

# Atlantic Strategy Supporting the Atlantic Action Plan

### **Implementation Report 2022**

Atlantic Assistance Mechanism

### List of Abbreviations

AAM/AM	Atlantic Assistance Mechanism	ESMs	Earth System Model
AAORIA	All-Atlantic Ocean Research & Innovation Alliance	ESPO	European Sea Ports Organisation
AAP	Atlantic Action Plan	HPC	High Performance Computing
AIMS	Australian Institute of Marine Science	IAPH	International Association of Ports and Harbors
ASC	Atlantic Steering Committee	IPR	Intellectual Property Rights
ASPC	Atlantic Stakeholder Platform Conference	IUEM	European Institute of the Sea
CINEA	European Climate, Infrastructure and Environment Executive Agency	IWT	Inland Waterway Transport
СТ	Central Team	MRE	Marine Renewable Energy
EASME	Executive Agency for Small & Medium Enterprises	MS	Member States
EC	European Commission	OSPAR	Oslo – Paris Convention
EIT	European Institute of Innovation & Technology	R&I	Research & Innovation
ESA	European Space Agency	SEAI	Sustainable Energy Authority of Ireland
ESERO	European Space Education Resource Office	SME	Small and Medium Enterprise

## Contents

1. Introduction	4	2.2 Key results per Pillar & Good Practice Examples	21
1.1 Message from the ASC ES Presidency	5	2.3 Data on AAP Implementation	48
1.2 Background Information	6 6 7 9	2.4 Stakeholder engagement activities	51
The evolution of the Atlantic Action Plan 2.0		2.5 Indicator achieved	58
Governance structure		3. Recommendations and Conclusions	61
Pillar Activities		3.1 Key recommendations per Pillar	62
		3.2 <u>Next Steps</u>	66
2. <u>AAP 2.0 Progress</u>		3.3 <u>Conclusions</u>	67
2.1 Presentation of Pillar Coordinators		······································	

## Introduction

Atlantic Action Plan 2.0: Implementation Report 2022

### 1.1 Message from the ASC Spanish Presidency



#### Dear Atlantic Colleagues,

Welcome to the 2022 Implementation Report of the Atlantic Action Plan 2.0 (AAP 2.0).

This is the result of last year's joint work boosted by Member States – Spain, France, Portugal and Ireland - and the EU Commission, and put in practice by Pillar Coordinators, Taskforce Members, Atlantic Assistance Mechanism, national coordinators and regional stakeholders, all of them coordinated by the ASC 2022 Spanish Presidency.

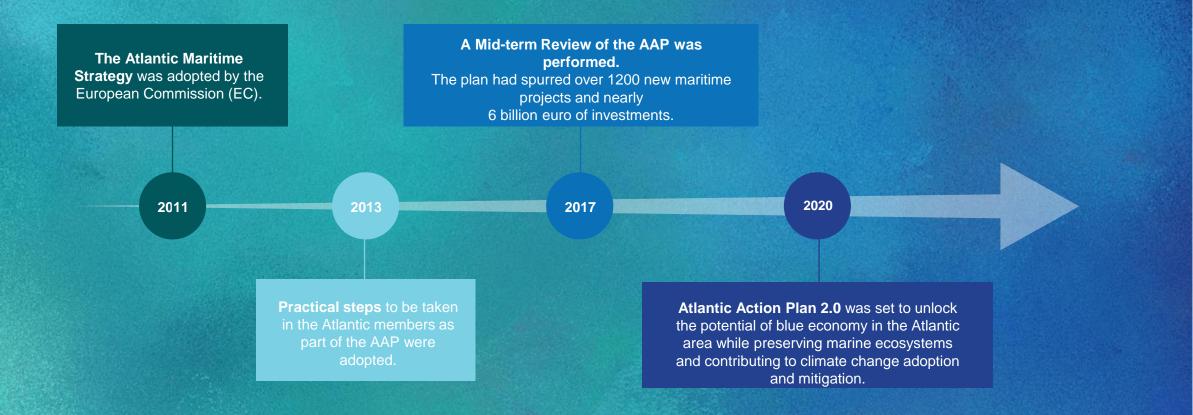
We want to warmly thank all of them for their serious work and for all the facilities given to the Spanish Presidency throughout this year, that have permitted a smooth and effective work and a great collective success in AAP 2.0 implementation.

As former presidencies, this one of 2022 has been working towards AAP implementation though laying the groundwork for the development of the AAP in the years to come, since 23rd July 2020, the date in which AAP 2.0 was adopted. Now it is time to a new presidency, to which we have given the best wishes to succeed.

It should be noted that it has been a difficult year due to both the replacement of the Assistant Mechanism and the changes of the Pillar Coordinators which has resulted to some weaknesses in hosting taskforce meetings and workshops to address the specific issues laid out under the Pillars of the Action Plan. Nevertheless, a great effort has been made allowing normal development in the tasks of identifying opportunities and obstacles, formulating ways to capitalise and minimise the effects of both. We, as presidency, must thank warmly their effort and performance.

Spanish Presidency of Atlantic Strategy Committee 2022

#### The evolution of the Atlantic Action Plan 2.0

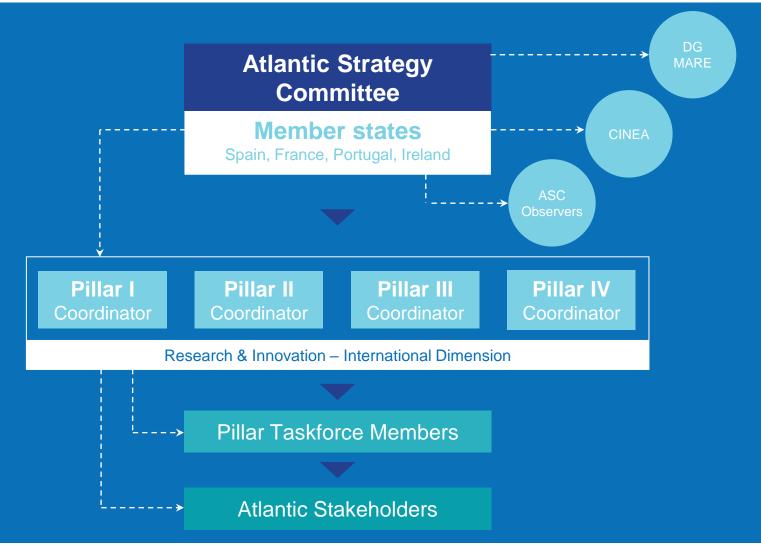


### **Governance structure**

In July 2020, the European Commission published an <u>EU Commission Communication</u>, with which the revised <u>Atlantic Action Plan 2.0</u> was communicated.

The governance of the AAP 2.0 suggests a framework for operation of the pillars and it promotes engagement of relevant stakeholders across sectors, coastal regions and countries, complementarity to the already existing cooperation structures.

Besides the four Pillars, Research & Innovation (R&I) - the International dimension underpins all Thematic Pillars of the Atlantic Action Plan; the All Atlantic Ocean Research Alliance is an important example of these cooperative international R&I efforts.



### **Governance structure**

In the governance of AAP 2.0, there are both political and operational dimensions:

#### **Political coordination**



WHO: Member states' Ministers responsible for maritime affairs

### **RESPONSIBILITIES:**

- Define the broad political guidelines
- Guide the implementation of AAP 2.0
- Decide, in consultation with the European Commission, to expand membership of the Atlantic strategy to other interested States.

#### **Operational coordination**

۹ ۱

#### WHO: Atlantic Strategy Committee (ASC)

#### RESPONSIBILITIES:

- Ensures the political and operational coordination of the Atlantic Action Plan 2.0
- Undertakes the organisation of the main Atlantic event the Atlantic Stakeholder Platform Conference –
- Reviews and update AAP priority areas
- Define broad communication guidelines
- Prioritise actions and propose/approve/label projects that help to implement the AAP 2.0
- Provide guidance and inputs to the activities of the AAM
- Support the monitoring and evaluation framework of the AAP

#### Pillar Activities – Pillar I

#### **Challenges and Opportunities**

Ports can play a major role in the sustainable development of a variety of sectors and for the transition to carbon-free economy.

At the same time, the role of port operators as catalysts for blue businesses needs to strengthen. Further, ports must cooperate to mobilise financing for smart infrastructures and better plan the development of capacity to accommodate trade growth. Lastly, installing recharging and refuelling infrastructure for alternative fuels in ports and cargo terminals would significantly improve the air quality in coastal communities.

Therefore, Pillar I of the Atlantic Strategy sets out to develop ports as gateways and hubs for the blue economy.

The Pillar I consists of a number of actions embedded in two main goals.

