European Commission

Methodological Assistance for the Outermost Regions to Support their Efforts to Develop Blue Economy Strategies

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Maritime Affairs and Fisheries

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Unit A.3 – Sea-basin Strategies, Maritime Regional Cooperation and Maritime Security

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AAP	Atlantic Action Plan
COSME	Competitiveness of enterprises and SMEs
EEZ	Exclusive Economy Zone
EMFF	European Maritime and Fisheries Fund
EAFRD	European Agricultural Fund for Rural Development
ERDF	European Regional Development Fund
ESF	European Social Fund
GVA	Gross Value Added
MAC	Madeira-Azores-Canary Islands
MRE	Marine Renewable Energy
OR	Outermost Region
PLOCAN	Oceanic Platform of the Canary Islands
R&D	Research and development
S3	Smart Specialisation Strategies
SMART	Specific, measurable, achievable, relevant, time-bound
SME	Small and Medium Enterprises
SWOT	Strengths, Weaknesses, Opportunities and Threats
TFEU	Treaty on the Functioning of the European Union

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2. Executive Summary

Context of this assignment

The European Union counts nine Outermost Regions (ORs) of which six are French (Guadeloupe, French Guiana, Martinique, Mayotte, Reunion and Saint-Martin), one is Spanish (Canary Islands), and two are Portuguese (The Azores and Madeira). These regions share in the same rights and obligations of the European Treaties; however, each OR faces a unique set of challenges that differentiates it from other regions in Europe. The ORs share some common challenges ranging from higher levels of unemployment to heightened risk from climate change. However, the differences in the challenges they face are as varied as the expansive winding rivers of the Amazonian hinterlands of French Guiana to the island lagoon of Mayotte.

Recognising these challenges, the European Union has been dedicated to supporting and accompanying the outermost regions in their sustainable development. Among a host of initiatives, most recently the new Von der Leyen Commission has launched its European Green Deal, which in its commitment to tackling environmental-related challenges is particularly important to the ORs that are facing the brunt of climate challenge. The EU has been working with the ORs to develop economic activities that can sustainably address these challenges head-on.

Important to realising the Commission's priorities are the sustainable development of the OR's blue economy. The blue economy, which covers *"all economic activities related to oceans, seas and coasts,"* is the lifeblood of the economic activities of the ORs. Sustainably developing blue economy activities ranging from traditional sectors such as fishing and ports to emerging sectors such as marine renewable energy and biopharmaceuticals is a priority of DG MARE. In recent years, emphasis has been placed on developing a comprehensive and inclusive blue economy strategy to structure the sector in the ORs. Indeed COM (2017) 623 final, "A Stronger and Renewed Strategic partnership with the EU's Outermost Regions, made calls for the ORs to develop their own blue economy strategies.

It is important to note that this study has been conducted prior to the outbreak of the COVID-19 crisis. Nevertheless, the methodological approach proposed remain valid, as well as the recommendations that do not predict choices that each outermost region shall made.

Objectives, scope and approach

Within this context and in light of the possibilities presented by the Green Deal, the next programming period, and based on calls for blue economy strategy for each OR in COM (2017) 623 final, the **objective of the assignment** is to present the current state of advancement for each OR in realising their blue economy strategy and provide a comprehensive step-by-step approach for realising a blue economy strategy.

The **scope** provided covers all of the ORs in presenting a common detailed methodology for developing their strategy while encouraging each OR to define in their strategy in a way that responds to the local context and needs on the ground. The methodology notably covers how to conduct a SWOT analysis, stakeholder consultations on an ongoing basis, the different sections of the blue strategy and the monitoring and evaluation framework needed to implement the strategy.

The ORs' authorities in charge of writing and implementing their blue economy strategy will be able to find the following **approach** in this guidance document: i) an overview of the blue economy and where the ORs are in the process of realising their strategies; ii) a detailed methodological framework that provides instructions from the preparatory work required to write a strategy to the different sections that should be included in a blue

economy strategy; iii) an in-depth analysis of the state of play in where each OR is in developing their strategy as well as a completed SWOT (*Strengths, Weaknesses, Opportunities and Threats)* analysis for each OR, as well as some identified priority sections for the blue economy. This approach has been designed to accompany each OR in the elaboration of their blue economy strategy, no matter whether they are just beginning the process or have already completed their strategy. For the ORs which have already designed their blue economy strategy, this report will give insights on monitoring and evaluation best practices.

State of Advancement of the ORs

Two of the key findings of this assignment are that the ORs are fairly advanced in the realisation of their blue economy strategies already but that there is a great deal of difference among them. The typical procedure followed has been: i) pre-planning of the strategy (e.g. putting together a committee to work on the strategy); ii) a diagnostic study on the blue economy sector; iii) drafting of the strategy; iv) political approval and consultations with the public before final approval.

Completed strategies: The Azores, French Guiana, the Canary Islands and Reunion have already produced the first draft of their strategies. Each of these ORs have thus initiated the political approval process for their strategies, which means that the strategies will likely be adopted and ready for implementation in the coming months. For Canary Island, due to COVID-19, there has been a delay in the foreseen participatory process to finalise the blue economy strategy. Feedback from stakeholders will be collected by the end of August 2020 for a final version of the document to be produced in November 2020.

Strategies being written: Guadeloupe and Mayotte have both put together a committee to coordinate their strategies and have since completed the diagnostic study for the blue economy in their respective regions. They have also both tendered the writing of their strategies to a contractor and are in the process of being written. Once the strategies are completed, they will need to be approved politically.

Strategies not yet being written: The biggest difference in terms of realisation of their strategies can be seen with Saint-Martin and Madeira. In the case of Saint-Martin, there is confusion around the methodology for the strategy and a limited capacity of local administrations to realise a comprehensive strategy given the OR's size. As such, there is no committee in place to work on a strategy. Madeira as well has experienced delays, although the OR has advanced in identifying a committee to work on the strategy. Madeira has been facilitating exchanges with the Azores and the Canary Islands to try to advance on its strategy. Based on the study team's analysis, both Saint Martin and Madeira will need more direct guidance than the other ORs to advance in realising their strategies. However, the new Government of Madeira recently created a specific organic unit for the sea affairs (in 2020), the Regional Directorate for the Sea, included in the also new Regional Secretariat for Sea and Fisheries, which will have as one of its missions the leadership of the development of the Blue Economy Strategy. In this context, a governance structure for the development, execution, management and monitoring of the Blue Economy Strategy is already being created.

Different approach: Martinique has adopted a different approach than the other ORs in using its already prepared sea basin strategy as its roadmap for promoting blue growth. The OR does not plan on creating a dedicated blue growth strategy.

Step-by-Step Guidance Document

To accompany the ORs in writing their strategy, this guidance document provides a step-by-step approach to writing a blue economy strategy, as presented below:

I. SWOT: The first step presented in writing the strategy is conducting a thorough SWOT analysis. The SWOT analysis helps offer a detailed view of the OR's blue economy sectors and pinpoint the different actions and priorities for the strategy.

II. Consultation: The guidance document presents instructions on consulting relevant stakeholders (e.g. private and public actors as well as subject matter experts, among others) on an ongoing basis to ensure that all relevant perspectives are engaged before writing the strategy.

III. Writing the strategy: The actual writing of the strategy is presented in four main sections: i) the introduction and diagnostic of the OR's blue economy, ii) the strategy and its proposed actions and priorities, iii) the governance structure in place to realise the strategy, iv) setting up a thorough system for monitoring and evaluating the success of the strategy.

IV. Implementation, Monitoring & Evaluation: This section presents in detail how to go about setting up a data collection plan and SMART (*Specific, measurable, achievable, relevant, time*-bound) objectives to ensure that the different actors working on implementing the strategy can subsequently judge the success of its implementation.

While each of the ORs will and should have the responsibility to define its blue economy strategies based on the local context and national strategies, the guidance document provided not only aims to harmonise the approach taken so the ORs can exchange best practices more easily but also ensure that all the required elements are considered when developing the strategies.

Key insights and Takeaways

Several key insights and takeaways can be found in this guidance document to best accompany the ORs in developing their strategies.

Diversifying funding sources: A variety of funding sources exist to fund the blue economy strategies (Cohesion funding, EIB loans, Horizon Europe, national and private funds, etc…). Properly identifying these sources and defining how they can be used for the actions proposed in the strategy will help ensure the strategy is not too narrow in scope.

Prioritising sustainable sectors: In line with the European Green Deal, sustainable sectors such as marine renewable energy and the blue bio economy should be incorporated alongside known-sectors such as eco-tourism and ports.

Recognising external risk factors: Amidst external risk factors such as climate change and more recently COVID-19, the strategies should incorporate a strategic vision of mitigating risk and understand that the unique vulnerability of the ORs in responding to external challenges presents opportunities for developing sustainable and resilient economies.

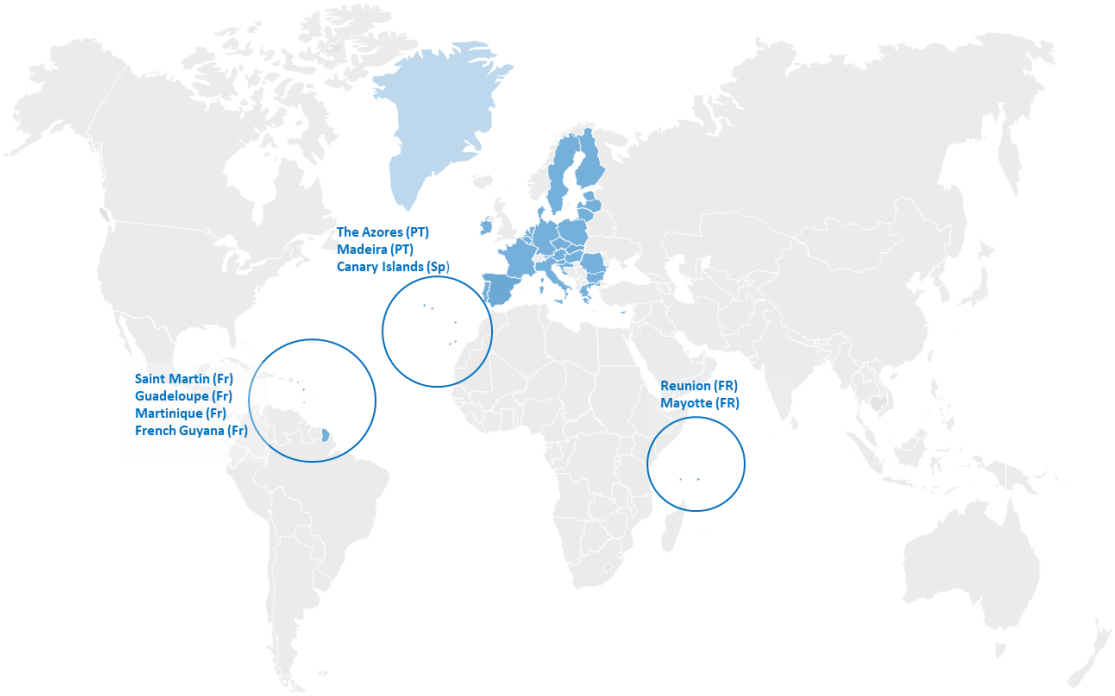
3. Introduction

3.1. The blue economy in the Outermost Regions

3.1.1. Common challenges faced by the Outermost Regions

Beyond the borders of Europe, the European Union counts nine Outermost Regions (ORs), which share in the same rights and obligations of the European Treaties. Among these ORs, six are French (Guadeloupe, French Guiana, Martinique, Mayotte, Reunion and Saint-Martin), one is Spanish (Canary Islands), and two are Portuguese (The Azores and Madeira). Scattered in the Atlantic Ocean, the Indian Ocean, the Caribbean basin or the Amazon rainforest, these outermost regions are an essential asset for the European Union by providing a strategic presence in the world's geopolitical crossroads. They also are areas of robust research and innovation in areas such as biodiversity, renewable energies and pharmacology.

- **Figure 1 - Location of the ORs**



Despite these many advantages, the outermost regions are characterised by several vulnerabilities that their distance from the EU, often being located on other continents, as well as their vulnerable ecology (e.g. the severity of tropical cyclones and climate change). Due to the social, economic and geographic challenges facing these regions, the ORs have been granted special status under *Article 349 of the Treaty on the Functioning of the*

European Union (TFEU)[1], which underscores that the "structural economic and social situation" of these regions are aggravated by several handicaps:

- Remoteness: as in their distance from mainland Europe;
- Insularity and small size: several being a single or collection of small islands with limited domestic economies, and most ORs occupy small territories and rely on large maritime economic zones for commercial activities (French Guiana excepted);
- Difficult terrain and climate: Several ORs are subject to seismic or cyclonic activity on a recurring basis:
- Economic dependence on a small number of products: historic and continued reliance on primary materials with a limited industrial-manufacturing base;

Provided below are a list of indicators demonstrating some of common the challenges faced by the outermost regions:

Figure 2: General indicators for the OR[2]

Indicators	Canary Islands	Azores	Madeira	French Guiana	Reunion	Mayotte	Guadeloupe	Saint-Martin	Martinique
Distance from capital city (km)	1 100	1 600	950	7 000	9 180	8039	6750	6712	6845
Land area (Km2)	7 447	2 333	801,5	83 534	2 504	374	1628	53	1128
Coastline (km)	1 291	687	418	350	207	185.2	581	58.9 (whole island)	369
Exclusive Economic Zone (km2)	356 000	938 000	442 248	130 000	638 000	63,078	95,978	1,066	47,64
Population	2,128,000 (2019)	250,000 (2014)	289,000 (2016)	296 711 (2019)	866 506 (2019)	270 372 (2019)	395 700 (2016)	32 125 (2017)	376 480 (2019)
GDP in million EUR (2016)	42,665.71	3,961.71	4,400.75	4,692.06	18,872.55	2,542.69	9,880.29	-	9,245.30
GDP per capita as a % of EU average (2016)	78	73	73	58	70	31	73	-	77
Unemployment rate (%) (2018)	20	8.6	8.8	19	24	35	23	-	17

These challenges are aggravated by factors such climate change with the increased ferocity of cyclonic activity. Catastrophes such as Hurricane Irma in 2017, which devastated the island of Saint-Martin, highlight the vulnerabilities that ORs face. Furthermore, challenges around employment, which are acerbated by the outmigration of the youth demographic (also known as a brain drain) and environmental catastrophes, lead to social unrest that upends economic activity.

3.1.2. The European Union's commitment to tackling these challenges

The European Union's strategy of partnership with the ORs

To address the challenges facing the OR, the European Union has developed strategies and funding programmes to support the OR in realising their developmental potential.

The European strategy for the outermost regions has been developed and reinforced in the framework of the European Commission's Communication of 24 October 2017 COM (2017) 623 final, "A Stronger and Renewed Strategic partnership with the EU's Outermost Regions". The strategy is based on four main pillars:

[1] Source: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2012:326:FULL&from=EN

[2] Prepared using EUROSTAT database. Data regarding EEZ for Madeira is from the Portuguese Ministry of the Sea. The EEZ for Reunion Island includes Tromelin Island.

The establishment of a **strong partnership** between the European Commission and the respective Member States (France, Portugal, Spain), based notably on a close dialogue concerning the design and implementation of programmes and policies;

Fully **exploiting the strengths** of the Outermost Regions, through concentrated investment in priority areas such as the blue economy and fisheries, spatial sciences[3], responsible tourism, renewable energies, sustainable agriculture and research;

Targeted support for growth and jobs, with an aim to help address and tackle high-levels of unemployment and low skills-training of the youth workforce; as well as promoting policies for higher education, training and workforce mobility;

Strengthening regional cooperation and integration by deepening the governmental and economic cooperation between the ORs and their respective Member States, with the ultimate aim of reducing the sense that the ORs are far flung regions isolated from the Member States.

Additionally, the new Commission has laid out its plans for the **European Green Deal**, which in its commitment to tackling environmental-related challenges presents particular importance to the ORs that are facing the brunt of climate challenges. The European Green Deal has highlighted a forward-looking commitment to funding the circular and bio-economy for ORs to account for the impact of climate change and leverage existing assets of the ORs (e.g. biodiversity and sources for renewable energy).[4]

Potential of the Green Deal for the ORs: Clean Energy for EU Islands Initiative

An example of the potential benefits of the Green Deal is demonstrated through the Clean Energy for EU Islands Initiative. The initiative aims to advance the clean energy transition on European islands, which face unique challenges in developing renewable energy (e.g. cost of infrastructure, lack of local capacity, small markets). The European Commission has set up a Secretariat with a dedicated platform to exchange best practices for islands' stakeholders and support EU islands' in their capacity building and advisory services.[5] In the context of the Green Deal, the Commission launched calls to develop a long-term framework to accelerate the energy transition on EU islands.

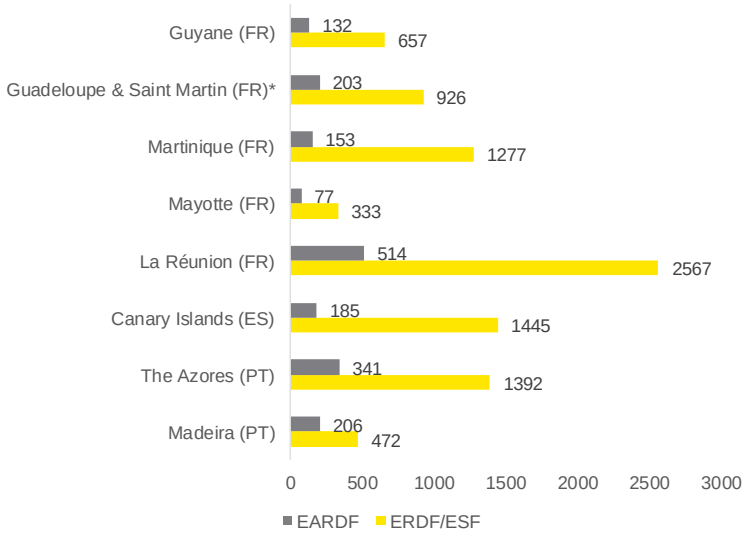
European Union's funding in the ORs at this stage

Both as part of its evolving strategy and ongoing commitment, the European Union has invested heavily in funding the ORs to help develop local infrastructure and train the local workforce namely through funding programmes such as the European Regional Development Fund (ERDF), European Social Fund (ESF) and European Maritime and Fisheries Fund (EMFF). The mobilisation of ERDF funding may be conditioned by regional Smart Specialisation Strategies (S3), which include ORs blue economy topics for some S3.

[3] This notably relates to French Guiana where the Europe's Spaceport is located.
[4] Source: https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf
[5] Source: https://euislands.eu/about-clean-islands

There are other programmes such as Horizon 2020 (along with the upcoming Horizon Europe) that also support regional development in the domains of research and technological sectors.

Figure 3 - 2014-2020 ESF, ERDF & EARDF funds by OR[6] (mil euros)



Source: DG REGIO, European Commission

Under the 2014-2020 programming period as well, a specific financial **envelope totalling 192.5 million euros for the compensation of additional costs in the outermost regions** was included in the national programmes under the EMFF.[7]

In addition to the relatively high amount of EU funding received compared to mainland regions, ORs benefit from specific derogations regarding the use of EU funding, including higher co-financing rates and specific state-aid rules.

The next European Union programming period

As the current programming period concludes, regional authorities started to work on strategies for the next programming period to consider the five new objectives of the Commission:

- A Smarter Europe through innovation, digitisation, economic transformation and support to small and medium-sized businesses
- A Greener, carbon free Europe, implementing the Paris Agreement and investing in energy transition, renewables and the fight against climate change
- A more Connected Europe, with strategic transport and digital networks

[6] The European funds allocated to Saint-Martin are managed through Guadeloupe. For the period MFF 2014-2020, around 60 million (EUR) were allocated to Saint-Martin.

[7] Source : A stronger and renewed strategic partnership with the EU's outermost region. COM(2017) 623 final

- A more Social Europe, delivering on the European Pillar of Social Rights and supporting quality employment, education, skills, social inclusion and equal access to healthcare
- A Europe closer to citizens, by supporting locally-led development strategies and sustainable urban development across the EU.

Topics falling under the blue economy can be integrated in all five of these objectives.

There is also an opportunity for the ORs to elaborate further strategies under the EMFF to develop the potential of their marine-related economic activities – or the blue economy. Indeed, the amount of money to be allocated under the EMFF is set to increase, thus providing more leeway to develop new blue economy topics. The table below presents the amount allocated per OR at this stage of the negotiation process.

Table 1 - Proposed baseline EMFF spending by OR 2021-2027[8]

Outermost Region	Amount Allocated (euros)	Percentage of MS allocation
Azores & Madeira	102 million	26.9%
Canary Islands	82 million	7.3%
French OR (all)	131 million	23.1%

3.1.3. Developing regional blue economy strategies to address further these common challenges

As part of COM (2017) 623 final, "A Stronger and Renewed Strategic partnership with the EU's Outermost Regions", there is a call for the outermost regions to design strategies to develop their blue economies. The timing is opportune as the future programming period will enable more funding for activities related to the blue economy in the outermost regions. As such, there is an added value at this time for the ORs to take the steps needed to develop these strategies, in which several ORs are advanced.

Comprehensive definition of the blue economy

Defining the blue economy:

The working definition of the blue economy in this report comes from the **EU Blue Economy Report[9]**, which defines the blue economy as: *All economic activities related to oceans, seas and coasts. It covers a wide range of interlinked established and emerging sectors*." This includes more specifically:

(a) marine-based, including those undertaken in the ocean, sea and coastal areas, such as capture fisheries and aquaculture, offshore oil and gas, offshore wind energy, ocean energy, desalination, shipping and marine transport, and marine and coastal tourism; and

[8] EMFF Funding 2021-2027; Nb. Baseline allocation that is likely to be adjusted.
[9] Source: https://op.europa.eu/en/publication-detail/-/publication/79299d10-8a35-11e8-ac6a-01aa75ed71a1

(b) marine-related activities which use products and/or produce products and services for the ocean and marine-based activities; for example, seafood processing, marine biotechnology, shipbuilding and repair, port activities, communication, equipment, maritime insurance and maritime surveillance.

This inclusive definition aims to consider the wide range of activities that fall under the blue economy.

Sectors and sub-sectors of the blue economy

Traditional activities such as port-related services and maritime transport serve as the lifeblood of island economies. However, in recent years, competition and changing global commerce has threatened and even stagnated some of these activities in terms of employment and gross value added (GVA) for the economy. There are also growing sectors such as tourism that have dynamized local economies and have offered new employment opportunities in the blue economy. However, there are challenges related to over tourism and the ability of vulnerable and resource-finite islands to sustain some of these activities.

And finally, with the emerging sectors such as marine renewable energies (MREs) and biotechnology, there is real opportunity to develop new sectors that are not only sustainable but also will help train the local workforce for high-skill employment. These emerging blue economy sectors will require a great deal of foresight and investment in programmes to incentivise companies to develop capital-intensive projects such as tidal or offshore wind energy and investment in studies to understand how biodiverse resources can be commercialised in a sustainable way.

