National OCEAN Strategy 2013 - 2020



## **Executive Summary**

The NOS2013-2020 presents a new model of development of ocean and coastal areas that will allow Portugal to meet the challenges for the promotion, growth and competitiveness of the maritime economy, in particular, the important changes to the political and strategic framework at both European and Worldwide levels.

Portugal's return to the sea depends on the implementation of a strategy based on knowledge and technological progress and on the size and geography of the emerged and submerged national territory, including the new extended dimension resulting from the submitted proposal to extend the continental shelf beyond 200 nautical miles.

The NOS2013-2020 identifies the areas of intervention and presents the action plan, which includes the programs to be run and developed, in order to achieve specific objectives and produce the desired effects, being subject to proper monitoring, evaluation, review and update mechanisms.

The Mar-Portugal Plan, an action plan mainly aimed at the economic, social and environmental valorisation of the national maritime space through the implementation of sectorial and cross-sectorial projects, as well as the already existent national strategic plans or those in preparation.

The maritime spatial planning system and the compatibility of the different existing and potential activities that may take place therein, along with the simplification of the respective administrative procedures are key operations to the implementation of NOS2013-2020 and for creating the conditions necessary for the growth of maritime economy and environmental and social improvement.

The NOS2013-2020 was subjected to public debate with a large number of public debate meetings having been carried out, both in mainland Portugal and in the Autonomous Regions of the Azores and Madeira, having received over one hundred contributions from civil society, in the Academy, but also from public and private entities, which have helped to improve and enrich the document that is now being presented. Only with everyone's commitment can we make the sea a national goal and thus renew Portugal's maritime identity.

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Mar-Portugal is a national goal, the potential of hich will be realized by the economic, social and environmental value of the ocean and its coastal areas, in benefit of the Portuguese population.

# CHAPTER I INTRODUCTION

# sobre o mar alargar Portugal

# **1**. The Ocean as a strategic development vector

Over the last decades, we have seen an increase in the Ocean States, while a strategic development vector.

The overall mobilisation of States to the Ocean mainly began following World War II, having been largely motivated by the need for States to ensure access to natural marine resources and their utilization.

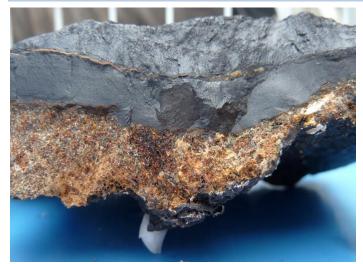
As a result, several States came to safeguard this access and its use by celebrating agreements for the delimitation

#### THE NEED TO ENSURE ACCESS TO NATURAL MARINE RESOURCES ALSO BOOSTED TECHNOLOGICAL DEVELOPMENT

of maritime spaces or through the use of conflict resolution mechanisms, or moreover, by adopting alternative means, such as temporary adjustments of a practical nature.

The need to ensure access to natural marine resources, in particular of non-living resources located at great depths, was also a booster for technological development, which allowed the use of such resources. With effects, without prejudice to prospection and exploitation activities in maritime zones under the jurisdiction or sovereign rights of coastal States, the coming into force of the UN Convention on the Law of the Sea (UNCLOS) has significantly contributed to the technological development and growth of ocean knowledge and its resources and has revived the valued and consistent prospects of economic success, some of which have since been achieved.

#### THE OCEAN IS A DEVELOPMENT VECTOR THROUGH THE NUMEROUS AND DIVERSE USES AND ACTIVITIES IT SUPPORTS



At the end of the last quarter of the twentieth century, the excitement of discovering new natural resources died down with the slowing of the economic activity, which was worsened in the first decade of this century, with a subsequent reduction in the demand for resources. This trend began to reverse itself after the second decade of the twenty-first century, where we have seen a recently increase in demand for natural resources by a broad set of States, whose population is large

or very large and which has reactivated the mobilisation towards the source of the Ocean's deep and ultra-deep natural resources.

The ocean is also a development vector, through the numerous and diverse uses and activities it supports, such as marine transport, tourism, shipbuilding and repair, or recreational boating, among other traditional or emerging activities.

The historical and cultural side of the Ocean, is equally layered by extreme relevance, constituting an essential component of the identity of populations of the States, in particular in the coastal areas, being, which are in their majority associated to the development and productivity of industries and cultural services, both local and national.

Of equal relevance is the role of climate regulator that the Ocean has on a global scale, a function that is evermore valued when faced with the effects of climate changes advancement, be it from an anthropic nature or those associated to the planet's geodynamic cycles.

