

This communication is a contribution to the PADDLE project, which has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement No 734271.

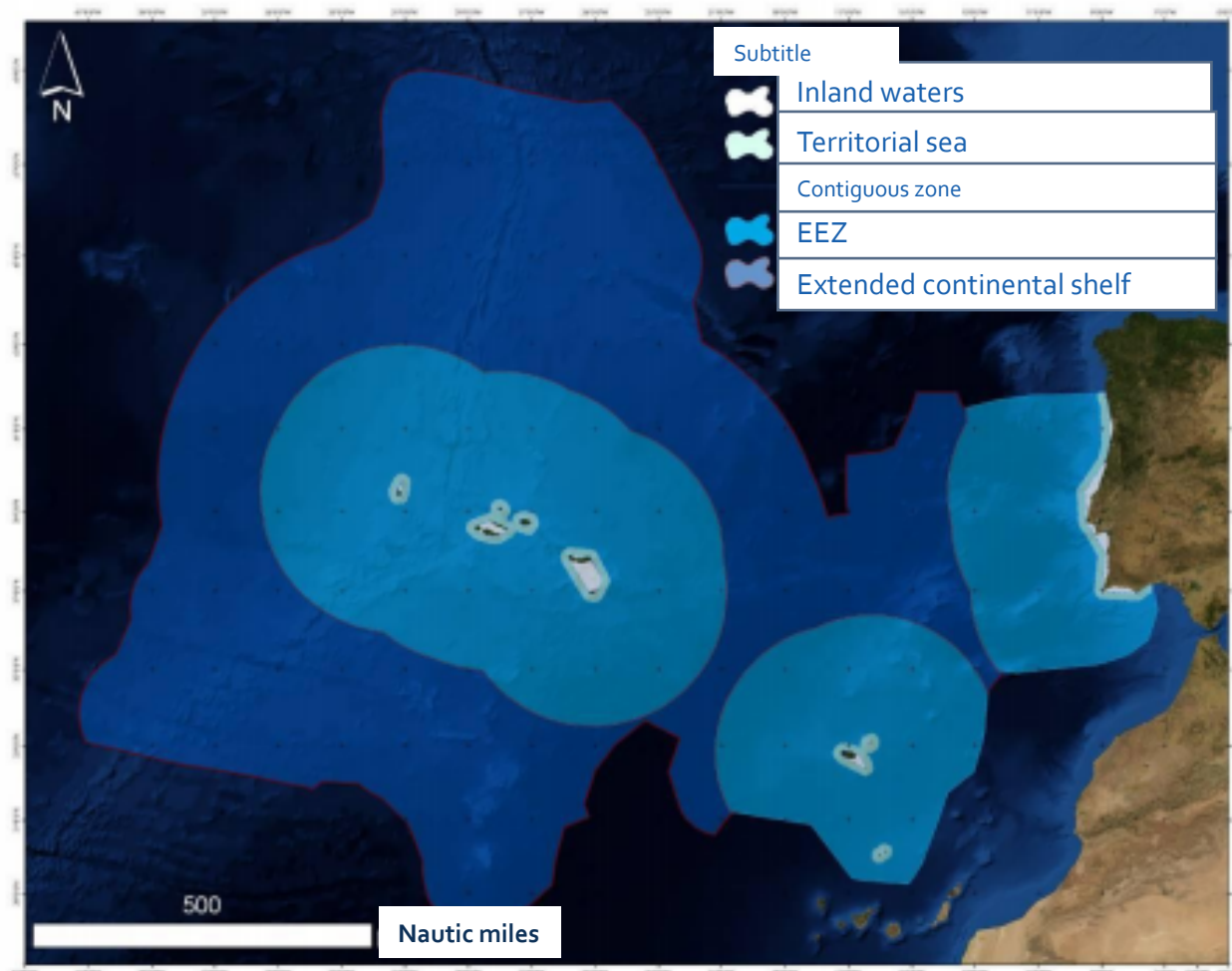




National Territory:

From 1,700,000 Km²
To
4 000 000 Km²

Maritime Space superior to Terrestrial Space: 18 times the country size.
With the **extension of the continental shelf**, it will be 40 times bigger than the country size.
97% of national territory will be the sea.



11% of EU EEZ 11th biggest EEZ in the world.

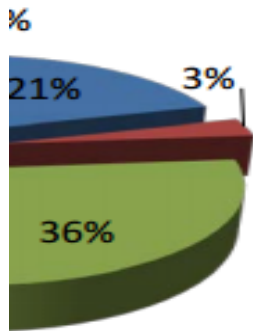


BLUE ECONOMY IN PORTUGAL



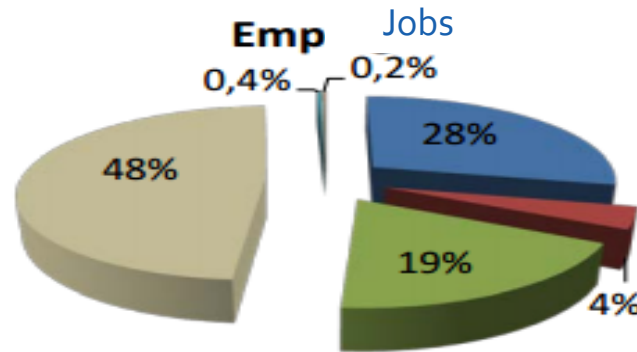
estrutura do V... The GNP and use of the uses and activities of blue economy in Portugal, 2010

GNP



INDÚSTRIA DO
LAVAIAS
PORTOS E

Fishery, Aquaculture and Fish industry
shipbuilding and repair
maritime transport, ports and logistics
Tourism and leisure
Coastal defense



■ PESCA, AQUICUL...
■ CONSTRUÇÃO E...
■ TRANSPORTES M...
■ TURISMO E LAZE...
■ OBRAS DE DEFES...

Fishery, Aquaculture and Fish industry
shipbuilding and repair
maritime transport, ports and logistics
Tourism and leisure
Coastal defense

Source: National Sea Strategy 2013-2020

100,000 jobs in 2018
2030 target: 160,000 jobs
5% GNP

GAV ≈ 2,6 Billion €

	Blue Economy Weight %			
	1995	2010	2020	2020
VABpcorr Econ. Mar / VABpcorr Economia	2,1	2,5		
VABpcorr Econ. Mar / PIBpcorr			2,9	3,8

