

TOWARDS COHERENT MARINE SPATIAL PLANNING ACROSS THE EUROPEAN MACARONESIA

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ABSTRACT

The biogeographic region known as European Macaronesia comprises the archipelagos of the Azores, Canary Islands and Madeira in the Atlantic Ocean. The collective exclusive economic zones surrounding the archipelagos is a vast area of approximately two million km². The Directive 2014/89/EU of the European Union (EU) obliged EU Member States, including their archipelagos, to pursue sustainable use of their waters through Marine Spatial Planning (MSP). Planning the large marine areas of the Macaronesia is not an easy endeavour, particularly when establishing the domestic frameworks for MSP implies sharing of competences among national and subnational authorities and is dependent on inter-departmental collaboration. Furthermore, the complexity of MSP arrangements, including legislation, governance, planning processes and documentation, is a barrier to coherent regional MSP and the application of the ecosystem approach, due to a lack of understanding across borders. This paper reviews and synthesises the national and subnational frameworks for MSP in the Macaronesian archipelagos. It also compares the principles guiding MSP in each archipelago to determine the coherence across the region, with the aim of outlining the basis for transboundary cooperation in the European Macaronesia.

RESUMO

A Região Biogeográfica conhecida como Macaronésia Europeia inclui os arquipélagos dos Açores, Ilhas Canárias e Madeira, no Oceano Atlântico. O conjunto das Zonas Económicas Exclusivas em torno dos arquipélagos constitui uma vasta área de aproximadamente dois milhões de quilómetros quadrados. A Diretiva 2014/89/EU da União Europeia (UE) exige que os Estados Membros, incluindo os seus arquipélagos, procurem o uso sustentável das suas águas, através do Ordenamento do Espaço Marítimo (OEM). O planeamento das grandes áreas marinhas da Macaronésia não é uma tarefa fácil, particularmente quando o estabelecimento de quadros nacionais para o OEM implica a partilha de competências entre autoridades nacionais e subnacionais e está dependente da colaboração interdepartamental. Além disso, a complexidade das disposições do OEM, incluindo legislação, governação, processos de planeamento e documentação, é um obstáculo à coerência do OEM regional e à aplicação da abordagem dos ecossistemas, devido a uma falta de compreensão além-fronteiras. Este artigo analisa e sintetiza os quadros nacionais e subnacionais para o OEM nos arquipélagos Macaronésicos. Também compara os princípios que orientam o OEM em cada arquipélago para determinar a coerência em toda a região, com o objetivo de delinear a base para a cooperação transfronteiriça na Macaronésia Europeia.

INTRODUCTION

Marine/Maritime Spatial Planning (MSP) has become, within the last decade, the approach utilised by

many coastal states for the planning and management of their marine waters. The increasing use of marine space for multiple activities, such as fisheries, shipping, tourism, environmental conservation,

aquaculture, renewable energy and oil and gas, among others, is exceeding the capacity of certain marine areas to meet all sectoral demands simultaneously. The United Nations Convention on the Law of the Sea¹ (UNCLOS) establishes the obligation to protect and preserve the marine environment worldwide (Pyc, 2019). However, access to marine spaces is not usually restricted, which may lead to multiple pressures, overuse of marine resources, and conflicts among users (Friess & Grémaud-Colombier, 2019). It is in this context that MSP emerges as an iterative process for organising the use of maritime space (Ehler & Douvere, 2009). MSP is about managing human activities at sea to achieve environmental, economic, and social objectives, while reducing conflicts (Ehler *et al.*, 2019) and providing opportunities for coexistence and synergies among users.

MSP as an important tool for ocean governance has been recognised by several international agreements and organisations. The Convention on Biological Diversity (CBD) states that MSP is a “participatory tool to facilitate the application of the ecosystem approach, expedite progress towards achieving the Aichi Biodiversity Targets (...)” (CBD, 2016). The Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) together with the Directorate General for Maritime Affairs and Fisheries of the European Commission (DG MARE) have, in 2017, jointly adopted a Roadmap to accelerate MSP processes worldwide, with the intention to support the implementation of the 2030 Agenda for Sustainable Development, and particularly the Sustainable

Development Goal (SDG) 14, devoted to the conservation and sustainable use of the oceans and marine resources (EC & IOC-UNESCO, 2017). The IOC-UNESCO has also played an important role internationally by developing guidelines and organising *fora* around MSP.