#### Goal 1: Ports as gateways for trade in the Atlantic

- Develop the Trans-European Transport Motorways of the Sea in the Atlantic
- Create a network of green ports by 2025
- Foster short-sea shipping links in the Atlantic area to better integrate Ireland
- Launch an Atlantic strategy on liquefied natural gas
- Develop eco-incentive schemes to upgrade port infrastructure
- Jointly develop waste and handling plans for Atlantic ports

#### Goal 2: Ports as catalysts for business

- Develop a blue accelerator scheme for Atlantic ports to help scale up innovative businesses
- Share best practices, exchange ideas and tackle problems jointly
- Expand data collection beyond traditional (logistics) data
- Increase communication and availability of data on the economic potential of ports

### Pillar Activities – Pillar II

#### **Challenges and Opportunities**

Having the right skill set is essential for taking advantage of innovation and rapidly deployment of blue technologies. A specialised blue education and training offer based on a business intelligence scheme can attract young talent to the blue economy, stimulate productivity and increase the competitiveness of the EU Atlantic area.

In the meantime, another focus area is ocean literacy. Ocean literate citizens can 'adapt their everyday behaviour to make informed and responsible decisions that promote ocean stewardship in a co-creation approach'.

To address the challenges and opportunities identified above, Pillar II sets out to develop blue skills of the future and ocean literacy.



Pillar II consists of a number of actions embedded in two main goals.

#### Goal 3: Quality education, training and life-long learning

- · Identify blue skill gaps in the EU Atlantic area
- Harmonise data collection in the area of blue careers
- Create a business intelligence scheme and promote liaison centres for improved cooperation between businesses and training providers
- Identify through peer learning best practices for matchmaking employers and jobseekers that serve as inspiration
- Take advantage of existing information platforms for job opportunities and harvest their potential for blue jobs

#### **Goal 4: Ocean literacy**

- Launch an Atlantic Ocean literacy pilot curriculum
- Create 25 Atlantic blue schools by 2025
- Implement an ocean literacy component (dissemination) in relevant projects
- Make use of the All-Atlantic Ocean Youth Forum
- Engage citizens in ocean-related actions in the EU Atlantic area
- Engage citizens in activities organised for European Maritime Day, International Ocean Day and under the future EU4Ocean platform

### Pillar Activities – Pillar III

#### **Challenges and Opportunities**

The EU Atlantic area is the leader in and testbed for the development of novel marine renewables, especially ocean energy and floating offshore wind. Nowadays, it is essential to maintain technological leadership, retain talent and provide affordable clean energy.

Pillar III is set to address several interconnected challenges, which are to increase access to finance, obtain the necessary political support and public acceptance, facilitate knowledge sharing and make use of best practices across the Atlantic region. To address the needs identified, Pillar III includes one specific goal and a set of concrete actions.

### Goal 5: The promotion of carbon neutrality through marine renewable energy

- Set specific deployment objectives for marine renewable energy in the Atlantic regions taking into account their environmental impacts
- Define best sites for marine renewable energy farms (including offshore wind) and adjacent ports across the Atlantic
- Implement incentives for deployment of innovative renewable energy installations
- Pool together different marine renewable energy initiatives covering the EU Atlantic area, based on the philosophy and furthering the objectives of the Strategic Energy Technology plan
- Develop public awareness using appropriate communication tools on marine renewable energy in the Atlantic
- Strengthen cooperation in the European ocean energy community
- Develop a specific ocean energy framework for EU islands in the Atlantic

### Pillar Activities – Pillar IV

### **Challenges and Opportunities**

The EU Atlantic coast is vulnerable, considering the high number of human activities in this area. Large storms, floods and erosion also have a detrimental effect on large parts of the coast and will likely be exacerbated through climate change. Risk prevention and adaptation measures are necessary to protect the coastal habitats and biodiversity, as well as infrastructure and economic activities at risk.

To address the needs identified, Pillar III includes two specific goals and a set of concrete actions.

#### Goal 6: Stronger coastal resilience

- Demonstrate a comprehensive alert and observing system for incoming storms and floods in the EU Atlantic area
- Develop synergies between existing EU infrastructures for coastal observation and protection
- Develop test spaces, pilot areas to test methods of coastal protection and promote nature-based solutions
- Promote sustainable practices in coastal and maritime tourism
- Compile an inventory of regional adaptation strategies

- Create information campaigns for Atlantic coastal communities
- Educate young people and coastal communities about the natural evolution of the coastline
- Share best practices on the application of maritime spatial planning to coastal adaptation and resilience
- Map coastal wetlands for preservation and to monitor their role as carbon sinks

#### Goal 7: The fight against marine pollution

- Develop a pilot project of 'litter-free' coastal communities
- Use available tools to identify major sources, pathways and hotspots of marine litter, as well as accidental or deliberate pollution
- Promote circular economy-based business actions
- Launch joint actions to promote a public perception of the problem
- Promote fishing for litter actions
- Engage under Oslo/Paris convention (OSPAR) to implement collective actions of the marine litter regional action plan
- Promote coordinated and effective implementation of actions against marine litter and underwater noise
- Support the work under the Union Civil Protection Mechanism and of Bonn and Lisbon Agreements towards effective prevention, preparedness and response to deliberate and accidental pollution
- Promote cooperation among sectors for a coordinated at-sea and shoreline response

#### **Research and Innovation – the International Dimension**

#### The All-Atlantic Ocean Research and Innovation Alliance

The research activities implemented as part of the Galway and Belém Statements and the All-Atlantic Ocean Research and Innovation Alliance cut across all pillars. They give an international dimension to the AAP and support its implementation by improving understanding of the changing Atlantic Ocean and its effects on coastal communities and by developing innovative solutions.

#### A new Vision: the All-Atlantic Declaration

In Washington, D.C. on 13 July, the European Union, Argentina, Brazil, Canada, Cabo Verde, Morocco, South Africa and the United States signed a new All-Atlantic Ocean Research and Innovation Declaration. It will continue the successful journey of ocean science diplomacy and set a common path forward for ocean research cooperation in the Atlantic, from Pole to Pole, for the next decade. Through this new strategic course, the Atlantic partners will join forces to tackle the most pressing challenges the basin is facing, including climate change, biodiversity loss, pollution, ecosystem protection and restoration, and sustainable and inclusive ocean economies while contributing to the objectives of the European Green Deal and A stronger Europe in the world, and the international dimension of the EU <u>Atlantic Action Plan 2.0</u>

Equally considering the Atlantic Ocean as a shared responsibility, the Alliance's joint vision is to bring together and systematically connect all relevant actors across the Atlantic Ocean to identify concrete research and innovation activities with a long-lasting potential and impact across a range of key area identified in the new Declaration. These areas are:

- Increase our understanding of the relationship between the ocean and climate, and to develop outcome-oriented science for mitigating and adapting to its consequences
- Monitor, protect and restore marine ecosystems and biodiversity, thereby enhancing their resilience and potential for adaptation to climate change and other natural and anthropogenic stressors
- Tackle the impacts of marine pollution on marine species and ecosystems
- Develop innovative science for sustainable fisheries and aquaculture
- Coordinate Atlantic Ocean observing and seabed mapping efforts and improve modeling capacities
- Promote circular, sustainable and inclusive ocean economies
- Promote ocean literacy and broaden engagement in ocean sciences and ocean sustainability



#### **Research and Innovation – the International Dimension**

### The All-Atlantic Ocean Research Alliance: A success story of ocean science diplomacy

A new publication tells the story of the All-Atlantic Ocean Research Alliance, a true success of ocean science diplomacy where the European Union played a key role, together with international partners along and across the Atlantic Ocean.

The All-Atlantic Ocean Research Alliance builds on the successes of the Galway and Belém Statements, signed respectively in 2013 and 2017 between the European Union and its Atlantic partners.

The EU has invested in more than 40 projects with over EUR 250 million to promote cooperation between European and international scientists from around the Atlantic, making itself a major investor and player in Atlantic Ocean research.

The results of the projects are fit-for-purpose science that will drive policy in the years to come, and will offer an important basis for the next phase of the All-Atlantic Ocean Research and Innovation Alliance, kicking off with the new political Declaration that was signed by international partners during the 2022 All-Atlantic Ocean Research Ministerial Forum hosted in Washington DC in July 2022

You can download it here

#### All-Atlantic Ocean Research Alliance - Youth Ambassador Programme

The highly successful Youth Ambassador Programme of the All-Atlantic Ocean Research and Innovation Alliance offers opportunities for early-career ocean professionals to work along with international partners to show the influence of young generations on integrating science and citizen engagement in a creative way.

The All-Atlantic Ocean Youth Forum, launched in Brussels in February 2020, aims at equipping a broader community of early-career ocean youth with the skills, education and training to enable them to drive movements of positive change and sustainable development across the Atlantic Ocean. Lately, the All-Atlantic Youth Ambassadors participated in a Summer School organised in Washington, D.C. during the 2022 edition of the All-Atlantic Ocean Research and Innovation Forum, engaging in cultural and professional activities and participating in the high-level discussions during the Forum.