Fonte: DGPM, com base em INE (2012), Contas Nacionais Anuais

Estimate for 2109 ≈ 3%

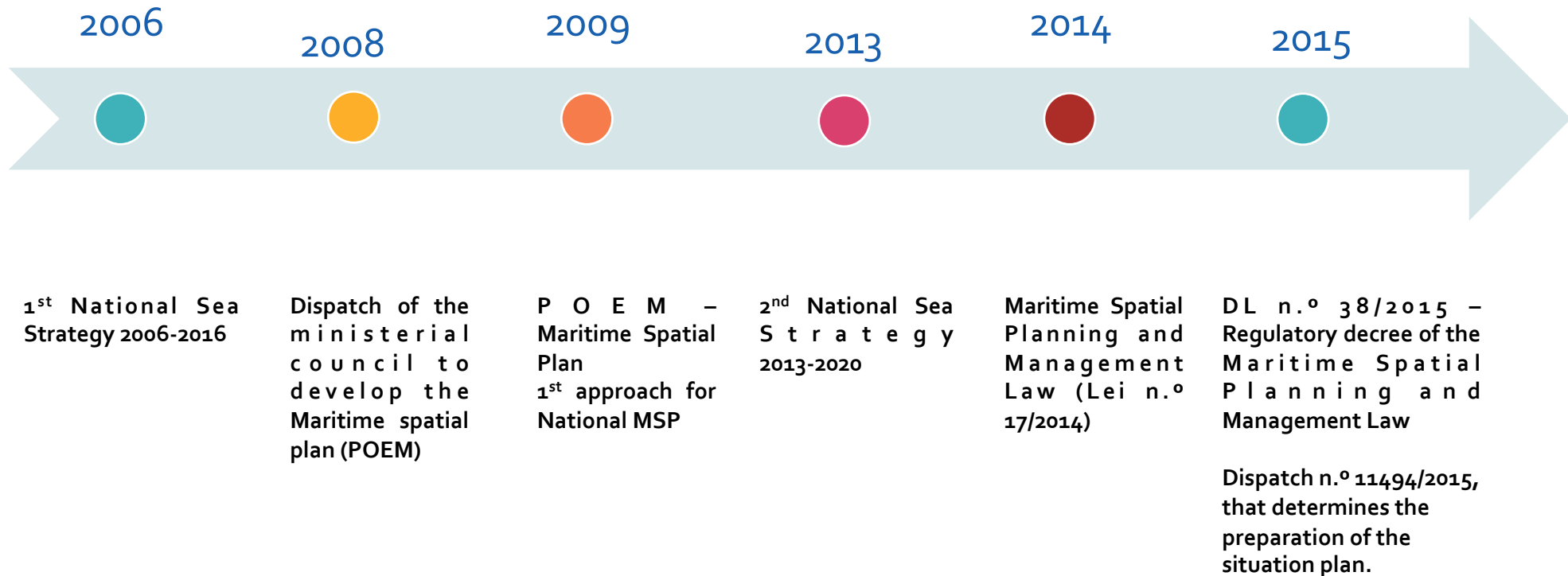


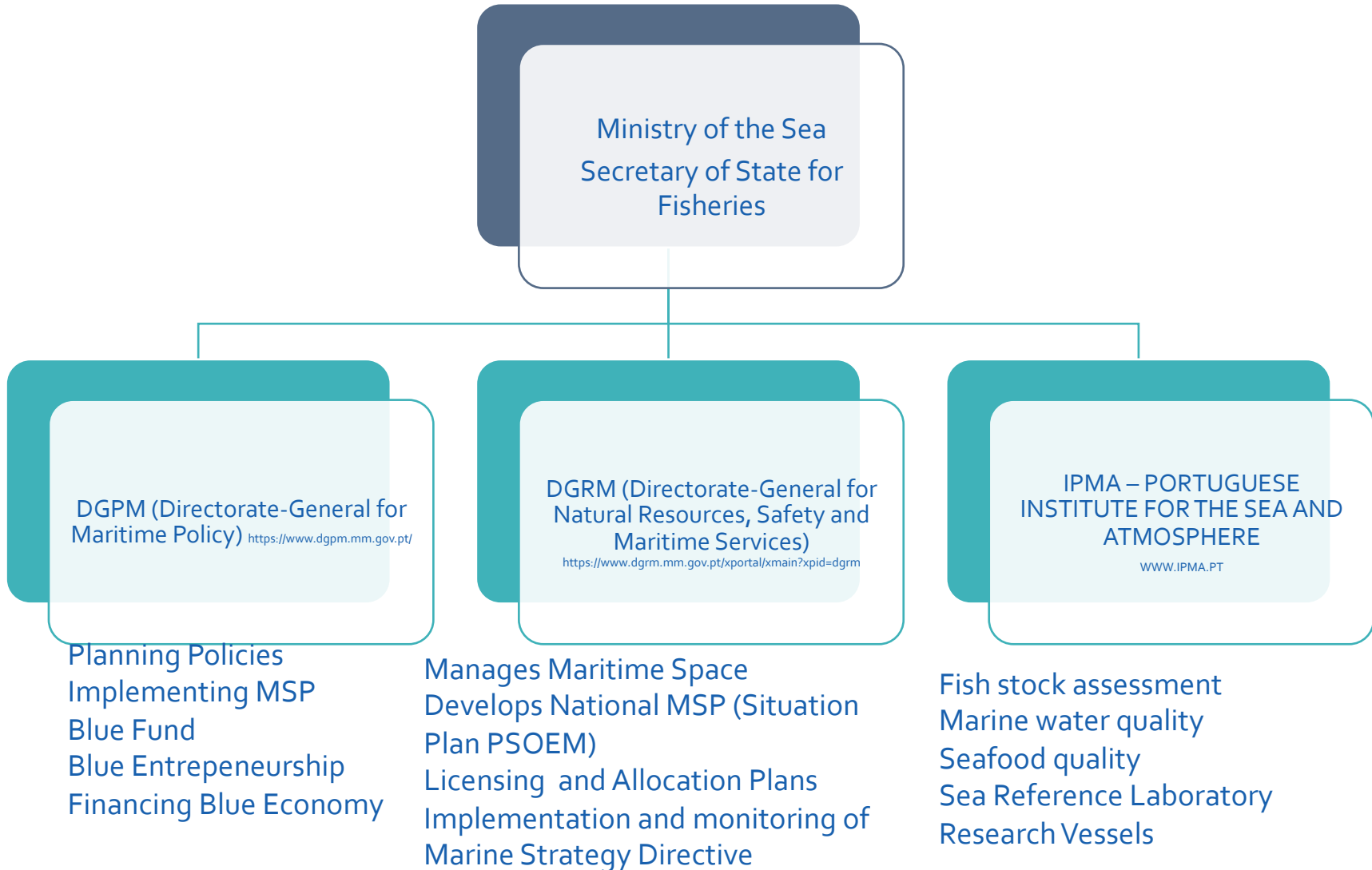


POLITICAL, LEGAL AND INSTITUTIONAL FRAMEWORKS



National Maritime Policies





MARITIME SPATIAL PLANNING

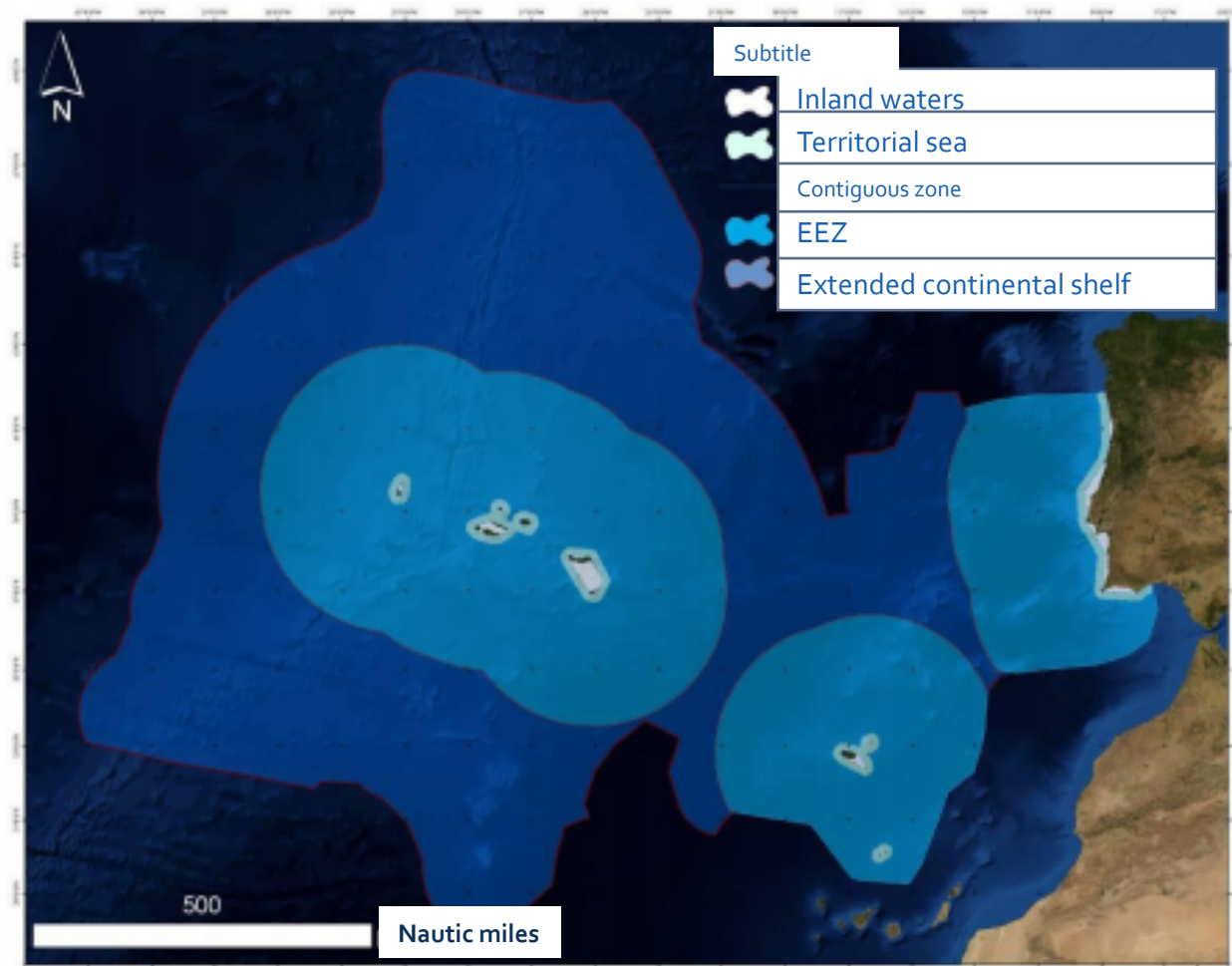
Portuguese Legal Framework

Law for Planning and Management of the National Maritime Space (Marine Act) Lei de Bases do Ordenamento e Gestão do Espaço Marítimo Nacional (Lei n.º 17/2014, de Abril) – LBOGEM)

Regulatory Decree 38/2015

Decreto regulamentar n.º 38/2015

This Law- Decree transposes Directive 2014/89 / EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for the planning of maritime space.



Promote a sustainable, rational, and efficient economic exploitation of marine resources and their ecosystem services

Ensure the compatibility and sustainability of the various uses and activities of the marine environment

Preserve, protect and restore the natural values of coastal and marine ecosystems and achieve and maintain a good environmental status in the marine environment

Risk prevention and minimization of effects arising from natural disasters, climate change or human action.

Prevent or minimize possible conflicts between uses and activities in the national maritime space.

- The system of elaboration, approval, amendment, revision and suspension of the instruments of national maritime spatial planning
- The legal regime applicable to titles of private exclusive use of the national maritime space
- the economic and financial regime associated with the private use of the national maritime space
- The system of monitoring and technical evaluation of the planning of the national maritime space
- The system of private use of water resources in transitional waters for aquaculture purposes

THE INSTRUMENTS FOR SPATIAL PLANNING AND MANAGEMENT OF MARITIME SPACE: SITUATION PLAN AND ALLOCATION PLAN

Situation Plan

- The situation plan represents and identifies the spatial and temporal distribution of existing and potential uses and activities, and also identifies natural and cultural values of strategic importance for environmental sustainability and intergenerational solidarity, in accordance with the provisions of the following article.