The European Union (EU) has been at the forefront of advancing MSP in Europe. The EU adopted a legally binding framework in 2014 to bring MSP to all its marine waters. The Directive 2014/89/EU² (MSP Directive) outlines the obligation, for the 22 coastal EU Member States, to deliver marine spatial plans by 31st March 2021. The MSP Directive aims to promote the growth of maritime economies through the sustainable use of marine resources (EU, 2014). EU Member States were required to transpose the Directive into their domestic context by 2016, with the possibility to shape and adapt the policy to their specific needs. Therefore, each country has developed its MSP framework differently, built either on existing national policies and institutions or including new governance arrangements, such as new legislation or institutional structures.

The EU MSP Directive sets out some minimum common requirements that Member States must satisfy (Friess & Grémaud-Colombier, 2019). One of the basic requisites is ensuring transboundary cooperation between Member States through coherent and coordinated planning across the marine regions (EU, 2014). The EU supports such endeavours through different actions, such as funding multinational MSP projects like the Macaronesian Maritime Spatial Planning (MarSP) project. Macaronesia is actually one of the marine subregions identified in the Atlantic Ocean under the Marine Strategy

1 United Nations Convention on the Law of the Sea (https://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf).

2 Directive 2014/89/EU (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0089>).

Framework Directive (MSFD)³. This biogeographic region is composed by the archipelagos of Azores and Madeira (Portugal) and the Canary Islands (Spain). Transboundary cooperation in MSP faces numerous barriers, such as differences in legal systems, policies and plans, access to data, planning culture, language, and political will. Understanding MSP systems is a necessary first step to achieving coherent planning across the marine region, ensuring application of the ecosystem approach in planning.

This paper aims to provide an understanding of MSP in the regions of Azores, Canary Islands and Madeira. This will be done through a review and synthesis of the MSP frameworks established, both at the national and regional levels, and the principles guiding the MSP process in each archipelago. The review is intended to outline the basis for transboundary cooperation in the European Macaronesia.

EUROPEAN MACARONESIA

Macaronesia comprises the four archipelagos in the Northeast Atlantic Ocean within the so-called biogeographical province. These are the three European archipelagos (Azores, Canary Islands and Madeira), referred to as European Macaronesia, but also the archipelago of Cape Verde in Africa. The archipelagos share a volcanic origin and similar geomorphology, flora, fauna and climate (Rodríguez-Mateos *et al.*, 2019). From the Greek *makarios* (blissful) and *nessos* (islands) (Fernández-Palacios *et al.*, 2011), Macaronesia represents one of the most prominent biodiversity hotspots in Europe. The region has a high level of endemism, with more than 5,600 endemic species identified (Madruga *et al.*, 2016).

The three European archipelagos constitute autonomous regions. They are political-administrative units endowed with political power in their respective countries (Rodríguez-Mateos *et al.*, 2019). Additionally, they are given the status of Outermost Regions due to their characteristics, such as remoteness, insularity, small surface area, and economic dependency (MAC, 2014). This designation is intended to offset these constraints, promoting regional development (European Parliament, 2020). Macaronesia relies heavily on the services sector, particularly tourism. The economies of the archipelagos are strongly linked to the marine environment, with most of the economic activities relying on the sea (Greenhill, 2018). The regions also have lower Gross Domestic Products (GDPs) per capita and higher unemployment rates (except for the Azores), comparative to their respective countries (EC, 2021a, b).

Macaronesian islands have small terrestrial surfaces and vast surrounding maritime waters. The jurisdictions over maritime spaces are extended from their Exclusive Economic Zones (EEZ) to the outer edges of the Extended Continental Shelf (ECS) and account for a total surface of more than 4,000,000 km². Undertaking MSP in Azores, Canary Islands and Madeira implies planning and managing maritime spaces of around 950,000; 450,000; and 450,000 km², respectively, a total of nearly 2 million km² (Calado *et al.*, 2019).

METHODOLOGY

The analysis is performed in two stages. First, the general characteristics of the MSP frameworks are reviewed at the national level in Portugal and Spain, and at the regional (subnational) level in the Azores, Canaries and Madeira. This analysis covers several core aspects

3 Directive 2008/56/EC (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0056>).

of the MSP systems in place, including legislation, responsible authority, governance, planning units, current status and prepared documents. The sharing of MSP competences between the national and regional levels of government explains the need to review both contexts. The contents in each of the geographical contexts will vary according to whether there is greater or lesser autonomy held by the region. This desktop literature review included policy documents, scientific and grey literature. Most policy documents reviewed are available in the MSP websites of the respective agencies shown in Table 1. Secondly, a comparative analysis is performed regarding the principles guiding MSP in the three archipelagos, as an indicator to determine the coherence of the processes undertaken in Macaronesia. This highlights the commonalities for transboundary cooperation and the ecosystem approach in MSP.