#### **Research and Innovation**

#### Mission Restore our Ocean and Waters

#### What are EU Missions?

European Missions are new broad mobilisation initiatives rooted in the Horizon Europe research and innovation programme, going beyond the existing instruments. Missions will bring concrete solutions to the greatest challenges of our time, such as protecting the ocean, seas and waters.

The objective of this Mission is to restore by 2030 the health our ocean and waters To do so, the Mission will protect and restore marine and freshwater biodiversity and ecosystems, eliminate pollution, and make the blue economy carbon-neutral and circular.

The Mission will look at the whole water system from rivers to the seas and ocean. To support the Mission objectives and its related lighthouses, two cross-cutting enablers will be enhanced: the digital ocean and water knowledge system and broad public mobilisation and engagement.

In the Mission Ocean and Waters we will set up four Mission lighthouses at basin scale in the Mediterranean Sea, the Baltic and North Sea, the Danube river basin and the Atlantic-Arctic basin. These lighthouses will act as hubs that will develop, demonstrate and deploy new solutions across the world.

#### An Atlantic-Arctic Lighthouse on ecosystem protection and restoration

The Atlantic and Arctic lighthouse of Mission Restore our Ocean and Waters will make the most of cross-Mission synergies, by targeting marine ecosystem restoration in coastal communities particularly vulnerable to the risks of sea level rise that urgently need to adapt to ensure their population and infrastructure is safe, climate-proof and weather-resilient. The lighthouse will thus develop, test and implement nature-based solutions to boost coastal resilience through restored and resilient coastal ecosystems, such as oyster reefs, kelp forests, wetlands and salt marshes within the area of the cities and communities, contributing in particular to Pillar IV of the Atlantic Strategy.

Its activities will also have an international impact, reinforcing existing Atlantic and Arctic international collaboration initiatives in the basin. This includes the All-Atlantic Ocean Research Alliance, with its "pole-to-pole" scope covering the Arctic to Antarctica.



#EUmissions #HorizonEU #MissionOcean

## AAP 2.0 Progress

**Pillar I** Ports as gateways and hubs for the blue economy - Pillar Coordinator 2022-2024

Puerto de Vigo



**Carlos Botana LAGARÓN** Head of sustainability department in Port Authority of Vigo

**Carlos Botana LAGARÓN** is the head of Sustainability and development Policies in the port of Vigo (Spain) and Chairman of the blue growth network "European Sea Ports Organisation (ESPO)" and, since 2022, Member of Climate and Energy Committee of International Association of Ports and Harbors (IAPH).

He has a PhD program in climate Change and an MSc. Sciences of the Seas. Carlos has over 19 years of experience in management in commercial, fishing and port environment in the port of Vigo.

He has worked in more than sixteen European projects about environment and development in several programs (FP7-THEME 7, life, life +, Feder, and others). He is an expert in environmental implementation, quality, and security systems. He is a member of the Sustainability and Development Committee of ESPO "European Sea Ports Organisation" since 2013. For more information click the following link <u>Pillar I: Ports as gateways and hubs for the</u> <u>blue economy</u>

### **Pillar II** Blue skills of the future and ocean literacy - Pillar Coordinator 2022-2024

Ana NORONHA Executive Director of Ciência Viva

Ana Noronha is Executive Director of Ciência Viva, the Portuguese agency for scientific culture. At Ciência Viva, she coordinates initiatives about education and public awareness of science at national and international level, particularly on space science and ocean literacy.

A physicist with a PhD on Non-Linear Dynamics, she coordinates the ESERO Portugal, European space resource office established with ESA at Ciência Viva, Co-Chair of the Ecsite Space Group and is a member of the ESA Advisory Committee on Education. Presently she is serving as coordinator of "Blue Skills & Ocean Literacy" Pillar of the Atlantic Strategy and as a Member of the Ocean Decade Communications Advisory Group.

For more information click the following link <u>Pillar II: Blue Skills and Ocean Literacy</u>

CIÊNCIATVIVA

Pillar III Marine Renewable Energy - Pillar Coordinator 2022-2024



Kerrie SHEEHAN Head of Research and Technology Department in Sustainable Energy Authority of Ireland (SEAI)

**Kerrie Sheenan** has over 17 years' experience in the management of EU and National funded research of which 9 years have been in the sustainable energy field, and the most recent 5 specifically on offshore/ocean. The roles have been in central university functions, within research performing units and as National funder, covering programmatic management, finance and governance. She holds a BA in Mathematics and Geography, a Master's in Environmental Public Policy and is an FCCA accountant.

Kerrie is currently Head of Research and Technology Department in Sustainable Energy Authority of Ireland (SEAI). She oversees the SEAI offshore/ocean team, which supports ORE National test sites, research funding, delivering Interreg and H2020 research performing projects, and undertaking national coordination of policy makers, industry and researchers.

For more information click the following link
<u>Pillar III: Marine Renewable Energy</u>

ENERGY AUTHORIT

Pillar IV Healthy Oceans and Resilient Coasts - Pillar Coordinator 2022-2024

Phil MONBET Deputy Director Pole Mer Bretagne Atlantique

With a background in chemistry from the University of Brittany, **Philippe Monbet** completed a thesis "Marine Chemistry" at the European Institute of the Sea (IUEM, Brest) and then joined Ifremer and Ineris "National Institute of Industrial Risks Environment" for missions on marine environmental research, expertise and consulting.

His research activities have taken him to the AIMS "Australian Institute of Marine Science", Melbourne Monash University and Plymouth University in the UK and he has provided consultancies for major French energy stakeholder regarding the ecological monitoring of water around nuclear power plants waterfronts (Flamanville, Penly Paluel) and AREVA NC La Hague. In 2010, he joined Pole Mer Bretagne Atlantique, a Sea Business Cluster dealing with innovation in the maritime sector as Head of European Affairs managing the European projects and later in 2017 he was appointed Deputy Director in charge of the cluster management and international affairs. For more information click the following link
<u>Pillar IV: Healthy Oceans and Resilient</u>
<u>Coasts</u>

PÔLE

Pillar I - Ports as gateways and hubs for the blue economy

### Key findings of results achieved



The role and potential of Atlantic ports (both central and regional) to capitalise on new opportunities and industries as well as address and respond positively to current and future challenges formed the backdrop to the overall aim of the revised AAP 2.0.



"Digitalisation", "Ports as hubs for business", "Connectivity" and "Green Ports" were identified and prioritised as key themes that underpin the activities of Pillar I during the implementation of revised AAP 2.0



Atlantic Ports play a significant role in the process of achieving the climate change targets, as the importance of their continued digitalisation is a strong enabler of outputs regarding marine renewables, biofuels etc.



The importance of regional ports (within a specific region and related to a specific industry) along with the need for connection and collaboration between Atlantic ports has been increasing in order to achieve the goals set for Pillar I.

### **Synergies Identified**

Strong synergies between Pillar I and Pillar II & III have been identified. Specifically, ports as well as offshore renewable energy and other blue economy sectors should work together to identify blue skill gaps, elaborate a full profile of their working activities and empower people so as to retain and attract further talent.

Pillar I - Ports as gateways and hubs for the blue economy

### Identified good practice examples



### **Expected Results**

Develop a Masterplan for European Green Ports; a roadmap thereto and a handbook to accelerate the development of sustainable maritime and inland European ports.

Create energy efficiencies and support developments that make green energy carriers available to the users.

Facilitate and contribute to the decarbonization of port related transport.

The MAGPIE project is addressing the missing link between green energy supply and green energy use in port-related transport and the implementation of digitalisation, automation, and autonomy to increase transport efficiency.



Pillar I - Ports as gateways and hubs for the blue economy

### Identified good practice examples



PIONEERS project brings together four ports with different characteristics, but shared commitments towards Green Deal goals and Blue Growth socioeconomic aims.

It addresses the challenges faced by European ports to reduce their environmental impact while remaining competitive in a sector characterised by continuous growth.

#### For more information click here

### **Expected Results**

Reduce the ports' total environment footprint by introducing Clean Energy production, storage and supply.

Introduce eco-friendly improvements relying on digitalisation and new methods of operations. Deploy sustainable port infrastructure beyond energy support.

Co-define and transfer PIONEERS' demonstrations to fellow ports during the project lifecycle.

Deliver and disseminate a Port Master Plan for the transition towards GHG- neutral shipping and wider multimodal mobility by 2050.



Pillar I - Ports as gateways and hubs for the blue economy

### Identified good practice examples



### **Expected Results**

Provide the knowledge base for the implementation of the EU Green Deal The platform will be a catalyst for awareness, stakeholder engagement and uptake of outcomes from related national and European projects and initiatives.

Consolidate their findings, assess their impacts and gaps.

The EU-funded PLATINA3 project will provide for targeted coordination and support activities to promote inland waterway transport (IWT) in Europe. Starting from January 2021, the project will run for 30 months. In this period the project will make the bridge towards future research, innovation and implementation needs within IWT in Europe. Platform for the implementation of a future inland navigation action programme

Pillar I - Ports as gateways and hubs for the blue economy

### Identified good practice examples



The main objective of the project is to maintain European global leadership in ship building and ship maintenance, through implementation of the Shipyard 4.0 concept in which advanced and innovative FRP manufacturing technologies are successfully introduced.