Allocation Plan

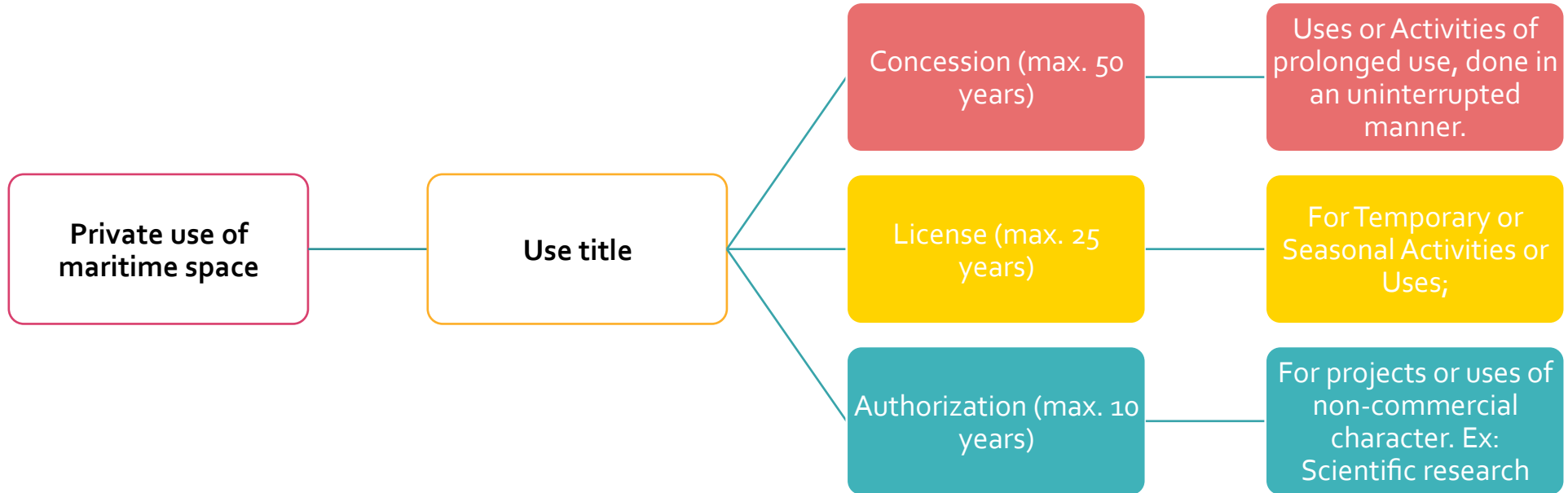
- The allocation plans affect the areas or volumes of the national maritime space to uses and activities not identified in the situation plan, establishing, when applicable, the respective parameters of use. The plans of affectation, once approved, are integrated into the situation plan, which is automatically changed.

SITUATION PLAN - PSOEM

Situation Plan Documents

- Geospatial representation of the spatial and temporal distribution of existing values, uses and activities;
- Geo-spatial representation of the spatial and temporal distribution of potential values, uses and activities;
- Report of characterization of the area and or volume of incidence;
- Report and environmental statement, according to the legislation applicable to the environmental evaluation of plans and programs.

LICENSING REGIME – ARTICLE NO 17 (MSP ACT)

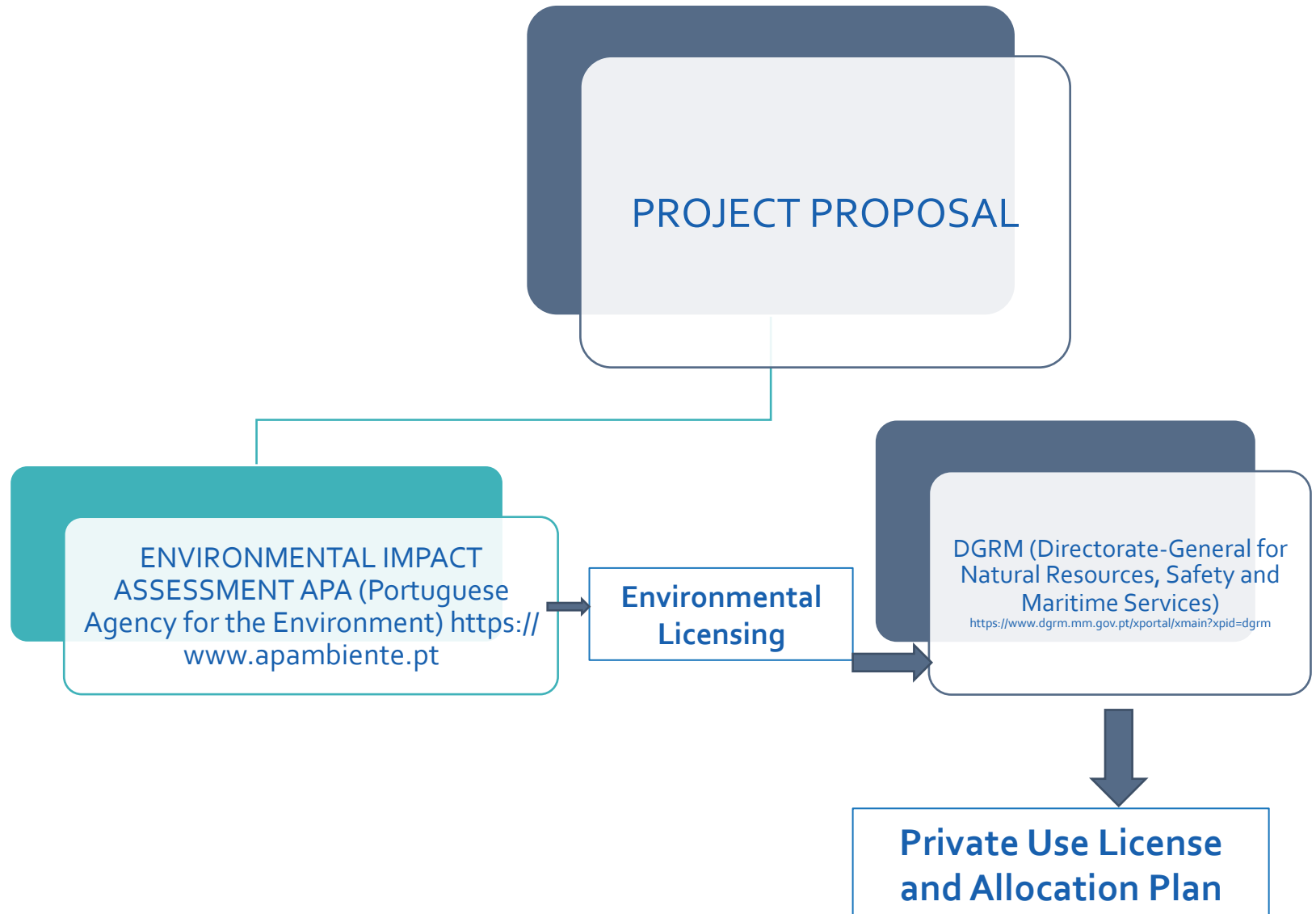


€ TUEM – Maritime Space User Fee

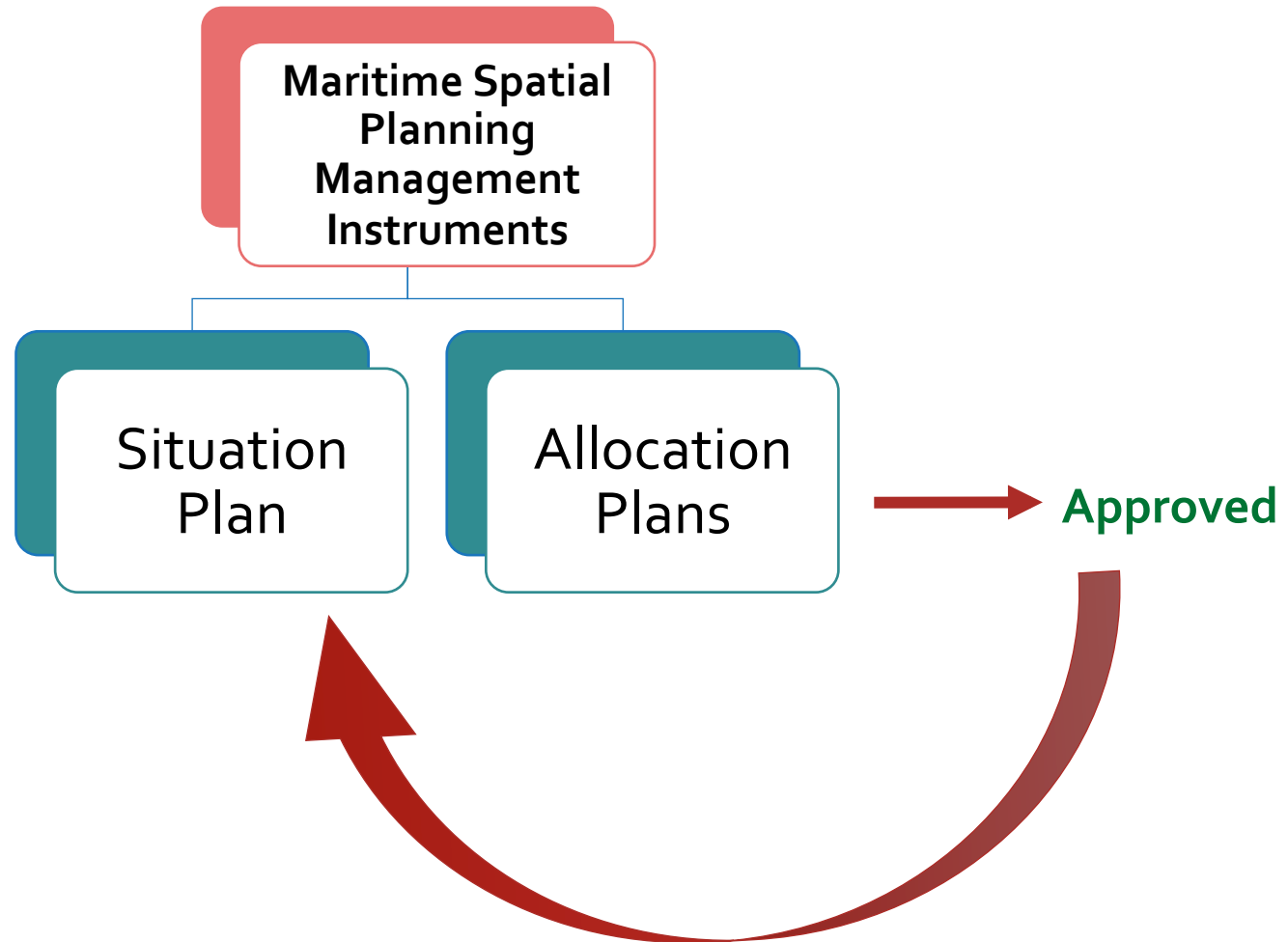
Applied to all uses and activities of the Maritime Space, with the exception of uses under an authorization and the use of maritime space for the development and use of geological and energy resources - Article 76, DL No. 38 /2015