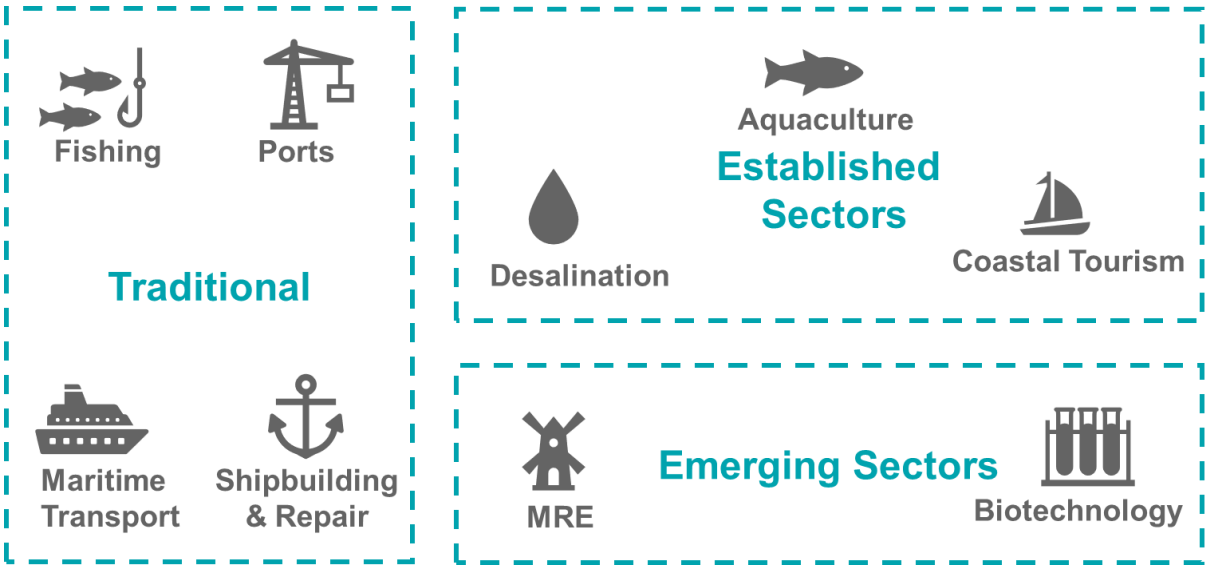
The table below presents blue economy sectors and subsectors:

Table 2 - Categories and sectors of blue economy

Category	Sector	Level of development
Costal Tourism	Costal activities	Established
	Cruising	Established
Marine living resources	Fisheries	Traditional
	Aquaculture	Established
	Blue biotechnologies	Emerging
Port activities	Berthing and unberthing	Traditional
	Dredging	Traditional
Shipbuilding and repair	Shipbuilding	Traditional
	Ship repair	Traditional
Maritime transport	Human transport	Traditional
	Merchandise transport	Traditional
Blue energy	Tidal energy	Emerging
	Marine current energy	Emerging
	Thermic energy	Emerging

	Offshore wind energy	Emerging
	Other MRE	Emerging
Desalinisation	Water production through desalinisation	Established
Maritime defence	Defence technologies	Emerging
	Defence shipbuilding	Traditional

Figure 4 - Subsectors of the blue economy[10]



Levels of development of blue economy sectors in the ORs

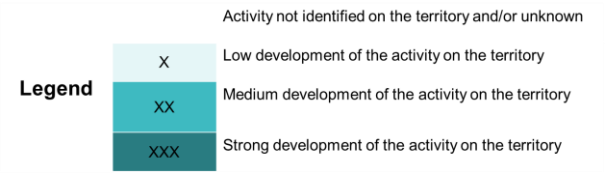
In each of these sectors presented, the outermost regions vary in terms of their specialisation from one to the other.[11]

[10] Realising the potential of the Outermost Regions for sustainable blue growth

[11] Realising the potential of the outermost regions for sustainable blue growth. N.B. The values for Macaronesia (e.g. Madeira, Canary Islands and the Azores) were not available in the report, so the EY team benchmarked the relative development of each sector based on gross value added presented in the reports and discussions with officials in each region.

Table 3 - Level of development of blue economy sectors per OR

Category	Sectors	French Guiana	Guadeloupe	Martinique	Saint Martin	Réunion	Mayotte	Azores	Madeira	Canary Islands
Costal Tourism	Costal activities								X	
	Cruising					X			XXX	
Marine living resources	Fisheries	XX	XXX	XXX	X	X	XX	XX	XX	XX
	Aquaculture								XX	
	Blue biotechnologies					X				
Port activities	Berthing and unberthing	X	XX	XX	X	XXX	XX	XX	X	XX
	Dredging	XXX							X	
Shipbuilding and repair	Shipbuilding		X		X					X
	Ship repair		XX	XX	XX	X		XX	X	XX
Maritime transport	Human transport	X	XX	XX	X	XXX	XX	X	XX	XX
	Merchandise transport								XX	
Blue energy	Tidal energy					X				X
	Marine current energy									
	Thermic energy									
	Offshore wind energy									
	Other MRE									
Desalinisation	Water production through desalinisation				X		X		X	XXX
Maritime defence	Defence technologies									
	Defence shipbuilding									



Source: COGEA Blue Economy report (2017) & EY analysis for Azores, Madeira & Canary Islands

The outermost regions rely heavily on blue economy sectors. For example, in the Canary Islands, 6,69% of all the jobs are directly related to the region's marine economy.[12] While the blue economy varies widely between OR, as diverse as the Amazonian rainforest of French Guiana to the small islets of the Azores, there are commonalities that can be seen in terms of the sectors and their maturity.

Funding the blue economy strategy

Recognising both the opportunities and challenges facing the blue economy sectors, several ORs have already begun the process of developing blue economy strategies to help structure the sector and identify priority areas to fund under the next programming period 2021-2027. However, some ORs have not yet begun the process.

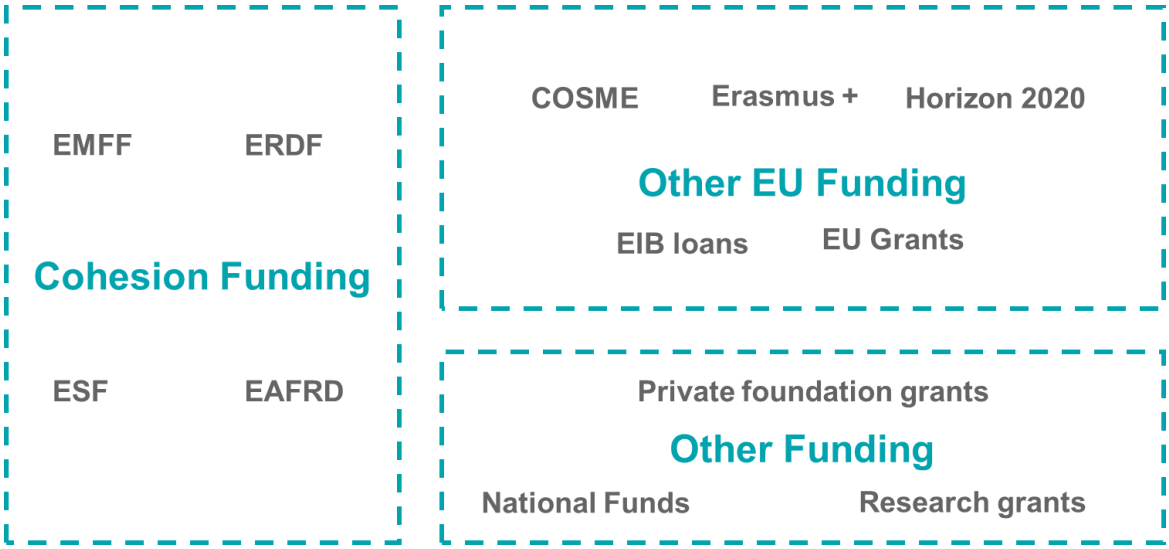
Important point of attention for the ORs

The blue economy strategy development **should not be seen as a pre-condition to access to EMFF funding**. The investments supporting the BE strategies should encompass all possible funding sources beyond just the EMFF (Cohesion funding, EIB loans, Horizon Europe, national and private funds, etc…) to ensure that all projects related to the blue economy can be realised.

As highlighted above, the ORs as they develop their strategies should integrate all potential funding sources to fund their blue economy strategy. The blue economy strategy is a framework to develop an entire sector of the ORs economy and thus the scope of projects considered should not be limited to projects that local authorities believe will be funded under the EMFF, which is overall a small part of the total funding available. Provided below is an overview of potential funding sources that could be considered:

[12] Source: Informe de Actividad de la economía azul en Canarias 2019

Figure 5 - List (non-exhaustive) of potential funding sources to leverage[13]



There are numerous funding sources that can go into funding projects called for under the blue economy strategy. Leveraging these sources will require foresight and consultations with stakeholders to ensure that all avenue of potential funding have been considered. As shown above, cohesion funding, while important, is only one of several potential sources that should be considered when developing the strategy.

3.2. Objectives of the document

This Final Report sets out to present the state of advancement for the blue economy strategies in the ORs and a comprehensive step-by-step approach for realising a blue economy strategy. The ORs' regional authorities will be able to find a detailed methodological framework to conduct preparatory work for the writing of the strategy in the step-by-step approach section that details how to write the strategy and to implement, monitor and evaluate the strategy.

The last section presents a SWOT analysis per each OR at this stage. Additionally, based on the available documentation and on interviews, the state of the play and the priorities identified are presented per OR.

3.3. State of advancement for the blue economy strategies

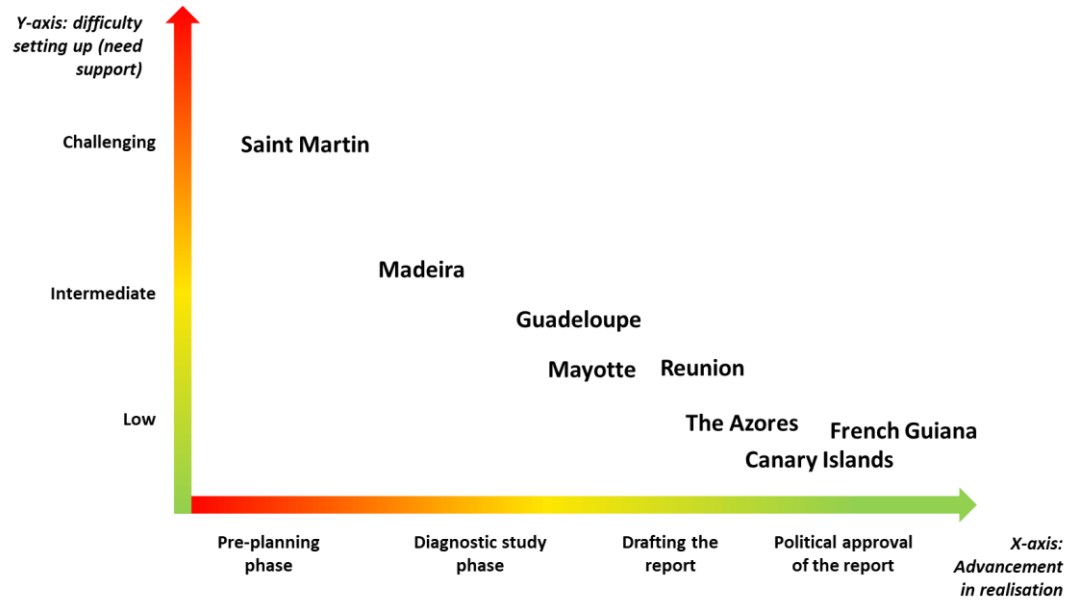
Overview of the advancement in the ORs

[13] Other resources can be found in the following link: https://ec.europa.eu/info/funding-tenders/funding-opportunities/funding-programmes/overview-funding-programmes_en

The present guidance document aims to understand the common challenges in developing blue economy strategies that the OR have faced and then tailor the methodological support for each OR based on their specific needs.

Provided below is a summary where each OR finds itself in the realisation of a blue economy strategy. In discussing the strategies with stakeholders (regional authorities and professional bodies), the typical procedure followed has been: i) pre-planning of the strategy (e.g. putting together a committee to work on the strategy); ii) a diagnostic study on the blue economy sector; iii) drafting of the strategy; iv) political approval and consultations with the public before final approval. The graph indicates based on our discussions where each OR is in terms of realising its strategy and the level of difficulty faced in preparing the strategy. Those in more difficult positions will require more direct support to realise a strategy in time for the next programming period.

Figure 6 - State of advancement of the OR in realising their blue economy strategy[14]



Source: EY Analysis

As is demonstrated above, overall the outermost regions have started in the realisations of their blue economy strategies due to the incentive provided by the next EMFF programming period. A detailed presentation of the advancement of each OR is provided in Chapter 11.

Several of the strategies have been produced and are in the political approval phase and thus will likely be completed in the coming months (e.g. The Azores, French Guiana, the Canary Islands and Reunion). A couple strategies have been tendered to a contractor or are in the process of being written (Guadeloupe, Mayotte). These strategies will then need to be approved politically.

[14] Martinique has intentionally been excluded from the graphic because they are not developing a dedicated blue economy strategy but are instead relying on a bassin wine strategy that includes actions for the blue economy. This is further explained in Section 4.6 of this report.

In the case of Saint-Martin, there has been confusion around the methodology to be used in developing the strategy. Madeira as well has experienced delays in starting the process, although the OR has advanced faster than Saint Martin in identifying a committee to work on the strategy. In recent months, Madeira has been facilitating exchanges with the Azores and the Canary Islands to try to advance on its strategy. However, based on the study team's analysis, both Saint Martin and Madeira will need more direct guidance than the other ORs to advance in realising their strategies.

Below is a tentative timeline for realisation of each strategy based our the EY team's documentary review, analysis of strategic documents and discussions with stakeholders.

- **Figure 7 - Likely completion of the blue strategy**

Completion timeframe	Outermost Region
6 to 8 months (Approx. June to November 2020)	Canary Islands, French Guiana
12 months (Approx. March 2021)	Reunion, Mayotte, Guadeloupe
Unclear timeline for completion (not likely before Summer 2021)	Saint-Martin, Madeira, The Azores
Not applicable (not developing a blue economy strategy)	Martinique

Common points raised in the interviews with the ORs:

This section raises five methodological common points that officials from the ORs raised in terms of the development of their blue economy strategies. In Section 4, the specificities of the points raised by each OR will be addressed in more detail; however, this section aims to highlight that there are common points being raised that can be clarified through knowledge sharing, exchanging of best practices and other efforts.

1

The articulation between the blue economy strategy and the next programming period

Several stakeholders working on the strategies in the OR raised their confusion as to the relationship between the call to develop a blue economy strategy under COM (2017) 623 final and the next Action Plan for the EMFF programme 2021-2027. There is particular confusion as to how the strategies will be used to determine actions that will be financed under the EMFF. The risk is that the ORs will orient their strategies too much towards actions likely to be funded under the EMFF to the detriment of understanding the variety of potential funding sources to support blue economy activities.

Lack of clarity as to what sectors should be defined under the blue economy

One of the concerns raised in defining the priorities for the blue economy is some ORs may want to include freshwater fisheries and aquaculture as well as other activities linked to Blue economy. The discrepancy in the definition of the blue economy can lead to confusion in the drafting of the strategies as to how to prioritise sectors for investment.

2

Potential clarification for the ORs

This point was addressed with DG MARE during the Inception Report meeting. A solution discussed was to adapt the working definition of the blue economy to the reality of the blue economy the overseas regions. For example, the inland activity related to the rivers in French Guiana can be included and the Canary Islands can make a distinction between inland activities that may be not be related directly to the blue economy. The definition of the blue economy should guide priority sectors (using EUROSTAT data as an entry point for analysis) but the regions ultimately can define their own strategies. The upcoming DG MARE weminar in June and DG MARE forum in autumn offer two venues to build awareness among the ORs that definitions of the blue economy are there to help them define the sector but should be adapted to local activities and realities.

3

Common methodology that should be used when designing a strategy

While the stakeholders that were interviewed valued the ability to tailor the blue economy strategy for their region to the local needs, there was a common refrain that there was difficulty structuring the strategies in a way that was mutually intelligible with the strategies being developed in other outermost regions. Several outermost regions have a strong history of collaboration, notably in Macaronesia (the Azores, Madeira and the Canary Islands), so having a similar framework for strategy to serve as the basis for best practices for fostering blue economy would be useful.

Potential clarification for the ORs

This guidance document presents some of the categories that should be incorporated in a blue economy strategy in section 3.3. This is particularly helpful for the OR that have not yet begun the process of drafting the strategy to be in line with some of the strategies that are already nearing completion. For the regions that have already completed their, the governance and monitoring instructions could help develop a common reporting system that can be used to compare the implementation of the strategies once adopted and thus facilitate the knowledge exchange with the other OR.

4

Need for forums to exchange good practices with other outermost regions

As mentioned above, some of the OR have extensive experience exchanging with other regions (either within their own Member State, with other regional authorities including other ORs). Already there are forums such as the OR Council of Presidents and the thematic forums organised by DG REGIO and DG MARE. However, stakeholders who have been interviewed declared that there would a great value added to have a specific forum dedicated to writing blue economy strategies and comparing best practices and ideas before the final implementation of the strategy. Even the most advanced ORs in developing their strategies have not yet started to implement them, so the exchange of ideas could be impactful for structure the realisation of the proposed actions and priorities.

Potential clarification for the ORs

Awareness raising of existing platforms for exchange could support the exchange of best practices, especially among the administration in the ORs as to the number of forums and working groups among ORs. At present, the European Commission organises the RUP Groupe de Travaux (working group), Interservice meetings, maritime forums, and the meeting of the OR council of the Presidents. Each of these venues could serve as a venue to raise points around best practices for developing blue economy strategies and facilitate direct exchange among ORs.

5

Using the blue economy strategy to unlock the enabling conditions to turn R&D projects related to the blue economy into commercial opportunities

A common refrain among the outermost regions is that the biodiversity and warm climates are ideal for testing blue economy technologies. Outside companies invest in prototype projects within the outermost regions, which offers limited employment (in terms of available skills) and investment opportunities, notably for academic institutions. However, once the project's development phase is completed, the companies often only market the technology back in the mainland commercial market or in global markets because the ORs have comparatively small markets. This creates an ephemeral investment climate in the OR's economy as the sector does not help sustain the long-term development of the knowledge economy. Several ORs asked for help in developing strategies that can combat this trend so the foundation for developing a commercial blue economy can be laid.

Potential clarification for the ORs

In developing the blue economy strategies, there are a number of resources available for the ORs to develop the enabling conditions to develop high-value added, sustainable blue bio-economy jobs. Already, Horizon 2020 is supporting ORs in terms strengthening their research and innovation capacities. For example, all the ORs are participating in the project, **FORWARD**, which has been launched as part of the EU's strategy for ORs and provides a €4.3 million grant to the ORs to support research excellence (e.g. supporting networking, developing thematic actions plans, etc.), so OR research institutions can participate in European R&I projects.

Developing blue skills, research capacities, maritime spatial planning and access to funding should be rather **seen as cross-cutting key enabling conditions to secure the success of blue economy strategies**. Any successful blue economy strategy should strive to integrate these enabling conditions and think innovatively about the variety of funding sources that can be used to fund projects that will unlock the potential of the blue bio-economy. As these conditions are developed, an R&I ecosystem around the blue economy will be developed that will mutually reinforce more sustainable blue economy activities being carried out in the ORs:

- Figure 8 - Example of enabling conditions for the blue economy

Regarding the common points on the issues identified in relation to the blue economy in the ORs during the telephone exchanges carried out, it has to be said that the socio-economic conditions and geographical positioning of the ORs make it difficult to make any hasty comparison. However, themes are often cited as key to facilitating the development of the blue economy:

- The training of professionals in the blue economy is considered by most of the ORs to be a major challenge for the development of new economic activities;
- The development of responsible tourism, in the broadest sense (including coastal tourism, yachting and cruises);
- Port development, in particular logistics and ship construction or repair;
- The development of blue energy is also a key issue for the development of renewable energies in the territories of the ORs given their proximity to the sea and the availability of the resource.

While these four themes emerged in all the exchanges, the specific features are broken down by territory in Section 4 of this report.

4. Step-by-Step Approach

This section provides a step-by-step approach for designing a blue economy strategy. The methodology aims notably to support those ORs that have not yet had the opportunity to begin their strategy. The methodology presented in this section is generally applicable to each OR, in the following Section 4, there is a detailed thematic guidance document for each OR to provide tailored support.

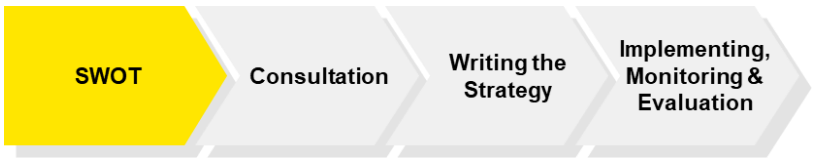
Nevertheless, the methodology can serve as a checklist and basis for revision for outermost regions that have advanced in designing their strategies. While the data and insights presented in each blue economic strategy should respond to the local circumstances, the general guiding methodology will not only help with structuring a blue economy strategy but also support knowledge sharing as the strategies will cover common steps.

The steps, further detailed in Section 2, including four primary steps:

Figure 9 – Methodology for a step-by-step by approach

As presented above, the methodology for developing a blue economy strategy can be followed in sequence. The first step includes conducting an analysis of the internal and external factors driving the blue economy in a SWOT analysis (further elaborated in *section 2.1*). The next step involves identifying and consulting stakeholders involved in the blue economy to receive their feedback and analysis to include in the strategy (*section 2.2*). The third step is the writing of the strategy and effective allocation of tasks (*section 2.3)*. The final task involves implementing and setting up a monitoring and evaluation system to track the strategy's performance (*section 2.4)*.

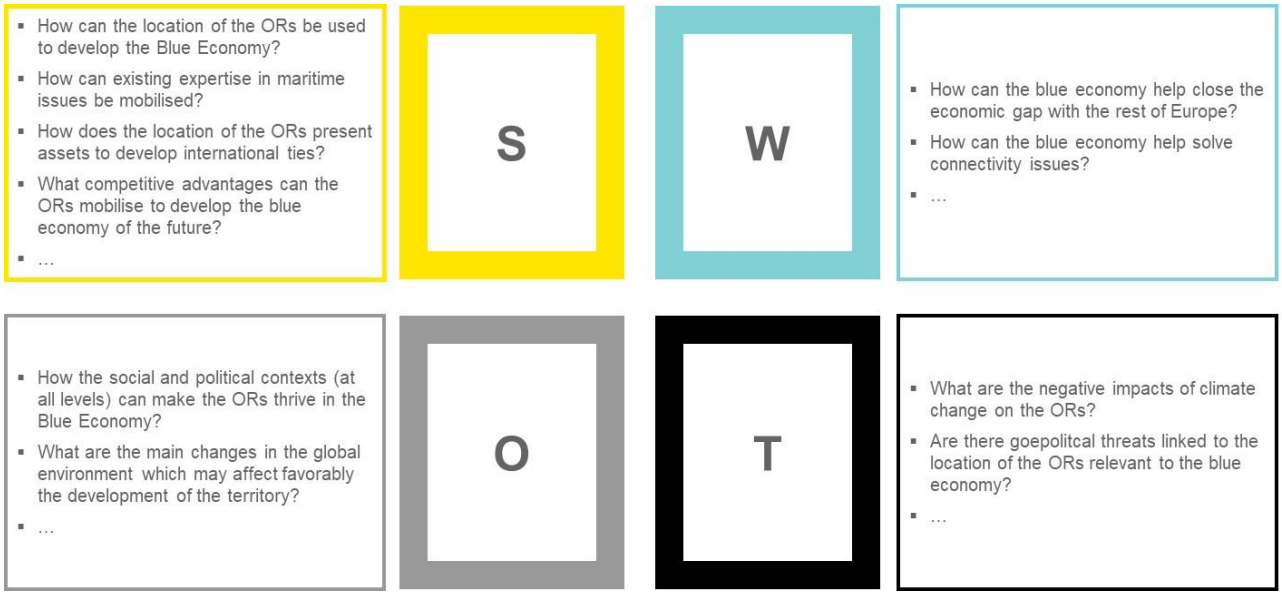
4.1. Step 1: Conducting a SWOT Analysis



- A **SWOT analysis**, which stands for **Strengths, Weaknesses, Opportunities and Threats**, is a critical first step in designing a blue economy strategy that addresses the reality of the blue economy on the ground. The SWOT analysis when carried out successfully, will allow the committee working on the blue economy strategy to have a clear set of the actors that need to be consulted, the priorities that should be integrated into a blue economy strategy and a vision on what actions would be plausible. The SWOT can also help in the monitoring and evaluation of the strategy once adopted as the main points raised in the SWOT can help set **SMART** (***specific, measurable, achievable, relevant, time-bound) objectives*** to achieve (*see section 3.4).*

To ensure the SWOT analysis has a clear blue economy focus, the SWOT should be driven by key questions for each aspect. The figure below presents a non-exhaustive list of these questions to help frame the content that should be placed in the SWOT:

Figure 10: Examples of guiding questions for the SWOT analysis



I) Finding Facts-based evidence

Documentary Review

The first task to perform a SWOT analysis for the blue economy is to assemble all the available literature and documents that could help answer the questions for each fo the SWOT categories. The SWOT analysis will be based on a documentary review conducted with the following documents (*non-exhaustive*):

- **European documents**, such as the 2017 study on *Realising the potential of the Outermost Regions for sustainable blue growth*, which includes a detailed annex on each outermost territory's blue economy.[15] OR officials can also use the 2019 study on '*Implementation of the EMFF in outermost regions*', European Maritime Spatial Planning Documents, and Ocean Basin Strategies published by DG MARE. These documents can notably help provide perspective on the types of actions that could be included in a blue economy strategy and are likely to be co-financed under the EMFF;
- **National documents,** such as national maritime strategies and national strategies dedicated to the outermost regions. In a number of Member States, there is a national blue economy strategy or studies that have been published. These studies can serve as a rubric to understand national officials' priorities so that strategies developed for the outermost regions conform with the priorities to best capture potential financing for priority actions;
- **Regional and local documents,** such as blue economy strategies, regional strategies and relevant programming documents. A number of regions have

[15] Source: https://ec.europa.eu/regional_policy/en/information/publications/reports/2017/realising-the-potential-of-the-outermost-regions-for-sustainable-blue-growth

conducted stakeholder consultations in the past or have completed diagnostic studies on topics related to the blue economy. These documents could notably serve in providing facts and figures to support the findings in the SWOT.