FIBRE4YARDS focuses on the entire value chain of the shipyards and their ecosystem, cooperatively working on small and medium length fibre-based ships in a digital environment.

For more information click here

### **Expected Results**

Introduce smart and secure engineering, manufacturing and data sharing concepts in ship production

Embed advanced and highly automated FRP production technologies in the Shipyard 4.0 while applying these technologies in ship production, maintenance and dismantling digitalised engineering and analysis simulation solutions

Develop and validate new

Facilitate industrial deployment of the FRP Shipyard 4.0

Develop business plans and Intellectual Property Rights (IPR) strategies for shipyards



Pillar I - Ports as gateways and hubs for the blue economy

#### DoorToSea- Pillar I Atlantic Awards Winner



### **Expected Results**

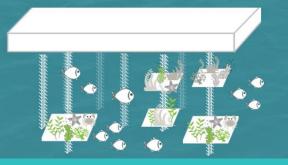
Develop tools for the conservation and management of port ecosystems and their services and in particular, carbon sequestration and their storage potential

Identify and capitalise the ecosystem services provided

Reduce pressure on coastal ecosystems and creating incentives for restoration practices

DoorToSea is focused on the revitalisation of coastal areas that have been affected by industrial activities in the port environment, through the design of structures that support marine life, and through biomimetics to increase biodiversity and carbon sequestration (by using one type of calcareous alga, for instance);

#### CREATING ECOSYSTEMS GREEN STRUCTURES: DOOR TO THE SEA



VALORIZATION OF MARINE ECOSYSTEMS SEAGRASS MEADOWS, NATURAL CO2 SINK



Pillar II - Blue skills of the future and ocean literacy

### Key findings of results achieved



Attracting new talents for the Blue Economy, upskilling and reskilling of workers and ensuring their interoperability in the Atlantic region have been identified as cross-cutting priorities for a strong and sustainable blue economy.



The digital transition, enhanced by the COVID-19 pandemic, will impact blue professions, education and EU citizens' perceptions and decisions regarding ocean health and coastal resilience. Thus, blue digital training opportunities are paramount and have the potential to transform the established processes in all value chains.



Investment in developing transferable skills for blue sector workers is particularly important to ensure resilience and adaptation to current and future situations and challenges. In this context, blue Schools, with their diverse partnerships of research institutions, regional authorities, NGOs and companies, will be an important asset for the fulfilment of the AAP 2.0 Pillar II goals.

### **Synergies Identified**

Strong synergies between Pillar II and the other three AAP 2.0 Pillars have been identified. Specifically, collaborative approach in identifying opportunities for lifelong professional training regarding digital, entrepreneurial and green skills, specially in the areas of ports, marine renewables and coastal resilience is considered of great importance.

Pillar II - Blue skills of the future and ocean literacy

### Identified good practice examples



Iliad aspires to be an interoperable, data-intensive, and cost-effective Digital Twin of the Ocean. Iliad capitalises on the explosion of new data provided by many different Earth observation sources, advanced computing infrastructures (cloud computing, HPC, Internet of Things, Big Data, social networking, and more) in an inclusive, virtual/augmented, and engaging fashion to address all Earth data challenges.

### **Expected Results**

Deliver a digital interactive framework based on digital technologies including available ocean observation datasets in Europe and digital analytic toolboxes to configure the digital ocean simulator and to access what-if scenarios.

Deliver interactive virtual tools of the ocean in a unified digital environment, enabling the creation of virtual replicas of a wide range of physical entities Be a novel cyber-physical ocean simulator of the ocean, describing and forecasting atmospheric/ocean processes across the catchments, the riversea systems, the open ocean, the sea-ice, and the pelagic/mesopelagic/benthic environments along with the simulated operations carried out by various marine and maritime actors

Empower a shared responsibility to monitor and ensure marine habitat preservation, sustainable marine economic activities, and exploitation of ecosystem services (fisheries, aquaculture, transport, offshore energy, etc.)

Pillar II - Blue skills of the future and ocean literacy

### Identified good practice examples



iFishCan is a joint work proposed by a consortium of partners of three EIT Knowledge and Innovation Communities (EIT Manufacturing, EIT Food and EIT Digital) that will address the issue of Intelligent Waste and loss monitoring test bed for the Fish Can industry.

### **Expected Results**

Provide a solution that will substantially improve existing traditional Food Loss Waste systems

Validate a testbed in two fish can factories (in Portugal and Spain), which will later allow escalating the initiative to other companies of the fish canning sector improving their sustainability and reducing their costs. Impact many aspects of the production process of the fish firms adopting this solution: 10% reduction of food loss during production; reduction of 5-10% in energy consumption; reduction of 5-20% in water consumption will be pursued.



Pillar II - Blue skills of the future and ocean literacy

### Identified good practice examples



The project MERFISH brings together international experts from a wide array of interdisciplinary research areas to address the issue of mercury, that is a chemical of major public health, from fish to human.

### **Expected Results**

Combine multidisciplinary expertness in order to contribute to deal with environmental, health, socioeconomic and food safety issues associated to mercury pollution.

Develop pioneer analytical approaches to study Hg and Se in living organisms

Gather new knowledge about Hg and Se mechanisms in fish and humans Advance the understanding of Hg and Se interactions in humans and their impact on human health

Contribution to set nutritional strategies towards sustainable development of fisheries and aquaculture



Pillar II - Blue skills of the future and ocean literacy

### Identified good practice examples

**TRANSFORMAR** PROJETO DE LITERACIA DOS **OCEANOS EM E**SPOSENDE

TransFORMAR includes the design of a story for young audiences about the threats and risks that hang over the marine environment, with particular attention to the regional reality of the North Coast Marine Park and its biodiversity, as well as the problems they pose.

### **Expected Results**

Design and implement an educational project about ocean literacy aimed at increasing environmental awareness and train the younger population on the problems that affect marine ecosystems;

Explore concepts such as diffuse pollution, marine litter, microplastics, ghost nets, overfishing, invasive species and climate change

Contribute to an increase in knowledge and awareness / responsibility of the younger population about threatened marine resources, habitats, species and the landscape itself, in order to demonstrate how global problems are reflected locally:

Provide citizens and, in particular, the younger population, with knowledge about the current state of local marine ecosystems





Pillar II - Blue skills of the future and ocean literacy

### **EMPORIA4KT - Pillar I Atlantic Awards Winner**



EMPORIA4KT works towards the design and implementation of actions between triple helix players (academia, business and government) to foster innovation and competitiveness within Blue Economy sectors. By focusing on upgrading Academia skills for knowledge transfer and innovation, this project intends to enable the design of market-directed Research, Development & Innovation (RDI) projects.

#### For more information click here

### **Expected Results**

Identify and share best practices in knowledge transfer and innovation through organisation of events, focusing on the role of academia to foster cooperation between triple helix players

Develop a Joint Action Plan to enhance knowledge transfer & innovation capacity to foster the Atlantic Area's Blue Economy competitiveness

Design advanced risk assessment and cost effectiveness tools for academia and public bodies to de-risk Early Stage Technologies that respond to a Blue Economy need in the Atlantic Area

Develop a methodology to assess regional research capability together with industry and market needs, which will be made generic and transferable to other regions and across disciplines Organise of national and international bootcamps to enhance the Blue Economy in Atlantic Areas, resulting in evaluation of investment in RDI and industry needs in the Blue Economy, and national RDI capacity to support development

Offer training on knowledge transfer and innovation, where the learning tool co-developed by partners will be transmitted to researchers

Empower Academia for Knowledge Transfer for Value Creation in the Atlantic Area

Pillar III - Marine Renewable Energy

### Key findings of results achieved



Given the fact that marine renewable energy is an increasingly important and essential pillar of the EU blue economy and of EU's energy security, Smart Specialisation Strategies (3S) have been identified as a useful tool to support transition towards a sustainable blue economy.



Strong synergies between the Goals of Pillar III and "Green" EC infinitives and strategies (European Green Deal, EU Offshore Renewable Energy Strategy etc.) have been identified. Marine Renewable Energy is a sector with great potential to sustainably generate economic growth and jobs, enhance the security of its energy supply and boost competitiveness through technological innovation.

3

Sharing of knowledge, best practices and ideas for projects have been identified and pinpointed as a key activities for enhancing the capabilities on Marine Renewable Energy sector in the Atlantic region.

### **Synergies Identified**

A synergy between Pillar III & IV activities has been identified, especially as regards the ways to better address the current challenges that marine renewable energies have in delivering sustainability and improving the health of the oceans.

Pillar III - Marine Renewable Energy

### Identified good practice examples



Green Hydrogen Systems is a leading provider of standardised and modular electrolysis equipment for the production of green hydrogen solely based on renewable energy.