RESULTS

MSP frameworks at the national and subnational levels

Portugal

Prior to the EU MSP Directive, the Portuguese Government launched a national MSP plan in 2008. Despite the initial intentions, this plan was not approved and remained as a document to inform future MSP. The second and definitive attempt came in 2014, when Law n.º 17/2014⁴, of 10 April, set the basis for planning and management of the Portuguese national maritime space (*Lei de Bases do Ordenamento e Gestão do Espaço Marítimo Nacional*, in Portuguese). In 2015, Decree-Law n.º 38/2015⁵, of 12 March,

TABLE 1. MSP websites for the European Macaronesia

Portugal	
PSOEM	https://www.psoem.pt/
Geoportal	https://www.psoem.pt/geoportal_psoem/
Azores	
OEMA	https://sigmar-old.azores.gov.pt/Default.aspx
Geoportal	https://sigmar.dram.azores.gov.pt/#/viewer/openlayers/psoma_geral
Spain	
MSP	https://www.miteco.gob.es/es/costas/temas/proteccion-medio-marino/ordenacion-del-espacio-maritimo/
Geoportal	http://infomar.cedex.es/

developed the provisions set by Law n.º 17/2014, of 10 April, while transposing the EU MSP Directive into Portuguese law. Two main policy instruments compose MSP in Portugal (Giret *et al.*, 2019):

- Situation Plan (*Plano de Situação do Ordenamento do Espaço Marítimo Nacional* or PSOEM): Identifies the temporal and spatial distribution of current and potential maritime uses and activities, as well as areas for marine environment protection. PSOEM is the main MSP instrument and covers the whole Portuguese maritime space. The Plan is divided in four marine subregions or subdivisions (mainland Portugal, Azores, Madeira, and the ECS). Plans are reviewed every five years after adoption.
- Allocation Plans (*Plano de Afetação*): These aim to allocate private maritime uses in areas not previously considered by the situation plan. These plans are an instrument to grant flexibility to the process, allowing activities to be assigned later on by public or private initiative. Allocation

4 Law n.º 17/2014, of 10 April (https://dre.pt/web/guest/legislacao-consolidada/-/lc/73199087/view?p_p_state=maximized).

5 Decree-Law n.º 38/2015, of 12 March (https://dre.pt/home/-/dre/66727183/details/maximized?p_auth=OpSPQzt9).

plans are integrated into the Situation Plan once approved by the Council of Ministers.

Order n.º 11494/2015⁶, of 14 October, launched the development of PSOEM and designated the competent authorities for the Portuguese MSP system, which includes several institutions at the national and subnational levels. The Directorate-General for Natural Resources, Safety and Maritime Services (*Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos* or DGRM) coordinates the process at the national level and develops the parts of the PSOEM corresponding to mainland Portugal and the ECS. The Regional Directorate of Spatial Planning and Environment (*Direção Regional do Ordenamento do Território e Ambiente* or DROTA) of the Regional Government of Madeira; and the Regional Directorate for Sea Affairs (*Direção Regional dos Assuntos do Mar* or DRAM) of the Regional Government of the Azores are responsible for the development of the PSOEM for their respective archipelagos (Giret *et al.*, 2019). The Advisory Commission of the PSOEM was also established by Order n.º 11494/2015, of 14 October. It supports and monitors the development of PSOEM by promoting balance of multisectoral interests. The commission for the Portuguese maritime space (excluding the Azores and Madeira subregions) is chaired by the Directorate-General for Maritime Policy (*Direção-Geral de Política do Mar* or DGPM).

The PSOEM consists of several documents or volumes. Four of them (Volumes I, II, V and VI) are common to all marine subregions in Portugal while two (Volumes III and IV) are operational documents specific to each of the four Portuguese marine subregions. Volumes I and II were jointly prepared by DGRM,

DROTA and DRAM. Resolution of the Council of Ministers 203-A/2019⁷, of 30 December, approved the PSOEM for the subregions of mainland Portugal, ECS and Madeira in December 2019. The Situation Plan corresponding to the Azores subregion is being finalised (OEMA, 2021). The contents of the volumes of the PSOEM common to the four Portuguese marine subregions are described in Table 2.

Azores

Regional Regulatory Decree n.º 4/2015/A8, of 20 February, establishes that the development of the Situation Plan for the maritime space contiguous to the Azores (commonly referred as Plano de Situação para o Ordenamento do Espaço Marítimo dos Açores or PSOEMA) is the responsibility of the Regional Directorate for Sea Affairs (DRAM), on behalf of the Regional Secretariat of the Sea, Science and Technology (nowadays named as the Regional Secretariat of the Sea and Fisheries). PSOEMA comprises the maritime area from the baselines to the outer limit of the EEZ and the continental shelf up to 200 nautical miles. PSOEMA has the operational documents specific to the Azores marine subregion (Volumes III and IV), which are being developed by DRAM (Governo dos Açores, 2019) and are described in Table 3.