Consulting stakeholders

While official documents may be helpful in defining the main findings that will go into a SWOT, there should be interaction with stakeholder and/or drawing on collected feedback from stakeholders. Stakeholders are not only key for receiving information as to the reality on the ground concerning each of the categories of the SWOT but also a potential fount of knowledge as to reports and other resources that could provide evidence for the SWOT.

Figure 11 - Examples of facts-based evidence that can be found in available resources

Eurobarometer:

- Overall statistics on the blue economy
- Public opinion on specific topics (marine environment; maritime and fish)

National statistical offices:

- Unemployment information
- Pressing national issues (asking citizens to rank issues of concern such as climate change)
- Employment information on blue economy related sectors
- Information on national strategies

Research institutions:

- Reports on the biodiversity and overall health of the marine environment in the outermost region
- Expert opinions on the viability of emerging sectors related to the blue economy (e.g. which MRE technologies are adapted to the OR)

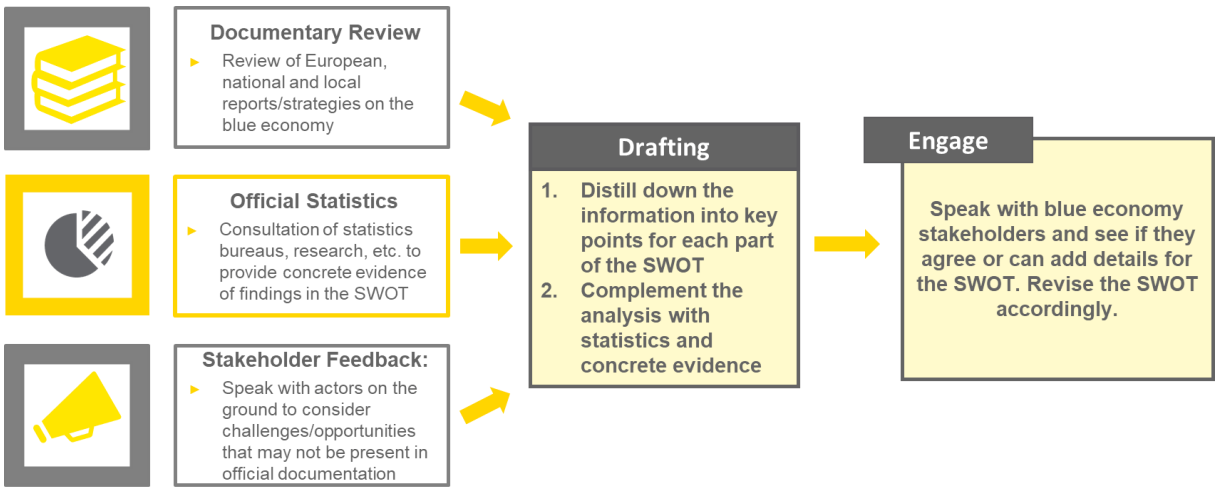
Feedback from stakeholders:

- Identification of SWOT that may not be directly addressed in other sources (e.g. reality of how illegal fishing is impacting the local economy)
- Feedback on what elements of the SWOT draw less interest from the target audience(s)
- Integration of qualitative information (profiles, opinions, etc.)

II) Structuring and subcategorization of the SWOT

Once the data collection for the SWOT has been conducted, the next step is to combine all the sources of information and develop a clear structure for filling out the SWOT. Provided below is an overview of the process that will lead to the final SWOT analysis:

Figure 12 - Overview of the process to develop a SWOT



During the drafting of the SWOT, for each part of the SWOT, **the points raised should be grouped by subcategories (as presented in Section 3.1)**. Already, based on DG MARE's proposed structure, there are existing subcategories applicable to the blue economy that could be used.

Grouping by sub-categories will enable cross-comparison of the SWOT for each OR. This will help to analyse both common and differing challenges that will support ORs authorities in developing the overall step-by-step guidance to be shared by all OR in the final report and the tailored approaches per OR.

The aim in defining points for each subcategory presented above is to accentuate concrete examples related to the blue economy that can make a SWOT analysis useful for later steps when actions need to be defined for the blue economy. For example, if a SWOT finds opportunities related to growing the port infrastructure but also pinpoints a threat that could prevent that opportunity, then an action later presented in the blue economy strategy can anticipate the threat in laying out plans to develop the port to fulfil its potential in growing the blue economy.

To support the OR in the exercise of developing a SWOT, an initial SWOT has been developed for each OR in the section 'Priorities and challenges) under each OR in Section 4. These SWOT are not-exhaustive and should be further developed for ORs that have not yet undergone their SWOT analysis.

Best practices seen from the OR

Leveraging previous exchanges with stakeholders to create the SWOT analysis (The Azores)

As part of developing a SWOT for its blue economy strategy, the Azores intentionally compiled a list of summary documents from previous meetings and exchanges conducted with private sectors actors (e.g. enterprises, fishermen, etc.). These documents were then used to help identify the categories to present in the SWOT analysis done to support the writing of the blue economy strategy. The aim was to avoid duplicating existing work as well as to make sure that the SWOT analysis developed integrated perspectives from the main actors in the blue economy, rather than concentrate solely on the expertise of the team in charge of writing the blue economy.

Consultations with private sectors actors to ensure the comprehensiveness of the SWOT (Canary Islands)

Another good practice seen was in the Canary Islands, which has a track record of government-led partnerships with private sector actors working in the blue economy (namely working with a maritime cluster that has 130 blue economy businesses grouped together). The local administration, in partnership with the Instituto Tecnológico de Canarias, developed a SWOT analysis and then consulted marine groups involved in the marine consortium to make sure that the SWOT reflected the reality on the ground before starting the redaction of the actual blue strategy.

4.2. Step 2: Conducting stakeholders' consultation

The tools presented here are mainly used for what can be called "group consultation". With these tools it is possible to collect the opinions of different stakeholders that should contribute to the analysis presented in the blue economy strategy. The main advantage of the stakeholder consultation is that it makes possible the bringing together of different stakeholders (e.g. entrepreneurs, policy-makers) to collect a large amount of qualitative information in a relatively short time frame. The following box shows how these tools can complement interviews that may be done in parallel to prepare the blue economy strategy.

Box 1 - Group consultations vs. individual interviews

The added value of group consultation – as compared with individual interviews – is the opportunity to get different points of view about the same topic at the same time. The different perspectives are grounded on the specific background of each stakeholder. This allows to look at the phenomenon of interest with a broader analytical horizon, thanks to the different expertise and experiences involved in the group. Furthermore, the group consultation could also work as a synergistic tool, since the contribution of one stakeholder is likely to trigger others' responses and reactions. This is a good way to test the level of consensus and acceptability around the issues at stake, for instance when discussing the policy options identified. This would be very useful in order to get a preliminary overview in terms of social and technical feasibility of the policy solutions and recommendations suggested in the study.

For the purposes of developing a blue economy strategy, it is best to organise a series of workshops based on a set of pre-identified thematic areas that are the most engaging for the individuals invited. The aim of the focus groups is to gain *input for the analysis*, for example on policy developments or possible impacts. **It is important to note that stakeholder consultations are a continual process**. The process of receiving feedback from stakeholders should start before a thematic workshop is set up and continue after

the workshops have finished. Receiving continual feedback is important to ensure that the blue economy strategy is responding to needs on the ground and that that potential innovative ideas, whether they be specific projects or partnership opportunities, are not overlooked.

Picking the right theme for the thematic workshops:

The themes selected for each session should carefully thought out based on the stakeholders assembled. When the topic is completely misaligned with the interests of the stakeholders in the room, then the discussion likely will not produce strategic insights that will help the team writing the blue economy strategy to move forward. However, stakeholders shall be involved in issues which may have an impact on their activities, even if they are not directly related to their field of expertise. To this end, moderators shall make sure that information is shared between the different panels mobilised.

Before selecting a theme, **the following question should be explored**:

Is the audience likely to be present aware or have expert opinions in the topic?

Is the topic related to a strategic priority in the blue economy and likely to be a key component of the strategy?

Would presenting this topic at a workshop help raise awareness among a key stakeholder group whose support and feedback will be needed to give credibility to the strategy?

General approach for a stakeholder consultation

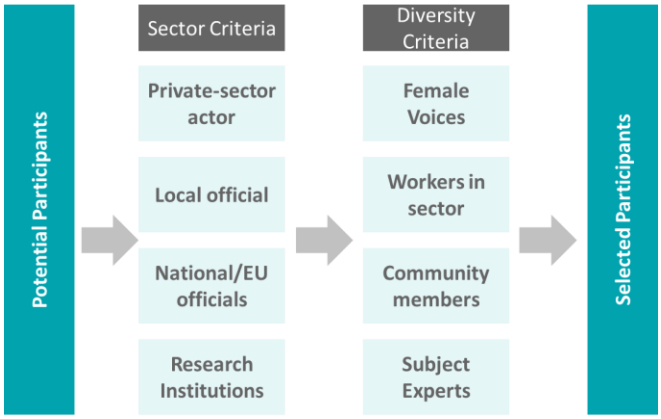
Presented below are a set of common steps that can be undertaken to conduct the stakeholder's consultation. This step **should be taken after the analysis phase and before the drafting of the strategy**. However, even if these steps take place during or after the writing of the strategy, there are insights that can be incorporated in the strategy. The approach ensures the maximum preparation is undertaken before the start of the consultations and that the right thematic topics and approach is selected to ensure the consultations bring together the right stakeholders and raise the topics that will support the blue strategy.

Preparation and definition of how the workshop will be structured

The different sessions of the workshop should be designed around raising strategic priorities and discussing how they will be implemented through the next operational programs.

The workshops should be organised by thematic grouping around blue economy objectives bringing together the different stakeholder groups (see the guidance above on selecting relevant topics for the workshops). Important thought should be put in the preparation of the workshop as to whom should participate. Provided below are some criteria to identify stakeholders to ensure a multi-level, multi-sectoral approach:

Figure 13 - Example of criteria to select participants



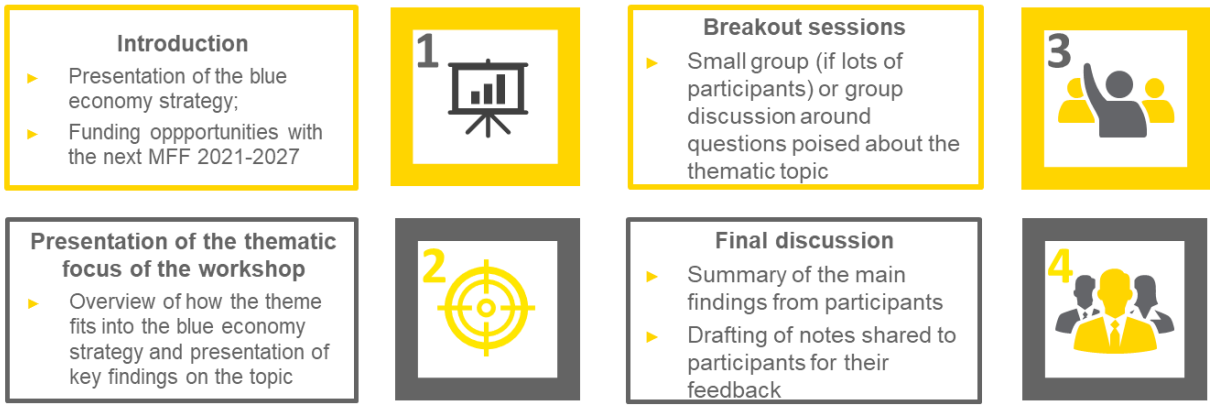
The above criteria offer a non-exhaustive look at the criteria that could be considered in inviting attendees to a workshop from the pool of all relevant stakeholders. Notably, the workshop should aim for the most diverse panel possible to be represented. The criteria can be thought of in terms of sector criteria (are all the actors in the sector at the table?) and diversity criteria (are a range of different voices being heard?).Concerning sector criteria, there should be voices from the public sector (all the regional, Member State and EU-level if possible), as well as private sector and research institutions. For the diversity criteria, a mix of subject experts and community members should be represented. An important point as well is to make sure that women are also participating. A common refrain heard was that women are often unrepresented in discussions.

The sessions should be based on the needs identified in the diagnostic study of the blue economy in the OR. The aim should be specifically to:

1. Identify the objectives to be achieved by sector related to the blue economy (e.g. Renewable energy; sustainable marine resource management, etc.): the priorities identified during the diagnosis study should be discussed with the stakeholders present and then prioritised to further **distil them down into three major objectives** (on average per thematic area covered);
2. Making operational these objectives: objectives identified will be further broken down into actions that align with each of the operations to be carried out;
3. Identify the actions that can be supported by European funds based on the draft regulations identified, and potential organisations that could co-finance the projects;
4. Calculate the needs identified for each of the actions selected.

Based on the discussion arounds the needs that the actions should address, the **next discussion should focus around brainstorming potential organisations to work on projects and potential partners to co-finance projects**.

Figure 14 - Steps for designing a stakeholder consultation workshop



In designing the workshops, it is important not to insert too many themes. It will be the job of the blue economy strategy team to synthesize the feedback from the workshops. The aim of each workshop is to have return from participants on some of the main priorities of the strategy to get their feedback and/or pressure test some of the findings that have been included in the strategy or plan to be included in the strategy.

Integrating stakeholder feedback into the strategy

Once the stakeholder's consultations have been completed, it is pivotal to leverage the feedback provided to incorporate into the blue economy strategy. **A meeting of all the team writing the blue economy strategy to go over the main findings** brought up during each workshop would be a best practice to make sure no important points are lost in the process of writing the strategy. The summary documents of each workshop can also be circulated among the staff writing the blue economy strategy, so that those that did not have the time to participate can still understand the main ideas that were raised.

Incorporating this feedback will not only help provide qualitative information to include in the strategy but also provide concrete evidence that the stakeholder community was consulted for the strategy and in turn engender legitimacy for the project. The feedback also is critical for pressure testing the assumptions made based on the SWOT analysis conducted for section 3.1.

Proposed outline for a stakeholder consultation

This section presents a proposed outline for a stakeholder consultation workshop, based on the workshops that have already been held in some territories.

The table below proposes an agenda for a thematic workshop based on the one of the selected blue economy topic OR's authorities would like to address in their strategies.

Section	Content
Introduction (20')	A first introductory session (either in plenary or in workshop groups) shall be organised to present the context of blue economy related works:

	• Restate that this exercise aims at defining an encompassing blue economy strategy for the OR • Define blue economy in light with the specific needs for the territory • Restate the objectives of the stakeholder consultation
SWOT and diagnosis phase discussion (1h)	In thematic groups detail the SWOT for the selected theme. The organiser of the workshop can provide a first SWOT analysis for discussion based on previous works and available documentation or based on Section 3 of this report. The moderator can give 20' for each individual to elaborate individually on the SWOT before discussing it in small groups or as a unique group, depending on the number of attendees. If the discussion on the SWOT is done in subgroups, the moderator will be able to check the consistency of SWOTs between subgroups. A 10' conclusion time can be used at the end of this section to compare the needs for
Prioritisation of the territory's needs	After discussion on the SWOT, attendees should prioritise the needs of the territory on the selected theme. Each attendee can rephrase individually the needs of the territory considering the agreed content of the SWOT and select up to 3 or 5 strategic needs (15/20'). These strategic needs can then be shared by the whole group and ordered based on their recurrence.

Based on the results from the workshop, i.e. a detailed SWOT on the theme selected and an ordained list of strategic needs, the authorities can then work on this document to produce an encompassing strategy.

4.3. Step 3: Writing a blue economy strategy

Once the SWOT analysis and stakeholder consultations have been completed, the committee can start work on drafting the blue economy strategy. This process normally takes 6 months to a year. Some ORs have hired contractors to draft the blue economy strategy while others have selected a committee to write the strategy. In the case of the former scenario, the following proposed structure and methodology can be used to help structure a tender for contractor and help the region structure and oversee their work. The language of this section is designed around the assumption that a committee will be drafting the strategy.

At this stage, the information gathered in the diagnostic phase of the strategy should be synthesised in clear summary documents that can be shared with the committee to consider as they are drafting the strategy.

Some of the necessary steps to consider as the writing begins are the following:

Do the committee members (or team for the contractor) each have an expertise where they can help complete a section of the strategy?

Is it clear how the strategy will sub-divide each section so there is no overlap but that each main theme is covered (e.g. provide an overview of the blue economy; governance mechanism; action items and funding schemes)

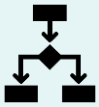
A process for informing key stakeholders such as public officials that will sign off on the strategy during the political review to ensure they feel invested in the strategy's completion;

This first point as to knowing where each member of the committee drafting the strategy can best contribute is very important. Several of the ORs that have drafted their strategies have already made sure to include a small committee that represented a balance between regulatory/political expertise and scientific and economic expertise on the blue economy.

Based on the analysis of the blue economy sectors as well as discussions with local officials the following four sections should be developed for the blue economy strategy. These sections will help structure a clear methodology that combines a thorough state-of-play to inform readers of the regional blue economy and then steadily build towards action items/priorities and the implementation of those actions. The four main sections are as follows:

Figure 15 – Suggested sections for the blue economy strategy

Section		Content
	Introduction 	This section presents a **brief description of the methodology** used to write the blue economy strategy (workshops, timeline, stakeholders involved) as well as the **definition of blue economy** in light with territory's specificities. The section should also present some of the **main actions and priorities** of the study.
1	**Diagnostic** 	This section presents the main findings of the diagnostic study of the OR's blue economy. Depending on the work done, this section can be either short and pointed (as a resume of a full-length diagnostic) or use all the details (review of documentation and detailed SWOTs per blue economy topics). The themes to be focused on in the diagnostic can be selected depending on other strategic priorities of each region. This section should also present existing strategic documentation and ensure that the blue economy strategy is aligned with the rest of European and national strategic documents.
2	**Strategy** 	This section is the core of the strategy and shall answer to the territory's specific needs by detailing the areas of specialisation, the timeframe and the potential funding available for each strategic item. This section shall list priorities and sub-priorities. It can also mention specific projects if they are emblematic or may cover one priority the strategy.
	Governance	This section can be added at the end of the strategy to highlight the different means and resources which will be put in place to

		implement the strategy. This include a financial plan and the list of governance committees which may be involved.
3	**Indicators and monitoring** 	Added as a complete section or annexed to the report should be a section that contains the indicators that have been defined in alignment with the priorities of the strategy. There should be a clear plan in place to monitor the achievement of the indicators.

5. Section 1 – Introduction and diagnostic

This section should provide an introduction and overview of how the blue economy is structured in the OR. In the introduction, it is important to present the main priorities and takeaways of the strategy in the form of an **Executive Summary** that syntheses the main points of the report. This section should make clear the overall purpose of the blue economy, its impact on the local economy and the main priorities addressed in the strategy. This section should be forward looking and present the potential that the strategy has in realising the objectives for developing the local blue economy.

The **introduction** can then present in more detail the methodology deployed in the study. A brief overview of the types of stakeholders consulted and consultations organised to show the community engagement and transparency of the process. This section should also provide a working definition that is tailored to the specificities of the blue economy in the region. For example, French Guiana developed a definition of the "blue Amazonian economy" to include the specific use of its rivers in the Amazon in the blue economy.

The **diagnostic section** of the study is an opportunity to lay out in unequivocal terms the importance that the blue economy plays in the local OR's economy. The section should describe some of the important findings from the diagnostic study conducted for the strategy. The information presented should combine both quantitative (statistics) and qualitative (interview feedback) in illustrating some main points (e.g. MRE is an emerging sector, traditional activities such as fishing have been shrinking, cruise tourism has become an important part of the local economy, etc.)

6. Section 2 – the Strategy

This section should be dedicated entirely to presenting the strategy. The section should **begin with a clear presentation of the objectives** of the strategy (e.g. supporting a tidal energy programme, developing a blue bio economy around microalgae, expanding aquaculture). This is to give the reader and teams that will implement the strategy a clear understanding of the overarching goals of the strategy.

After, the section should go into detail into specificities of each priority, objective and corresponding actions to achieve each objective. When **elaborating on the objectives, priorities, and actions** there should be significant reflection on making sure that there is no overlap in what is proposed that could complicate the realisation of an action (e.g. proposing a new cruise terminal in the same spot where a marina needs to be constructed).

A possible way to structure the detailed part of the strategy is to organise the section by blue economy sector (e.g. Coastal Tourism; Marine living resources; Port activities – see SWOT for relevant sectors).

Figure 16 - Example of organising strategy action plan

Sector: Renewable energy

Priority: Reduce reliance on fossil energy to ensure energy independence and reduce carbon emissions

Objective: Achieve 20% renewable energy by 2027

Actions: Construction of experimental offshore wind facility

The example provided above of how to structure each section should be elaborated in extensive detail. There should be facts and figures and a variety of supporting evidence to justify why the priority, objectives and actions have been defined. And as mentioned previously, any priorities and objectives presented in the strategy should be SMART (*specific, measurable, achievable, relevant, time-bound*).

