact. It will identify the most relevant green skills for the labor market in six industrial sectors: automotive, energy, batteries, defense, maritime and additive manufacturing. There will be supporting tools to introduce these skills into VET programs and to test them through a training of trainers. CETMAR will coordinate the analysis of needs, reporting the skills needs for the reduction of environmental impact in maritime technologies identified by the MATES project.

PERIOD: 2022/2026

BUDGET: 657.096 euros

FINANCING: European Union. Erasmus Plus.



FLORES

Forward Looking at the Offshore RenewableS will reinforce the activity of the large-scale consortium promoting the Offshore Renewable Energy (ORE) Capability Pact. FLORES will support the most committed organizations in the promotion of ORE by stimulating the training offer. The consortium will promote training for the new jobs expected in this sector, estimated at between 20,000 and 54,000 over the next five years, and will contribute to improving training opportunities for the current ORE.

PERIOD: 2022/2026

BUDGET: 877.668 euros

FINANCING: European Union. Erasmus Plus.



AIXOLA 2025

Course program at the "A Aixola" Training Center to train groups that quit the fishing industry to continue working in other activities in the maritime sector. The purely technical training is complemented with activities of social inclusion and promotion of gender equality, offering support in the search for new employment opportunities, and promoting the entrepreneurial and cooperative spirit. The common feature of all training actions is the practical approach to achieve the skills required by the labor market, through workshop learning and projects arising from real needs. The Consellería do Mar is assigning CETMAR the management of this center since 2004.

PERIOD: 2024



BUDGET: 183.247,59 euros

FINANCING: Xunta de Galicia. Consellería do Mar. European Maritime, Fisheries and Aquaculture Fund (EMFAF).

TRAINING INITIATIVES FOR THE UNEMPLOYED 24-25

Teaching in the Aixola Training Center (Marin) the following training actions for unemployed people, within the framework of the Order of 1st July 2024: Auxiliary maintenance operations of structural elements and surface coating of sports and recreational boats (298 hours); Qualification for teaching in VET grades A, B and C (330 hours); Auxiliary maintenance operations of systems and equipment of sports and recreational boats (408 hours).

PERIOD: 2024/2025



BUDGET: 121.082,70 euros

FINANCING: Xunta de Galicia. Consellería de Emprego, Comercio e Emigración.

EDUCATION & TRAINING

CAPACITAMEX

The objective is to improve the skills of mussel producers in Galicia by transferring the results of the APROMEX project. To this end, bilateral meetings will be coordinated with all the mussel producers' associations in Galicia, to present the results. Training sessions will be planned for mussel producers, with the participation of staff involved in APROMEX research, and other project collaborators; and other sessions for aquaculture trainers, educated in courses for aquaculture trainers by the Regional Ministry for the Sea. Guides and support materials will be developed to implement the main results of the APROMEX project.

PERIOD: 2024/2026



BUDGET: 241.466,26 euros

FINANCING: Xunta de Galicia. Consellería do Mar and European Maritime, Fisheries and Aquaculture Fund (EMFAF).

IGAFA ENGLISH TRAINING

The Galician Institute for Aquaculture Training (IGAFA), which reports to the Directorate-General for Fisheries Development of the Regional Department for the Sea, provides formal training in the following courses: Marine Cultivation Technician, Advanced Aquaculture Technician, and Underwater and Hyperbaric Operations Technician. To ensure a comprehensive education tailored to the sector's requirements, it is essential that students acquire basic English language skills applicable to the marine and fisheries sector. Under a request from the Regional Department for the Sea, CETMAR is providing technical support for the implementation of professional English modules at IGAFA during the 2025–2026 academic year.

PERIOD: 2025/2026

BUDGET: 75.988,06 euros

FINANCING: Xunta de Galicia. Consellería do Mar.