Government Council Resolution n.º 47/2017⁸, of 26 May, created the Interdepartmental Commission for Sea Affairs of the Azores (*Comissão Interdepartamental para os Assuntos do Mar dos Açores* or CIAMA), which is the consultative commission to follow-up and assess the development of PSOEMA

6 Order n.º 11494/2015, of 14 October (<https://dre.pt/home/-/dre/70684019/details/maximized>).

7 Resolution of the Council of Ministers n.º 203-A/2019, of 30 December (<https://dre.pt/home/-/dre/127659203/details/maximized>).

8 Government Council Resolution n.º 47/2017, of 26 May (<https://jo.azores.gov.pt/#/ato/d2a3cf21-490d-4b98-9e02-d3d635163760>).

TABLE 2. Documents of the PSOEM applicable to all Portuguese marine subregions (based on República Portuguesa, 2019a, b, c, d).

Volume	Description of contents
I. Framework, structure, and dynamics	Presents the common framework and structure of MSP in Portugal. This includes the description of the Portuguese seas, MSP policy, international agreements, and EU directives applicable to the maritime space, and maritime jurisdictions. It also provides the frame, principles, methodology, development, and management characteristics of the Situation Plan. The volume also specifies indications about the dynamics, monitoring and governance of plans.
II. General methodology: Spatial distribution of easements, uses and activities	Contains the common methodology to allocate uses and activities in Portuguese waters. The methodology promotes the coexistence and multi-use of activities. The volume also describes the requirements and typologies of geographic information and associated infrastructure, together with the identification of strategic policy and management documents applying to the national maritime space.
V. Environmental report: Strategic Environmental Assessment	The Strategic Environmental Assessment (SEA) related to the preparation of the Situation Plan. It comprises the objectives, methodology, subject, decision-making critical factors and scenario of the SEA. It also focuses on the analysis and strategic assessment of each marine region in Portugal and provides monitoring and governance guidelines.
VI. Non-technical summary of the environmental report	A summary document of the environmental report to facilitate public dissemination. It uses simple language that allows the general public to obtain knowledge about the risks and opportunities associated with the implementation of the Situation Plan.

(Governo dos Açores, 2019). CIAMA is chaired by the Regional Secretary of the Sea, Science and Technology. It is composed of eight permanent members of the regional organisations shown in Table 4.

Other representatives of the regional administration, public and private entities, non governmental organizations (NGOs), etc., may be invited to participate in CIAMA. Some invited entities can

also join the commission, namely: the Regional Directorate for Transport; the Regional Directorate for Culture; the Regional Directorate for Sport; the Maritime Department of the Azores (National Maritime Authority); and Portos dos Açores S.A. The commission has also deliberated that the development of PSOEMA will be supported by seven thematic working groups, namely: living marine resources (fisheries and aquaculture); non-living marine resources (marine mineral resources and energy resources); environment and

TABLE 3. Documents of the Situation Plan for the maritime space contiguous to the Azores (based on Governo dos Açores, 2019).

Volume	Description of contents
III. Spatial distribution of easements, uses and activities	Identifies existing and potential uses and activities, including details about each activity with maps and examples of good practices. It also includes the applicable constraints, administrative easements and restrictions of public utility, while also taking into consideration sector-sector interactions and land-sea interactions (conflicts and synergies), as well as environmental impacts.
IV. Report of characterisation of the maritime space	Presents the biophysical features and ecological characteristics of the region, its ecosystems, habitats and species, which condition the development of maritime activities.

TABLE 4. Composition of the Interdepartmental Commission for Sea Affairs of the Azores (CIAMA) (based on CIAMA, 2018).

Departments represented in CIAMA
Regional Directorate of Investment and Competitiveness Support
Regional Directorate of Fisheries
Regional Directorate of Sea Affairs
Regional Directorate of Science and Technology
Regional Directorate of the Environment
Regional Directorate of Tourism
Regional Directorate of European Affairs
Civil Protection and Fire-fighters of the Azores

TABLE 5. Volumes of the Situation Plan of Madeira (authors, based on República Portuguesa, 2019e, f).