7. Section 3 - Governance structure

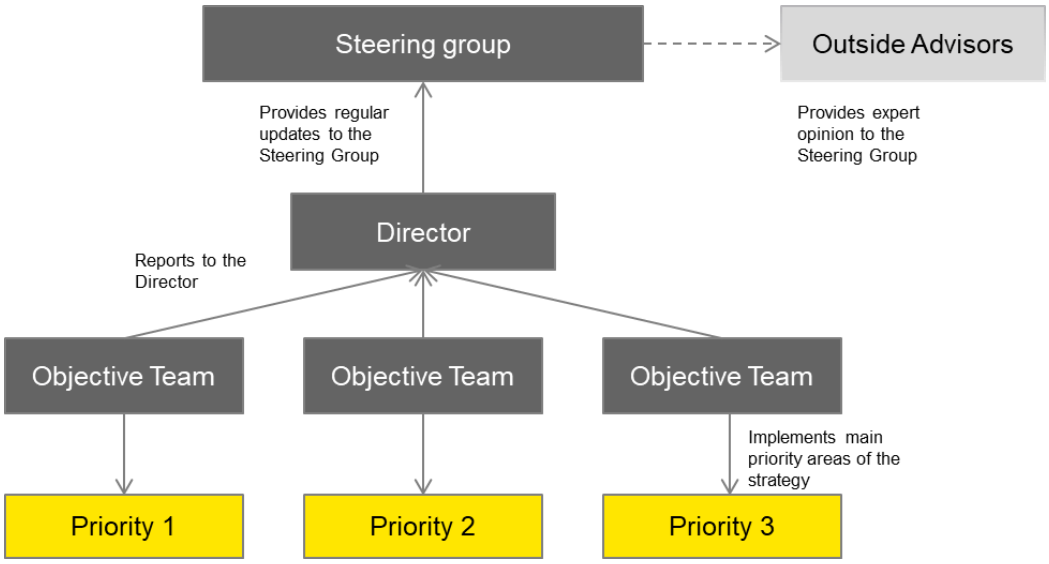
The *who* in terms of managing the strategy is one of the most crucial questions to answer in the blue economy strategy. While this may seem intuitive, a common challenge facing intersectoral strategies is a lack of clear governance. Overlapping and undefined roles leads not only to inefficient implementation of the actions to realise the strategy but also to a lack of monitoring and accountability to ensure that the strategy is implemented on time and in fulfilment of its objectives.

Provided below is an analytical framework that can help guide the decision on how to structure the governance of the strategy.

Analytical framework to set up the governance system	▶ Is the governance system put in place for the blue economy strategy appropriate and does it function efficiently? ▶ Are the roles and responsibilities of the principal actors/governing bodies clearly defined? ▶ To what extent has the appropriate balance of responsibilities been found between the main governing bodies? ▶ Are there any specific bottle-necks in the decision-making process?

As presented in the figure below, having **a clear governance structure with defined roles that brings together all the stakeholders** – a Steering Group – is good practice to ensure oversight of the strategy. However, it is important as well to have executive oversight in the form of a Director who can orchestrate actions and define priorities among the groups implementing the actions (termed objective teams here).

Figure 17 - Possible governance for blue economy strategy



***Steering Group**:* The Steering Group should be composed of representatives from each of the main stakeholders involved in the implementation of the strategy. This group could be tasked with overseeing that the priorities and overall objectives of the strategy are being realised. The steering group could sign off on new actions and partnerships and provide feedback on the state of advancement of the strategy. The Steering Group is also important to bring together all the actors working on the strategy to share knowledge and best practices.

Outside Advisors: Organisational or individual stakeholders involved in the OR's blue economy who can provide ongoing feedback to the Steering Group on a needs-base basis. These advisors will not have a direct role in the implementation of the strategies but can provide valuable insights, especially if some of the actors assigned a role in implementing the strategy are less familiar with the specificities of the blue economy.

Director: A Director with executive oversight responsibilities is needed to ensure efficient coordination with the objective teams. The Director can help monitor and track the advancement of the actions called for under the strategy as well as accompany the different objective teams in overcoming obstacles that may impede their work. The Director can provide regular reports to the entire Steering Group on the attainment of benchmarked objectives. The Director can also have a global vision of the strategy's implementation and provide feedback back to the Steering Group if further action is required

Objective Teams: Based on the feedback from the different ORs, the objective teams (as presented in the figure above) that will be tasked with implementing the blue economy strategy are often government agencies/directorates whose competence the priority falls under. It is important in this structure to define precisely which priorities and actions fall under the auspices of each objective team. Defining in the strategy document itself the governance of each objective team is pivotal to have a concrete text that defines roles to point to prevent political infighting and disputes that will delay the implementation of the strategy or lead to a breakdown in communication.

The above structure could help repartition the responsibilities of the governance of the strategy in balancing between executive action and transparent oversight. However, the governance decision is up to each OR to find the governance structure that best corresponds to the capacity of local officials to implement the strategy. There should be

special attention paid to making sure that key actors are present but not oversaturating the governance structure so that implementation is impeded.

In addition, the blue economy strategy shall forecast the financial means that will support the strategy implementation. This shall include any funds which may be linked to all or part of the priorities identified, including EU funds (structural and cohesion funds, as well as funds fostering research and innovation), national and regional programmes as well as potential private funds.

8. Section 4 - Monitoring and Evaluation framework

A final section that needs to be detailed is **the definition of the indicators that constitute success in the strategy and the way that success will be evaluated**. The defined indicators should be embedded and linked to objectives and actions and presented clearly in the strategy or in annex.

Setting up the indicators that will be used and the monitoring that will help measure success **will create a positive information feedback loop** to the team implementing the strategy that will help ensure the strategy's main priorities and goals are implemented, on time and transparency.

Defining the indicators is critical, and there sure be serious consideration of what success looks like. Success should be defined around clear objectives that are aligned with the concrete aims of the blue economy strategy (increasing MRE by X%; developing two new container facilities at the OR's main ports, etc.). To be able to monitor and later evaluate the success of reaching these objectives, the objectives themselves should be **SMART (*specific, measurable, achievable, relevant, time-bound*)**.

For example, an objective just stating "an increase in biotechnology jobs" is too vague. It is not clear where investment should be placed to create job opportunities, the timeline when the increase should be seen and whether the biotechnology jobs are serving the objectives of the strategy. This objective can be made SMART by changing it to: *An increase in 20 biotechnology jobs through the creation of a biotechnology research institute by 2025*. There is not a clear goal in the number of jobs, a timeline for its realisation, and a measure for how to achieve the objective (e.g. the creation of a consortium, presumably with pre-identified partners operating in the space).

Once the SMART objectives are set, then indicators can be defined. There should detailed indicators for each objective and an understanding of how the indicators can be collected to ensure the realisation of the objectives. Provided below is a list of indicative indicators that could be adapted for a strategy.

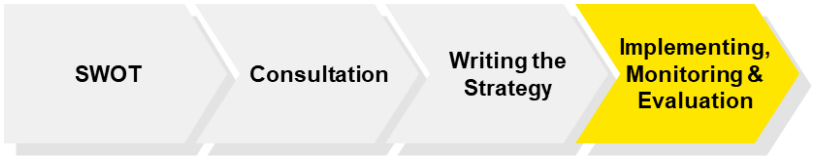
This section of the strategy **also needs to lay out clearly how the data collected to measure the indicators will be evaluated**. Some of the questions that the evaluation framework should answer are the following: Will there be a full midterm evaluation of the strategy or targeted evaluations? What independent actor will be in charge of carrying out the evaluation? How will findings from evaluations be used to the correct course for the strategy? Defining an evaluation framework in the blue economy strategy will clear up any ambiguity about how the strategy should be monitored and evaluated and help coordinate the variety of various actors who will be working on implementing the strategy.

Provided below is an example of how to present the indicators in a way that is concrete and shows how they are aligned with other strategies. The strategy should also detail how the indicators will be monitored (e.g. interviews, surveys, Eurostat, etc.) and when the indicators need to be collected (e.g. every month, after the action is completed, etc.).

Examples of indicators

- **Number of ports that have developed a blue economy strategy (qualitative) :** the baseline is the current number of ports that have developed a blue economy strategy. The target can be set as the whole number of port with marine activities on the territory.
- **Participation rate of people over 18 years old in training related to blue economy sectors (quantitative) :** the baseline is the current rate of people over 18 years old in training related to blue economy. The target can be set at the highest capacity number of foreseen available trainings.

1.1. Step 4: Implementing, monitoring and evaluating blue economy strategies



Once the blue economy strategy has been written and approved, there needs to be a system in place to ensure that the actions are monitored and evaluated to ensure the strategy achieves its stated aims. The strategy should already include in its text or support documents a list of indicators that could help gauge the success of the strategy. A set of representative indicators is presented at the bottom of this section (Table 2).

9. Holding a kick off meeting

It is recommended to organise routine kick off meetings to align all the actors involved in implementing the plan on the same plan and objectives that their part of the strategy is trying to address. This step is particularly important in larger ORs where multiple different public agencies may be in charge of implementing the strategy. To avoid having different work that is siloed off, the kick off meeting should present how all the different priorities and corresponding actions fit into the bigger picture of what the strategy wants to achieve. It is also a good occasion to go over the objectives and indicators that will mark success with each of the actors in charge of implementing part of the strategy to ensure they take ownership of their responsibilities.

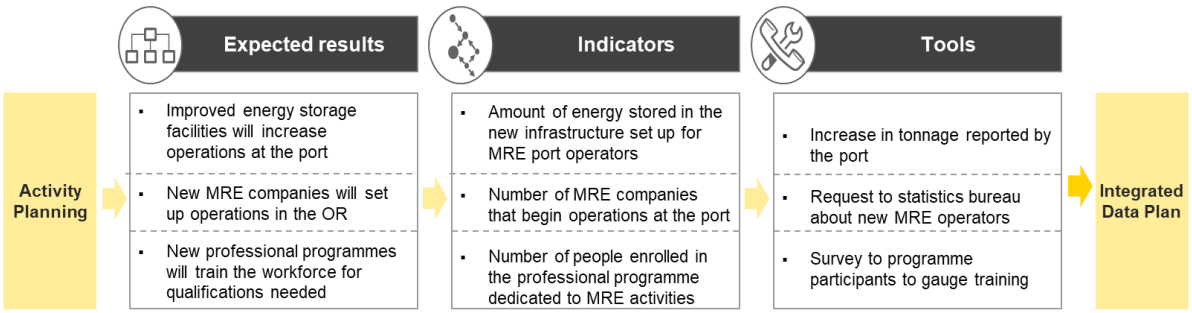
The absence of a steering committee and/or a launch meeting raises the risk that objectives will remain too broad and that it will be difficult to implement the monitoring of the strategy, which in turn would mean that the right indicators are not measured to later evaluate the success of the strategy.

10. Designing a data collection plan for the strategy to use for evaluation and monitoring

Any successful blue economy strategy should also include a data collection plan for each of the stated objectives. The variety of actions that are planned to achieve these objectives need to have a monitoring system in place. The monitoring of activities helps to ensure that the data collected reveals the most relevant information to measure the expected outcomes, results and impacts of the actions planned. The number of sources of data that could be useful to analyse are vast. There could be qualitative feedback in the form of interviews, quantitative feedback from employment figures or increase in port activities. To ensure that this data is collected in a systematic way, the data collection plan defined before the implementation of the strategy will help identify and cipher through the most relevant data and help the implementation teams know which information they can discard.

Provided below is an example of the data plan that could be used for a specific activity around increasing the capacity for MRE storage at local port facilities in an OR:

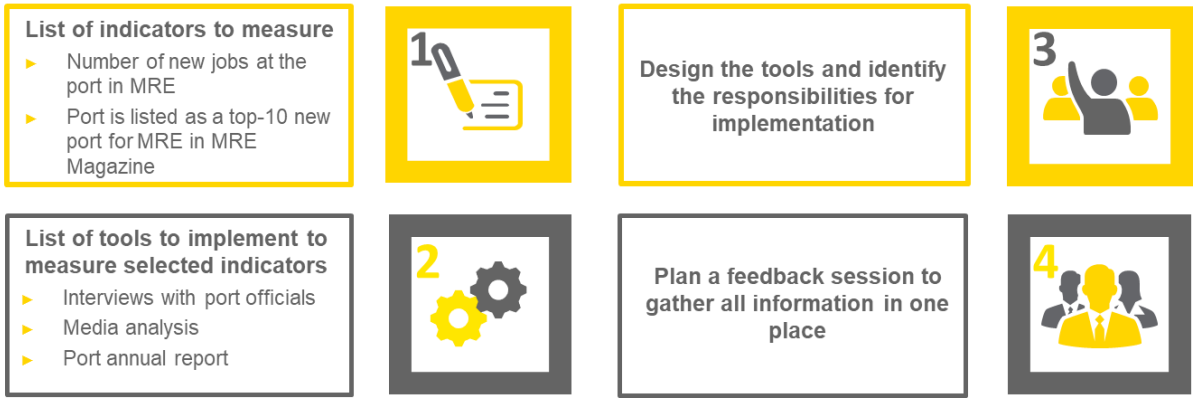
Figure 18 - Example of using expected results to plan out the data collection plans



Too often, in the development of strategies, the best laid foundation for the realisation of a strategy falls short of its objectives because no system is in place to monitor the strategy's success. As a result, political and popular support may erode. However, the upsides of having a data collection plan in place are numerous. The ability to point to measurable, concrete benefits from the strategy can help increase funding not only from the region but also from the nation governments and the EU. Also, if there is a problem with the strategy, then the data collected will support in pinpointing where the projects exist and changing actions or priorities to improve the performance of the strategy.

Provided is a routine to go through when designing the data collection plan:

Figure 19 - Setting up a data collection plan



As presented below, there is also a number of tools that can be used to help involve other actors in the data collection plan so that the responsibility does not just fall on the teams implementing the blue economy strategies.

Recommendations for implementing the data collection plan: contracting

This recommendation is formulated around integrating the clause into the Terms of Reference for tenders and respective contracts that an external partner should set up a coherent monitoring system for the action of the blue economy strategy which they will support. In tendering the contract, the agency in charge of the action should provide direction as to the types of indicators of interest. The idea is not to multiply the number of indicators but focus on the most relevant ones and add qualitative data.

11. Thematic Guidance Documents for each Outermost Region

The following analysis has been realised before the current COVID-19 crisis and does not consider potential impact of the crisis regarding changes in priorities or changes in timeline of regional authorities regarding the writing of their blue economy strategies. Thus, the SWOTs presented below may require some amendments when undertaking blue strategy works.

11.1. The Azores

12. State of Play

Table 4 – Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations** ▸ **Writing of the strategy**	▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, including results from The Azores ongoing works, as well as on interviews.	

The Azores is advanced in the development of its blue economy strategy. The leading agency in charge of developing the strategy is the Directorate of Sea Affairs for the Azores, which oversees the blue economy and blue affairs. At a strategic level, this Directorates main priorities include marine spatial planning, development of blue training courses at the new Azores Maritime School and writing the blue economy strategy. The Azores has existing blue economy strategies such as the "Blue Azores Programme" that are serving as the basis for the blue economy strategy being developed.

The strategy being developed is based on a pre-existing 4-year economic development strategy of the Azores. The aim is for the blue economy strategy to be operational for a least 6-years to align with the next programming period 2021-2027. The regional blue economy strategy will help feed into a national blue economy strategy, which has just begun to be developed.

The strategy itself is based on an extensive documentary review assembled from a series of blue economy stakeholder consultations that took place from 2017 to 2019. The compiled information resulted in a diagnostic study called the SMART Blue Strategy, now SMART Blue 2, which was developed with Madeira and the Canary Islands as part of an INTERREG project.

On the basis of the SMART Blue 2, regional economic development plan and other policies, the Azores has developed the first draft of its blue economy strategy, which is broadly divided into three parts:

Characterisation of the system (biodiversity, economic sectors, socio-economic conditions in the Azores);

Strategies for the government agencies that will be involved in carrying out the strategy. This section not only outlines the responsibilities for each agency that will be involved of specific actions but also the relationship with other outermost regions (namely Madeira and the Canary Islands). A strong focus here is placed on coordinating marine spatial planning and environmental policies;

Economic sectors targeted – including tourism, fisheries, among other sectors. The actions planned under this section have a horizon of finishing in 2027 to align with the ending of the MFF 2021-2027.

The strategy is being developed in dialogue with Madeira and the Canary Islands. At present, the strategy is undergoing political consultation. The aim is to have the **strategy adopted by October 2020**, which will be right after the upcoming elections in the Azores, with the implementation starting at the end of this year.

13. Priorities & Challenges

The following SWOT has been elaborated based on discussions with the committee responsible for developing the blue economy strategy at the Regional Directorate of the Sea, the Regional Director of Fisheries as well as the Annex 7 for the 'Potential for the Realising the potential of the Outermost Regions for sustainable blue growth'.

Key Takeaways

The Azores has unique challenges as an archipelago stretched across an EEZ of nearly 1 million km^2, making clustering of blue economy activities difficult;

The islands have been testbeds of blue technologies (e.g. the world's first tidal energy plant), but the projects have not proven commercially viable;

Tourism is a growing sector of the economy, but tourism poses a risk to the sensitive ecology of the islands and remains a sector defined by small operators for the moment;

Maritime transportation (both passenger and freight) are an important economic activity for the OR; however, the islands, while at a crossroads in the Atlantic, falls a bit outside of major transportation arteries.

Strengths	Weaknesses
Coastal Tourism:	**Coastal Tourism:**
Natural beauty and distinctive ecologies are drawing increasing numbers of eco-tourists;	Emerged recently as a tourist destination so the industry is less developed than neighbouring Canary Islands;
Recent arrival of low-cost airlines has reduced cost of visiting;	Reliance on traditional accommodations limits growth of sector (approx. 80% of existing accommodations);
Marine living resources:	Not a destination for families or large tourist groups at present, reducing GVA of sector;
Sector has remained competitive accounting for 2% of GVA;	Temperature and periodic bouts of severe weather reduce leisure tourism activity;
Large EEZ (nearly 1 million km^2) for marine exploitation;	**Marine living resources:**
Highly valuable tuna species only found in the maritime waters off the Azores;	

Basic Acquisition of Skills programme in place to fight illiteracy among fishermen and professionalise the sector;

Port activities:

One port authority (Portos dos Açores S.A.) to coordinate action and investment among ports;

Large network of multi-purpose port infrastructure that is classified to be specialised in certain activities;

Recent reinvestment in marinas (expanding to a total capacity of 1,855 mooring places) and harbours;

Shipbuilding and repair:

NA

Marine transport:

Growing cruise destination due to natural landscapes;

Large interdependence on maritime transport between islands makes the sector important for the overall economy;

Position on some Atlantic trade routes allows for bunkering of freight and goods;

Blue energy:

Developed the first wave energy plant in the world (Pico Island);

Blue bio economy

Expertise in deep sea research (university consortium accounts for 35% of publications on deep sea research)

Cooperation programme between the Madeira-Azores-Canary Islands (MAC) totalling 130 million euros to cooperate in improving R&D in blue economy;

Maritime defence:

Large EEZ guarded by Portuguese navy on periodic patrols.

Fish habitats are highly sensitive in the mid-Atlantic (temperature fluctuations result in heavy reductions in fish stock);

Volumes of fish catching has diminished in the last decade (by around 30%)

Currently no aquaculture in place;

Port activities:

Less directly positioned on some major trade arteries than neighbouring Canary Islands;

Geographic extent of the archipelago makes maintaining the infrastructure expensive as activities have to be maintained on each island;

Shipbuilding and repair:

Marginal activity with small companies operating in the sector;

Marine transport:

Maritime passenger transport is highly unprofitable and has to be subsidised by the government;

Blue energy:

Infrastructure invested in has been for prototype capabilities and has not led to the development of a commercial market in the Azores;

Wave energy only accounts for 0.003% of existing energy supply and has high costs/maintenance issues remaining operational (breakdowns);

Blue bio economy:

Lack of a commercial domestic blue bio economy (limited to R&D activities);

Maritime defence:

High levels of illegal fishing.

Opportunities	Threats

Coastal Tourism: Relatively nascent sector has been identified as a strategic priority and has further room for growth; Eco-tourism provides an opportunity to avoid mass tourism and ecological damage done to other islands; **Port activities:** Existing bunkering infrastructure could be adapted for energy storage; **Shipbuilding and repair:** NA **Marine transport:** The further development of facilities to aid maritime transport (e.g. warehouses, bunkering) could increase through traffic and positioning of local ports as a weigh station between Europe and the Americas; **Blue energy:** Favourable environment for offshore wind and tidal energy could drive future projects; **Blue bio economy:** Strong academic consortiums serve as local partners for biotechnology prototyping and research on the marine environment; **Maritime defence:** Opportunity to service military patrol vessels could help stimulate activity in local shipbuilding and repair (see above).	**Coastal Tourism:** The highly sensitive ecology may limit the amount of tourism that can be developed on the islands; **Marine living resources:** Climate change and overfishing has put highly-lucrative species (e.g. tuna) under increased threat of becoming endangered or extinct; **Port activities:** A lack of investment in major port facilities (e.g. bunkering, energy storage) may reduce warehousing and other port-related commerce as competing ports provide these services; **Shipbuilding and repair:** Reliance on traditional ship repair methods may disappear as the sector has difficulty sustaining itself; **Marine transport:** Oceanic routes have changed as freight vessels have become larger and can more easily make the passage without replenishing supplies, reducing the reliance on transport hubs like the Azores; **Blue energy:** Heavy state funding required to render project viable for commercial companies to invest; **Blue bio economy:** The lack of a workforce with the skills required for the blue economy limits commercial interest in starting projects in the Azores; **Maritime defence:** Continued lack of patrols in EEZ means that illegal fishing could be aggravated as fish stocks in other areas become depleted.

14. Possible priorities

The authorities developing the strategy could not share the exact priorities because the strategy is under political review. In talking with local officials, there are five strategic points that guide investment in the blue economy: (i) the education and training of people and institutions in the fisheries sector; (ii) adding value to fisheries products; iii) the development of partnerships; (iv) the production and provision of information to the public; and v) the reorientation to the production of alternative/complementary income.

Based on the SWOT above and the strategic points laid out, our team has identified some priorities for the Azores:

Developing a high-value, sustainable eco-tourism sub-sector

Eco-tourism, as opposed to mass tourism, presents a high-value, niche sub-sector that aligns well with the fragile ecosystem in the Azores. Developing out the full infrastructure for a mass tourism market would likely put strain on available fresh water sources and the energy infrastructure, which varies across the archipelago. Encouraging eco-tourism around the island's unique flora and fauna could offer employment opportunities for the local workforce.

Reinforcing the MAC cooperation programme to reduce costs for blue energy and develop a commercial market

This priority also applied to the Canary Islands and Madeira. The Macaronesia region has a long history of working together on the blue economy, as made evident by the 130-million-euro MAC cooperation programme. Each of the regions in Macaronesia discussed how setting up prototype blue energy projects have been successful, with tidal energy in the Azores. However, the blue energy infrastructure is cost-prohibitive in its upkeep and there is no commercial go-to market. Combining resources, incentives and having a funded programme could help address this challenge. Already, there examples of firms such as Buggypower that operate in both the Canary Islands and Madeira. Developing a common incentive practice to draw the company to the Azores as well could help increase the size of the addressable market and make the entire Macaronesia a known specialised zone for the blue economy.

Developing sustainable practices in traditional sectors

The Azores, as with neighbouring Madeira, has a historical dependence on traditional maritime activities (shipping, fishing, etc.). However, as seen in the fishing sector, external factors such as the environment such as the deep waters and competition limit the productivity of the sector. Alternative practices exist (aquaculture, etc.), but the fragile ecosystem limits the sustainability of implementing these practices on a commercial scale. As such, training the existing workforce working in the traditional sectors is vital to ensure the long-term sustainability of the blue economy in the Azores. Expanding literacy and training programmes for fishing or ship repair for longshoremen could help add a repertoire of high-value activities that could provide stable long-term employment for individuals working in traditional activities that may be at high risk of losing their jobs in the future due to the unproductiveness of the sector and outside competition.