2025-ANFACO CONSAGMAR PERÚ

Exchange of experiences regarding the control and inspection of hydrobiological products by Peru's National Authority for Fisheries and Aquaculture Health and Safety (SANIPES) in Galicia. The planned activities consist of drawing up a schedule of meetings and technical visits linked to the regulation, control and inspection of hydrobiological products (border control spots, visits to production plants with or without sanitary inspectors, amongst others). Discussion and the necessary resources for transfer to Peru will be generated in each context. A program will also be carried out to share experiences, aiming to create a multiplier effect from SANIPES technical staff to other inspection officials.

PERIOD: 2025/2026



BUDGET: 185.000 euros.

FINANCING: Xunta de Galicia. Cooperación Galega.

2025-MAR DE PIURA_PERÚ

The main objective of this project is to contribute to improving the sustainability of value chains linked to fisheries and aquaculture in the Piura region, by strengthening the productive capacity of various business initiatives located in Sechura Bay, as well as reinforcing the current governance mechanisms in the Piura region. In a context of growing concern regarding the effects of climate change on the conservation of marine resources and their economic exploitation, the project seeks to adapt the production and income-generating systems of coastal communities. The intention is enabling them to improve their quality of life in a manner compatible with the protection and conservation of the natural environment.

PERIOD : 2025/2026



BUDGET : 100.000 euros

FINANCING : Xunta de Galicia. Cooperación Galega.

2024-VerTyCe

Project for climate change adaptation through the strengthening of marketing mechanisms and sustainable tourism initiatives as a strategy for diversifying small-scale fisheries in Sechura, Peru. The overall objective of the project is to contribute to climate change adaptation by ensuring the economic recovery of various producer groups and women's associations through the strengthening of marketing processes and sustainable tourism. It also aims to enhance the processes, mechanisms and actions that help boost the socio-economic situation of producers and traders, by improving the marketing system and developing strategies for fisheries diversification.

PERIOD : 2024-2028



BUDGET : 75.000 euros

FINANCING : Xunta de Galicia. Cooperación Galega.

AQUAVALORA PERÚ

An assessment of the improvement mechanisms and instruments generated in the ACUIPESCA project is necessary regarding to the pilot projects developed in the field of aquaculture in the Bay of Sechura, Peru, and specifically in the cultivation of Peruvian calico scallop. The project aims to increase the resilience of the Sechuran population through initiatives linked to the seafood production that enable the economic development of the region. It will focus on the promotion of traceability and commercialisation of the value chain of hydrobiological products from the Bay of Sechura to promote sustainable livelihoods, supporting the gender approach and governance.

PERIOD: 2024-2030



BUDGET: 185.000 euros.

FINANCING: Xunta de Galicia. Cooperación Galega

2025-COURSE PRFV SV

Technical assistance for capacity building and technical supervision in processes involving fiberglass-reinforced polyester (FRP) in El Salvador. The project is structured around two main strands. On the one hand, the design and implementation of specialized technical training in FRP, aimed at consolidating local capacities, creating a skilled workforce and contributing to the sector's productive sustainability. On the other hand, there will be technical supervision of the planned improvements to the prototype artisanal fishing vessel, built with FRP, to ensure proper execution and facilitate the training of local personnel.

PERIOD: 2025-2026



BUDGET: 20.680 euros.

FINANCING: Xunta de Galicia. Cooperación Galega. Agencia Española de Cooperación Internacional para el Desarrollo (AECID).

2025-FISHERIES TRAINING SV

Technical assistance for an exchange program in Galicia coordinated with training in the management of small-scale fishing in El Salvador, as part of a strategy combining the "Abraza tu Mar" program, funded by the Regional Government of Galicia, and the "Manos que Alimentan" agreement, funded by the Spanish Agency for International Development Cooperation (AECID). The rationale behind this technical assistance is based on the coordination of two complementary activities which, together, form a single process for the strengthening of institutional and industry capacities to move towards sustainable and participatory management of the Salvadoran artisanal fishing sector.