Volume	Description of contents
III. Spatial distribution of easements, uses and activities	Identifies the spatial planning instruments, programmes and plans having an impact on the maritime space, including protected areas management plans, and strategic and financial instruments. The spatial distribution of private uses and activities is presented, outlining the general information of the activity and large scale mapping representing existing and potential areas. Some activities are not mapped because they either are present throughout the entire maritime space or may be defined by allocation plans in a later stage (<i>e.g.</i> biotechnology potential areas). Also presented are examples of good practice in the use and management of the maritime space and compatibility aspects with other uses, activities or easements to encourage Multi-Use (MU) of the maritime space.
IV. Report of characterisation of the maritime space	This document presents the characterization of the Madeira marine region on the basis of the marine strategy. The characterisation comprises the physical and chemical aspects, biodiversity, nature conservation areas and the main pressures and impacts. It also includes a characterisation of economic activities at sea.

conservation; research, technology and knowledge transfer; tourism, recreation, sport and culture; ports, navigation and transport; safety, defence, surveillance and civil protection (CIAMA, 2018).

Madeira

The Order 11494/2015, of 14 October, established that the Regional Directorate for Spatial Planning and Environment (*Direção Regional do Ordenamento do Território e Ambiente* or DROTA) of the Regional Secretariat of Environment and Natural Resources of the Government of Madeira has the competence to develop the Situation Plan for the maritime space contiguous to the archipelago of Madeira. This comprises from the baselines to the outer limit of the continental shelf up to 200 nautical miles. The Situation Plan for the Madeira region (volumes III and IV) were published in December 2019. The development of the plan has been elaborated in close cooperation with national authorities and within a similar timeline of the rest of the PSOEM (with the exception of the Azores plan). The contents of these documents corresponding to the plan for Madeira are described in Table 5.

An advisory commission was established to support and follow up the development of the Situation Plan for the Madeira subregion. This commission is composed by national and regional

public entities with responsibility for maritime affairs, environment, nature conservation, and maritime uses and activities. The commission is comprised of a representative of 17 organisations (CC-Madeira, 2018), as shown in Table 6.

Five thematic working groups were also established within the advisory commission of Madeira to advance the Situation Plan: defence, security and navigation; nature conservation, tourism and recreation; scientific research and emergent uses; and regional development. The working groups had four meetings coordinated by DROTA (República Portuguesa, 2019a).

Spain

The EU MSP Directive was transposed into Spanish law by Royal Decree 363/2017⁹, of 8 April. The Royal Decree established the General Directorate for the Sustainability of the Coast and the Sea (*Dirección General de Sostenibilidad de la Costa y del Mar*) from the Ministry for the Ecological Transition (*Ministerio para la Transición Ecológica* or MITECO, nowadays named as *Ministerio para la Transición Ecológica y el Reto Demográfico* or MITERD) as the competent authority for MSP for all marine waters under

9 Royal Decree 363/2017, of 8 April (https://www.boe.es/diario_boe/txt.php?id=BOE-A-2017-3950).

TABLE 6. Composition of the advisory commission of the Situation Plan for the Madeira marine subregion (based on CC-Madeira, 2018).

Departments
General Directorate of Natural Resources, Safety and Maritime Services (DGRM)
National Maritime Authority
Ministry of the Environment
Ministry of Energy
Association of Municipalities of Madeira
Regional Directorate of Forests and Nature Conservation
Regional Directorate of Fisheries
Regional Directorate of Economy and Transports
Regional Directorate of Tourism
Regional Directorate of Culture
Regional Directorate of Parliament Affairs and External Cooperation
Regional Directorate of Innovation and Entrepreneurship
Regional Directorate of Youth and Sports
Port Administration of Madeira
Oceanic Observatory of Madeira
Regional Agency of Energy and Environment of Madeira
Association of Industry and Commerce of Funchal – Chamber of Commerce and Industry of Madeira

Spanish jurisdiction. One plan will be developed for each of the five marine subregions (*demarcaciones marinas* in Spanish) established by Law 41/2010¹⁰, of 29 December, for the protection of the marine environment. The marine subregions are: North Atlantic, Levantine-Balearic, Alborán Sea and Strait of Gibraltar, South Atlantic, and Canary Islands. Spanish authorities proposed to review the plans every six years.

MSP in Spain is particularly linked to the marine strategies. A working group on MSP (*Grupo de Trabajo de Ordenación del Espacio Marítimo* or GT-OEM) was created in 2017 within the existing Inter-Ministerial Commission on Marine Strategies (*Comisión Interministerial de Estrategias Marinas* or CIEM) to coordinate the drafting of Spanish MSP plans (MITECO, 2019), including

the one for the Canary Islands. GT-OEM is composed of the government departments shown in Table 7.

The plans have been developed through several technical reports common to all marine subregions. A draft plan was completed in 2020, initiating the Strategic Environmental Assessment (SEA). This led to the development of the inventories of current and future activities and uses in each subregion (MITERD, 2021). The documents have been elaborated in coordination with the coastal regional governments, particularly with the regional departments with competences on marine resources and uses.