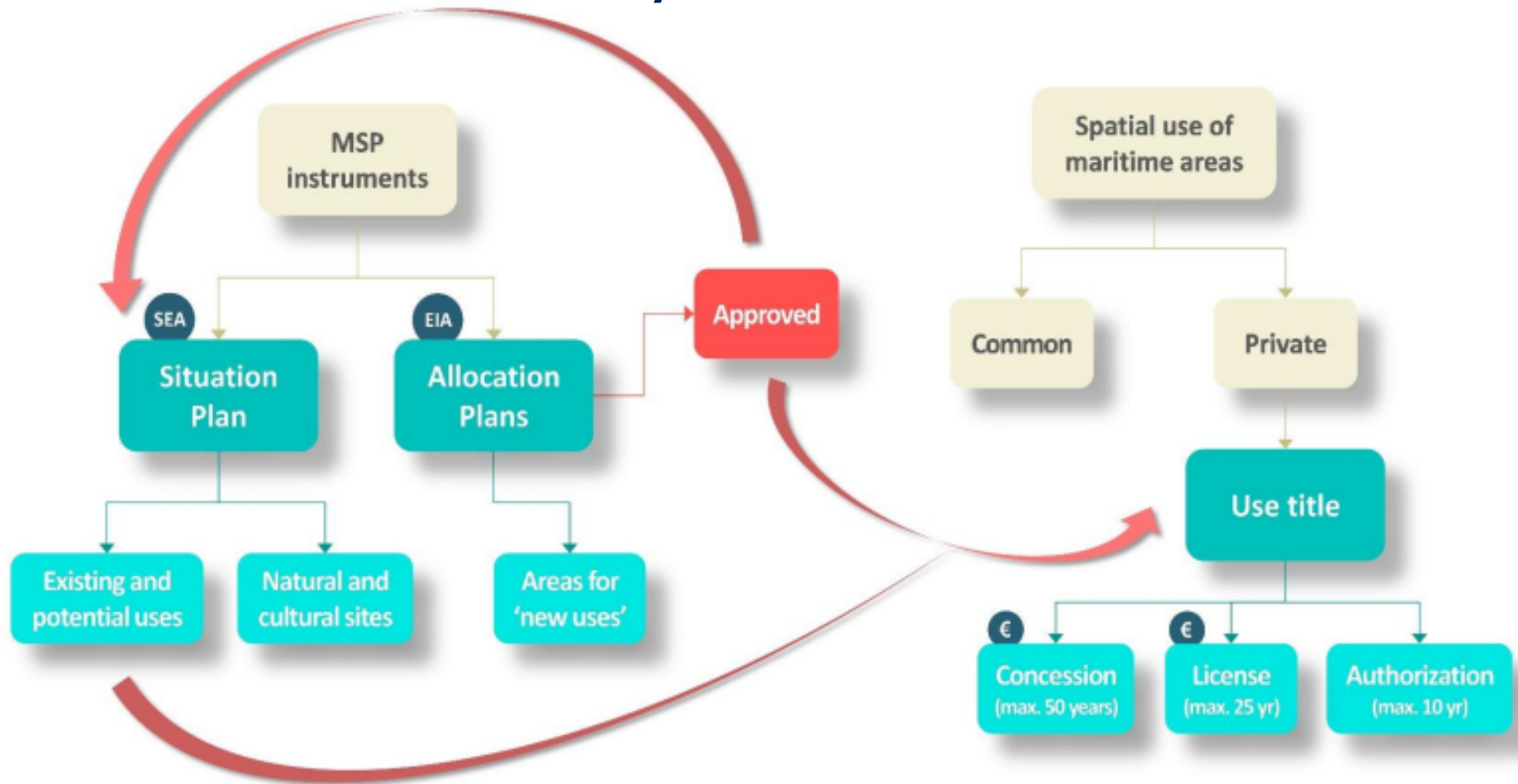
LICENSING MECHANISM



MSP Management Instruments Dynamics

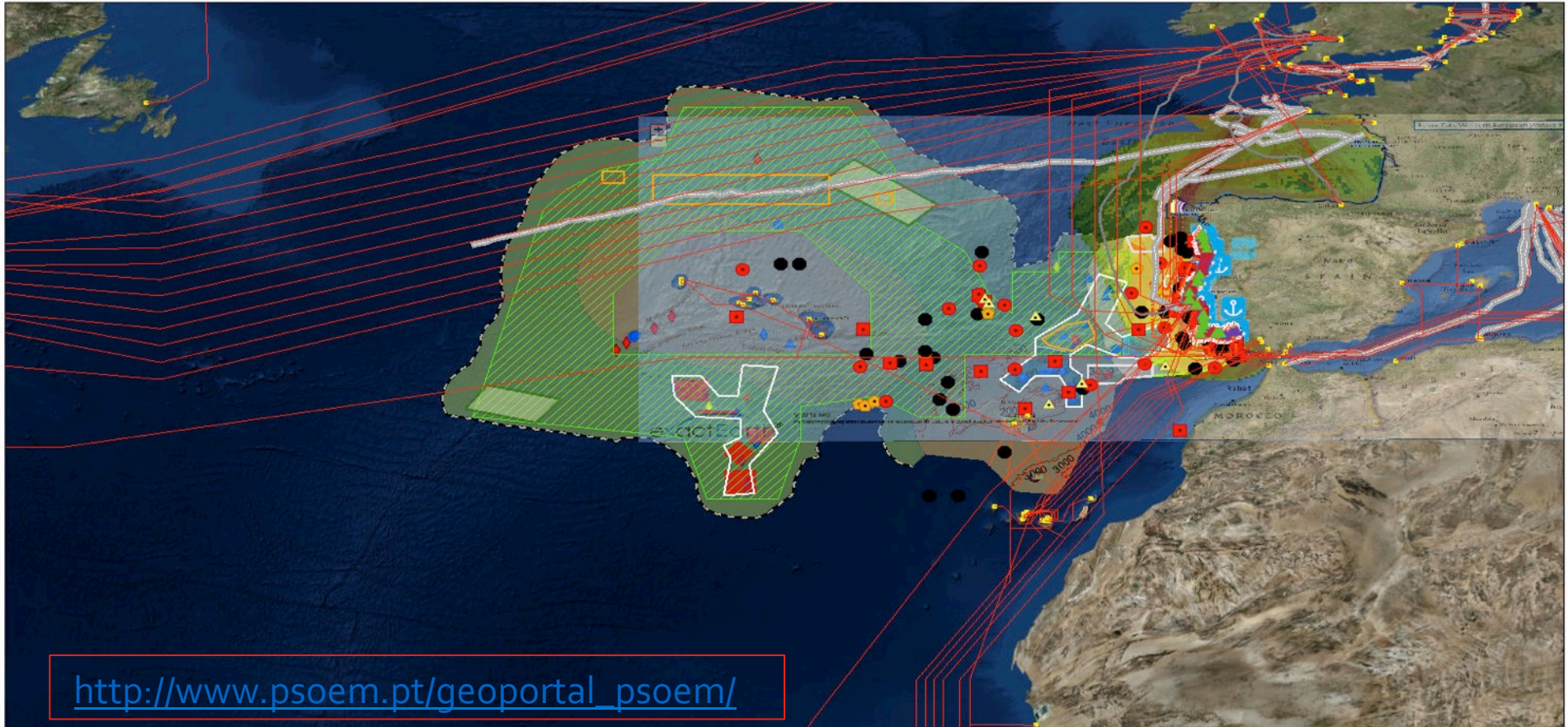


2019 Maritime Spatial Planning & Licensing Management Dynamics





PSOEM - Plano de Situação Ordenamento do Espaço Marítimo

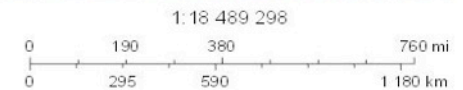


http://www.psoem.pt/geoportal_psoem/

22/01/2019, 19:25:30

- | | |
|---|--------------------------------------|
| OBRAS DE DEFESA COSTEIRA (Fonte: APA, 2001) | ▲ Paredão |
| ▲ Boca de esgoto | ▲ Quebra-mar |
| ▲ Defesa Frontal | ■ Proteção Total |
| ▲ Duna Artificial | ■ Proteção Parcial |
| ▲ Emissário submarino | ■ Proteção Parcial Tipo I |
| ▲ Esporão | ■ Proteção Parcial Tipo II |
| ▲ Molhe | ■ Proteção Complementar |
| ▲ Muralha | ■ Área não Abrangida |
| | — SIG Cables Submarine Cables Routes |
- POAP Regimes de Proteção do PSOEM