PERIOD: 2025-2027



BUDGET: 44.366,44 euros.

FINANCING: Xunta de Galicia. Cooperación Galega. Agencia Española de Cooperación Internacional para el Desarrollo (AECID).

2022-PE1XAN MZ

The aim of this project is to improve the livelihoods and food security of the population in the district of Namaacha, Mozambique by strengthening the fisheries and aquaculture value chains. Work is carried out to improve production, harvesting and preservation techniques for fishery products, as well as to increase demand for fishery and aquaculture products for human consumption, thereby ensuring their contribution to food security.

At the same time, support will be provided for sustainable small-scale business models based on industry organization and the development of value-added production processes that encourage markets to become more competitive and dynamic.

PERIOD: 2022/2025



BUDGET: 476.451,15 euros.

FINANCING: Xunta de Galicia. Cooperación Galega. Fundación Ayuda en Acción.

2024-Xalissima 2-MZ

The project aims to improve the sustainability and integrated management of the fisheries and aquaculture value chain by promoting socio-economic development, gender equality, food security and environmental conservation of inland water ecosystems in the province of Maputo (Mozambique). The promotion of the sustainable growth of artisanal fisheries through improved management, governance mechanisms and harvesting techniques are goals of this project.

This action intends to improve household income, and provide technical skills to community beneficiaries and institutions involved, affecting all participants in the value chain of artisanal fisheries and creating synergies with other regional actions.

PERIOD: 2024/2025



BUDGET: 185.000 euros

FINANCING: Xunta de Galicia. Cooperación Galega and Fundación Ayuda en Acción.

2025-XALISSIMA III

The project aims to promote sustainable livelihoods that are resilient to climate change in rural areas of Mozambique. Through the innovative integration of agriculture, aquaculture and fisheries activities, it contains a clear gender focus and a commitment to food security. CETMAR is working to strengthen the technical, organizational and productive capacities of rural communities, particularly women and young people, to integrate horticulture, aquaculture and small-scale fisheries in an innovative and sustainable manner, thereby improving food security and resilience to climate change.

PERIOD: 2025/2027



BUDGET: 185.000 euros

FINANCING: Xunta de Galicia. Cooperación Galega.

INTERNATIONAL COOPERATION

2023_ADELANTE2-Costa Rica

The objective of the project is to train the Costa Rican fishing sector in the use of selective and ecosystem-friendly fishing gear for the benefit of fisheries sustainability and design a training module for Costa Rican fishermen and assess the fishing gear used in the area. This training will take place in the three countries making part of this triangular cooperation: Costa Rica as beneficiary country; Peru as provider country 1 and Spain as provider country 2. Specifically in Spain, the training will be aimed at the fisheries administration and the sector focusing on marine fisheries linked to fishing gear and equipment, traceability of artisanal fishing products and the relationship between the fisheries sector and tourism

PERIOD: 2023/2025

BUDGET: 100.000 euros.

FINANCING: Fondo de cooperación triangular Unión Europea–América latina y el Caribe.



2024 FONSECA IV

Technical assistance to establish knowledge generation and management processes for the recovery and sustainability of shellfish in the Gulf of Fonseca, Honduras; and training of agents in the shellfish sector. It includes improving the sustainability of shellfishing for women's groups in the Honduran municipalities of Amapala, Alianza, Nacaome, San Lorenzo and Marcovia; and improving the governance of shellfishing in the south of the country.

PERIOD: 2024/2026

BUDGET: 25.000 euros.

FINANCING: Xunta de Galicia. Cooperación Galega.



NATMIRC

The project aims to improve NatMIRC's capacity on fishery resources and their fisheries, and favor their sustainable management by a scientific alternative for the historical data of the ICSEAF era. Searching for alternative information and making a reconstruction of the historical series of catches. Exploring a size assessment model with the review of existing assessment models, implementation of the chosen model and analysis of the results obtained. Providing advice on the MSC certification process.