14.1. Madeira

15. State of Play

Table 5 -Summary table of the state of play

Work Completed:	Work remaining:
▸ **Committee put together** ▸ **Some diagnostic study**	▸ SWOT analysis ▸ Stakeholder consultations ▸ Writing of the strategy ▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, including results from Madeira ongoing works, as well as on interviews.	

Madeira has recently begun the process of putting together an interim committee to initiate the process of drafting their blue economy strategy. Based on feedback with local officials, the new Directorate for the Sea will be leading the process to develop the strategy and coordinate the formal governance structure that will shortly succeed the interim committee. The governance structure, composed by several representatives appointed by the public bodies with responsibilities in the areas of the sea, the environment, conservation of nature and sectors of uses developed in the OR maritime space will support and monitor the development and execution of the Blue Economy Strategy.

At this nascent stage, a few studies have been conducted on economic sectors related to the blue economy that the committee plans on leveraging. However, the diagnostic phase will last a bit longer to gather more information on the state of the local blue economy to integrate in the strategy.

There have been some exchanges with officials from the Azores and the Canary Islands to coordinate action in the blue economy.

16. Priorities & Challenges

The following SWOT has been elaborated based on discussions with the interim committee responsible for developing the blue economy strategy at the Regional Directorate of the Sea, the Regional Director of Fisheries as well as the Annex 8 for the 'Potential for the Realising the potential of the Outermost Regions for sustainable blue growth'.

Key Takeaways

Madeira has a bourgeoning tourism industry catalysed by its temperate climate and its investment in cruise port infrastructure;

Traditional blue economy sectors such as fishing, although it should continue to be strategic point for Madeira, have been slowly becoming proportionally less important in the overall economy due to natural characteristics that make the region less competitive

(deep waters and being at the edge of a continental shelf). On the other hand, aquaculture has been showing significant progress in recent years.

The region is home to a small but growing bio technology sector, notably for cosmetics and pharmaceuticals, but growth in the sector is limited by the absence of a domestic market and the incapacity to call for investors and specialised human resources. Madeira should also invest in the valorisation of by-products from the fisheries sector, which requires adequate technical and scientific skills.

Shipbuilding and repair for leisure maritime recreation (yachting, cruising, etc.) have been included in S3 (currently in the process of reviewing and updating) and other strategies are also limited due to the lack of specialised human resources.

The small island topography increases the risk of overdevelopment and harming of the fragile natural environment.

Strengths

Coastal Tourism:

Established sector account for 1/4th of the islands GVA and 1/5 jobs;

Mild sub-tropical climate and biodiversity are big draws for recreational tourism;

Existing tourism services around iconic experiences/sites (irrigation canals and Madeira wine);

Proximity to other ports in Macaronesia region makes Madeira an easy stop for cruise tourists and recreational boating;

Consolidated positioning of the port of Funchal on circuits connecting the archipelagos of Madeira and the Canaries and North Africa, as well as in circuits that operate from the Atlantic facade of Europe and the Mediterranean Western and also the United Kingdom, accounting for approximately 500,000 tourists per year;

Good climatic conditions and sea front;

Diversity of tourist maritime animation companies;

Marine living resources:

Very strong tradition of fishing economy (considered a heritage industry);

Established practice of microalgae production for cosmetics and

Weaknesses

Coastal Tourism:

Overreliance on tourism makes the local economy highly susceptible to global tourism shocks (e.g. COVID-19 virus);

Hotels and accommodations are clustered near Funchal and Lido areas creating overcrowding;

Difficulty in basing ships and establishing turnaround operations from ports in the region;

Porto Santo port still presents low capability for stopovers from cruise ships;

Seasonality of maritime activities Tourism - concentration of activity among the months of June and September;

Marine living resources:

Decreasing role within the overall economy (0.5% of total GVA);

Natural characteristics (narrow continental shelf) limits available habitats for fish and aquaculture;

Deep waters have very low productivity and low fish stock;

Fishing of species such as tuna varies drastically from one year to another due to migration patterns;

Low primary and diminished productivity continental shelf of RAM waters decrease the possibilities to alternative fisheries and improve current catches;

pharmaceuticals (one international company);

Port activities:

Presence of one publicly-funded port authority – APRAM- to manage port infrastructure;

Recent capital investment in multimodal port infrastructure;

Existence of port infrastructures of recognized international importance in cruise tourism;

Shipbuilding and repair:

S3 strategy to support shipbuilding/repair activities

Marine transport:

Port facilities dedicated to freight storage at the main ports;

Existence of regional entrepreneurial capacity specialized in maritime transport, logistics and port operations, nationwide;

Blue energy:

N/A

Blue bio economy:

Abundance of genetic resources and marine organisms for bio-products;

Existing network of collaboration between local universities and biotechnology companies to develop natural extracts;

Numerous studies conducted on marine biology, notably microalgae, detailing sustainable exploitation of marine resources for bio economy;

Cooperation programme between the Madeira-Azores-Canary Islands (MAC) totalling 130 million euros to cooperate in improving R&D in blue economy;

Marine minerals:

Existing industry for extracting aggregates (gravel, sand, clays);

Desalination:

Small fishing fleet, with need for renovation and active seasonal concentrated in only two groups species (tuna and black scabbardfish);

Traditional fleet of smaller vessels dimension with poor working conditions comfort and work on board for passengers fishermen;

Weak social appreciation of fishing activity associated with low levels of education and training of fishermen

Port activities:

Limited land for developing new port infrastructure requires renovation of existing properties;

Reduction in the importance of main ports for freight/passenger transport (20% reduction in vessels 2008-2014) creates an increasing reliance on cruise traffic;

Access to the sea (infrastructure and mechanical equipment) scarce and with insufficient maintenance;

Constraints in terms of the provision of infrastructures to support recreational boating (lack of space in marinas and docks, availability of berths, parking spaces and dry maintenance and support services.

Shipbuilding and repair:

Worker training in yacht ship repair and servicing cruise vessels is limited;

Marine transport:

Passenger transport has become increasingly unprofitable (e.g. 2012 closing of Spanish-based ferry operator in Madeira);

Reliance on 5 operators for almost all freight transportation makes the local economy vulnerable to market trends;

Small market, very dependent on the outside and capable of limited export, conditionate the profitability of maritime transport;

Blue energy:

Costs associated with wave energy will require heavy government subsidies to

One unit in Porto Santo

Maritime defence:

NA

make a commercially viable MRE project viable;

Blue bio economy:

Small domestic market for developing biotechnologies to be used at commercial scale;

Marine minerals:

Industry has been declining due to cheaper foreign imports and employment now totals just a few dozen;

Desalination:

Highly controversial proposals to develop desalination plants due to energy cost;

Maritime defence:

NA

Opportunities

Coastal Tourism:

The cruise tourism season could be expanded beyond October-April and thus expand;

Resumption of the cruise tourism market in Europe and the activity of cruises in this region the Atlantic;

Creation of new cruise circuits that link the various territories that make up the Macaronesia, namely with Cape Verde and the Azores in the summer;

Provision of support services (supply of fuel, water and other products and clearance of waste and effluents);

Development of new niche markets, associated with a tourist demand that seeks unique experiences, valuing the specificity of the Region, its wealth and the activities offered (e.g. heritage cultural and built, such as associated museums to the Sea, maritime and fishing communities, lighthouses and maritime forts; nautical tourism, nature

Threats

Coastal Tourism:

The small size of the island and fragile ecology heightens the risk of environmental degradation from tourism;

Decreased competitiveness in the face of new cruise regions and destinations;

Business characteristics and the lack of an agglutinating structure hinder the development of promotion actions internal and external impact;

Marine living resources:

Climate change and heating up of the oceans increases the risk of invasive species that will kill domestic fish stock;

Ultra-periphery and accessibility that constitute strong entropies to export development (price of transport in the import of raw materials and in the export of products to the European market);

tourism and scientific, adventure tourism)

Marine living resources:

Increased knowledge of resources fisheries could leverage growth in fishing activity;

Existence of fishing resources (e.g. small pelagic resources - mackerel) that can be a low-cost raw material for transformation and adding value;

Ecological conditions favourable to production offshore aquaculture;

Possibility of cultivating endemic species high value.

Valorisation of fishery products and through actions aimed at increasing its value-added value and creating a brand;

Commitments undertaken by the Region within the of the National Strategy for the Sea (research and investment in infrastructure);

Port activities:

Further development of ports as cruise terminals could increase revenue and employment in the sector;

Shipbuilding and repair:

Growing leisure tourism and fishing activity presents a strong growth potential for ship repair activities, notably in Funchal;

Marine transport:

Positioning on major trade routes could help position the island for more freight transport;

Political assumption (at the national and European) of the importance of maritime transport as a way to minimize the costs of ultra-periphery, which can translate into important economic and social benefits for the Region;

Progressive introduction of fuels alternatives on ships (with emphasis on the LNG) that could boost a greater number of scales for supply;

Increased demand for resources marine life can motivate conflicts between activities and among competitors for same resources;

Low investment capacity regional public in R&D can condition the valorisation of the products of fishing the development of new products and markets;

Port activities:

The ports are situated in low basins near the ocean. Already, increased tidal activity as the seas have risen have damaged infrastructure;

Difficulty / Inability to mobilize financial resources for the investment in construction, modernization and conservation of infrastructure port maritime, access and enjoyment and protection of integrity biophysics of the coastline (cliffs, beaches, built heritage and other parts of the territory threatened by the Sea);

Shipbuilding and repair:

A lack of trained personnel in yacht repair could impede the growth of this sector;

Marine transport:

Regional ports are investing heavily in bunkering and warehousing facilities (e.g. Senegal and Morocco), which may offer cheaper offers for commercial operators;

Lowering revenues for freight transport due to trade conflicts means the 5 freight operators in Madeira may divest in Madeira because of lowering revenues;

Blue energy:

Developing a local workforce that can maintain the infrastructure will be vital for keeping any blue energy infrastructure operational (e.g. trouble faced in the Azores with keeping its blue energy projects operational);

Blue bio economy:

Fragile ecology means that over-exploitation of genetic resources in the ocean could harm the ecosystem;

Marine minerals:

Blue energy: The natural environment is promising for wave energy and could provide an alternative source of energy to reduce dependence on fossil fuels; **Blue bio economy:** Strong growth potential around biotechnology and leveraging marine organisms for pharmaceutical use; **Marine minerals:** NA **Desalination**: Desalination could provide a solution for issues related to fresh-water supply, which is being aggravated by the growing tourism industry; **Maritime defence:** NA	NA **Desalination**: N.A. **Maritime defence:** NA

17. Possible priorities

Madeira has not yet identified its priority sectors for the blue economy, as the diagnostic phase has not yet been completed. The following merely indicative priorities are assumptions based on documents shared by officials in Madeira, blue economy reports and feedback from private companies operating in the region. The development of the blue economy strategy should result in a clear definition of priorities, eventually confirming these and/or integrating other priorities.

Develop the cruise industry but work on sustainable practices

The cruise industry presents an opportunity to develop the blue economy in upskilled industries for Madeira. The industry has also proven to support a host of ancillary services filled by SMEs on the island. The cruise industry for the moment is held to a manageable flow by an offseason peak (during the winter months in the Northern hemisphere).

Incentivise cosmetic and pharmaceutical firms to invest in biodiverse products from Madeira

The local marine biodiversity holds a lot of promise for cosmetic and pharmaceutical applications. At present, there are some companies that are operating in Madeira for this purpose, for example for the use of microalgae. Two main barriers exist for commercialising these products at European level, one is regulatory hurdles for approving products and the other is consumer awareness of the benefits of using marine resources for cosmetics and pharmaceuticals. A blue strategy could help build awareness and reduce regulatory obstacles to incentivise more high-skilled firms in the blue bio economy to invest in facilities in Madeira.

Support the ship repair sector for leisure vessels

Other priorities have also been pre-identified:

- Promote knowledge, innovation and entrepreneurship;
- Promote the diversification and increase of added value in the exploitation of living marine resources;
- Promote the qualification and diversification of the regional tourist offer through an integrated product, based on the "Sea" resource;
- Promote maritime identity as an asset in the Region and a factor of territorial differentiation and promote the fishing fleet renewal.

17.1. The Canary Islands

18. State of Play

- **Table 6 – Summary table of the state of play**

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations** ▸ **Writing of the strategy**	▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, including results from Canary Islands works, as well as on interviews.	

The Canary Islands is reportedly a leading region in developing the blue economy. Starting with the Oceanic Platform of the Canary Islands (PLOCAN) around 10 years ago, which is a leading R&D centre for the blue economy, the regional authorities started investing heavily in the blue economy for two primary reasons: i) reduce dependency on non-renewable energy sources that require importation of energy; ii) develop the local workforce which experiences high levels of unemployment.

In recent years, the regional authorities have been working with local stakeholders on developing a comprehensive blue economy strategy. While the exact contents of the report have not been shared, as the report is going through political consultation, discussions with stakeholders writing the report revealed that the strategy aims to cover all sectors of the economy (both traditional and emerging sectors). First, a diagnostic study was conducted resulting in the publication in September 2017 of "Exploring the Potential of Outermost Regions to Achieve Sustainable Blue Growth", which conducted a sector-by-sector analysis of the blue economy, potential priority areas, and the governance structure that should be deployed for developing a comprehensive blue strategy for the Canary Islands.[16]

The diagnostic report fed into the actual development of the blue economy strategy, which is being prepared by a team from ITC (Instituto Tecnológico de Canarias). The strategy in full is **around 200 pages and includes over 120 actions** to achieve priority objectives. The blue economy strategy reportedly includes benchmarks based off of other regions in Spain and the rest of Europe as well as a set of indicators that have been set. At present, the strategy is undergoing political review by all the administrative agencies that have been assigned the responsibility to implement part of the strategy. The consultation period experienced some delays due to regional elections; however, the political review, which will last 15 days, is underway now.

In parallel to the political consultation, at least four meetings will be planned in parallel to receive feedback from civil society. What has been stated is that the aim of both the political and civil society consultations is to increase the sense of participatory democracy

[16] N.B. the report has not yet been translated into other languages but will shortly be released in English according to local officials.

in the process of defining the strategy and ensure that the priorities/actions defined correspond with the needs of stakeholders on the ground.

According to our interviews, after the delays due to the elections and COVID-19, the stakeholder consultation will be held during summer 2020 and **the final strategy should be approved by November**, at which time the strategy will go into effect.

19. Priorities & Challenges

The following SWOT has been prepared based on discussions with the committee preparing the blue economy strategy for the Canary Islands, including the Regional Vice-Minister in charge of Economy and Internationalisation and representatives from the Technological Institute of the Canary Islands. Discussion were also conducted with the Canary Islands Delegation in Brussels and the Maritime Consortium in the Canary Islands. The SWOT also has integrated findings from Annex 9 "Potential for the Realising the potential of the Outermost Regions for sustainable blue growth" and a diagnostic report produced on the blue economy, *Exploring the Potential of Outermost Regions to Achieve Sustainable Blue Growth*.

Key Takeaways

The Canary Islands has unique advantages around the strategic positioning of the archipelago (e.g. crossroads of transatlantic trade routes; biodiversity), which are supportive for further developing the blue economy;

The overreliance on traditional blue economy sectors (e.g. shipping, etc.) has increased unemployment and slowed the job training programmes in the upskilled labour market (e.g. MRE and bio economy);

Local organisations are pioneers in the blue economy (e.g. PLOCAN), resulting in prototyping and other activities that differentiate the region within Europe for its expertise in the blue economy;

Growing tourism has put strain on existing infrastructure (see desalination and power grids), necessitating further investment and overcoming regulatory constraints to meet growing demand.

Strengths	Weaknesses
Coastal Tourism: Main economic activity of the Canary Islands (€13 bn GDP; 31% of total GDP); Year-round good weather, biodiversity and clean beaches makes the Canary Islands a leading tourism destination; Wide range of accommodations (from eco-loges, budget hotels to all-inclusive resorts) for tourists; Numerous sports marinas (5 in Tenerife alone) for recreational boating/water sports; **Marine living resources:**	**Coastal Tourism:** Increasing dependence on the tourism industry to stimulate the local economy; **Marine living resources:** Decreasing importance in the overall economy (0.06% GDP); Fleet is relatively old (60% of fleet is over 30 years old); High level of illegal fishing in the waters near the Canary Islands;

Fisheries Advisory Council to structure the sector;

Existence of a comprehensive strategy, The Strategic Plan of Aquaculture of the Canary Islands (PEACAN), for aquaculture with clear benchmarks (10,835 tons of fish by 2020);

Ideal natural conditions for aquaculture development (water temperatures vary enough to reduce risk of pathogens among fish stock);

Port activities:

Diversified port infrastructure (container, liquid bulk and cruise tourism facilities);

Major expansion in recent years at the two principle port authorities (Port of Las Palmas and Santa Cruz de Tenerife) as coastal tourism has grown;

Port of Las Palmas is a 'Atlantic gas station' serving as a refuelling station for freight shipment between the Americas, Africa and Europe;

Shipbuilding and repair:

Diversified shipbuilding activities from oil platform repair/ to vessel maintenance and repair;

Marine transport:

Existing transport lines to numerous locations (e.g. mainland Spain, Morocco, Senegal, etc.);

Growing passenger travel (8 million passengers in the two main ports – 2015);

Blue energy:

Comprehensive blue energy plan with ambition of becoming completely;

Open regulatory environment has turned the Canary Islands into a testbed for blue energy technologies;

RIS3 closely aligned with sector and PLOCAN[17] pursuing ambitious R&D programme around developing blue energy;

Aquaculture clustered on four of the seven islands (low production in outlying islands of the archipelago);

Port activities:

Overall weakening of economic conditions after the commodity boom (e.g. in Africa and Latin America) has negatively impacted growth in container activity at local ports;

Shipbuilding and repair:

The decline of the fishing fleet has negatively impacted the shipbuilding activity;

Reported shortage of trained workers driving reliance on foreign workers;

Marine transport:

Over dependence on marine transport because of the island's insularity from mainland Europe;

Blue energy:

Workforce development and insularity of the region have impeded the development of a commercial sector around the blue economy;

High amount of regulation around MRE restricting investment in the sector.

Blue bio economy:

Lack of proper training for local workforce reduces employment opportunities;

Lack of English language training reduces some opportunities to work for foreign companies in the bio economy that operate in the region (creating a reliance on outside workers, which reduces knowledge sharing);

Desalination:

Demand for desalination plants to accommodate a growing tourism infrastructure has put strains of the electricity infrastructure (accounts for 15 — 20 % of the electricity consumed in the archipelago);

[17] Oceanic Platform of the Canary Islands

Blue bio economy:

Strong R&D programmes and outside companies conducting research on prototype technologies in the region;

Cooperation programme between the Madeira-Azores-Canary Islands (MAC) totalling 130 million euros to cooperate in improving R&D in blue economy;

Desalination:

Large desalination infrastructure (32 % of water available in the Canary Islands is produced in the seawater desalination plants);

Growth of the desalination sector has partially alleviated water scarcity, while developing considerable local expertise in the domain;

Maritime defence:

Growing industry around servicing naval vessels docked in ports to protect maritime boundaries;

Maritime defence:

Ongoing EEZ disputes with neighbouring countries (e.g. Morocco) limit needed cooperation on maritime affairs.

Opportunities

Coastal Tourism:

The activity of pesca-tourism is as an opportunity to diversify the small-scale fishing activity;

Increasing interest in eco-tourism (due to large parts of the regional that are protected nature reserves).

Marine living resources:

Further growth potential for aquaculture, especially as a regional aquaculture (in several African nations) has been negatively impacted by pathogens hurting fish stock;

Port activities:

Expansive natural harbours will allow for the further modernisation and expansion of existing port infrastructure to account for new activities (e.g. renewable energy storage).

Shipbuilding and repair:

Las Palmas has been developing an important activity around the maintenance

Threats

Coastal Tourism:

Overdependence on the sector heightens the risk of economy downturn when industry impacted;

Marine living resources:

Reliance on licensing in 3rd countries (Mauritania, Morocco) creates risk that external disputes could impede industry (e.g. Spain's dispute with Morocco over EEZ);

Port activities:

Need to transition to upskilled labour activities may prevent the adoption of new activities at the ports;

Shipbuilding and repair:

Lack of trained personnel in oil platforms revision and repair may reduce reliance on local ports to conduct activity;

Marine transport:

Decrease in passenger vessels due to the rise of air transport is likely to increase dependence on air infrastructure.

of oil platforms along technical stops from South Africa;

Production of fibre glass vessels could provide a low-cost opportunity to reinvest in the fishing industry;

Strategic position in the Atlantic allows for repairing all kinds of vessels that increasingly resupply at local ports;

Naval repair is a potential avenue of repair that is being explored;

Marine transport:

Strategically placed along major commercial arteries (Latin America to Europe; Africa to Europe; vice-versa) allow for further growth of passenger lines;

Blue energy:

Offshore wind and tidal energy are well-positioned in the environment of the Canary Islands;

Blue bio economy:

Institutions such as PLOCAN and the presence of established academic institutions (ITC) presents the opportunity to develop certifications to train the workforce in upskilled blue bio economy jobs;

Desalination:

Existing of innovative reverse hydraulic systems to feed desalination plants could be used to further decrease the water scarcity on the islands;

Maritime defence:

New service repair opportunities for naval vessels (*see above*)

Blue energy:

Critical skills gap in developing new blue energy sectors could restrict the commercial viability of the sector;

Blue bio economy:

Limited local demand may restrict local activity in the blue economy to prototyping activities without a great deal of public and academic institutional support;

Desalination:

Overreliance on energy-intensive desalination plants could put strains on the energy grid and necessitate the development on non-renewable energy sources to keep pace with demand;

Maritime defence:

Ongoing disputes with neighbours create risk that major issues around illegal fishing, migration and other inter-regional challenges will be aggravated in coming years.

20. Possible priorities

As with the Azores, the strategy for the Canary Islands is under political review, so the identified priorities have not been shared and the priorities below are only provisional. Based on the above SWOT, discussion with the team that created the blue economy strategy and private actors, the following priorities have been identified.

Further developing MRE in line with the region's renewable energy strategy

The development of MRE is a key priority for the Canary Islands' blue economy. Already, the region has a comprehensive MRE strategy in place that can be further realised through the blue economy strategy. There is room for commercialising pioneering techniques such

as using solar/wind to do reverse hydrology to pump water from the sea for desalination plants. Further developing these techniques not only offers a specialisation for the region, in line with the S3 strategy, but also high-paying, skilled jobs for the regions' workforce, which has stubbornly high levels of unemployment.

Moving up the tourism supply chain towards more niche eco and leisure tourism

The Canary Islands is already a major tourist destination with existing cruise traffic and ample accommodations. The deleterious effects of this tourism market are evident in the dependence on the sector for employment and degradation of some of the environment, notably on Tenerife. Much of the region has protected nature preserves (both inland and maritime) that could serve as an upmarket sector to develop for ecotourism. There is also the opportunity to expand leisure boating (yachting, sailing, etc.) activities.

Turning R&D blue bio economy/MRE projects into a commercial market

The region is host to numerous R&D projects in the blue bio economy and MRE that show the promise of these new technologies. The blue economy strategy should hone the existing foundation to provide regulatory support, incentives and investment so that more companies looking to market new products invest in the Canary Islands as an innovation hub. As aforementioned for the Azores, the Canary Islands is also strategically positioned as leader in the blue economy to coordinate programmes with the Azores and Madeira -as seen with the MAC programme- to target sectors for investment and develop a market shared between the three regions in the blue bio economy/MRE.

20.1. French Guiana

21. State of Play

Table 7 – Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations** ▸ **Writing of the strategy**	▸ Implementation Political approval
The SWOT analysis below is based on our literary review, including results from French Guiana ongoing works, as well as on interviews.	