Sub Regions: Continent, Madeira Archipelag, Extended Continental Shelf
Lacking: Azores Archipelag foreseen by the end 2019



DGRM/DSAS: DGRM/DSAS; Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEI, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; DGRM/DSAS/DMA: 1

PORTUGUESE SITUATION PLAN FOR THE NATIONAL MARITIME SPACE

PSOEM - Plano de Situação Ordenamento do Espaço Marítimo

Nature Conservation MPA's, Nature 2000 and OSPAR MPA's Foreseen 14% Maritime Space



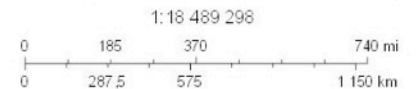
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- Proteção Total
 - Proteção Parcial
 - Proteção Parcial Tipo I
 - Proteção Parcial Tipo II
 - Proteção Complementar
 - Área não Abrangida
 - AMP Avencas
 - AMP Cabo de São Vicente
- POAP Regimes de Proteção do POEM

- AMP Cabo Espichel
- AMP Canhão Submarino da Nazaré
- AMP Madeira Tore
- AMP Great Meteor
- AMP Altair

- AMP Antaltair
- AMP MARNIA
- AMP Josephine
- AMP Vulções de Lama (Fonte: GT AMP)
- AMP_Banco_de_Vigo_e_Banco_Vasco_da_Gama (Fonte: GT AMP)

- AMP_Ampere_Coral_Patch (Fonte: GT AMP)
- Kings Trough
- Fractura Hayes
- Rede Nacional de Áreas Protegidas POEM
- Sítios de Importância Comunitária POEM
- Zonas de Proteção Especial POEM

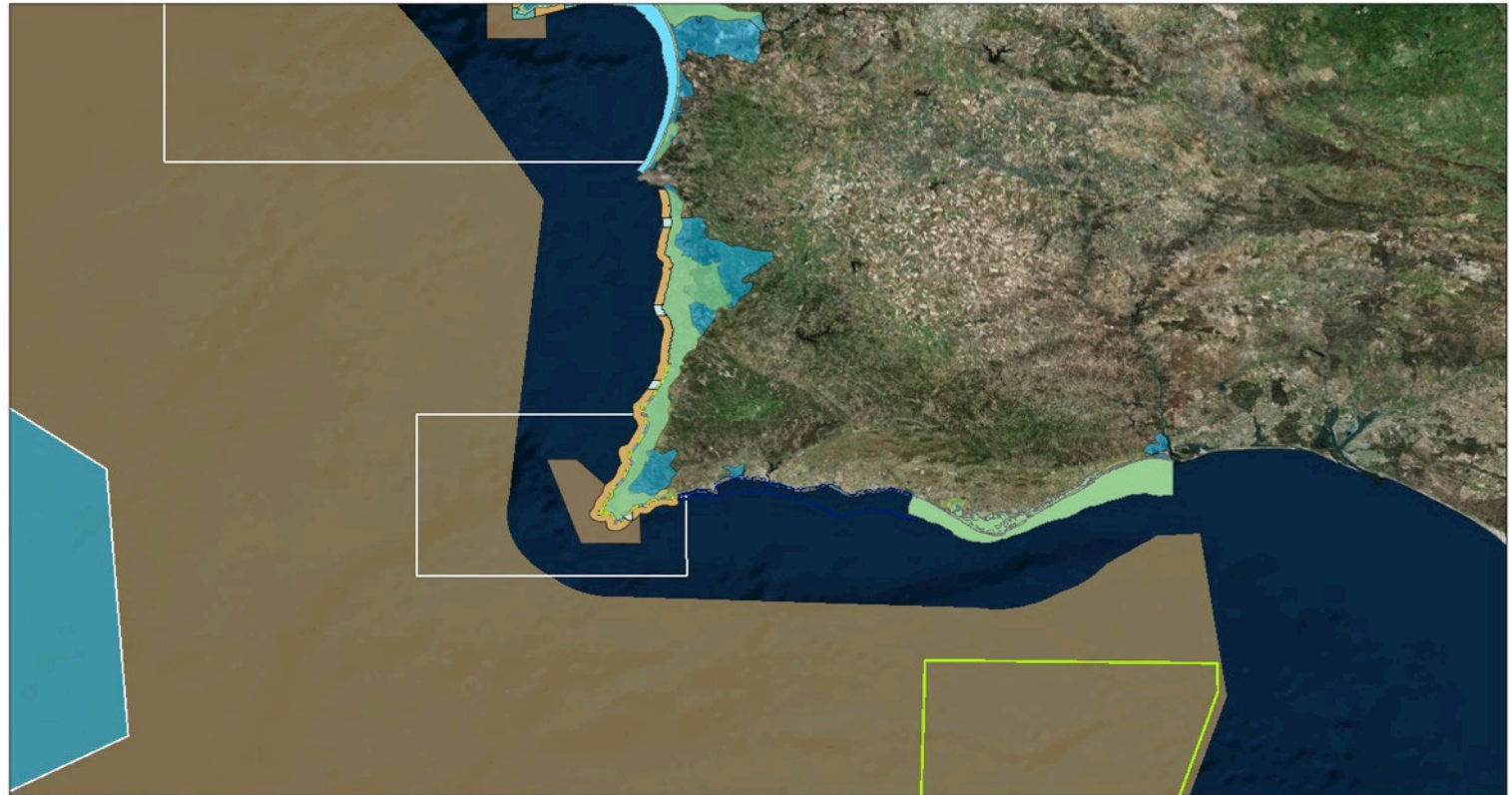


DGRM.DSAS; Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEI, Getmapping, Aerogrid, IGN, IGP, svrstopo, and the GIS User Community

PORTUGUESE SITUATION PLAN FOR THE NATIONAL MARITIME SPACE

PSOEM - Plano de Situação Ordenamento do Espaço Marítimo

Nature Conservation (Close up – SW of Portugal). A Coastal MPA 110 km long Natural Park of the SW and Vicentina Coast (Algarve)



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Plano de Ordenamento da Orla Costeira

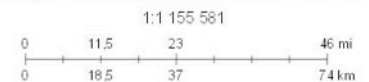
- Área de intervenção do POOC
- Unidades Operativas de Planeamento e Gestão
- PMOT eficazes
- Praias marinhas
- Zona marítima de proteção

- Áreas ameaçadas pelo mar
- Áreas de Proteção Total (PNSACV)
- Áreas naturais
- Limite da Zona de Interesse Biológico das Avenidas
- Zona de jurisdição portuária

- Zona de Risco
- Barreira de Proteção
- Espaço de Preservação Paisagística
- Espaço de Apoio à Praia
- Intervenções de Defesa Costeira

- Espaços industriais
- Áreas Urbanas e Urbanizáveis
- Espaços urbanizáveis
- Espaços urbanos
- Espaços edificados

- Espaços turísticos



DGRM/DAS; Agência Portuguesa do Ambiente; Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User community

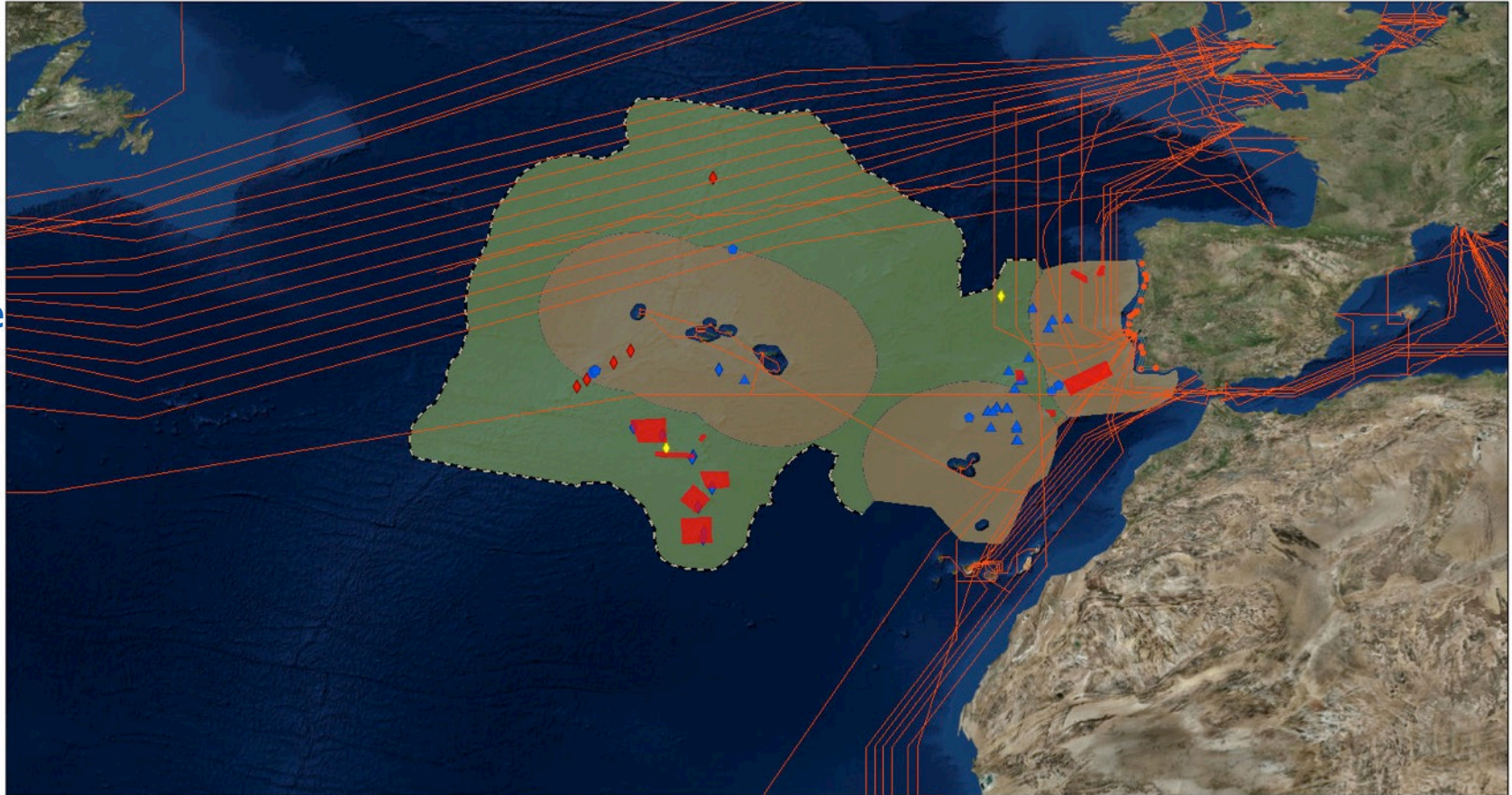
Ministério do Mar
DGRM - Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos



PORTUGUESE SITUATION PLAN FOR THE NATIONAL MARITIME SPACE

PSOEM - Plano de Situação Ordenamento do Espaço Marítimo

TUPEM – Title for private use of maritime space



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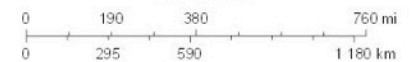
RecursosMineraisMetalicos_ocorrencias_EMEPC_IPMA_JSA_InterRidge

- Crostas de Fe-Mn (Fonte: ISA)
- ▲ Crostas de Fe-Mn (Fonte: IPMA)
- ◆ Crostas de Fe-Mn (Fonte: EMEPC)
- ◆ Nódulos polimetálicos (Fonte: EMEPC/InterRidge)
- ◆ Sulfuretos polimetálicos (Fonte: EMEPC/InterRidge)

- Área potencial para recreio, desporto e turismo
- Área existente de recreio, desporto e turismo
- Plataformas Multiusos potencial
- Áreas potenciais de inserção de dragados
- Áreas existentes de inserção de dragados

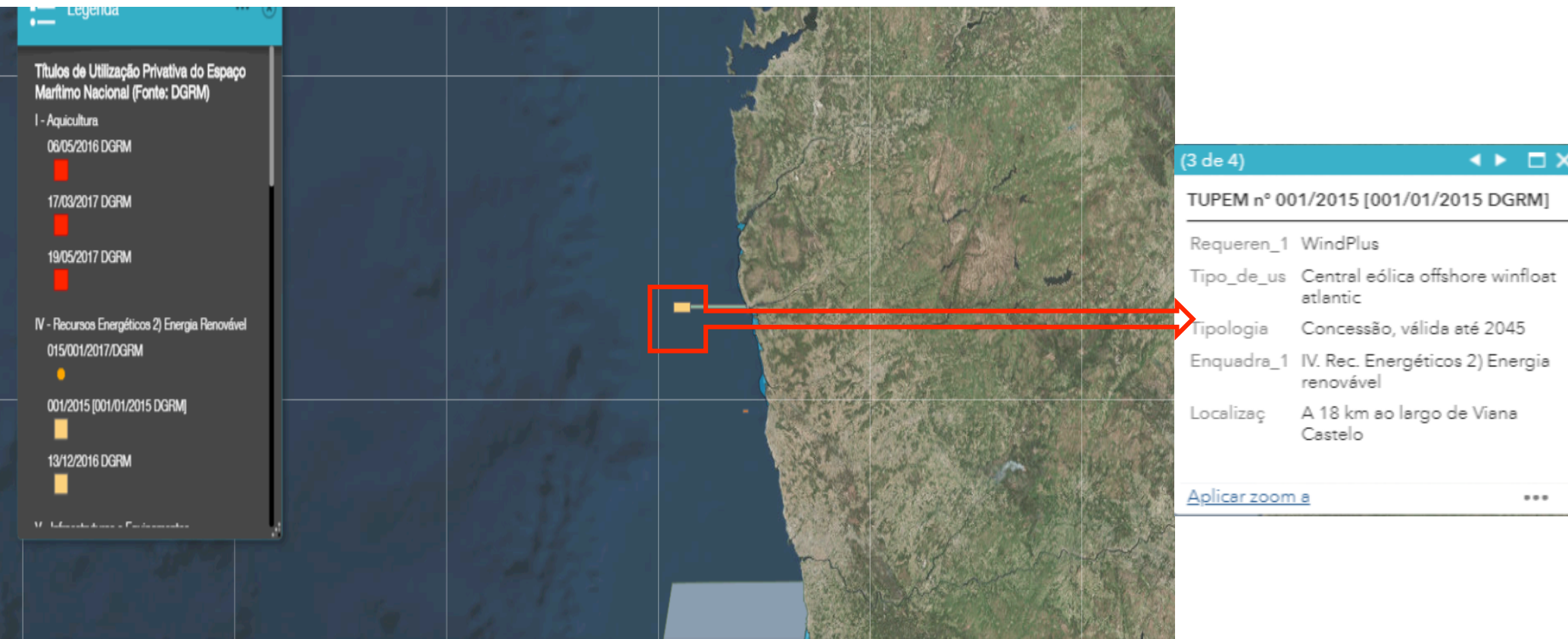
- Áreas potenciais para instalação de energias renováveis
- Áreas existentes de instalação de energias renováveis
- Área existente - pontos de descarga/captação de emissários submarinos (Fonte: APA)
- Área existente de emissário submarino
- Áreas potenciais de complexos recifais