GreenHyScale is to pave the way for large scale deployment of electrolysis both onshore and offshore, in line with the EU hydrogen strategy and offshore renewable energy strategy.

### **Expected Results**

Pioneer the field of green hydrogen to drive a sustainable global energy transition

Advance and deploy our modular, standardised and versatile best-in-class electrolyser technology to drive and develop the market and meet the demand from customers and other stakeholders

## **Direct aplication** A⊞\_\_ Innn Power-to-X (e-fuels) **Grid stabilisation** 躗

Pillar III - Marine Renewable Energy

### Identified good practice examples



EU-SCORES will demonstrate the combination of offshore wind with wave- and offshore solar PV energy. This will pave the way for bankable multi-source offshore parks across Europe by 2025.

These multi-source parks will use offshore space more efficiently and balance the electricity grid to achieve a resilient and cost-effective 100% renewable energy system.

For more information click here

### **Expected Results**

Develop a Masterplan for European Green Ports; a roadmap thereto and a handbook to accelerate the development of sustainable maritime and inland European ports

Create energy efficiencies and support developments that make green energy carriers available to the users.

Facilitate and contribute to the decarbonization of port related transport.



Pillar III - Marine Renewable Energy

### Identified good practice examples

FORWARD 2030

The EU-funded FORWARD-2030 project will accelerate the commercial deployment of tidal energy, in line with the European Green Deal.

The FORWARD2030 €26.7m project, has received €20.5m of grant support from the European Union's Horizon 2020 research and innovation programme to develop a multi-vector energy system for the future.

### **Expected Results**

Reduce Levelised Cost of Energy by 25%

Complete industrial design for volume manufacture rollout for 10 MW and 100+ MW projects

Enhance environmental and societal acceptance

Enhance commercial returns and

energy system integration (with

battery storage and green hydrogen production)

Reduce life cycle carbon emissions by 33%

Pillar III - Marine Renewable Energy

#### Identified good practice examples



SEABAT is developing a modular full electric maritime hybrid battery concept to substantially reduce the costs of large waterborne battery systems for over 1MWh.

The overall objective of SEABAT is to develop a fullelectric maritime hybrid concept based on (1) combining modular high-energy batteries and highpower batteries, (2) novel converter concepts and (3) production technology solutions derived from the automotive sector.

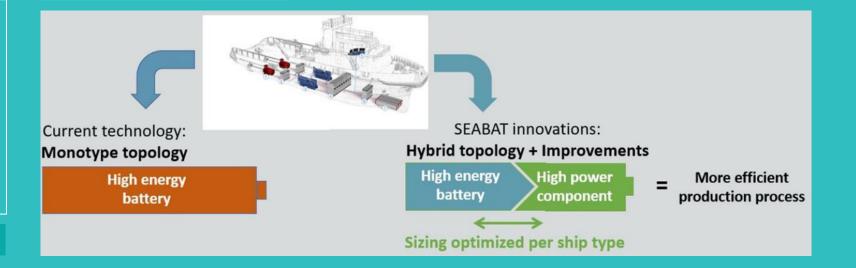
For more information click here

#### **Expected Results**

Analyse market for waterbone transport

Develop modular full-electric hybrid topology

Validate solution for batteries of >1MWh for waterbone transport



Pillar III - Marine Renewable Energy

#### HYLANTIC - Pillar III Atlantic Awards Winner



The Atlantic Network for Renewable Generation and Supply of Hydrogen to promote High Energy Efficiency - HYLANTIC project aims to establish an excellent transnational network to advance the R&D, implementation and commercialisation of hydrogen as an energy vector for future power generation in the Atlantic Area, thus providing energy efficient solutions to strategic sectors in the Atlantic region such as transport, marine, ultra-low energy building supply, and/or portable and stationary devices.

#### For more information click here

#### **Expected Results**

Establish an excellent Transnational Network to advance the R&D, implementation and commercialisation of hydrogen as an energy vector for future power generation in the Atlantic area. Provide energy efficient solutions to strategic sectors in the Atlantic region such as transport, marine, ultra-low energy building supply, and/or portable and stationary devices. Design safe storage systems and efficient and low cost energy systems through innovative fuel cell and h2 combustion engines and their implementation in prototypes.

Associating research clusters, platforms, public institutions, and regional & national governmental within the Atlantic area will:

- Facilitate technology transfer
- And will led to integration of scientific developments into energy policies by gaining approval from the public.



Pillar IV - Healthy Oceans and Resilient Coasts

#### Key findings of results achieved



A combination of actions is needed to promote coastal resilience notably conservation efforts that reduce or mitigate human impacts and measures of coastal protection and adoption of appropriate management practices.



Planning and organisation of information campaigns for Atlantic coastal communities has been set as a priority action in order to tackle down the challenges faced regarding coastal resilience.

3

A strong alignment has been identified between many launched European initiatives and AAP 2.0 Pillar IV priorities. Additionally, a plethora of EU funded projects aim to achieve results that are fully synchronised with Pillar IV efforts to boost regional cooperation to implement actions dedicated to the Atlantic area coasts.

#### **Synergies Identified**

A strong synergy between Pillar II and IV has been identified since Blue skills are a cornerstone in Pillar IV activities by providing the knowledge and insights that should drive innovation and strategies for using the oceans, seas and marine resources in a sustainable and responsible way.

Pillar IV - Healthy Oceans and Resilient Coasts

#### Identified good practice examples



NextOcean aims at developing (co-designing) 6 commercially-oriented, operational Earth Observation-based services for the public and private sectors in sustainable fisheries and aquaculture under a common service delivery platform leveraging on Copernicus and Global Earth Observation System of Systems (GEOSS) data and resources, complemented by other EO and in-situ data streams.

#### For more information click here

#### **Expected Results**

Deliver economic, social and policy value to European citizens by developing a new market of product and services Provide data on Fisheries, Monitoring & Surveillance, Characterisation of fishing areas, Fish Farm impacts, Fish Provenance & Ecolabelling

Help prevent disease, minimize bycatch, verify and validate information on fisheries, and more



Pillar IV - Healthy Oceans and Resilient Coasts

#### Identified good practice examples



The EU-funded NextGEMS project will apply a new generation of global coupled storm-resolving Earth system models (SR-ESMs) for use in the ocean or atmosphere.

#### **Expected Results**

Develop two SR-ESMs for applications

Use SR-ESMs to test emerging and long-standing hypotheses underpinning our understanding of climate change

Build new, more integrated, communities of ESM users



For more information click here

Pillar IV - Healthy Oceans and Resilient Coasts

#### Identified good practice examples



REST-COAST will provide the tools to address some of the key challenges to coastal ecosystems today all consequences of a long history of environmental degradation of our rivers and coasts. The EU-funded REST-COAST project will bring together 38 partners to assess ecosystem services from coastal marshes, seabed meadows and coastal dunes, to reduce erosion and flooding risks while enhancing biodiversity and blue carbon.

For more information click here

#### **Expected Results**

Improve coastal restoration practice and techniques

Design innovative financial arrangements and bankable business plans

Co-design innovative governance arrangements and policies

Generate new tools and data to assess risk reduction

Develop a scalable plan for coastal adaptation

Support the Green Deal social transformation and engagement

Engage with project stakeholders, EU Green Deal officers and international organisations to transfer REST-COAST restoration tools, data and expertise and demo material.



Pillar IV - Healthy Oceans and Resilient Coasts

#### Identified good practice examples



#### **Expected Results**

Find new modeling approaches to predict socio-environmental evolution in highly anthropised coastal lagoons Find new solutions not only to monitor the change faced by biodiversity but also to understand how to prevent and minimally impact the natural balance of ecosystems

Develop a digital twin to build a systemic understanding of the socio-environmental interrelationships affecting coastal lagoons and their ecosystem.

SmartLagoon is a project based on the importance of building a systemic understanding of the socioenvironmental interrelationships that affect coastal lagoons and their ecosystem to increase local and citywide awareness of environmental impacts. It is funded by the EU's Horizon 2020 program that aims to monitor and analyze the lagoon environment of the Mar Menor in Murcia, Spain to predict socioenvironmental evolution in highly anthropized coastal lagoons.

For more information click here



Pillar IV - Healthy Oceans and Resilient Coasts

#### **MARLIT - Pillar IV Atlantic Awards Winner**



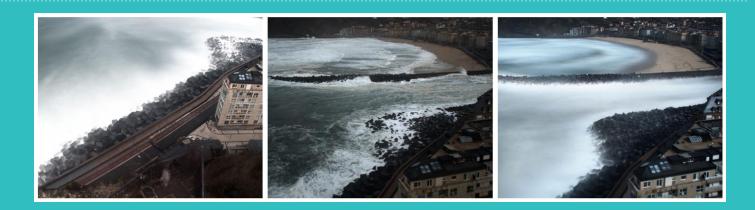
The main objective of MaRLiT project is to improve knowledge and tools for understanding the impacts of current and future storms on the coasts in order to support coastal risk management by public administrations.