In anticipation of the preparation for the next EMFF programming period, French Guiana's authorities decided to commission consulting firm to carry out a study and development of a blue economy strategy (from which the EMFF Action Plan will be derived). The Blue Economy strategy was thought of in parallel with the Strategic Development Scheme of French Guiana (*Schéma régional de développement éconoamique d'innovation et d'internationalisation (SRDEII) de la Guyane 2019-2021*).

The ongoing work on the blue economy strategy is led by the Fisheries and Aquaculture desk under the Direction for sectoral developments (*Direction du Développement des filières*). The decision to develop a strategy was made because a wide-arrange of topics related to the blue economy were dispersed among different regional services and a comprehensive strategy was seen as a way to streamline the use of resources.

The terms of reference (July 2019) used to select the third party in charge of the blue strategy works required a list of specific measures of integrated maritime policy, strategies per subregion focusing on sustainable growth and targeted approaches per activity (fisheries, aquaculture, tourism, marine biotechnologies, blue energy). The terms of references called for interviews, workshops as well as the writing of the final strategy.

Approximately thirty interviews were conducted by the study team covering a wide array of stakeholders. The study team interviewed a large panel of industry representatives (including local banks financing blue economy projects) as well as local authorities and individual stakeholders. In addition to developing the strategy, the assignment was aimed at determining the impact of blue economy sectors in French Guiana's economy.

The preparation of the blue economy strategy included the first ever Blue Economy Forum (*Assises de l'économie bleue*) on 22 November 2019, which gathered various stakeholder from both public and private sectors. During this forum, plenary sessions as well as eight workshops were organised (half regarding the diagnostic and half regarding strategic outlook for Guiana). Interviewees highlighted the fact that this was an important networking opportunity enabling stakeholders to have a comprehensive vision of the current health of the blue economy and perspectives for how to further develop the blue economy.

The final strategy was delivered early January 2020 and is now under political screening. The final approved version is expected to be published in mid-February 2020.

Regarding the need for support, interviewees highlighted that they would have liked support in the first stages of their blue economy works, notably in scoping the Blue Economy. However, they insist that support notably on legal issue regarding the development of some sectors may be needed on the future.

22. *Priorities and challenges*

The following SWOT has been prepared primarily based on materials shared from a diagnostic study, which was used to prepare the blue economy strategy for the region. The materials were complimented/validated through discussions held in French Guiana with representatives from the Fisheries and Maritime Service of the Collectivité of French Guiana as well as Annex 4 (The Blue Economy in French Guiana).

Key Takeaways

French Guiana's biodiversity and protected ecologies offer the region opportunities for developing R&D centres and eco-tourism;

The region benefits from a European environmental framework as well as a comparatively advanced infrastructure to develop blue economy sectors and ensure the protection of existing resources, especially compared to neighbouring countries;

Traditional blue economy activities (shipbuilding, leisure tourism) are limited by local geography (e.g. low draught harbours, limited beaches);

The region's isolation from Europe (being located in South America) and high labour costs means that investment capabilities to invest in high-value blue economy sectors remains limited.

Strengths	Weaknesses
Maritime transport and infrastructure Presence of well identified structuring actors (GPMG[18] or maritime agents) wishing to develop the sector (e.g., R&D actions, development of new activities, new identified shipping lines) and whose ambitions contribute to the modernisation and securing of infrastructures port; Presence of an emerging, dynamic player with strong development potential in the sector (CCOG[19]); **Wind Energy and MRE** Presence of known actors whose expertise is recognised globally (EDF and Voltalia); Importance of renewable energies in the Guyanese energy mix (64%);	**Maritime transport and infrastructure** Absence of PIF[22] (feasibility study in progress); Cost of dredging affecting the already high port tariffs; Dependence on trade with Europe and the Caribbean; Outdated infrastructure, fishing ports and marinas (no ice machine, zero-rated fuel pump on some sites); **Wind Energy and MRE** High market entry and operating costs (major maintenance operations for hydraulics) and high electricity production costs;

[18] GPMG : Grand Port Maritime de Guyane – main port operator of French Guiana
[19] CCOG : Communauté de Communes de la Côte Ouest
[22] PIF : Poste d'inspection frontalier – French customs entry points where customs controls are carried out

Public administration

Existing plans, strategies and roadmaps that need to be implemented and updated;

Existing funds to be mobilised from national and European structures: EMFF, AFD, BPI, Banque des Territoires, etc;

Fisheries and Aquaculture

Well-established sector with existing infrastructure and investment;

Stricter regulations in French Guiana than in neighbouring territories allows for better resource management (e.g., prohibitions on using small mesh nets since the 1990s);

A Motor Fisheries and Marine Breeding Committee charged with protecting fisheries (e.g., 1975 ban on bottom trawling under 30 meters);

Existence of an experimental aquaculture farm;

Air transport of marine products

Infrastructure (e.g., positive and negative cold room) and skills for the export of existing seafood (the teams are trained to carry out operations related to export in compliance with European standards);

R&D and professional training

Very rich biosphere resulting in a high level of research;

Existing national research institutions: Ifremer, CNRS;

Cooperation among Ifremer[20], CNRS[21] and the University of Guyana;

Recent infrastructures in development: University of Guyana, nursery and FabLab of GDI, Naturotheque;

Growing entrepreneurial ecosystem (cf. success of the GDI incubator);

Lack of knowledge about developing marine renewable energies (e.g. tidal turbines and SWAC) and electricity storage;

Public administration

Next programming period backlogged: EMFF in particular;

Difficulty in recruiting and excessive turnover of human resources, resulting in a loss of knowledge and expertise;

Unclear title and property rights: joint ownership, inheritance issues;

Fisheries and Aquaculture

Difficultly structuring the sector (lack of organisational structure because most actors are individual actors);

Sector undervalued in French Guiana, resulting in a lack of local workforce and reliance on fishermen of foreign origin;

Financial stability of fragile fishing enterprises partly due to the low purchase price of fish;

No training other than the VAE[23] available for fishing;

Aging our outdated infrastructures and equipment at ports or on ships;

Lack of facilities (ice and fuel) allowing the practice of the activity in compliance with health and safety standards;

Air transport of marine products

Lack of training for moving marine products ;

R&D and professional training

Lack of knowledge of marine and river ecosystems;

Lack of material resources: need a medium-sized vessel to carry out

[20] Ifremer - Fisheries Biodiversity research unit in French Guiana
[21] CNRS - Centre national de la recherche scientifique
[23] VAE – Validation des Acquis par l'Expérience – French system to obtain qualification based on a proof of working in the sector for a certain amount of time and a simplified exam.

Presence of private and associative actors contributing to research: WWS, GPMG, Ocean Science Logistics, GEPOG, BRGM;

Employment centres with available funding to sponsor programmes;

Costal Tourism

Presence of dynamic actors for tourism development in Guyana (e.g., Tourism Committee, Sinnamary historical site);

Strategic orientations and identified ambitions needing to be updated;

marine research (acquisition underway by Ifremer and CNRS);

Brain drain: departure of young people to the mainland for studies and/or first job and difficulties bringing them back to work;

Difficulty reaching the threshold necessary for the creation of new markets after R&D (especially given the small size of the local market);

Costal Tourism

Limited infrastructure and few actors involved in recreational activities along the coastline (3 marinas on the whole territory, 3 active tour operators and about twenty providers of recreational activities);

Limited offering, services and tourist infrastructure (e.g. taxi, souvenir shops, restrooms, information points, parking lots or even a jetty for river ecotourism);

Opportunities

Maritime transport

Geographic positioning at the crossroads of two international trade areas (CARICOM and Mercosur);

Potential for the development of new markets (e.g., cruises, sea excursions, transhipment, river/maritime cabotage, seafood exports, further integration into Caribbean and South American markets);

Development of new shipping lines (e.g., Nefgui);

Leveraging European funds to develop the sector, particularly for building infrastructure (e.g., funding for emergency investments under the ERDF) as well as financing from other institutions (e.g., Agence Française du Développement, Banque des Territoires, BPI France);

Navigable rivers and estuaries that can be used in the implementation of a port development plan;

Growing population driving an expanding market: rising demand for imports that may

Threats

Maritime transport

European regulations applying to a region situated in South America (difficulty for neighbouring Surinamese to enter French Guiana and restricted trade);

Cruise rotation defined at state level (e.g. no input at local level);

Competition with neighbouring countries that are offering similar tourist experiences and/or benefiting from better water quality;

Single maritime entry point at the port of Dégrad des Cannes;

Ad hoc use of port infrastructure inhibits the development of boating for tourism (e.g., using the Dégrad des Cannes marina by fishermen);

Limited knowledge of the estuary and coastal environments as well as of the ecological impact that dredging may have on the environment;

Changing coastline rendering more difficult the construction or refurbishment

generate an increase in the transportation of goods;

Wind energy & MRE

Several development avenues to produce hydroelectric or offshore wind power (provided that the GPMG multi-purpose platform project has been launched) identified or in the process of being identified;

Expected increase in demand (demographic growth, sustainable mobility, reduction in fuel poverty for people and isolated communities);

Public Administration

Reform of state services (starting January 2020) to expand powers at the prefecture level and improve local governance;

Fisheries and Aquaculture

Rich biodiversity of fisheries (need for preservation);

Potential for the development of new markets (deep-sea fishing, aquaculture, oyster farming, export to mainland France);

Change of regulations concerning training allowing the professionalisation of the fishing activity;

Openings to reduce pressure on fishing stock from illegal fishing through further cooperation with Brazil, Suriname and Guyana;

More structuring of fishing sector (e.g., through training, fleet renewal,) can allow for a sustainable increase in production;

Air transport of marine products

Sustainable economic development resulting from European production standard (more regulatory protections vis-à-vis neighbouring countries);

Establishment of a connection provided by cargo plane (connection dedicated only to air cargo);

Possible drop in export freight tariff due to oversaturation of the freight transit market (forecasted 1€/kg compared to 3€/kg today);

R&D and professional training

of infrastructure (e.g., repairing structural foundations);

Wind energy & MRE

Higher cost for electricity production due to the difficulty of accessing electricity production sites and the isolated location of French Guiana;

Climate change (e.g., erratic rainfall) reducing electricity production;

Administrative delays (long deadlines and complexity of administrative procedures such as granting of licenses and authorisations);

The Energy Transition Law for Green Growth (LTECV) fixed the share of Wind energy & MRE (solar, wind) as a percentage of total regional energy production at 32% by 2030 to ensure no distortion in energy supply, which risks reducing investment in Wind energy & MRE sources;

Public Administration

Laws limiting development along the entire coast restrain new investments (French administration is considering legislation to change regulations to allow for more coastal development in French Guiana);

Strong dependence on national and European funds;

Eligibility criteria for 'calls for projects' are not well-adapted to the capabilities of local actors in French Guiana;

Fisheries and Aquaculture

Over-dependence on fishing stocks for local food supply;

Pressures on marine resources (illegal fishing and climate change);

Difficulties in exporting seafood (e.g. Dégrad des Cannes port is not well-positioned for export, export in expensive containers);

Lack of consumer awareness in mainland France about the tropical species harvested in French Guiana, requiring awareness-raising among the population

Biotechnology sector (including biomimicry) is growing in France/internationally, creating growth potential in French Guiana because of local biodiversity;

Increasing numbers of national and international calls for projects on biodiversity and marine ecosystems creating funding opportunities;

Expansion of satellite campuses for the University of French Guiana;

Naval construction

Potential for the development of new markets (repair/construction of marine vessels, wintering of boats in French Guiana);

The GPMG offshore platform project could generate additional demand for specialised boats adapted to the activities on the platform (offshore wind or aquaculture for example);

Costal Tourism

Environmental context: Marine, which can support local sporting, recreational and leisure activities

Potential for market development (sport fishing, nautical activities, eco-responsible tourism and linked to a "serene adventure", cruise, "business and congress" sector, whale watching, Amazonian aquarium, high-end tourism, affinity tourism);

Joint promotion with neighbouring territories to develop a tourist offer on the scale of the Guyana plateau or whale watching with Suriname; Increased mobility of people. Existence of a regular link between Guyana and the Antilles or the metropolis;

to encourage the consumption of local products;

Competition from neighbouring countries (notably Brazil and Suriname) whose production and labour costs are lower;

Air transport of marine products

Insufficient local production of seafood to meet supply commitments;

Dependence on marine resources (e.g. fish stocks) and airline deliveries of basic goods;

Lack of border post to export to areas outside the EU (e.g., the USA);

Oligopoly of airlines operating in the Antilles could lead to a potential fluctuation in freight rates;

Limited plane capacity and regulations lead to the prioritisation of moving baggage over seafood;

R&D and professional training

Difficulty creating international cooperation with other laboratories to respond to calls for projects;

Growing population requires significant investments in terms of training;

Naval construction

Competition from neighbouring countries (Brazil, Guyana and Suriname) where production and labour costs are lower;

Difficulty in accessing land (90% owned by the state, joint ownership and inheritance problem);

Low draught-restricted ports, which may limit the ability to import equipment and raw materials on large vessels;

Costal Tourism

Poor water conditions and few recreational beaches hinder the development of seaside tourism;

Barriers of entry for tourists (cost of plane tickets, high port tariffs, health and administrative barrier: visa, vaccines);

Changing coastline and significant tidal range resulting in higher costs: infrastructure construction, channel maintenance (dredging) and restricting

	coastal development, recreational and leisure activities at sea; Insecurity of the territory.

23. Possible priorities

Priorities mentioned in this section have been selected through interviews with stakeholders. The blue economy strategy which shall be published by the end of February 2020 will presumably highlight the following sectors:

Modernise the fishing fleet and develop new capabilities for fishing

French Guiana's fleet needs to be upgraded to meet European standards. This modernisation shall bring along new standards in fisheries as well as in ship construction and allow for the development of maritime ports in addition to current traditional installations.

Train professionals in the blue economy sector

Due to cheap labour prices, most of French Guiana's crews are from neighbourhood countries. Skilled labour needs will go together with the necessary fleet upgrade for fisheries. In addition, specific needs in terms of professional training for incoming blue economy sectors (such as biotechnologies on alga and blue maritime energy in the isolated areas) would enable these sectors to grow and rely on local workforce.

Develop tourism activities

Compared to other ORs, French Guiana's tourism activities are well-known by tourists . However, activities can be developed along rivers, notably with concentration on blue tourism and market, especially for luxury tourism.

23.1. Guadeloupe

24. State of play

Table 8 – Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis**	▸ Stakeholder consultations ▸ Writing of the strategy ▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, including results from Guadeloupe ongoing works, as well as on interviews.	

In Guadeloupe, the President of the Regional Council has set three main priorities for the development of economic activity of the island: i. green growth, ii. blue growth and iii. tourism. Following the setting of these priorities to guide economic policymaking, the Region Guadeloupe reorganised its activities in 2017 with the creation of a new Direction for the Blue Growth. The Direction is working both on a strategy for blue growth and on supporting stakeholders on specific projects related to the blue economy.

Guadeloupe is taking part in the Conseil Ultramarin du Bassin des Antilles (Antilles Marine Basin Council), which has been developing a "Sea Basin Strategy for the Caribbean" among Martinique, Guadeloupe, St Martin and St Barthelemy. The Conseil organised and delivered work on developing the economic sectors of importance for these regions. The first stage was to realise a complete diagnostic study of the regions, which took 2 years (2017-2019), and then develop a strategy for the entire maritime area (undergoing).

Following this work, the Prefecture selected a service provider to help in the writing a diagnostic study tailored to Guadeloupe. The regional authorities also took part in the selection process as they routinely work closely with national authorities on blue economy issues. The diagnostic was completed by January 2020 following a series of interviews with stakeholders including professionals, professional bodies, banks operating in the blue economy sector (BpiFrance, Banque des Territoires) and public sector representatives at all levels.

Regarding the writing of the strategy, the regional administration has not yet decided on the methodology to follow and on how the work will be administered (through contractors or government agencies). The blue economy strategy unit is awaiting the results of workshops that are planned for early March 2020. These workshops will be held on the EMFF Action Plan to analyse topics that may be missing and could be relevant to the blue economy strategy.

In the meanwhile, the regional authority's blue economy strategy unit is working on adapting national strategic plans that have already been adopted to integrate the concept of the blue economy such as the SRDEII (compulsory economic development strategy for French Regions).

The main expectations from the Région Guadeloupe are to receive guidelines on the structure the strategy should follow. Regarding the strategy timeline, the Region is planning to align with the EMFF Action Plan.

25. Priorities and challenges

The following SWOT has been prepared using Annex 1 of EASME report "Realising the potential of the Outermost Regions for sustainable blue growth" (2017) as well as documents shared by the region of Guadeloupe.

Key Takeaways

Guadeloupe has a highly developed tourism industry that employs nearly 70% of the local workforce;

The island is dependent mass tourism (especially through cruise traffic), which creates a vulnerability to global tourism shocks (e.g. COVID 19) and a negative impact on the island's fragile environment;

Blue energy and blue bio economy both have strong potential for development on the island but have not been explored (both in terms of potential and workforce training);

The port of Guadeloupe has positioned itself well for transshipment in the Caribbean zone and has emerged as a regional leader for port activity/shipping.

Strengths	Weaknesses
Coastal Tourism: The sector has seen large growth over the past decade (18.5% CAGR, 2008-2015); Large infrastructure and lots of available accommodations for tourists; The tourism Committee of Islands of Guadeloupe helps structure marketing/communications for the island's tourism in metropolitan/international markets; **Marine living resources:** Well-established sector with a defined maritime zone for carrying out fishing; **Port activities:** Use of Guadeloupe's port to service regional ports on smaller neighbouring islands; Dredging and development of multimodal port facilities to attract more port operators (attracting transhipment activities); Consolidation of port facilities under the Grand Port Guadeloupe to structure the sector; **Shipbuilding and repair:**	**Coastal Tourism:** Overreliance on tourism for employment (70% of jobs) in the economy; **Marine living resources:** The sector has low productivity (both fisheries and aquaculture) and maintaining current employment levels will require increases in productivity; The sector remains relatively unstructured, creating a reliance on artisan trade and negatively impacting productivity; **Port activities:** Size of the regional market in the Caribbean limits the competitiveness of the port of Guadeloupe; **Shipbuilding and repair:** Guadeloupe has higher labour costs vis-à-vis neighbouring markets; Need for training the workforce for yacht and leisure boating repair; **Marine transport:** Reliance on ferries for regular transportation creates vulnerabilities to fuel price hikes; **Blue energy:**

Well-established shipbuilding facilities to service cruise vessels, maritime shipping and transport;

Marine transport:

Established operators with intra-archipelago services that have been expanding (bucking regional trends; , 680 000 passengers in 2015);

Presence of most major freight/container port operators;

Blue energy:

Major operators (EDF) that are investing in blue energy are present on the local market;

Blue bio economy

The Environment and Energy Management Agency is starting to structure the sector and test the viability of bio-marine products for new applications (e.g. seaweed culture for cosmetic use);

Maritime defence:

Relatively safe region (limited piracy);

Limited R&D in blue energy potential at present;

Blue bio economy:

Small domestic market limits private investment in blue energy infrastructure without heavy state subsides;

Need for training of the workforce to be able to work in high-value added bio economy sector (need for advanced training at universities/professional training centres);

Maritime defence:

Some illegal fishing in the waters off Guadeloupe

Opportunities

Coastal Tourism:

Yachting has strong potential to further grow the tourism industry into upmarket sectors (higher value services and better paid positions);

Further structuring and investment in accommodations can drive more employment in the sector;

Developing eco-tourism activities provides a high-value sector to promote sustainable tourism;

Marine living resources:

Reduction of production costs and more production of manufactured seafood products in Guadeloupe could increase the sector's productivity and increase employment;

Strong potential to expand aquaculture (only one facility at present);

Port activities:

Threats

Coastal Tourism:

Reliance on tourism for the island's economy puts the island's economy at risk in the event of shocks to global tourism (e.g. COVID-19);

Noxious gas release through a rift in the continental shelf off the coast of Guadeloupe threatens to degrade the appeal of coastal tourism;

Marine living resources:

Changing climatic conditions (warming waters) have put some fishing stock under threat;

Aging fleet and need for professional training to structure the sector to keep it competitive regionally;

Port activities:

Main growth potential (transhipment) is also being pursued by several other regional ports;

Increased consolidation of port operators behind transhipment positions the port of Guadeloupe as a transhipment hub in the Caribbean basin;

Shipbuilding and repair:

Coastal tourism ship repair services (yachting) has been identified as a sector of strong growth potential for leisure boats;

Marine transport:

Modernisation of the ferry fleet could help solidify the competitiveness of the sector;

Blue energy:

Identified sources of blue energy (tidal, offshore wind) have been identified and have strong potential for energy independence for the island;

Blue bio economy

The island's biodiversity and marine protected areas present opportunities for developing cosmetic and pharmaceutical applications;

Maritime defence:

NA

Shipbuilding and repair:

Relatively high labour costs vis-à-vis other countries and the competitive yachting/cruise sectors in neighbouring countries risks having ship repair conducted in cheaper markets;

Marine transport:

Profitability of the ferry services very dependent on fuel prices;

Blue energy:

The small domestic market and high production costs threaten the viability of developing a commercial market (incentivising capital-intensive investment by private companies);

Blue bio economy:

Risk that bio economy R&D projects will be conducted in Guadeloupe, but that companies will market products in larger markets (in mainland France for example);

Maritime defence:

Depletion of fishing stock in neighbouring countries could increase risk of illegal fishing in Guadeloupe's waters and require more patrols;

26. Possible priorities

The identified priorities have been determined based on discussions with officials in Guadeloupe as well as documents prepared by the region on the blue economy (e.g. "Blue Economy Study") along with strategic documents that have been used to develop the region's blue economy strategy.

Marine eco-tourism and upmarket tourism activities

The island's traditional dependence on tourism can be transitioned into a more sustainable industry through investment in upmarket activities such as marine eco-tourism and leisure boating, among other activities. The island has structural unemployment rates (23% in 2015) resulting from the tourism industry's inability to keep up with new entrants into the workforce. Resultantly, investing in higher, upmarket industries would not only allow for new, well-paying jobs in an already well-established tourism industry but also support adjacent industries such as ship repair for yachting that could provide further job training and new job opportunities.

Diversifying sources of blue energy

Like Martinique, Guadeloupe has significant potential sources of MRE (Ocean Thermal Energy, offshore wind) that could support the energy independence of the island. Further investment in R&D in the sector will be required to understand which sources are

the most feasible and have the least impact on the protected marine environment in Guadeloupe. There will also need to be further understanding of the potential funding sources at a national/EU level to see how to fund future projects in a sustainable way.

Consolidating role as a transhipment hub

The positioning of Guadeloupe's Grand Port as a major transhipment hub for the Caribbean offers a host of opportunities for an important traditional sector on the island. Further investing in facilities and adjacent services to store and ship containers that are brought to the island for further distribution to surrounding islands could help support a host of SMEs on the island in sectors other than the tourism industry.

26.1. Martinique

27. State of play

Table 9 – Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations** ▸ **Writing of the "Stratégie de bassin"**	▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, as well as on interviews.	

Martinique is a member of the Conseil Ultramarin du Bassin des Antilles (Antilles Marine Basin Council), which has been developing an integrated strategic approach among Martinique, Guadeloupe, St Martin and St Barthelemy. Martinique is not developing a dedicated blue economy strategy. Instead, the Collectivité Territoriale de Martinique (CTM) will use the "Sea Basin Strategy for the Caribbean," the blueprint for developing blue economy activities. This strategy is now at the political approval stage. The Collectivité decided not to produce an additional strategic document on blue economy but rather to implement its strategy in terms of the blue economy through the objectives defined in the basin strategy, in correlation with its Strategy for Economic Development, Innovation and Internationalization (STDEII), its regional energy management program and its multi-year energy programming scheme..