1:18 489 298

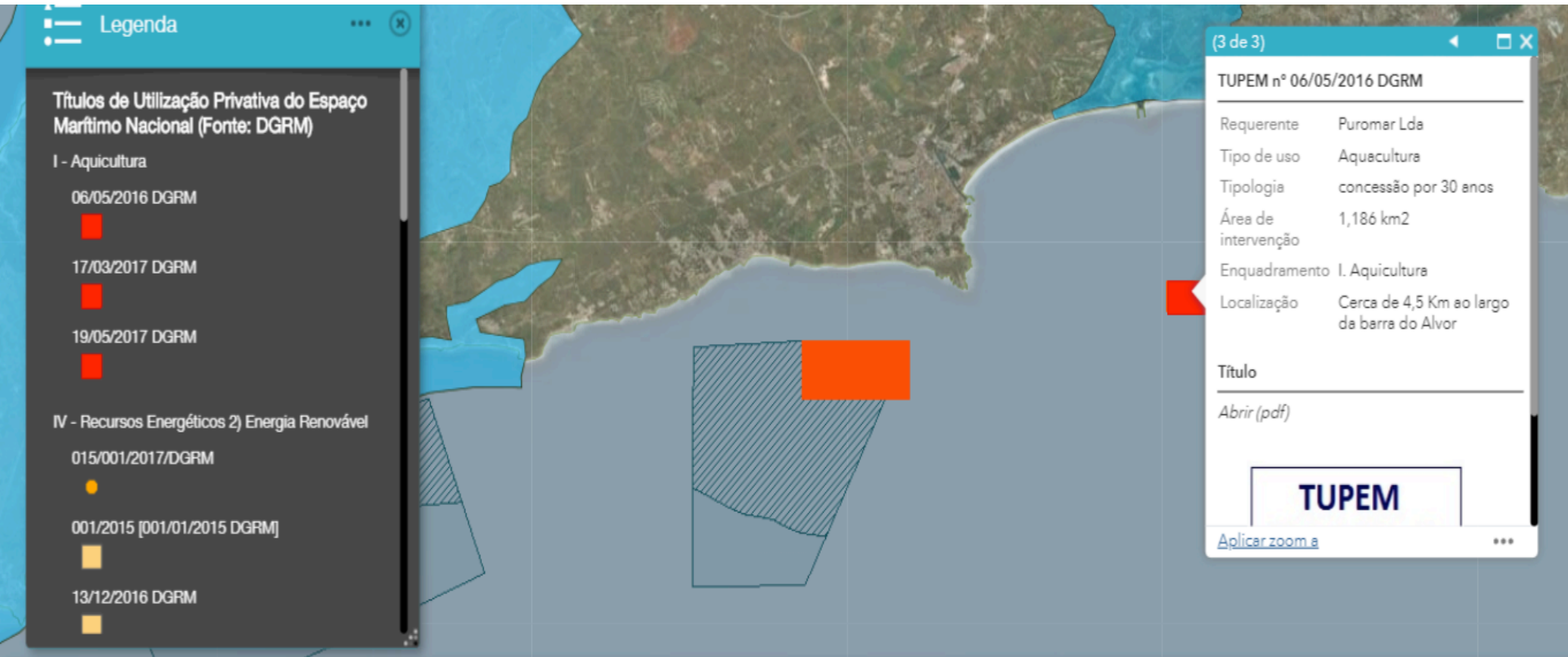


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Offshore Wind Farm



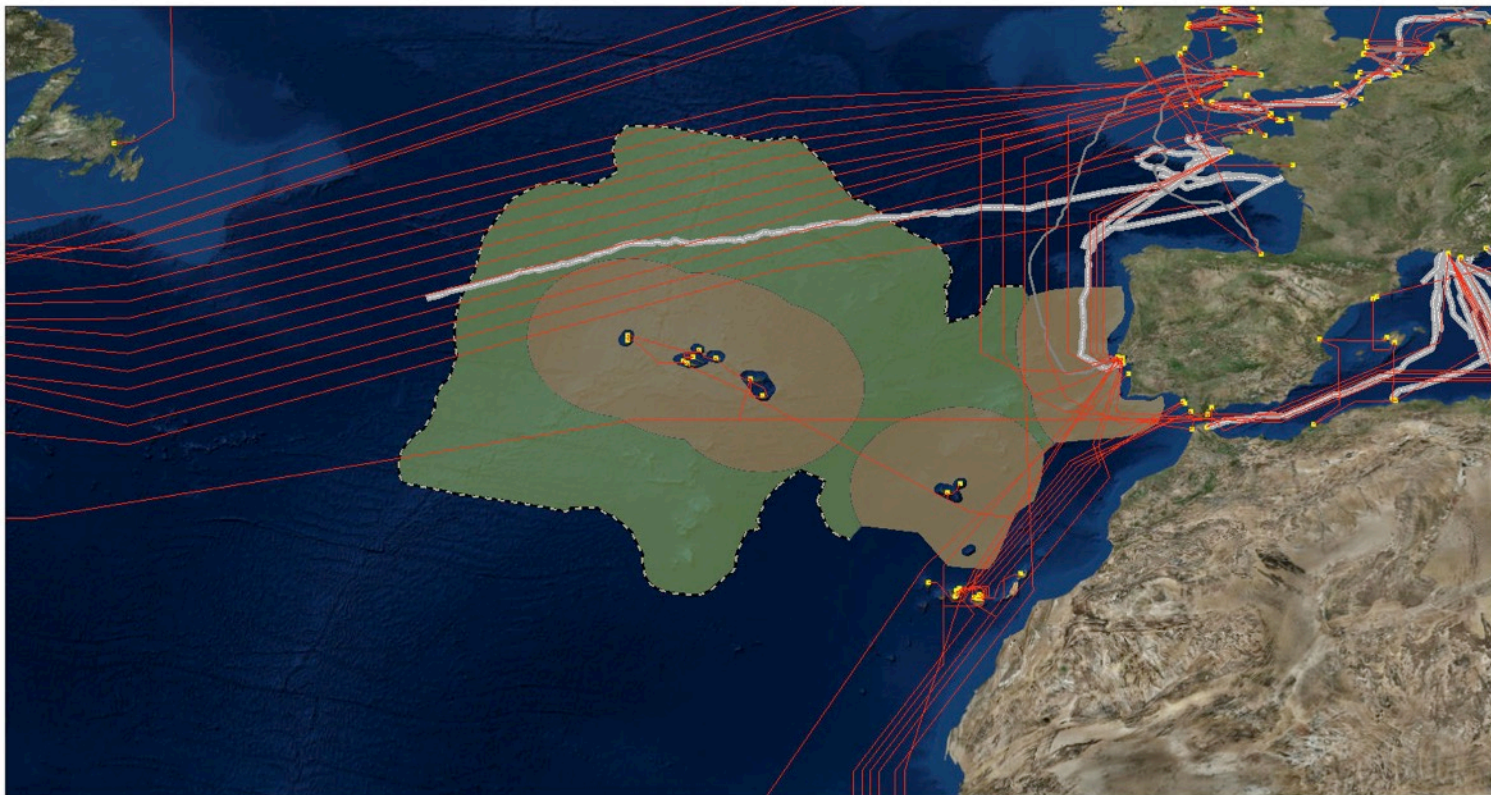
Aquaculture



PORTUGUESE SITUATION PLAN FOR THE NATIONAL MARITIME SPACE

PSOEM - Plano de Situação Ordenamento do Espaço Marítimo

Marine Cables



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- SIGCables Submarine Cables Routes
- Kis Orca Subsea Cables
- Landing Stations
- Telecommunication Cables (schematic routes)
- ZEE Continente
- Limite Exterior Extensão Plataforma Continental (Fonte: BMEPC)
- Plataforma Continental
- ZEE Madeira
- ZEE Açores



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEI, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Ministério do Mar
DGRM - Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos

Portugal is the only country in the world with direct submarine cable connections to all continents except Antarctica.



PORTUGUESE SITUATION PLAN FOR THE NATIONAL MARITIME SPACE

AND THE FUTURE...

The BELLA consortium, funded by the European Commission, has announced that it has approved the construction of a **10,000-kilometer long-range intercontinental fiber-optic submarine cable that will connect Europe directly to Latin America without passing through the USA** and allowing high Internet traffic exchange capabilities for research and education between the two continents. It is called **EllaLink** and connects the land stations of **Sines, in Portugal, and Fortaleza, in Brazil**. Construction begins in the first months of this year and initial data transmission through the new cable is expected by the end of 2020, the cable will allow a data transmission rate of **100 gigabits per second, much higher than the current 10 gigabites per second** .



THE STATE OF THE ART TODAY

PUBLIC CONSULTATION OF THE 2nd VERSION ENDED 31.1.19

All documents at http://www.psoem.pt/discussao_publica-2-2/

Formal Opinion of the National Council for the Environment and Sustainable Development issued the 31st January 2019 and public since **Friday 1st February** on:

https://www.cnads.pt/images/documentos/2019_parecerpsoem.pdf

NEXT STEPS

PONDERATION REPORT OF PUBLIC CONSULTATION

COUNCIL OF MINISTERS APPROVES THE PSOEM BY MEANS OF A RESOLUTION OF THE COUNCIL OF MINISTERS.

ENTER INTO FORCE THE DAY AFTER BEING PUBLISHED AT THE NATIONAL OFFICIAL GAZETTE (probably during March)





THE CHALLENGE OF THE COASTAL ZONE



Article 6

Minimum requirements for maritime spatial planning

1. Member States shall establish procedural steps to contribute to the objectives listed in Article 5, taking into account relevant activities and uses in marine waters.

2. In doing so, Member States shall:
 - (a) take into account land-sea interactions;**
 - (b) take into account environmental, economic and social aspects, as well as safety aspects;**
 - (c) aim to promote coherence between maritime spatial planning and the resulting plan or plans and other processes, such as integrated coastal management or equivalent formal or informal practices;**
 - (d) ensure the involvement of stakeholders** in accordance with Article 9;
 - (e) organise the use of the best available data** in accordance with Article 10;
 - (f) ensure trans-boundary cooperation** between Member States in accordance with Article 11;
 - (g) promote cooperation with third countries** in accordance with Article 12.

2 0 1 9 ARTICULATION – Regulatory decree No 38/2015, Article No 5

3 - The instruments of MSP have to ensure the articulation of the preexisting mandatory instruments of land use planning (plans and programs) with an impact on the area to which they respect, in order to ensure the necessary articulation and compatibility, expressly identifying the incompatible standards of the preexisting territorial programs and plans, which must be repealed or amended.



In case of conflict maritime plans can prevail over the territorial plans affecting coastal zones taking into account economic value and jobs created, particularly beyond -30m

PORTUGUESE COASTAL ZONE

- Where occur some of the most important economic activities: Coastal zone generates around 85% of National PNB.
- 76% of the Portuguese population lives in coastal areas (about 7,6 million people, since the global population in Portugal is around 10 million).

Instruments of Territorial Management with greater incidence in costal zones:

Special Territorial Planning Programs (PEOT):

- Coastal Zone Spatial Management Plan (POOC)
- Protected Areas Spatial Management Plan (POAP)

2019
Legislation

Law of the Public Policy of Soils, Spatial Planning and Urban Planning

Lei de Bases Gerais da Política Pública de Solos, Ordenamento do Território e Urbanismo (Lei n.º 31/2014, de Maio), replaced the previous Law 48/98.

Nevertheless, the previous instruments for coastal and marine protected areas and management are still in force, at least until 2020.

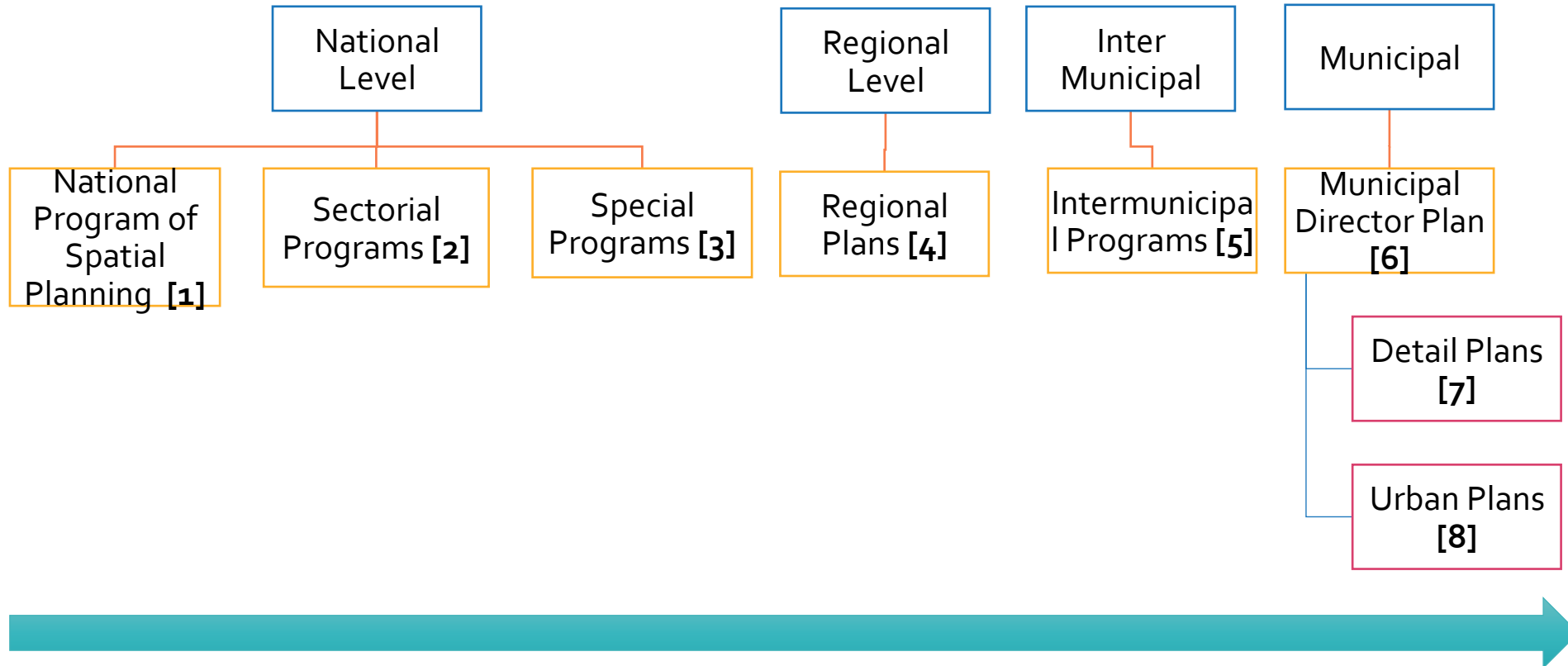
These instruments are mainly: Coastal Zone Spatial Management Plans (Planos de Ordenamento da Orla Costeira . POOC); Spatial Management Protected Areas Plans (Planos de Ordenamento de Áreas Protegidas- POAP) and Marine Protected Areas. Both plans range the bathymetric of 30 meters. Coastal Protected Areas in Madeira and Azores can reach the bathymetric of 50m or even 100m.