#### **Expected Results**

Produce a large database gathering detailed local information about storm impacts, using innovative monitoring and modelling technologies.

Support an unprecedented evaluation of the future evolution of coastal risks at the local scale. Provide a new capitalisation on historical storm events to support protection, monitoring and prediction actions led by public administrations.

Identify and assess innovative mitigation countermeasures to reduce the onshore impact of ocean storms.



#### For more information click <u>here</u>

**International Dimension** 

Main outcomes and key messages from the All-Atlantic Ocean Research Forum in Washington D.C.

Roundtable Discussion 1 Engage Themes: Ocean Literacy and Capacity Building	<ul> <li>Key Messages</li> <li>There is a need to strengthen internal cooperation and improve communication between science, education, and outreach efforts across All-Atlantic communities and working groups.</li> <li>Incorporation of ocean literacy efforts needs to be considered from the start of the research project planning and design process.</li> <li>It is of great importance to share information in a way that is engaging to the values and priorities of the intended audience.</li> <li>Good practices need to be shared in order to increase capacity and achieve a more level playing field across all participating counties and support local and regional conversations to build stronger relationships.</li> </ul>
Roundtable Discussion 2 Stressors Themes: Pollution and Ocean- Climate	<ul> <li>Key Messages</li> <li>More information is needed on the effects of microplastics on the marine environment.</li> <li>A focus on upstream sources of pollution, including plastics before they enter the ocean, is needed.</li> <li>Harmonising monitoring approaches and ensuring data compatibility across the All-Atlantic community is essential.</li> <li>The All-Atlantic community should take advantage of international cooperation and the local knowledge found within itself.</li> <li>Collaboration is needed to not only improve science, but also improve infrastructure, political approaches and decision making.</li> <li>Countries in the Alliance also need to share their experiences in climate change mitigation.</li> </ul>

**International Dimension** 

#### Main outcomes and key messages from the All-Atlantic Ocean Research Forum in Washington D.C.

Roundtable Discussion 3	Key Messages
Ecosystem Understanding and Restoration Themes: Observing and Ecosystems	<ul> <li>Move Atlantic Ocean observing from disparate science projects to national priorities and polycentric management of the system and the resources to support them.</li> <li>Promote the equitable transfer of knowledge and data to bridge the science-policy interface.</li> <li>Find ways to harmonise national monitoring programs across the All-Atlantic.</li> <li>Communities need to be involved in monitoring and data processing whenever possible and the data should be used to produce didactic materials for use in the community.</li> <li>All-Atlantic should rally around a few key priorities such as the role of the ocean in climate change or ocean biodiversity.</li> </ul>
Roundtable Discussion 4	Key Messages
Sustainable Ocean Economy Themes: Sustainable Ocean Economy & Aquaculture and Fisheries	<ul> <li>Improve how GDP is utilised by moving beyond market value indicators to embrace thinking about different and equitable indicators.</li> <li>Prioritise ecosystem services, understand the value of ecosystem services, and quantify non-economic valuation of those services.</li> <li>Integrate the social dimension into economic indicators.</li> <li>Marine microbiomes and biotechnology can offer opportunities for the blue economy as alternatives to major industries currently impacting the health of the oceans.</li> <li>Need to take into account the users of the sea such as fishing communities.</li> <li>Aquaculture is often undervalued with focus on the environmental impacts. The potential and value of aquaculture needs to be considered.</li> </ul>

**International Dimension** 

#### AANChOR-CSA – International Dimension Atlantic Awards Winner



The AANChOR-CSA was funded under Horizon 2020 to implement the Belém Statement, its related All-Atlantic Ocean Research Alliance and the construction of the All-Atlantic Ocean Research Community, the wide group of stakeholders that contribute and benefit with the advance of marine science in the whole Atlantic basin. AANChOR-CSA will provide support to a series of added-value Joint Actions targeting key areas within transatlantic cooperation on ocean research, either in terms of providing seed funding for the implementation of the initial phases of the Joint Action or in terms of providing information on possible tools and funding mechanisms for the long-term activities of the Joint Actions of the EU-Brazil-South Africa Belém Statement.

#### **Expected Results**

Identify concrete joint actions to support the implementation of the EU-Brazil-South Africa Belém Statement

Contribute to the implementation of the selected joint actions.

Define long term measures for sustainability of the cooperation framework beyond the lifetime of the CSA

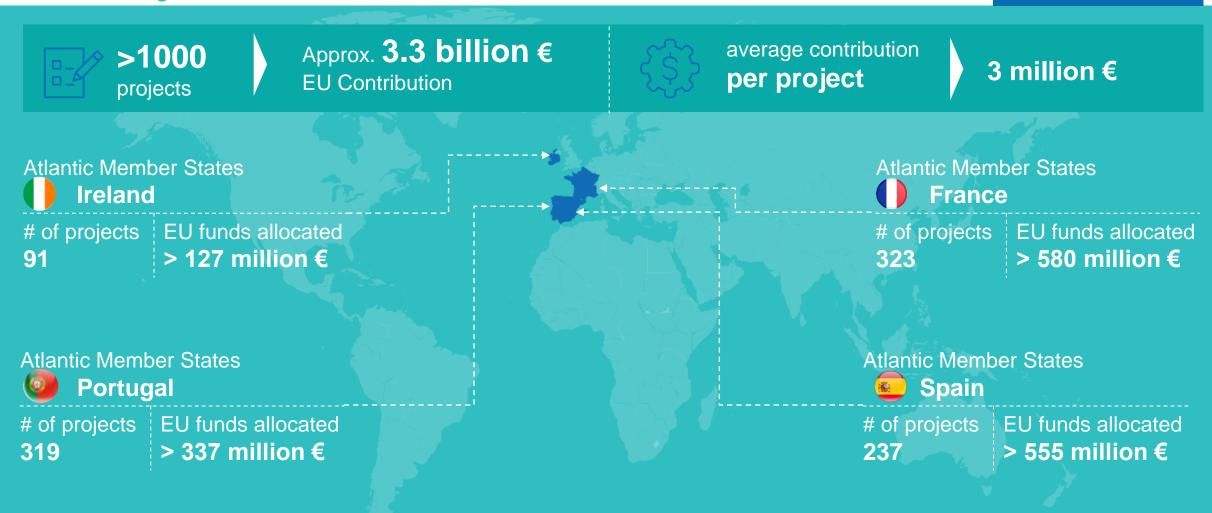


#### For more information click here

### 2.3 Data on AAP 2.0 implementation

Funding across member state

Period: 2020 - 2022



### 2.3 Data on AAP 2.0 implementation

Main EU funding instruments

Period: 2020 - 2022 ★ HORIZON ★ European Regional Development Fund 2020 nvesting in your Future 72 million € Contribution 950 million € European Contribution Investment Bank EMFF OPERATIONAL National PROGRAMME funds 2014-2020 217 million € 1,8 billion € 45 million € Contribution Contribution Contribution

### 2.3 Data on AAP 2.0 implementation

#### Funding per topic\*

	Number of Projects	EU Contribution (mil. €)	Average EU funding per project (mil. €)	The top 5 topics prese	
nsport (port connectivity & accessibility)	31	84	2,7	have a total € 2.655 million EU contribut (83% of the total EU contribution), with a	
rts as trade gateways	18	230	12,7	number of 445 Project	is (42% of total
itime skills & education	33	22	0,7		
ean literacy	60	52	0,9		■ Marine Re
ine renewable energy	72	1.809	25,2	17%	Research
vironment & climate change	120	210	1,8	7% 4%	■ Ports as t
Istal Resilience	24	129	5,4	7%	Coastal R
epreneurship	32		0.5	9%	Environm Change
search and innovation	151	277	1,8		Other topi
hers (marine pollution, fisheries etc.)	263	381			

#### **Pillar I and Pillar II**

#### Pillar I and II Online Workshop:

#### **Towards Digital and Blue Careers** (26<sup>th</sup> of April)

**Objectives:** Highlight the importance of digital skills as a transversal priority, indicating the value of digital upskilling and reskilling as regards blue careers and the criticality of digital skills for attracting youngsters to the Blue Economy.



#### Workshop Participant feedback | Motivation to attend the event

- Identified strong links between Pillar I & II
- Raised awareness about the priorities of the revised AAP 2.0
- Fostered cooperation among countries



#### Pillar II

#### Pillar II Online Workshop:

#### Digital Learning and Blue Schools' Impact (27th of April)

**Objectives:** Highlight the power of digital learning tools and share and exchange successful experiences and tools, with a view of creating new partnerships and developing new innovative digital learning resources.



#### Workshop Participant feedback | Motivation to attend the event

- The power of digital learning tools was fully explained (augmented reality, ai, 3d printing, animation, etc).
- The importance of digital tools to boost learning and experience sharing in training sessions, as well as to develop blue literacy in any location (near the coast and inland) was also highlighted.