The CTM is also currently working on the creation of a Department dedicated to Maritime activities. This department will bring together under one umbrella all the regional services dedicated to the following maritime activities: fisheries, biotechnologies, aquaculture, education and professional training (in partnership with the OR's education authority) and environmental protection.

The CTM is also providing support to cities to develop projects to mitigate the effects of hazardous Sargassum release from the ocean. There is also ongoing work in aquaculture through the creation of a Technical Centre that is working on supporting production and providing professional training. There is a nascent partnership in place to develop blue energy with regional universities and research centres, but this initiative is less defined.

28. Priorities and challenges

Key Takeaways

Martinique has a highly developed tourist infrastructures, but structural dependence on coastal tourism activities (e.g. cruise and resort tourism) has led to high unemployment as downturns have hit the industry;

Martinique has positioned itself in recent years as a destination for upmarket leisure tourism (e.g. yachting), which presents opportunities to further develop traditional activities for ship repair;

The island is the site of ambitious blue energy projects, but similar projects have been unsuccessful in the past, so investment is needed to ensure the sustainability of the sector;

The island has a nascent blue bio economy sector being spearheaded by research institutions on the island, but further training and investment will be needed to ensure the growth and commercial-scale realisation of the sector;

Strengths	Weaknesses
Coastal Tourism: Established tourism sector with coastal accommodations for leisure tourists Yachting sector has become an important sector for the tourism economy: 260 companies, with a total turnover of € 63 million and 900 jobs (2016 study); **Marine living resources:** Small-scale fishery has an important heritage value and is an asset for the image of Martinique for tourism Presence of 15 aquaculture sites **Port activities:** Grand Port Martinique has developed multimodal facilities (notably to accommodate freight activities); Development of 4-year strategies to improve the Grand Port Martinique; **Shipbuilding and repair:** Ship repair activities around the growing yachting activities around the region; Investment in a 400 tonnes capacity crane in Le Marin offers to boost large-vessel ship repair (and construction of a technical platform for leisure navigation); Diverse set of actors operating in shipbuilding and repair (84 actors in 2016); The security of the territory, the technical nature of the companies and the fact that they have a stock of spare parts are a comparative advantage of the territory for the Caribbean.	**Coastal Tourism:** Overreliance on cruise tourism creates volatility in the sector (e.g. a decline in cruise tourism due to unrest in late 1990s led to tourism number rebounding to pre-1998 levels in late 2010s); Yachting industry is unstructured (48% of companies employing 1 person); **Marine living resources:** The fishing industry is unstructured with a strong reliance on individual fishermen; Lack of knowledge on the marine living resources and on their sustainable use Lack of resources to invest in R&D of existing fish stock; **Port activities:** Need to further investment to keep up with the growth of transshipment activities in the region; **Shipbuilding and repair:** A need to specify the advantages of repair in Martinique (safety and quality of service) **Marine transport:** Slight decrease in past years of ferry passengers due to air transit competition; 94 % of total exports go to France (e.g. lack of commercial ties with adjacent markets; **Blue energy:** A similar project called NAUTILUS aimed at establishing OTE equipment on the

Marine transport:

Extensive passenger ferry services to surrounding islands;

Blue energy:

Ongoing discussions on what kind of projects to support after the aborted NEMO project.

Blue bio economy

Existence of research institutions (e.g. IFREMER, UAG, CIRAD, INRA) in the potential of blue bio technology from a wide array of maritime resources, including Sargassum algae, Sea sponge and Spirulina;

Maritime defence:

The waters around Martinique are broadly safe (relatively low levels of smuggling and piracy);

coast of the inland but was abandoned in 2015 due to environmental damage;

Need to train the local workforce to be engaged in the projects.

Blue bio economy:

The sector is in a pre-development stage and will need more investment to develop a viable market;

Maritime defence:

Illegal fishing and smuggling of illegal narcotics periodically flair up in the region;

Opportunities

Coastal Tourism:

Growth potential from structuring the yachting industry and marketing the island to leisure boating cruising in the Caribbean and the renting of leisure vessels;

Marine living resources:

Further studies on existing marine resources could enable a better knowledge of marine living resources (e.g. to support sustainable exploitation of fish stock).

Education programmes for every sea user could support the structuring of the sector;

Port activities:

As with Guadeloupe, the Grand Port Martinique could become a transshipment hub.

Shipbuilding and repair:

Yachting and leisure boating present opportunities for Martinique to become a ship repair hub in the Caribbean (due to Radoub dry-dock, Le Marin crane facilities notably);

Improving supply chain management and training can support high-value added sector for ship repair;

Threats

Coastal Tourism:

N.A.

Marine living resources:

Overexploitation of marine resources (a problem throughout the Caribbean basin) could lead to reduction in fish stock and other resources;

Port activities:

N.A

Shipbuilding and repair:

Stiff competition in the Caribbean basin to become hub of shipbuilding/repair;

Marine transport:

Training of labour and high labour costs may reduce competitiveness of transhipment operations in Martinique vis-à-vis neighbouring countires;

Blue energy:

The high cost may make commercial scale MRE difficult to render economically viable in Martinique;

Blue bio economy:

Marine transport: Opportunity to become a transhipment hub in the Caribbean basin (existence of multimodal facilities); **Blue energy:** Several sources of offshore MRE exist that can be developed; **Blue bio economy** Presence of research institutions in Martinique could spur further R&D projects to the islands; **Maritime defence:** NA	Further training is needed to ensure that local workers can work in high-value added blue bio economy jobs; **Maritime defence:** Periodic movement of people in the Caribbean basin presents potential for illicit activities in the waters off Martinique.

29. *Possible priorities*

The following priorities and intervention axis have been elaborated based on the Study Team's analysis of Annex 2 of EASME report "Realising the potential of the Outermost Regions for sustainable blue growth" (2017) as well as the Caribbean Development Bank's report, "Financing the Blue Economy". It has also been elaborated based on discussions with interest groups (EURODOM) and with the Collectivité Territoriale de Martinique.

Yachting and leisure boating activities

Yachting and leisure boating activities are a high-value added sector that has potential to turn Martinique into a leisure boating hub in the Caribbean basin. The benefits could also help ship repair and other upmarket activities as there is existing infrastructure to service leisure boating vessels. Further training of the workforce will be required to fill the jobs required for the industry. Importantly, because suffers from 21% unemployment (2019), training the youth will be important to place them in the sector (e.g. through the creation of a dedicated maritime high school). There also needs to be some work to structure the sector.

MRE and energy independence

Improving the share of MRE for the island is a priority to decrease dependence on fossil fuel sources as well as ensure the energy independence of the island.. The important priority will be to ensure that workforce training is in place to have local operators maintain the facility to decrease the reliance on personnel from Metropolitan France, both from a local employment perspective and from a knowledge sharing/expertise stand point for the island to become an MRE hub for the Caribbean basin.

Developing up-market blue bio economy activities to create sustainable economic ties

The blue bio economy at present is a nascent sector; however, Martinique has several research institutions with ties with peer institutions in France. As such, further R&D can be explored to see the commercial viability of marine products, notably for cosmetic and pharmaceutical products. Developing these products would be an advantage for Martinique

as the jobs would be well-paying and help train the local workforce in upmarket activities that can also improve ties with neighbouring Caribbean countries.

29.1. Mayotte

30. State of play

Table 10 - Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations**	▸ Writing of the strategy (ongoing) ▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, including results of Mayotte's ongoing works, as well as on interviews	

In November 2018, the Department of Mayotte created a project team dedicated to the blue economy with the responsibility to work on Mayotte's blue economy strategy. This project team is composed of nine experts from the Department administration and one from the Mayotte Economic Development Agency (ADIM) who each cover different aspects of the blue economy (EU affairs, aquaculture and fisheries, renewable energy, biodiversity, oceanography, business attractiveness). The team is led by a specialist on economic attractiveness.

To launch its work, the project team attended the international blue economy forum in Nairobi on November 28, 2018. Attending the forum was an opportunity to exchange with regional actors in the blue economy, notably the Seychelles, and enlarge Mayotte's network in East Africa.

After the forum, the group met on regular occasions to compile and review existing studies and works on the blue economy in Mayotte. This data collection stage was used as a first step to prepare a public consultation of local actors and resulted in the selection of four key areas for the territory on which the consultation took place: 1. Natural and biodiversity resources; 2. Port and port infrastructure; 3. Tourism and costal activities; 4. Professional Training. The project team also determined a set of items to be discussed and included in the strategy for each theme.

In February 2019, the project team identified stakeholders on each of the four selected themes from both the public (Department and state officials) and the private sector. The workshops held on these four themes were an opportunity to ensure that the data collected was up to date, to determine the region's main needs in the blue economy and to ensure that the stakeholders were informed and ready to work on the strategy. Around 15 participants took part in each workshop.

The results from the blue economy workshops supported the project team in designing the tender sent out to have a contractor help in the realisation of a thorough diagnostic study and blue economy strategy. The work on writing the tender lasted from April 2019 until November 2019, at which time the tender was released publicly. The service provider was then selected in December 2019 and will start its works in mid-February 2020.

The Project Team has indicated that they would like to receive methodological guidance early on to help them scope and tailor their tender for specification regarding the writing of the blue economy sector.

31. *Priorities and challenges*

The following SWOT has been prepared based on discussions held with Departmental Counsel of Mayotte, as well as with representatives from the committee in charge of preparing the region's blue economy strategy. The SWOT has also been prepared using materials shared by local officials and Annex 5 (The Blue Economy in Mayotte).

Key Takeaways

The blue economy in Mayotte faces several challenges characterised by its surrounding political and economic environment (high levels of illegal fishing, irregular migration);

There have been substantial efforts to modernise existing port infrastructure to decrease interdependence on surrounding regional ports to supply Mayotte;

There is a reliance on traditional blue economy sectors, which have been under strain in recent years due to competition;

There is an acute need to invest in workforce training programmes to ensure that the population can work in blue bio economy and renewable energy sectors.

Strengths	Weaknesses
Coastal Tourism: Marine environmental stewardship has increased interest in eco-tourism (whale observation and diving activities); **Marine living resources:** MFF 2014-2020 plan helped compensated for high-costs in the industry to keep competitive regionally; Mayotte Fleet Management Plan to encourage private investment in modernising the fleet (adding of modern longline vessels to complement canoe fleet); **Port activities:** Modernisation of port facilities has enabled more direct commercial activities; **Shipbuilding and repair:** NA **Marine transport:** Major modernisation of the Longoni Port in 2015 opening up transhipment	**Coastal Tourism:** Underdeveloped sector a limited variety of accommodations to attract tourists; The risk of piracy dropped cruise tourism (by 80%); **Marine living resources:** High-levels of illegal fishing are putting the mature sector in difficulty; Unstructured sector with a large concentration of artisanal actors because industrial firms operate elsewhere in the region; Collapse of local aquaculture producer collapsed production; **Port activities:** The ports' infrastructure remains less multimodal than some regional ports (e.g. Mauritius, Reunion, etc.) **Shipbuilding and repair:** Lack of supply chain to service vessels (fishing vessels have to be serviced in Mauritius);

opportunities and reducing reliance on port of Mauritius for small container shipment to Mayotte;

Blue energy:

A new study conducted by ADEME and BRGM (2018/2019) demonstrated the existence of a deep geothermal potential on Petite Terre, but also the need to carry out several deep exploration drilling (up to 2000 m deep).

Blue bio economy

Amazing biodiversity in the region allows for blue biotechnology prototyping and development;

Marine minerals:

NA

Desalination:

Existing facilities for drinking water;

Maritime defence:

Increased activity from French Navy to limit irregular migration in the region;

Marine transport:

Neighbouring Mauritius, Reunion Island and East Africa countries have much larger facilities (bunkering and warehousing);

Blue energy:

Very limited existing infrastructure for blue energy;

Limited knowledge of potentialities

Almost exclusive reliance on fossil fuels at present;

Blue bio economy:

A lack of skills in biotechnology limits the development of the sector;

A lack of communication on the region's biodiversity has made companies overlook the region in favour of Reunion and other regional economies;

Marine minerals:

NA

Desalination:

Limited capacity (1600 m^3/d), but heavy reliance for fresh water on the island and for lagoon waters;

Maritime defence:

Irregular migration coming from or transiting by neighbourhood countries has posed security issues to Mayotte and has reduced the island's attractiveness as a tourist destination overtime;

Illicit immigration is a vector of parallel economic activities and insecurity

Opportunities

Coastal Tourism:

Ecotourism has a potential to develop tourism in a sustainable way (avoid competing interests around land for housing for the island's growing population)

Waste management and sanitation to be encouraged

Reinforce the visibility of Mayotte in the Vanilla Islands circuit;

Threats

Coastal Tourism:

Ongoing illegal immigration and the perception of insecurity on the island deter investment in the sector;

Massive deforestation and unfinished sanitation which endanger the coast, the lagoon and its attractiveness;

Tourism dependent on accessibility, high airfare, and undeveloped maritime transport

Marine living resources:

Developing a rear base as part of the Mozambique Gas Project, an opportunity for Mayotte.

Creation of tourist offices and development of beaches;

The diversification and multiplication of nautical activities through local authorities' support;

Marine living resources:

Expansion of aquaculture could produce high-productivity extraction of fish and help structure the sector (algae, pearls, sea cucumbers… should be promoted);

Strengthening fishing capacity and modernizing the fleet is an opportunity to increase local production and limit imports;

Structure the seafood sector in the region, and provide consumers with access to products all year round;

Port activities:

Further development of facilities to handle high-volume freight and other traffic could help Mayotte become a recognised port of call in the region;

Possibility of positioning Mayotte as a European port for the major oil and gas companies operating in East Africa. ; Mozambique gas project as a bursting hub

Shipbuilding and repair:

Servicing of French naval vessels and increased freight transport could present an opportunity to develop ship support services (Floating dock or real dry dock with an operator at level);

Develop boat repair and fairing activities, with a view to increasing the fishing fleet and inland maritime transport (cabotage) and improving the attractiveness of Mayotte to sailboats and other tourist boats

Marine transport:

Further developing facilities could help Mayotte become a destination port for goods, instead of requiring offloading of larger vessels in Mauritius and surrounding ports;

Illegal fishing has put pressure on local fish stock;

The lack of control of the catches of fishing vessels with a fishing authorization could endanger the resource

the presence of vessels exploiting resources without valorization on the territory (tuna vessels outside Mayotte)

The lack of structuring of the sector (from fisherman to distributor) would see imports soar;

Possible loss of the local aquaculture know-how if the sector is slow to get back into production mode

Port activities:

Regional competitors have been investing in their ports (e.g. Mauritius and East Africa) to accommodate for increased Chinese investment in the region;

Shipbuilding and repair:

Prohibitively high costs and a lack of skills pose a threat to the development of the sector;

Marine transport:

Dropping freight costs is likely to encourage hub-and-spoke provisioning of islands from cheaper ports of call (e.g. offloading goods in Mauritius and then using light container ships to service Mayotte);

Blue energy:

A lack of commercial market and a trained workforce limits the prospect of developing and maintaining a blue energy source;

Blue bio economy:

A lack of skills training and university partners may limit R&D activities on the island;

Marine minerals:

NA

Desalination:

NA

Maritime defence:

The region's high-level of instability (especially in neighbouring Mayotte)

The development of regional cooperation will lead to the creation of new maritime lines Planned creation of a fishing port as part of the regional development scheme (SAR) **Blue energy:** No planned expansion of the desalination plants opens an opportunity for blue energy to support existing plants; Heat marine energy (SWAC), offshore and in shore wind energy or hydrokinetic energy (in lagoon pass) could present opportunity of development to supply energetic demand **Blue bio economy** The local biodiversity is highly amenable for R&D biotechnology programmes, especially in testing conducted in the maritime offshore protected areas; **Marine minerals:** Opportunity to position Mayotte as a European harbour for big oil and gas companies operating in West Africa. **Desalination**: The Master Plan for Water Development and Management plans to strengthen desalination. **Maritime defence:** The control and regulation of irregular immigration will protect the Mayotte EEZ from illegal fishing;	threatens the development of offshore infrastructure and exploitation of resources;

32. *Possible priorities*

In Mayotte, strategy works are currently ongoing. However, 4 thematic areas have been defined by the blue economy project team from which can be derived the following priorities:

Preserve and build awareness of the island's natural resources and biodiversity

The lagoon of Mayotte has a unique level of biodiversity in the region. The local authorities' ability to preserve these natural resources and species is essential for the island's future. In addition, developing knowledge of these natural resources can offer possibilities for developing the local economy in high-skilled marine research and biotechnology sectors.

Develop and modernise the island's port infrastructure

The Port of Mayotte aspires to position themselves as logistics hub of the Mozambique Channel. Major investments have been made over 10 years in the port of Mayotte, of the order of 100 million euros, both for infrastructures and superstructures (tools). The objectives are to guarantee, as a priority, the supply of Mayotte in conditions of safety, cost and regularity. The maritime transport of goods in the port of Longoni is an essential sector of the local economy, as the trade, building and public works and industry sectors depend on it. The narrowness of the port is potentially a hindrance and can cause congestion detrimental to these other sectors. Development projects to support the growth of the port (pleasure sports and marina) using State and European funding aim to reorganise traffic by maritime links designed to strengthen the role of the port of Longoni as a regional service platform for the northern part of the Mozambique Channel. This secondary hub will be a hoped-for response to the congestion suffered by the major East African ports and will enable Mayotte to provide an alternative for shipowners serving this area.

Develop coastal tourism

Mayotte has major assets in terms of coastal tourism (including one of the largest lagoons in the world and protected areas for endangered turtle species). However, tourism is limited due to the lack of airlines and security on the island. For regional maritime tourism, Mayotte is located in the heart of the Mozambique Channel close to 5 countries (2 to 3 days at sea).

The Regional Plan for the Development of Tourism (SRDTLM) indicates that Mayotte is an island with high potential with very little blue tourism (lack of infrastructure). Projects are underway to develop blue tourism: the public service delegation of the Mamoudzou marina should allow investments for adapted infrastructures and a study has been carried out for the construction of a nautical base for sports, leisure activities and light maritime transport in Hagnoundrou.

In addition, the SRDTLM provides for the following actions :

- Elaboration of a beach plan
- Development of nature sports including land-sea trails
- Support for the structuring of lagoon-related business clusters
- Development of the tourist dimension of the Mamoudzou waterfront: marina, interpretation centre
- Improvement of the conditions of reception of cruises, including the renovation of the pleasure craft pontoon as part of the PREM project (see transport department)

Develop professional training in the blue economy sector

Fishermen and other workers in the blue economy receive limited formal training in Mayotte. Developing training programmes is to be an essential area to foster economic growth and reduce unemployment, especially in underdeveloped blue economy sectors. As mentioned in the Regional Plan for the Development of Tourism (SRDTLM) it is important to develop training courses related to ecotourism. The challenge for Mayotte is the construction of the Mayotte Maritime Training Centre in Pamandzi for the training of maritime professionals. The work in progress in the framework of the development of the Blue Strategy in Mayotte will identify and define training objectives and plans.

The development of training programmes is a key area for stimulating economic growth and reducing unemployment, particularly in all sectors to be developed in the Blue economy.

32.1. Reunion

33. State of play

Table 11 - Summary table of the state of play

Work Completed:	Work remaining:
▸ **Diagnostic studies** ▸ **SWOT analysis** ▸ **Stakeholder consultations**	▸ Writing of the strategy (ongoing) ▸ Political approval ▸ Implementation
The SWOT analysis below is based on our literary review, as well as on interviews.	

The public administration, Région Reunion, has created a dedicated unit for the blue economy in the Directorate for the Economy and Enterprises (Fisheries and Blue Growth Team). The unit oversees the management of blue economy projects such as Océan Métiss and coordinates the work among sectorial units in the blue economy.

In early 2019, to compile existing expertise and knowledge on blue economy in Reunion Island, a "Blue Institute" (Institut Bleu) was created under the patronage of the Regional Council. The Institute is overseen by a strategic steering committee composed of experts and representatives of both the regional and national administrations. The Institute is in the course of adopting an action plan and work programme that is anticipated to be validated later in 2020. The participation of the national authorities on the steering committee highlights the close links between regional and national authorities in the development of a blue economy programme for the island.

Additionally, in 2019, workshops were organised by the blue economy unit on fisheries, coastal tourism, biodiversity and natural resources and professional training to support the work on a blue economy programme. These workshops were designed to develop a framework for action related to the blue economy in Reunion. A variety of stakeholder have participated in these workshops, including private sector actors.

In March 2019, a Blue Economy Week was organised by the Regional Council. This thematic event was organized with the support of the European Union and IOC UNESCO, welcoming participants from 54 countries. Several themes were addressed (Community Fisheries Policy, Financial Instruments, Maritime Spatial Planning, Resource Management in the Indian Ocean area, Shark Risk Management, Innovation...).

Since the end of 2019, the Regional Council has been working with a specialised consultancy firm on a diagnostic study on developing the blue economy in Reunion and on the preparation of the next EMFF (including the Action Plan). Workshops were conducted mid-February 2020 in Saint-Denis-de-La-Reunion to prepare the next programming period.

34. Priorities and challenges

The SWOT has been prepared based on documents from the report, *Realising the potential of the Outermost Regions for sustainable blue growth*, as well as *Economie Bleue - Etude relative à la définition d'un projet stratégique global pour le pôle mer de la Reunion (PMR) à la Reunion et dans le bassin maritime de l'océan indien et à une proposition de gouvernance pour le PMR (2018).* The documentary review was further supplemented by discussions with local officials from the Regional Council of Reunion and a representative from the project Océan Métiss.

Key Takeaways

Overall, Reunion has a highly developed infrastructure, especially for the South Indian Ocean region, that is well-equipped to handle and foster the development of blue economy sectors (e.g. ecotourism, Wind energy & MRE);

Local actors, both private and public, have a strong working relationship to coordinate on developing inclusive economic strategies;

The cost of goods and labour for investors is a deterrent in developing high-value added industries given the relatively small local market;

The blue economy could position as a center for excellence regionally and leverage the island's being a regional economic hub to incentivise growth in targeted blue economy sectors.

Strengths	Weaknesses
Coastal Tourism Mature coastal tourism infrastructure that is adapting to increase demand in eco-tourism, especially by European visitors. **Marine living resources** An expansive maritime domain (Exclusive Economy Zone [EEZ] of 315,058 km2), which offers the potential to develop sustainable fisheries and the potential to develop production of maritime foodstuffs and enhance marine biodiversity, notably for therapeutic or cosmetic applications; Fisheries surveillance undertaken by French authorities mitigates the risk of overexploitation of marine resources; **Port activities, shipbuilding & repair** High quality infrastructure both in the field of maritime transport of goods (see below) or in the field of research and development; The Grand Port Maritime of Reunion is the 4th largest French port by container volume and the largest in the French OR;	**Coastal Tourism** A law passed in 2013 severely restricting the accessible beaches for swimming due to shark attacks risks reducing the potential for developing marine-related ecotourism; A large number of days a year in which oceanic conditions limit the ability of people to do recreational activities along the coast. **Marine living resources** Aquaculture has been slow to develop and has a weak offering to remain competitive at present; Current aquaculture processes seen as catalysing shark attacks, which has negatively impacted leisure tourism along the coast; Stiff competition from neighbouring countries and Southeast Asia in both legal and illegal fishing (other countries have less stringent regulatory frameworks); **Port activities, shipbuilding & repair**

Its geographic position as the only European region (along with Mayotte) in the South Indian Ocean area makes the region a commercial crossroads between North/South and South/South exchanges as well as a platform to export European blue economy expertise in the Indian Ocean basin.

Blue energy

Integrated strategy 'Regional plan on climate and energy in Reunion' (adopted 2013) to achieve Wind energy & MRE independence by 2030 favouring hydroelectric and wave energy sources;

Blue bio economy

Strong intergovernmental and professional organisations coordinating on increasing high-value economic activities related to the blue economy (e.g. eco-tourism, cruise activity).