The regulations of these plans are mandatory for public administration as well for private companies and citizens. They also prevail over any other plan, as they are considered “Special Plans” under the Law 48/98.



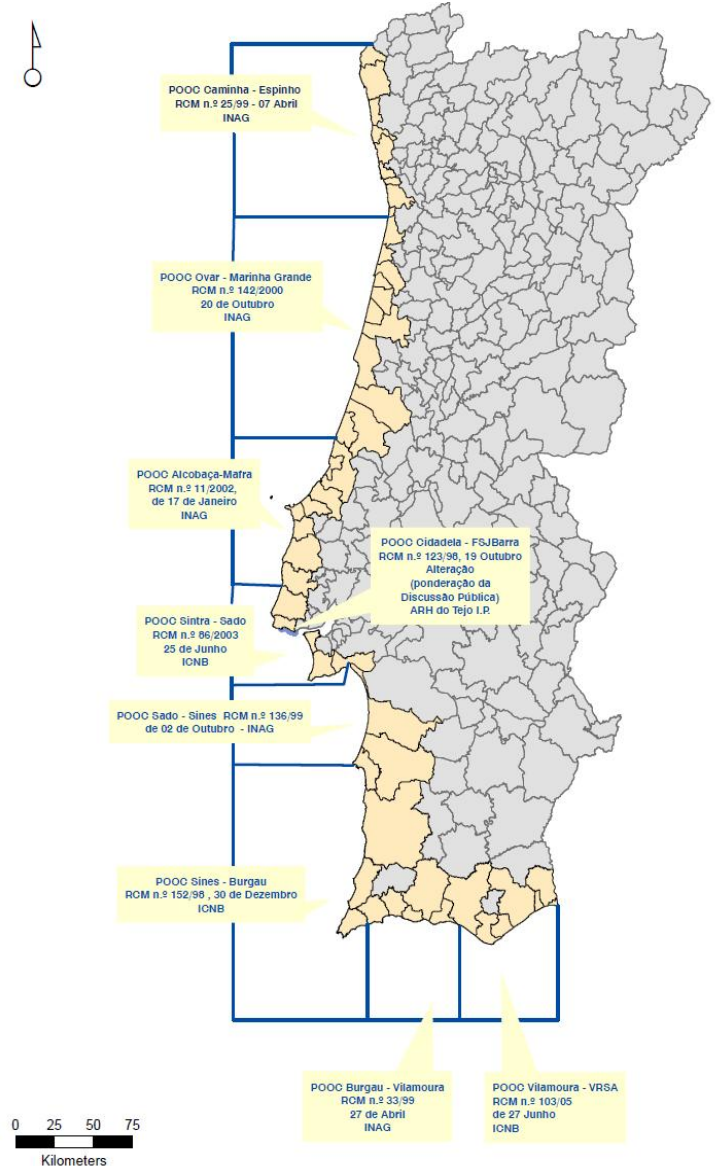
“Terrestrial” Territorial Management System

Law n.º 31/2014



POOC – COASTAL ZONE SPATIAL MANAGEMENT PLANS

- The spatial management instruments aim to support Integrated Coastal Zone Management (ICZM) and prevail above any other land use plans or programs.
- Range from 500 meter inland until the bathymetric 30m.
- 9 continental plans in the Continental territory, covering all coast and 9 plans in Azores (one for each island). Madeira doesn't have any POOC implemented.
- Establish which uses are preferential, conditioned or forbidden in the coastal zones and determine criteria for conservation of nature and biodiversity.



POOC – COASTAL ZONE SPATIAL MANAGEMENT PLANS



Coastal zone spatial management plans have as object "the coastal and inland maritime waters and their respective sea beds and banks, with protection zones to be defined in each plan."

Protection zones:

"Land Zone Protection" - maximum width does not exceed 500 m from the line limiting the sea water margin;
 "Maritime range of protection", whose maximum limit is the bathymetric of 30m, except in the islands where it can go till the bathymetric of 50m or even 100m.



Problem: The Law for Planning and Management of the National Maritime Space and its regulation does not consider Special Plans, nor Spatial Management Plans for Protected Areas or Spatial Coastal Management Plans or even Spatial/Special Management Plans for MPA's. Thus, all protection regulations can turn out to be ineffective.

The challenge is: how to turn mandatory for private companies and citizens the regulations contained into those plans within the PSOEM?

Possible solution: a specific regulation pointed out at the RCM approving the PSOEM and developed subsequently (under analysis and discussion).



STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS



STRENGTHS



- A large political consensus regarding maritime policy as national priority, involving all parties represented at the Portuguese National Assembly;
- A qualified legislative consensus (2/3) which approved the Law for Planning and Management of the National Maritime Space (Marine Act);
- A simple and comprehensive legal framework designed for the maritime space with specific instruments for maritime spatial planning;
- A clear licensing regime infavouring transparency for investors;
- A commitment for protecting marine biodiversity by allocating 14% of maritime territory to MPA's (including Nature 2000 Network) and a coastal protection zone of 1,5 NM regarding maritime landscape;
- Portuguese government suspended oil and gas prospection and exploitation infavouring renewable energies – the PSOEM reflects that option;
- A “Blue Fund” using licencing incomes as well as national budget to promote scientific research and blue entrepreneurship.

WEAKNESSES



- Discrepancy with land use spatial management instruments, particularly on Coastal Zone, generates fragility regarding regulation of coastal protected areas, integrated coastal management and effectiveness of regulations also on MAP's;
- Excessive simplicity of the system for maritime spatial planning not foreseeing instruments as sectorial plans (eg. Aquaculture, Renewable energies, Nautical Tourism, Special plans for MPA's), thus turning fragile the plans to be develop for sectorial and priority areas defined in Blue Growth;
- Lack of specific regulation for the Plano de Situação do Espaço Marítimo Nacional (The National Maritime Spatial Plan), turning some of its proposed contents of dubious juridical effectiveness;
- The environmental licencing regime is based on Environmental Impact Assessment regulation derived from EU Directive on EIA; several of the new maritime activities are not foreseen in those regulations;
- The Azores Sub-Region Maritime Spatial Planning proposal is not yet developed and it is the largest area of the National Maritime Space.
- The model of Governance of Maritime Space is not defined at the Marine Act.



THREATS



- An all new planning and licensing system needs to be tested “*at stress*” and correcting mechanisms ought to be clear to provide juridical insurance;
- The new partnership for the seas with stakeholders must be deepened and consolidated – there is still a long route to navigate;
- Large political consensus must be continued independently of electoral cycles which implies “*regime pacts*” – investments in the maritime space are mostly long term and need “**political stability**”
- Banks still are reticent to loans for blue economy as they believe is too risky and return uncertain, also they lack “ocean literacy”, thus showing excessively conservative approaches for Blue Economy;
- A significant part of the success of maritime activities depends on scientific break through and cutting edge science, demanding a substantive and continuous effort of public financing, which obviously depends on GDP growth and international economic performance, particularly in UE;
- In case of conflict of uses, economic criteria may overcome conservation objectives.

OPPORTUNITIES



- A Maritime Spatial Plan for almost 50% of the EU ZEE;
- An advanced, pioneer and dynamic new regime for Maritime Policies involving political, institutional and legal coherent frameworks;
- A clear National Maritime Strategy to be updated in 2020, in compass with EU planning;
- The possibility to update the legal framework in 2019/20 with the new Maritime Strategy and correct the weaknesses pointed out;
- The possibility to update the Maritime Spatial Plan at least every 5 years, also considering the progress of scientific knowledge;
- The possibility to develop specific regulations for EIA regarding the new activities in maritime space (eg. off shore aquaculture, renewable energies, deep mining)
- A large, young and dynamic scientific marine community with RTD projects going on every continent and ocean;
- A clear bet on blue entrepreneurship with specific programmes, dedicated funds, venture capital and incubator centres linked to academy and private corporations operating in Blue Economy.



Thank you for your attention