#### **Pillar III and Pillar IV**



#### Workshop Participant feedback | Motivation to attend the event



#### Pillar III & IV Workshop:

#### Smart Specialisation for Sustainable Blue Economy (9th of May)

**Objectives:** Discuss the perspectives of the European Union regarding the sustainable Blue Economy and better address the current challenges that marine renewable energies have in delivering sustainability and improving the health of the oceans.

- Increased collaboration levels among other marine user groups such as Fishermen.
- Have an in more depth discussion in the framework of the Atlantic Action Plan 2.0 and the Member States expert group on integrated maritime policy.

#### Pillar III



Workshop Participant feedback | Motivation to attend the event



#### Pillar III Workshop:

Brokerage Event On Marine Renewable Energy (10th of May- Hybrid)

**Objectives:** Inform MRE stakeholders and promote the potentialities of Smart Specialization Strategy (S3) interregional partnerships, within the framework of the I3 instrument and the currently open calls, specifically focusing on offshore renewable energies.

- Created a mind Map used to organise interests of MRE stakeholders towards potential future interregional partnerships (Available here)
- Subjects discussed: Cost reduction for floating wind platforms and mooring systems, testing in real conditions, manufacturing capacity, O&M, supply chains, green hydrogen and ports, acceptance, stakeholders, fisheries, blue skills, ecosystem management, and biodiversity.

#### Pillar III





physical participants

#### Lessons Learnt

Shared experiences from different institutions/organizations/ companies in the Blue Economy in the past and present.

#### Aspirations

Share experiences that the participants wish to develop/ address/promote from their institution organization/company in the future.

# 0<u>0</u>0 7

different sectors in which the participants belonged

#### **Challenges & Needs**

Identify assistance needs (financing, search for partners, etc.) of the different institutions/ organizations/companies on desired topics around the Blue Economy.

#### **Opportunities Of The Blue Economy In The Canary Islands (1st of June)**

- Publicise the Atlantic Action Plan 2.0 and its AAM
- Interact with the relevant agents of the blue economy of the Canary islands.
- Publicise examples of blue economy projects already underway in the Canary islands.
- Compile the main project ideas, priorities and needs of the agents with the potential to carry out projects in line with the objectives of the AAP 2.0.

#### 9th Atlantic Stakeholder Platform Conference 2022

#### **Conference Overview**

ASPC 2022 took place two years after the launch of the Atlantic Action Plan 2.0 – A New Approach to the Atlantic Maritime Strategy.

The occasion provided stakeholders of the Atlantic Community the opportunity to review the current state-ofplay of the AAP and the way forward.

It also presented opportunities to introduce the Community to new players, projects and innovative ways to collaborate toward its implementation.

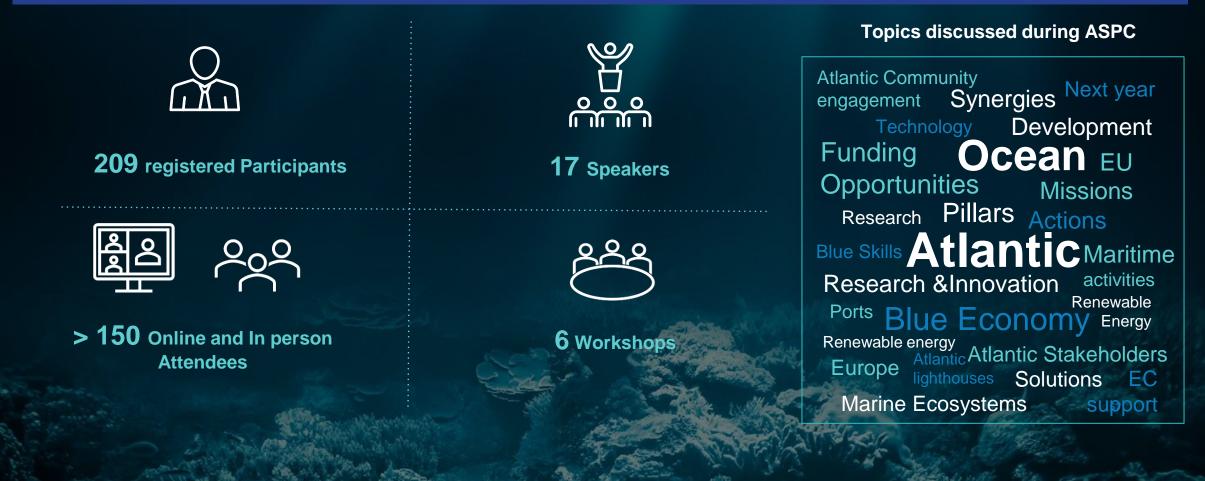
The conference was organised back-to-back to *InnovAzul event* thus creating an essential point of interaction between technology demanding companies, administrations, knowledge generators and technological agents for innovation, socioeconomic development, and employment in the marine-maritime sectors.

#### Goals of ASPC 2022

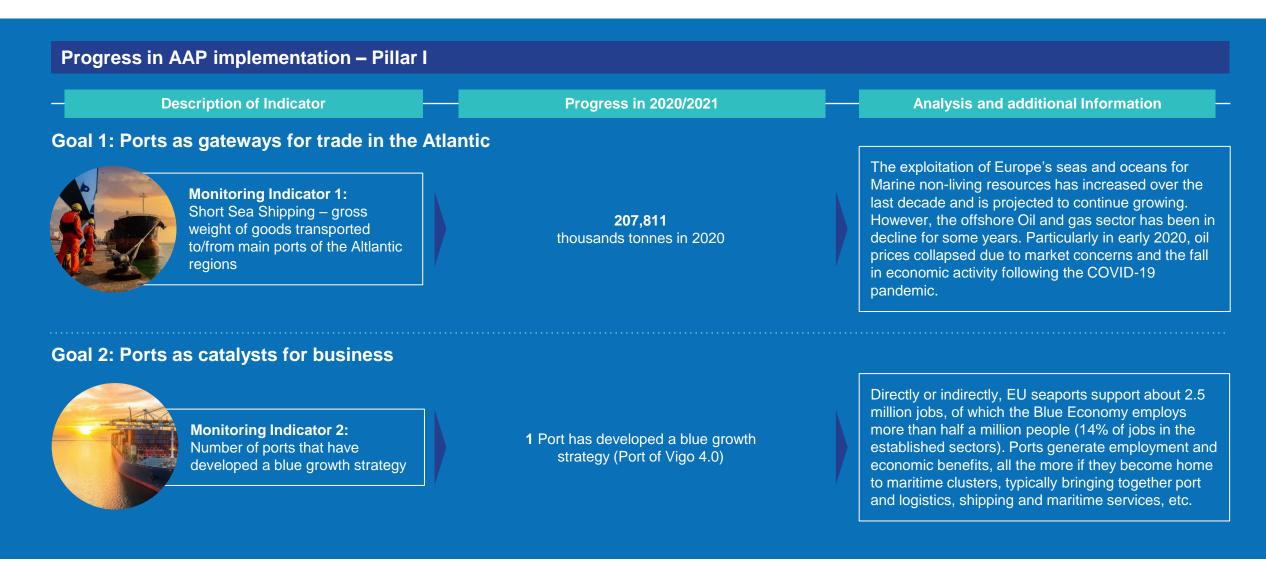
- Review the state-of-play of Atlantic co-operation and its activities in relation to the AAP 2.0
- Showcase projects, good practices, new partnership models, funding opportunities and community platforms that promote the Blue Economy and the EU Green Deal
- Foster collaboration between stakeholders, existing and new players that will unlock opportunities and accelerate the implementation of the AAP 2.0 – contributing to an impact-driven networked innovation ecosystem in the Atlantic



#### 9th Atlantic Stakeholder Platform Conference 2022



### 2.5 Indicators Achieved



### 2.5 Indicators Achieved



t

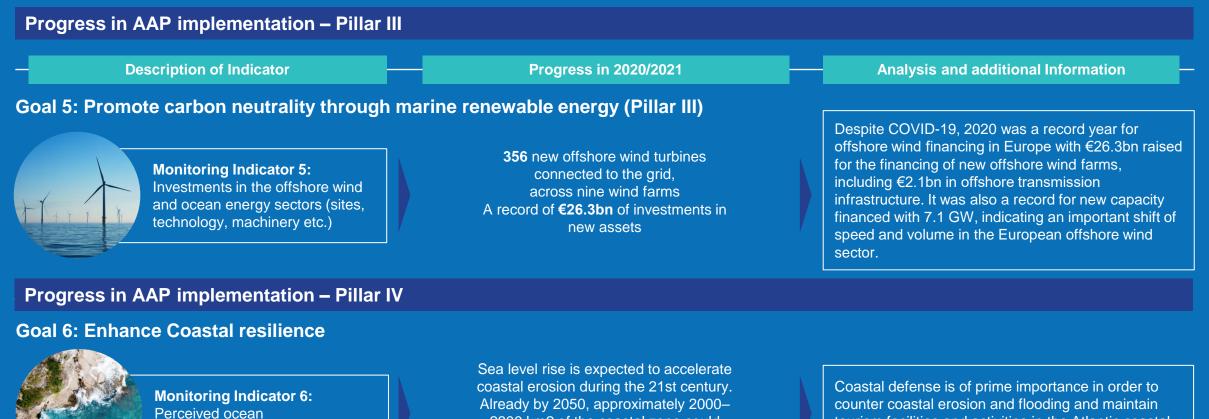
are fundamental enablers of the All-Atlantic cooperation. Based on this, the main objective of a variety of projects is to help people understand their connection to the sea and to take a more interest in their ocean

The overarching aim is to empowering ocean-literate citizens, to take direct and sustainable action towards a healthy ocean, healthy communities and ultimately a healthy planet.