Canary Islands

The inventory of current and future uses and activities of the marine subregion of the Canary Islands was published in 2020. The contents of the document are described in Table 8. The final draft, with its corresponding strategic environmental study, is expected to be presented for a final public consultation in 2021. A royal decree would approve all Spanish MSP plans afterwards (MITERD, 2021).

The Monitoring Committee of the marine subregion of Canarias (*Comité de seguimiento de la Demarcación Marina Canaria*), which was created for the implementation of marine strategies, is also being used as a consultative committee to follow up the development of the plan for the Canarian marine subregion. The Committee is coordinated by the General Director of Sustainability of the Coast and Sea and the Technical Director of the Sea Protection Division. The composition of the monitoring committee includes one representative of each Coastal Service of the Canarian provinces (Santa Cruz de Tenerife and Las Palmas de Gran Canaria) and two representatives from the regional government of the Canary Islands (Gobierno de España, 2014).

¹⁰ Law 41/2010, of 29 December (<https://www.boe.es/buscar/act.php?id=BOE-A-2010-20050>).

TABLE 7. Composition of the Spanish MSP working group (GT-OEM) (based on MITECO, 2019).

Department	Corresponding Ministry
General Directorate of Sustainability of the Coast and Sea (and its three general sub-directorates)	MITECO
General Directorate of Energy Policy and Mines	MITECO
Spanish Office for Climate Change	MITECO
General Directorate of Biodiversity and Environmental Quality	MITECO
General Sub-Directorate of Heritage Protection	Ministry of Culture and Sport
General Directorate of Fisheries Resources	Ministry of Agriculture, Fisheries and Food
General Directorate of Fisheries and Aquaculture Planning	Ministry of Agriculture, Fisheries and Food
Ports of the State	Ministry of Development
Merchant Navy	Ministry of Development
Centre of Coastal and Port Studies (CEDEX)	Ministry of Development
Division of Planning of the Navy	Ministry of Defence
Spanish Institute of Oceanography (IEO)	Ministry of Science, Innovation and Universities
Higher Council for Scientific Research (CSIC)	Ministry of Science, Innovation and Universities
Research State Agency	Ministry of Science, Innovation and Universities
General Directorate of Internal Market Coordination and EU Policies	Ministry of External Affairs, European Union and Cooperation
State Secretary of Tourism	Ministry of Industry, Commerce and Tourism
Technical General Secretary	Ministry of Industry, Commerce and Tourism
Division of Health Quality Waters	Ministry of Health, Consumption and Social Welfare
National Security Department	Ministry of Presidency

Comparative analysis of MSP principles

MSP is guided by a set of principles that determine the nature of the planning process and indicates its desired results (Elher & Douvère, 2009). Principles are the foundation to formulating an overall vision, more concrete goals, objectives, and management targets (HELCOM,

TABLE 8. Contents of the draft plan of the Canary Islands marine subregion (based on CEDEX, 2020).

Document	Description of contents
Sectors, uses and activities in the Canarian marine subregion for Marine Spatial Planning	Describes the current status and spatial distribution of maritime uses and activities, differentiating between mostly private maritime sectors and cross-cutting issues of general interest. It gives an approximation to interactions among uses as a way to identify synergies and conflicts. It also presents the potential and future spatial distribution of maritime sectors. Finally, it also comprises management considerations, concerning limitations for uses and areas with high use demand.

2009), which are key initial components in every marine spatial plan. In 2007, the Baltic Sea countries agreed to develop common MSP principles based on the ecosystem approach, with the aim of ensuring the protection and sustainable use of the sea (HELCOM, 2007). Ten principles were adopted in 2010 to achieve better coherence in the development of MSP systems across the Baltic Sea Region (HELCOM & VASAB, 2010). The Baltic Sea is an example of how common MSP principles are useful for coherent planning at the sea basin level. In the case of Portugal and Spain, both countries have set principles to guide the national and subnational MSP efforts. The Azores has also developed principles that apply to its regional context. The MSP principles applicable to each region are listed, aligned and generalised in Table 9.

The alignment of MSP principles shows that four of the principles (ecosystem-based approach, adaptive

TABLE 9. Alignment and generalisation of MSP principles applicable to the Macaronesian archipelagos (based on Governo dos Açores, 2019; MITECO, 2019; República Portuguesa, 2019a).