PERIOD: 2023/2025

BUDGET: 99.123,56 euros

FINANCING: Xunta de Galicia. Consellería do Mar.



2024 FAO STP

The general objective of the FAO STP project is to promote the recognition of labour skills and establish the necessary professional qualification programmes for a satisfactory socio-occupational integration and to enhance the basic skills of professionals in artisanal fisheries.

PERIOD: 2024-2026

BUDGET: 179.688,81 euros.

FINANCING: FAO.



2024_IDENTIFICATION ETHIOPIÁ

Specialist consultancy on aquaculture for the Ethiopian office of the Spanish Agency for International Development Cooperation (AECID). Specialized aquaculture services will be provided to support the management unit for the project "Support for agricultural policies and improvement of production systems in Ethiopia, including fish farming – Ministry of Agriculture", in the evaluation of the initial stages of the fish farming component. In addition, support will be provided to the Spanish Cooperation office in Ethiopia in the supervision and monitoring of activities related to aquaculture.

PERIOD: 2024-2025

BUDGET: 14.800 euros.

FINANCING: Agencia Española de Cooperación Internacional para el Desarrollo (AECID).





MARINE SCIENCES PROGRAM OF GALICIA

The Marine Sciences Program of Galicia is a unique opportunity for the coordination of Galician marine research and for the reinforcement of its capabilities and results at the service of society. This initiative is inclusive and participatory, conceived from the perspective of involving all stakeholders in these works (quintuple-helix) and under the paradigm of what is known as RRI or Responsible Research and Innovation.

This program has a budget of 10,000,000 euros, with the participation and boost of 250 researchers from multiple disciplines from the three universities of the Galician University System, the four centres of the Higher Council for Scientific Research (IEO, IIM and INCIPIT) and the six technological or research centres of the Xunta de Galicia (CETMAR, INTECMAR, CIMA, IGaFA, CESGA and METEOGALICIA), as well as the Department of the Sea.

The protection and sustainable management of the marine ecosystems services is the main cha

llenge of the Marine Sciences Program of Galicia via three main action lines: observation and monitoring of marine and coastal environment; sustainable, intelligent and precise aquaculture and innovation and opportunities of blue economy.

These three great action lines are developed throughout 11 work packages with 38 actions that require 132 activities and 293 tasks that will result in 172 deliverables and 233 milestones, all with the participation of 89 research groups.

L. A.1. Observation and monitoring the marine and coastal environment

The aim of this first action line of the Marine Sciences Program is to create a strategy to monitor the marine ecosystem in Galicia in all its dimensions, with the ultimate goal of achieving the necessary information to guarantee a better and more sustainable use of its resources and services.

The intention is to have a multidisciplinary and interdisciplinary set of highly innovative and efficient tools and technologies to substantia-

lly improve monitoring and observation of the sea.

Thus, the construction of an integrated data platform in the Galician Supercomputing Centre is planned, as well as the use of heterogeneous information integration tools based on complex modelling, data science and artificial intelligence.

L.A.2. To enhance precise and sustainable aquaculture production

Within the framework of this second line of action, advanced research in genomics will be developed to improve crops and tools for the sustainable supply of seed in bivalve mollusk aquaculture.

At the same time, the aim is to improve strategies for the diagnosis, prevention and control of pathologies and the study of new sustainable farming systems based on integrated multitrophic aquaculture.

L.A.3. Blue Economy. Innovation and opportunities

The aim of this third action line of the

Marine Sciences Program of Galicia is to enhance social and economic changes, the transfer, knowledge training and capitalization towards a truly sustainable blue economy, with greater response and transformation capacity to adapt to challenges of the ecological and digital transition in a global change context.

To this end, research will be promoted from the field of social sciences integrated with disciplines from the fields of physics, chemistry, mathematics, biology or geology, among others, to achieve sustainable and resilient development of the Galician coastline.