Launching of the Institut Bleu, which has as its mission to coordinate actors involved in developing the blue economy;

A geography and climate that is conducive for the development of new technologies: Reunion serves a platform for testing emerging technologies in the blue economy;

Its island location in the tropics as well as environmental conditions are conducive to blue economy activities and make Reunion a hotspot for tropical marine biodiversity (coral reefs, waves, deep-sea environments, megafauna [whale] at the origin of economic activities: fishing, aquaculture, blue tourism, marine energy, marine biodiversity, maritime risk management, etc.);

A lack of investment to continue to modernise the port to remain competitive regionally (e.g. upgrading for blue technologies);

Elevated costs for developing R&D prototypes and investing in new blue economy infrastructure due to the isolated nature of the island;

Stringent environmental regulations limit the capacity of island administration to implement largescale new projects to promote the blue economy (e.g. cruise terminals, port expansion, installing Wind energy & MRE infrastructure in protected waters);

Blue energy

High cost of investment means that the outside investment needed to develop high-value added industries (notably renewable energies) makes Reunion less competitive;

Blue bio economy

Difficult access to financing and start-up capital to invest in SMEs operating in the blue economy;

Cost of labour in blue economy sectors, is higher than surrounding countries (e.g. Madagascar and Mauritius), notably in traditional sectors such as fishing and shipbuilding;

Relative lack of a dynamic industrial and research base vis-à-vis metropolitan France to invest in capital-intensive activities such as laying down new infrastructure or researching new technologies in the upmarket blue economy (e.g. renewable energies);

Small size of universities and research institutions limits capacity to work on R&D fields related to the blue economy;

Opportunities

Coastal Tourism

Further development of sustainable tourism (e.g. eco-tourism);

Potential to develop upmarket recreational activities (e.g. cruise ship activity, sailing, etc.) to increase purchasing power

Threats

Coastal Tourism

Worsening climatic conditions (e.g. cyclones and coastal erosion) could render Reunion less appealing to tourism;

Development of eco-tourism in neighbouring countries (e.g. Seychelles,

stemming from activities related to the blue economy;

Marine living resources

Management of fish stocks and marine overexploitation, along with a large EEZ, present opportunities to develop further sustainable aquaculture and fishing practices (notably compared to surrounding countries that have overfished their fishing resources);

Port activities, shipbuilding & repair

Insufficient and aging maritime infrastructure and rising costs in competing regional markets (e.g. Mauritius) increasing overall business attractiveness of Reunion;

Blue energy

Sources of Wind energy & MRE available to be harnessed (e.g. wave and thermal energy) to increase the energy reliance of the island;

Availability of ERDF, EMFF and other European funds to invest in sustainable blue economy sectors (e.g. upgrade the port infrastructure, Wind energy & MRE);

Blue bio economy

Favourable regulation schemes (e.g. free trade zones) in the Outermost Regions of France to attract businesses to invest in the blue economy;

Potential to export technical know-how in the blue economy to surrounding regions;

Growing R&D base in the blue economy (e.g. Institut Bleu) offers further collaboration between industry and research institutions;

Mauritius) may make Reunion less of a destination given that Reunion is more expensive than surrounding tourist destinations;

The risk of shark attacks can also threaten tourism. However, it should be noted that marine spatial planning can better manage and reduce this risk.

Marine living resources

Over-exploitation of local fish stocks and other marine resources from illegal fishing from actors outside of Reunion's EEZ (increased regional competition of marine resources due to depletion in surrounding countries);

Port activities, shipbuilding & repair

Climate change and intensity of cyclonic activity pose a risk to infrastructure necessary for growing the sustainable blue economy (e.g. ports, aquaculture, etc.) as well as damaging the health of the biodiverse marine environment;

Cost overruns and management problems related to the 'Route du littoral' (an overwater coastal highway) may limit the appetite to invest in large infrastructure projects that would enable the emergence of high-value blue economy sectors (e.g. port infrastructure to accommodate Wind energy & MRE);

Blue energy

Changing climatic conditions, notably driving intensified cyclonic activity and aggravated coastal erosion, could reduce the viability of offshore wind and wave energy as sources of Wind energy & MRE and further drive up costs;

Blue bio economy

High export costs could decrease the competitiveness of high-value added goods made in emerging blue economy sectors;

Lack of blue economy related technical programmes at local universities and technical institutes could undermine the local workforce's capacity to upskill for advance blue economy jobs;

Local economy is very susceptible to fluctuations in the cost of primary goods, which can reduce the appetite of both

	businesses and the public sector for investing in capital-intensive projects for the blue economy;

35. Possible priorities

Workforce training

Reunion has research institutions and extensive partnerships with biopharmaceutical firms and other actors in the blue bio technology/MRE sectors. While the presence of large research institutions supports these partnerships and R&D activities on the island, the broader workforce is not as well trained in these fields and there are just a few academic/training programmes teaching these upskill jobs to the youth population. To ensure that Reunion is able to harness these opportunities and develop a commercially-viable sector, specific blue economy job programmes will need to be created/prioritised.

In addition, it should be noted that the Auteuil Apprentices and the Maritime Apprenticeship School have seen their range of training completed by the creation of a Lycée de la Mer. A project for a Professional Indian Ocean Campus with trades related to the blue economy is also underway. These actions are part of a regional training scheme promoting the mobility, competitiveness and employability of young people outside Réunion.

Ensuring the investment and investment capacity is in place to realise the *Regional plan on climate and energy in Reunion'*

Reunion has a defined MRE strategy in place to ensure that the island realises energy independence and reduces its emissions. While the strategy has been lauded for its investment in the blue economy, the human resources and investment on the ground needs to align with the actions proposed under the plan. While Reunion has made some headway towards renewable energy, the next programming period 2021-2027 will be a make or break period in realising the objectives laid out in the plan. As such, there needs to be considerable thought not only put into the exact projects that need to be realised but also the human resources and investment that has to be in place to ensure those projects come to fruition.

Investment in key enablers of the blue bio-economy

Reunion has steadily increased its reputation as a centre for RD&I around the blue bio economy and is now one of the best-positioned to attract research projects and companies that want to invest in sustainable products using the region's biodiversity. Further investing in projects like the Institut Bleu and other keystone projects for the blue economy that structure the sector should be prioritised to continue leveraging the blue economy ecosystem.

35.1. Saint-Martin

36. State of play

Table 12 - Summary table of the state of play

Work Completed:	Work remaining:
	► Diagnostic study ► SWOT analysis ► Stakeholder consultations ► Writing of the strategy ► Political approval ► Implementation
The SWOT analysis below is based on our literary review, as well as on interviews	

Saint-Martin has not had the opportunity to begin the process of developing its blue economy strategy. The process of developing the strategy has been hampered by a lack of capacity at the local level as priority has been given to recovery after Hurricane Irma in 2017, whose lingering effects still weigh on the island. Saint-Martin recently hosted the Outermost Regions Council of Presidents, which, in talking with local officials, offered the potential to learn more about how other outermost regions are developing their strategies. Given the small population size (32,000) and priorities of the government around recover, the region may need more direct assistance and guidance to do a thorough diagnostic study of its blue economy and then develop its blue economy strategy.

However, the territory benefits from the works conducted by Conseil Ultramarin du Bassin des Antilles (Antilles Marine Basin Council), which has been developing an integrated strategic approach among Martinique, Guadeloupe, St Martin and St Barthelemy.

37. Priorities and challenges

The SWOT has been prepared based on conversations with local officials as well as the study "Realising the potential of the Outermost Regions for sustainable Blue Growth – Annex on Saint-Martin".

Key Takeaways

The economy of Saint-Martin was heavily damaged by Hurricane Irma in 2017, so the main priorities remain rebuilding existing infrastructure;

The island's size and competition with neighbouring Dutch Saint-Maarten limits the capacity of local actors to invest in the blue economy;

Reliance on coastal tourism in sustaining local economic activity, but modernisation of the hotel infrastructure is needed;

Intensifying cyclonic activity poses a severe threat to the long-term sustainability of the blue economy on the island.

Strengths	Weaknesses
Coastal Tourism: Established hotel industry that is the economic lynchpin of the French side of the island; Growing yachting and leisure craft activities; Range of SMEs supporting the coastal tourism industry; **Marine living resources:** Established sector with a number of well-known local actor; **Port activities:** Fairly modern port facilities that directly employs 30 people (important employer for the island). **Shipbuilding and repair:** Existence of four shipyards for light ship repair operations; **Marine transport:** Well-connected ferry system with neighbouring Caribbean islands (Saint-Bartholomew; Anguilla) **Blue energy:** NA **Blue bio economy** ERDF and ESF supporting job training programmes; **Desalination**: Presence of desalination plant for the island (including Dutch Saint-Martin).	**Coastal Tourism:** Major disruption after Hurricane Irma 2017; Need to modernise existing hotel offering for luxury tourism; Lack of docks and other infrastructure to support growing activities; Dutch side has a much larger tourism industry and offering of resorts; Regulation banning gambling concentrates tourism spending in Dutch Sint-Maarten. **Marine living resources:** High share of illegal fishing; Small-scale sector with few actors (approx. 80 fishermen in total); Fishing fleet damaged by Hurricane Irma; No monitoring of fishing stock to ensure sustainable use; There are no ports or landing docks for fishermen to use. **Port activities:** Reliance on one principle port facility for the majority of imports; 3/4 of port activities depend on imports; 99% of cruise passenger traffic is on the Dutch side. **Shipbuilding and repair:** Inconsistent demand for the building of new vessels requires heavy state intervention to keep shipyards open; **Marine transport:** NA **Blue energy:** Not exploited for the moment; Limited space available for developing infrastructure. **Blue bio economy:**

	Overreliance on tourism sector limits SME involvement in new blue economy sectors; Lack of qualified human resources to work in sector; **Desalination**: Aging water/sewerage infrastructure connected to the desalination plant.

Opportunities	Threats
Coastal Tourism: Yachting and other parasailing activities are a growing sector for the island economy; A strategy to develop yachting has been launched and could support the sector; **Marine living resources:** Plans to develop aquaculture using EMFF funding; Replacement of fishing fleet after Hurricane Irma offers an opportunity to modernise and structure the sector; **Port activities:** High-end cruise activity has increased at the port of Marigot; **Shipbuilding and repair:** Increased yachting activity could support repair and other support activities; **Blue energy:** Wind energy and MRE could reduce dependency on fossil fuels and expensive importations; **Blue bio economy** Saint-Martin's involvement in the Ocean Research Alliance could help set up R&D initiatives. **Desalination**: NA	**Coastal Tourism:** Cyclonic activity could continue to degrade existing infrastructure enabling tourism; **Marine living resources:** Overfishing is depleting local stocks; Lack of a cooperation with neighbouring countries could further degrade the quality of marine living resources; **Port activities:** The Dutch side remains the primary port of call for cruises and limits development of the sector on the French side; **Shipbuilding and repair:** Cyclonic activity could decrease winter harbouring of yachts and other vessels; **Blue energy:** Blue energy is not yet a priority and could let the Dutch side of the island advance on the topic leaving the French side depending on outside infrastructure and imports of fossil fuels; **Blue bio economy:** Lack of existing infrastructure and strategies in place risk deterring investment. **Desalination**: Distribution infrastructure could be further damaged by rising waters and severe cyclones;

38. Possible priorities

The identified priorities below have not been formally defined by the authorities in Saint-Martin, as a formal diagnostic study of the blue economy has not been conducted. The priorities below are based on the study team's analysis of the main priorities for Saint-

Martin based on the above SWOT as well as the findings presented in the Realising the potential of the Outermost Regions for sustainable Blue Growth – Annex on Saint-Martin.

Repair and adapting the blue economy infrastructure for resilience

A prerequisite for developing the blue economy is completing the repair and adaptation of the island's existing infrastructure to be more resilient in the face of intensifying hurricanes due to climate change. The island is highly vulnerable to hurricanes, which consumes a great deal of the public authority's capacity. Any blue economy strategy should build in a clear rubric for adapting the island's infrastructure to address hurricanes.

Workforce training

Another priority identified is the upskilling of the local workforce. At present, most of the economic activity and jobs for the while population of Saint-Martin is clustered on the Dutch side of the island where leisure tourism and recreational gambling are concentrated. To further develop the French part of the island, the diversification of skills will be needed to support not only higher-added value industries (ship repair for yachting) but also create support industries for the island's tourism sector. There are currently ERDF/ESF programmes in place to support training; however, in the next programming period, some specific job-training programmes can be developed around blue economy priorities.

Support yachting and leisure craft activities

While tourism may be clustered in Dutch Sint Maarten, the existing marina infrastructure on the French side offers an opportunity to develop an industry around servicing yachts and other small crafts that harbour for winter in the Caribbean. Supporting this industry could help add a high-value added industry to the local economy and help further integrate the economy of both sides of the island so they have compatible industries and are not competing mostly for tourism spending.

39. Annexes

39.1. Interview List

Provided below is a list of interviews conducted for this study. In total 39 interviews have been conducted, with all of the ORs having participated. 6 of these interviews were conducted as scoping interviews (marked in light yellow). 33 have been full interviews conducted with officials from each OR. At the rendering of this report, our team is awaiting three interviews (marked in grey at the end).

Name	OR	Title	Organisation	Date Conducted
Held in Brussels				
José Sánchez Ruano	Canary Islands	Delegate of the Canary Islands in Brussels	Delegación del Gobierno de Canarias en Bruselas	February 4 in Brussels
Alvaro GONZALEZ COSSIO	Canary Islands	Asesor Asuntos de Agricultura y Pesca	Delegación del Gobierno de Canarias en Bruselas	
Timothée TRUELLE	France (Metropole)	Conseiller (politique intérieure et extérieure de la pêche, régions ultrapériphériques, TOM, politique régionale: cadre juridique et financier, point de contact COMAR)	Permanent Representation FR in Brussels	February 4 in Brussels
The Azores				
Filipe MORA PORTEIRO	Azores	Director	Direção Regional dos Assuntos do Mar	February 10
Carla Melo	Azores			
Gilberto MP. CARREIRA	Azores		Direção Regional dos Assuntos do Mar	
Celia AZEVEDO	Azores and Madeira	Directrice régionale des affaires européennes	OR Conference of Presidents	

Luís RODRIGUES	Azores	Director	Direção Regional das Pescas	February 14
Madeira				
Mr. Manuel TARRAGA	OR Madeira and OR Canary Islands	Buggypower	Buggypower	February 7th
Natacha NOGUEIRA	Madeira	Aquaculture & Fisheries		February 17
Mafalda DE FREITAS ARAUJO	Madeira	Regional Director for Marine Affairs		February 17
José Luís Silva FERREIRA	Madeira	Directeur régionale des pêches	SRAP - Secretaria Regional de Agricultura e Pescas	
Manuel ARA GOUVEIA GOMES OLIVEIRA	Madeira	Regional Deputy Director of the Regional Directorate for Spatial Planning and Environment	Direção Regional dos Assuntos Europeus e da Cooperação Externa	
Bernardo MELVILL ARAÚJO	Madeira		Direção Regional dos Assuntos Europeus e da Cooperação Externa	
Canary Islands				
Gonzalo Piernavieja Izquierdo	Canary Islands	R&D&I Coordinator	Technological Institute of the Canary Islands	February 11
Alma Cruz Díez	Canary Islands		Technological Institute of the Canary Islands	
Almudena ESTEVEZ	Canary Islands	Regional Vice-Minister in charge of Economy and Internationalisation of the Government of the Canary Islands	Servicio Canario de Empleo del Gobierno de Canarias	

Vicente MARRERO	Canary Islands	President	Cluster Marino-Marítimo de Canarias	February 19th
Elba BUENO CABRERA	Canary Islands	Manager	Cluster Marino-Marítimo de Canarias	
French Guiana				
Christelle RABORD	French Guiana	Cheffe du service Pêche & Aquaculture	Collectivité Territoriale de Guyane	January 4, 2020
Betty BERTOME	French Guiana	Service Pêche & Aquaculture	Collectivité Territoriale de Guyane	January 23, 2020
Loïc BUZARE	French Guiana	Service Pêche & Aquaculture	Collectivité Territoriale de Guyane	
Alice COLOMBO	French Guiana	Responsable de l'Antenne de Bruxelles de la Collectivité Territoriale de Guyane	OR Conference of Presidents	February 12, 2020
Guadeloupe				
Nicolas DIAZ	Guadeloupe	Head of Blue Strategy and Maritime Activities	Conseil régional de la Guadeloupe	February 18, 2020
Martinique				
Stéphany CROIZET	Martinique		Collectivité de Martinique	March 31, 2020
Maguy MARIE-JEANNE	Martinique	Directrice - Coordination des Affaires Extérieures	Collectivité de Martinique	
VALERIE MARINE-POLETTI	Martinique	Directrice de l'environnement	Collectivité de Martinique	
Valerie Rosine-Belizaire	Martinique	Directrice	Collectivité de Martinique	
Mayotte				
Youssouf DAHALANI	Mayotte	Policy officer for aquaculture	Conseil départemental de Mayotte	January 30, 2020

Jacques TOTO	Mayotte	Directeur des Ports, des transports maritimes et terrestres	Conseil départemental de Mayotte	January 31, 2020
Marie-Josée KARAKE	Mayotte	Chef de projet élaboration stratégie-économie bleue Mayotte	Délégation de Mayotte à La Reunion	February 12
Saint-Martin				
Elie TOUZET	Saint-Martin	Direction du développement rural et de la mer	Collectivité de Saint-Martin	January 31, 2020
Reunion				
Séverine NIRLO	Reunion	DGA Economie-Entreprises	Conseil Régional de La Reunion	February 18
Patrick GUILLAUMIN	Reunion	DGA Europe	Conseil Régional de La Reunion	
Yolaine COSTES	Reunion	Vice-Présidente	Conseil Régional de La Reunion	February 18
Anna SZEGVARI-MAS	Reunion	Chargée de Mission - Ocean Metiss	DIRECTION DES AFFAIRES ECONOMIQUES	February 24
France Metropolitan				
Emmanuel DETTER	France (Metropole)		EURODOM	February 10
Kathleen LAISSY	France (Metropole)		EURODOM	
Maeva BRUNFAUT	France (Metropole)		EURODOM	
Ingrid BUCIA-BEAUSEIGNEUR	France (Metropole)		Ministère de l'Agriculture et de l'Alimentation	
Kévin POVEDA	France (Metropole)	Chef du bureau des politiques agricoles, rurales et maritimes Direction générale des outre-mer	Ministère des Outre-Mer	

39.2. Documentary List

Provided below is a list of documents that have been consulted in the course of this assignment.

Region(s)	Document Name	Type of Document/ Publishing Organisation	Publication Date
Documents prepared at MS or OR-level:			
Réunion	*Economie Bleue - Etude relative à la définition d'un projet stratégique global pour le pôle mer de la Réunion (PMR) à la Réunion et dans le bassin maritime de l'océan indien et à une proposition de gouvernance pour le PMR* EN: Blue Economy - Study relating to the definition of a global strategic project for the Reunion sea pole (PMR) in Reunion and in the Indian Ocean maritime basin and to a governance proposal for the PMR	Report ; Conseil Regional de la Réunion	6 February 2018
Canary Islands	BLUE ECONOMY IN THE CANARY ISLANDS: an OPPORTUNITY	Presentation ; Gobierno de Canarias	
French ORs	The blue economy in Overseas France: challenges for the future	Banque de France	March 2019
French ORs	National Strategy for the Sea and Coast (http://www.geolittoral.developpement-durable.gouv.fr/IMG/pdf/17094_strategie-nationale-pour-la-mer-et-le-littoral_en_fev2017.pdf)	French Ministry for an Ecological and Solidarity Transition	February 2017
Mayotte	REUNIONS TECHNIQUES DES 1ER ET 2 AVRIL 2019 : Equipe projet/Economie bleue CD Mayotte/DGS	Department de Mayotte	April 2019
Mayotte	Cahier de charge : ASSISTANCE POUR LA REALISATION DU DOCUMENT STRATEGIQUE ECONOMIE BLEUE POUR LE DEPARTEMENT DE MAYOTTE	Department de Mayotte	2019
Mayotte	Réalisation du diagnostic territorial stratégique de Mayotte préalable à la définition et la rédaction des futurs programmes européens 2014-2020	Préfecture de Mayotte	2012

Mayotte	*L'économie bleue à Mayotte : de nombreux défis pour un secteur à structurer* EN: The blue economy in Mayotte: Many challenges in a sector to structure https://www.iedom.fr/mayotte/publications/etudes-thematiques/article/l-economie-bleue-a-mayotte-de-nombreux-defis-pour-un-secteur-a-structurer	Note; IEDOM	December 2017
Mayotte	Profile d'écosystème Océan Indien Mayotte https://uicn.fr/wp-content/uploads/2017/06/best-pe_mayotte.pdf	UICN France	2016
Mayotte	Contrat de Plan Etat-Région CPER 2015-2020	Department of Mayotte	2015
Mayotte	Élaboration du Schéma d'Aménagement Régional de Mayotte, projet de territoire et de développement	Department of Mayotte	2018
Mayotte	Lettre de mission économie bleue	Department of Mayotte	2018
Mayotte	MAYOTTE 2025 UNE AMBITION POUR LA REPUBLIQUE http://www.mayotte.gouv.fr/content/download/5164/43644/file/Mayotte%202025%20Une%20ambition%20pour%20la%20R%C3%A9publique%20-%20document%20strat%C3%A9gique.pdf	Department of Mayotte/DGOM	2015
Documents prepared at EU-level :			
Canary Islands	*Exploración del potencial de las regiones ultraperiféricas para lograr un crecimiento azul sostenible* EN: Exploring the potential of the outermost regions to achieve sustainable Blue Growth https://www.research.ulpgc.es/sites/default/files/exploracion_potencial_rup_lograr_crecimiento_azul_sostenible.pdf	Report; EASME	September 2017
All	The EU Blue Economy Report 2019	Report; DG MARE	2019
Guadeloupe	Annex 1 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Martinique	Annex 2 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017

Saint-Martin	Annex 3 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
French Guiana	Annex 4 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Mayotte	Annex 5 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Reunion	Annex 6 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Azores	Annex 7 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Madeira	Annex 8 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Canary Islands	Annex 9 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Saint-Martin Guadeloupe Martinique French Guiana	Annex 10 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Mayotte Reunion	Annex 11 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
Canary Islands Azores Madeira	Annex 12 – Realising the potential of the Outermost Regions for sustainable blue growth	Report; EASME	September 2017
All	Summary of the Outermost Regions Forum for Maritime Affairs and Fisheries	MARE	July 2019
All	Summary of the First Meeting of the Outermost Regions' Maritime Affairs and Fisheries Forum	MARE	June 2018
All	European Commission's Communication of 24 October 2017 COM (2017) 623 final, "A Stronger and Renewed Strategic partnership with the EU's Outermost Regions"	EU	24 October 2017
All	Smart Specialisation Strategies (S3)	MS	
Mayotte	REUNIONS TECHNIQUES DES 1ER ET 2 AVRIL 2019 : Equipe projet/Economie bleue CD Mayotte/DGS	Départemen t de Mayotte	April 2019
Documents prepared by other sources:			

All	The Potential of the Blue Economy - Increasing Long-term Benefits of the Sustainable Use of Marine Resources for SIDS and Coastal Least Developed Countries	Report; UN and World Bank Group	2017
All	Rethinking Innovation for a Sustainable Ocean Economy	Policy Note: OECD	2019
Réunion	Fiche Juridique/rapports– Océan Métiss	Océan Métiss	
Caribbean ORs	Financing the Blue Economy	The Caribbean Development Bank	2018

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