Azores	Canary Islands	Madeira	Generalisation
Ecosystem-based management	Ecosystem-based management	Ecosystem-based approach	Ecosystem-based management
Adaptive management	Adaptive management	Adaptive management	Adaptive management
Sustainable development	Sustainable development	Enhancing economic activities	Sustainable development
Public participation and stakeholder engagement	Stakeholder engagement	Participation and use of simple language	Public participation
Sustainable use	Better use of the environment		Sustainable use of the environment
Accessibility and use of a plain language	Access to, and update data and information		Data accessibility
Coherence and science-based approach	Use of the best scientific information available		Science-based
Integrated and multidisciplinary management		Integrated management	Integrated management
Precautionary approach		Precautionary approach	Precautionary approach
Cooperation and coordination		Regional and cross-border cooperation and coordination	Cooperation and coordination
	Improved governance	Responsible governance	Responsible governance
Intra and intergenerational responsibility			Inter-generational responsibility
Compatibility of uses			Compatibility of uses
	Ecological and fair transition		Ecological and fair transition
	Enhanced sectors competitiveness		Enhanced competitiveness
	Economic diversification		Economic diversification
	Circular economy		Circular economy
	Inclusion of gender perspective		Gender perspective
	Pursuit of objectives of general interest		Pursuit of objectives of general interest
		Subsidiarity	Subsidiarity

management, sustainable development and public participation) are common to all regions. Another seven guiding principles are shared at least by two of the regions, while nine others are only considered by one of the regions (see Figure 1).

DISCUSSION AND CONCLUSIONS

The marine spatial plans of the European Macaronesia are at different stages of the planning process. While the

Madeira plan was approved at the end of 2019, similarly to the plans corresponding to mainland Portugal and the ECS, the Azorean plan has not yet been finalised. The plan for the Canary Islands is being developed together with the rest of the Spanish marine subregions. The plan is expected to go to public consultation in 2021 before its final approval (MITERD, 2021). Both the plans for Azores and the Canary Islands have therefore not met the deadline of March 2021 of the EU MSP Directive. These plans however are