Measures for adaptation and relief of the pressures and vectors of change that are taking place will also be investigated and concrete proposals will be made to help all stakeholders make decisions.

Finally, the development of an integrated management model for the flow of scientific knowledge in

marine sciences is also planned, specifically adapted to the environmental, sociocultural, economic and institutional context of Galicia.

Context

The Marine Sciences Program of Galicia is part of the Joint Program in Marine Sciences -in which the autonomous communities of Galicia, Andalusia, Cantabria, the Region of Murcia and the Valencian Community collaborate- to deploy a joint research and innovation strategy in marine sciences to sustainably address the new challenges in monitoring and observing the marine environment, climate change, aquaculture and other sectors of the blue economy

The Marine Sciences program is one of the eight programs described in the Complementary Plans between the Ministry of Science and Innovation and the autonomous communities, with the aim of creating synergies, aligning the implementation of funds

and setting common priorities. The Supplementary Plans are Investment 1 of Component 17 of the Recovery and Resilience Mechanism of the Next Generation EU funds.



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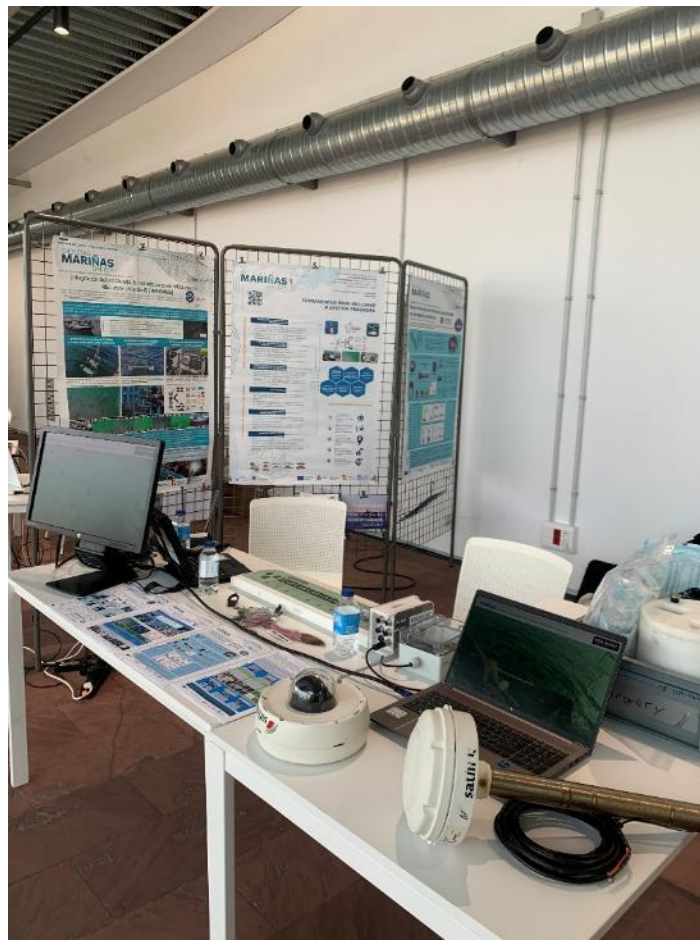
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Plan de
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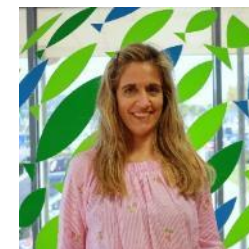
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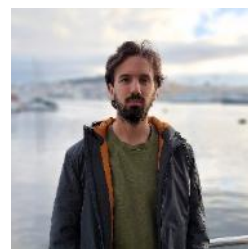
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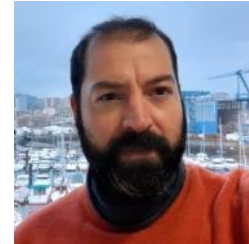
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