Perceived ocean

literacy in coastal regions

### 2.5 Indicators Achieved



literacy in coastal regions

2300 km2 of the coastal zone could erode, depending on the emission scenario (moderate or high emissions).

tourism facilities and activities in the Atlantic coastal region.

## **Recommendations and Conclusions**

Atlantic Action Plan 2.0: Implementation Report 2022

2

### 3.1 Pillar I Ports as gateways and hubs for the blue economy

#### **Recommendations**

The recommendations on Pillar I priorities stem from the combined information that has been collected through roadmaps, reports and input from experts in workshops as well as through observations of the Atlantic Area by the Pillar I Coordinator's team.

#### **Prioritised Actions**

- Prioritise a just and ecological transition at all ports in the Atlantic Region
- Swift focus on new energy sources and on the design of vessels' prototypes and a green ports network
- Create and disseminate knowledge on new energy sources (per fleet and vessel type).
- Foster design of vessels adapted to new energy sources
- Open and foster green corridors in the EU region
- Foster pilot projects implementation regarding port activities.

#### Recommended methodology

#### Cross pillar and multistakeholder approach

A multidisciplinary approach will be favoured for all topics, so that as many stakeholders as possible will be involved in the process of achieving an outcome.

#### Knowledge dissemination approach

Activities/workshops should be implemented with the involvement of a variety of stakeholders from private sector, port authorities, research institutions, civil society and public administration.

#### Analytical approach for action

A more analytical approach based on open dialog on the challenges and opportunities related to ports' green transition should be prioritised in order to identify solutions and proposals.

### 3.1 Pillar II Blue skills of the future and ocean literacy

#### **Recommendations**

The recommendations on Pillar II priorities stem from the combined information that has been collected through reports, meetings and input from experts in workshops as well as through observations of the Atlantic Area by the Pillar II Coordinator's team.

#### **Prioritised Actions**

- Evaluate Blue Schools regarding their impact in the change of people's perceptions, attitudes and behaviours
- Elaborate digital resources to support blue education
- Develop basic training modules on environmental impacts and ocean literacy in Tertiary Education
- Engage citizens about the impacts of climate change in coastlines and risk mitigation and adaptation, namely through Citizen Science

#### Key prerequisites that will enhance the outcomes targeted

Blue Skills agenda should be aligned with the wider European Skills Agenda that proposes ambitious targets regarding learning along all professional life.

An integrated approach of Blue and Digital Skills should be considered so that people understand the full context in which they are operating.

Environmental sustainability and environmental impact should be included in the subjects of blue training at all levels, from vocational and tertiary education to vocational training.

Ocean awareness is needed to promote blue careers and blue schools will contribute to change the youth's perception on marine professions.

### 3.1 Pillar III Marine Renewable Energy

#### Recommendations

The recommendations on Pillar III priorities stem from the combined information that has been collected through reports, meetings and input from experts in workshops as well as through observations of the Atlantic Area by the Pillar III Coordinator's team.

#### **Prioritised Actions**

Progress Pillar III Roadmap 2020 - 2022

- Continue working on Actions initiated between 2020 - 2022.
- Work to improve communication between Member States and communicate the outputs of Pillar III work to the wider public.

Research the changing policy landscape in the Member States

- Focus on Atlantic countries MRE enabling mechanisms for deployment by 2035.
- Research and report on recent key MRE policy developments in each of the AAP 2.0 Member States.

Assess technological developments and progress of the rollout of MRE in the Member States

Examine supporting mechanisms for innovative and emerging technologies expected to contribute to 2050 net-zero targets. Foster collaboration between Member States and Atlantic Stakeholders

This Task will be active throughout each of the other Tasks, effectively activating any gaps and opportunities to address through future collaborations and funded research.

### 3.1 Pillar IV Healthy Oceans and Resilient Coasts

#### **Recommendations**

The recommendations on Pillar III priorities stem from the combined information that has been collected through reports, meetings and input from experts in workshops as well as through observations of the Atlantic Area by the Pillar IV Coordinator's team.

#### Prioritised Actions for Healthy Ocean

- Make use of available tools to identify major sources, pathways and hotspots of marine litter, as well as accidental or deliberate pollution
- Launch joint actions to promote a public perception of the problem, e.g. beach days where communities meet to clean the beach
- Promote coordinated and effective implementation of actions against marine litter and underwater noise required under the MSFD for the EU Member States

#### **Prioritised Actions for Resilient Coast**

- Demonstrate a comprehensive alert and observing system for increased storms and floods due to climate change
- Develop synergies between existing EU infrastructures for coastal observation and protection, as well as for alert and monitoring and increase the development of in-situ ocean observatories
- Compile an inventory of national and regional climate change coastal adaptation strategies and measures, linked to the risk assessments and risk management plans, share best practices

### 3.2 Next Steps

#### Elaboration of New Pillar Roadmaps

Given the recent change of Pillar Coordinators in 2022, there is a need for adaptation to the previous Pillar Roadmaps.

The process of drafting the new Pillar Roadmaps has already started, planning the upcoming activities for the next 6 month period, identifying priorities, targets and the next actions that need to be undertaken.

### Organisation of next year's workshops

After continuing the successful implementation approach followed during the first two years of AAP 2.0, all members of the Governance structure will continue cooperating to plan and organise the next round of Pillar Workshops aiming to enhance collaboration further, identify existing synergies and contribute to reach the expected results of AAP 2.0.

Boosting existing synergies and collaborations through joint Pillar events and actions

In the upcoming year of AAP 2.0 implementation, special attention will be paid in enhancing the on-going and continuous effort to synchronise the priorities of the AAP 2.0 and boost identified synergies and collaboration between Pillar Coordinators, Task Force members and National Hubs.

### **3.3 Conclusions**

The implementation of the Atlantic Action Plan 2.0 throughout its second year has been successful in continuing progressing towards the fulfillment of the AAP 2.0 goals as well as in growing the Atlantic stakeholder database, while utilising further the established governance structure with the four distinct thematic pillars.

This year's Atlantic Stakeholder Platform Conference (ASPC) was organised in Cadiz, Spain. Its goals were to update stakeholders and wider audience on the state-of-play of Atlantic co-operation and AAP 2.0 activities and present opportunities to introduce the Community to new players, projects and innovative ways to collaborate toward AAP implementation. The organisation of the event back-to-back with InnovAzul created also an essential point of interaction between technology demanding companies, administrations, knowledge generators and technological agents for innovation, socioeconomic development, and employment in the marine-maritime sectors.

Moving forward in the next year of implementation and taking note of the key findings, lessons learned and prioritised actions, the aim is to progress the new Pillar Roadmaps, boost collaboration and further join forces with the ultimate aim of achieving the goals and milestones set in the framework of AAP 2.0.

### Disclaimer

This report has been prepared by the Atlantic Assistance Mechanism in the context of the project Atlantic Action Plan (EASME/2020/OP/0001). The product of this work is limited to supportive services offered, and features information on grants co-financed by a range of EU and Member States programmes that contribute to the implementation of the Atlantic Strategy and its action plan. Our goal is to keep this information up to date and accurate. However, the European Commission accepts no responsibility or liability whatsoever with regard to the information on this report. The current report is valid in its entirety. The legal review, interviews with stakeholders, data analysis wherever applicable, as well as the conclusions of the report that are presented in this document are indissociable from one another and the Atlantic Assistance Mechanism bears no responsibility for any potential fragmented use, which can lead to misinterpretations.

The information gathered is of a general nature only and is not intended to address the specific circumstances of any particular individual or entity, is not necessarily comprehensive, complete, and is sometimes linked to external sites over which the Atlantic Assistance Mechanism services have no control and for which they assume no responsibility.

Please note that the following limitations apply to project data:

- Number of projects per country: all projects are attributed only to the country of the coordinator.
- The amounts presented may not be accurate as they may be subject to rounding errors.
- The data presented in this report are based on latest at the time available figures and may be inconsistent with updated data.



# Thank you

Special thanks to all stakeholders involved in the development of this report. We look forward to the next year of AAP 2.0 implementation under the ASC Portuguese Presidency.