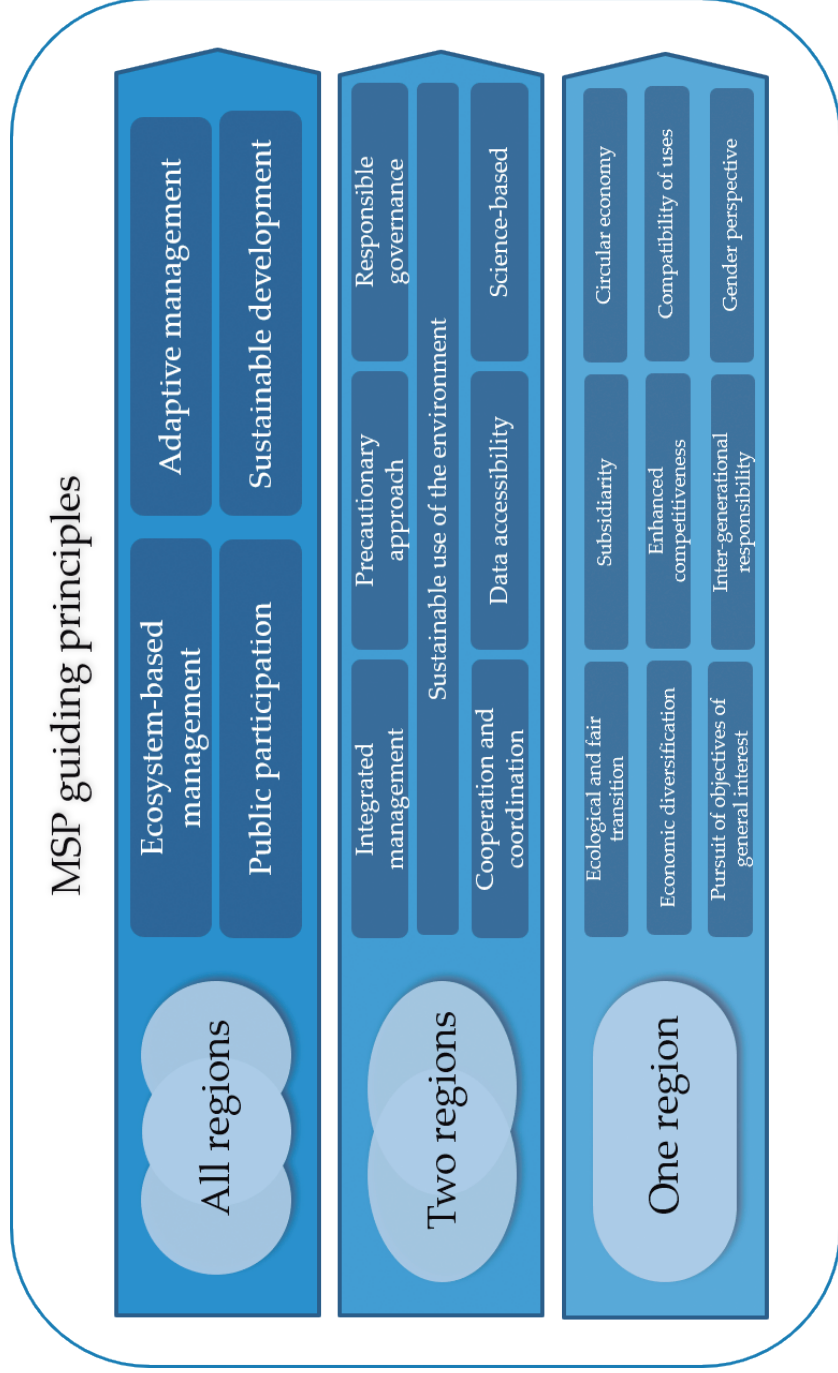


FIGURE 1. Generalisation and alignment of MSP principles in the European Macaronesia (based on Governo dos Açores, 2019; MITECO, 2019; República Portuguesa, 2019a)

in the final stages of preparation and may be approved some time in 2021.

The delay in the development of the plan for the Azores subregion may be explained by its detachment from the rest of the process of the PSOEM. The government of the Azores has taken more autonomy in the development of its plan. The plan for Madeira, although coordinated by the regional government, has been developed in parallel and in close cooperation with the Portuguese national MSP process. The composition of the consultative commission of Madeira, where national authorities are present, is also an indication of this close national-subnational relationship. In the case of the Azores, the representatives of the commission are solely formed by regional entities. However, both Madeira and the Azores are autonomous in the development of their plans, since the MSP coordination lies within the regional governments. Spanish MSP is, to the contrary, a competence of the national government hosted by MITERD. Marine spatial plans have been jointly developed for the five marine subregions under the supervision of the MSP Working Group GT-OEM, which is composed of national authorities. Coordination mechanisms with coastal regions have been put in place, including within the MSP monitoring committees, which, in the case of the one for the Canary Islands, are hosted by representatives of the regional government and the provinces. Looking at the three MSP processes, we can say that the Portuguese archipelagos have had an autonomous process, with the Azores opting for greater autonomy and Madeira having co-management with the national authorities, while the process in the Canary Islands remains centralised within the national government with cooperation with regional government.

Portuguese and Spanish MSP also differ in the inception of policy. MSP

in Portugal dates back to 2008, some years before the approval the EU MSP Directive in 2014. Even though this first MSP national effort did not succeed, it is indicative of Portugal's strong interest to plan and manage its maritime space. Moreover, ocean policy receives greater attention in the Portuguese context, exemplified by the production of a National Ocean Strategy, the first version of which was approved in 2006. The Spanish policy arena has not been as proactive in developing ocean policy and mostly responds to EU policies in this regard. Spain transposed the MSP Directive in 2017 with the basic requirements established in the Directive. Additionally, the strong links between MSP and the MSFD in Spain may be interpreted as a way to facilitate these policies. Using common institutional structures allows for streamlining the processes and optimisation of resources.

Drawing from the experiences of the Baltic Sea, a sea basin with a long-established and much advanced cross-border cooperation in MSP, we can appreciate the importance of having common principles for MSP to ensure the ecosystem approach. Comparing the principles applicable to three regions of the European Macaronesia, we see that there is much in common. The framework of the EU MSP Directive, the use of MSP guidelines and the exchanges between countries in MSP projects and *fora*, are all important factors contributing to the close alignment of planning principles. Determining common principles at the sea basin level would not be such a difficult task and it would be an important step in advancing transboundary MSP in the European Macaronesia.

However, in undertaking the ecosystem approach, it would be necessary to extend the cross-border cooperation for the whole biogeographic region, including Cape Verde. Although

the EU MSP Directive encourages Member States to cooperate with third countries in common marine regions, this effort has not advanced much. Still, the nature of MSP, as an iterative process, gives the opportunity to address cooperation with the neighbouring African countries within and adjacent to Macaronesia. Strengthening cross-border cooperation can certainly benefit the shared marine environment and boost the development of Blue Economies, contributing to overcoming the challenges faced by the remote small islands of the Macaronesia. There is a sea of opportunity for these large ocean regions.

ACKNOWLEDGMENTS

This work is a contribution to the GPS Azores – Geographical and Political Scenarios and Maritime Spatial Planning for the Azores and North Atlantic, (Ref. ACORES-01-0145-FEDER-00002 GPS Azores) financed by Azores2020 Operational Programme (85% by FEDER and 15% by Regional Funds).

This paper was inspired by the great work of the researchers at the Spanish Institute of Oceanography involved in the Macaronesian Maritime Spatial Planning (MarSP) project (Ref. EASEM/EMFF/2016/1.2.1.6/03.SI2.763106).

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