On the other hand, the Ocean has incumbent risks and threats, the social and economic impact of which are estimated to be high and negative. The Ocean is more and more subject to pressures that arise out of Human action, and in particular due to the fast growing population in some regions of the planet. Subsequently, we see in those regions an extraordinary increase of occupation and land use, namely, through urbanisation of the coastal areas, thus increasing impacts, such as that of pollution. Another important effect of demographic pressure is the unsustainable fast consumption of living marine resources, which is preventing them from being renewed, whereby many species are already at serious risk of over-exploitation, in particular, that resulting from illegal, unregulated or unreported fishing, or, at best, by poorly selected and inefficient practices. On the other hand, the exploitation



of non-living marine resources, including the exploitation of mineral resources has been increasing, which must be duly considered in a scenario of sustainable Ocean exploitation. AN AWARENESS HAS EMERGED OVER THE LAST DECADES THAT MANAGEMENT AND GOVERNANCE OF THE OCEAN AND COASTAL AREAS SHOULD BE ADDRESSED IN AN EXTENSIVE AND INTEGRATING MANNER Moreover, the increase in world population will be accompanied by an increase in global trade, which is currently done in its majority by sea, thus significantly extending the risk of accidents and environmental catastrophe, especially when considering that certain maritime routes crossover very sensitive marine ecosystems, either by their vulnerability, or by their importance towards the renewal of living marine resources.

Thus, over the last decades and throughout the world, , there

has emerged the awareness that the management and governance of the Ocean and coastal areas, including the human activities carried out therein, should be addressed in an extensive and integrating manner, in search of a sustainable development and adopting a risk prevention attitude, in accordance with an ecosystemic perspective.

Nevertheless, the relationship with the Ocean goes both ways, insofar as from it also emerge threats towards Mankind. The rise of the average sea level, the biodiversity and vulnerability fluctuations of marine food chain foundations, the extreme meteo-oceanographic events and saline intrusions that destroy agricultural soils and contaminate land aquifers, are examples of such threats and out of which result, in some cases catastrophic consequences.

The Ocean is still a platform being used for illicit and criminal activities that give rise to extended security reactions to counterforce on piracy and armed robbery, unregulated or unreported illegal fishing, illegal immigration, trafficking of human beings and weaponry, drug trafficking, biological and chemical nuclear proliferation and terrorism. To these reactions one will most certainly need to join cross-nature measures to support development, also aimed at preventing and responding to profound social problems and environmental degradation.

The Ocean is thus promoter, receiver and vehicle for threats that have a significant negative repercussion on a planetary scale. These threats require new forms of cooperation and implementation of adaptive measures and dedicated and effective management principles, which are already conditioning the sustainable development of societies and, consequently, the population's quality of life.

Portugal has followed the global mobilisation to the Ocean, there having been created conditions and carried out initiatives targeted towards its use as a strategic development vector. In addition, from the last decade of the twentieth century, Portugal has mainly increased its capacity for action and influence in the international *fora*, where the concepts and principles for the rules and regulations on Ocean use, preservation and exploitation are built.

In the recent past, Portugal played a very important role in producing a strategic thinking and conceptualisation of governing

PORTUGAL HAS ACCOMPANIED THE GLOBAL MOBILISATION TO THE OCEAN AND TOWARDS ITS USE AS STRATEGIC DEVELOPMENT VECTOR

policies, management and giving value to the Ocean on a worldwide and European scale, in particular through developing efforts towards enhancing the relevance of the Ocean component in the framework of European Union (EU) political priorities contained in the "Europe 2020" Strategy. Likewise, Portugal has taken a very active role in the development of an EU Integrated Maritime Policy (IMP), a central point for sea development and exploitation, as well as the new EU Maritime Strategy for the Atlantic area.

#### PORTUGAL HAS BEEN BUILDING ITS ABILITY TO RESEARCH THE OCEAN AND CREATE KNOWLEDGE, MOBILISING A GROWING NUMBER OF PORTUGUESE

In this strategy is now expressed the will and priority of protecting the Ocean and in exploiting, in a sustainable manner, its long-term potential favouring a development model based on the promotion of a Smart, Sustainable and Inclusive Growth. This requires a broad commitment to promote, on the one hand, economic development based on knowledge and innovation, allowing for a more efficient use of resources and, on the other hand, a more competitive and sustainable economy, generating growth and employment; capable of ensuring social and territorial cohesion.

Likewise, Portugal has been building its ability to research the Ocean and create knowledge, mobilising a growing number of Portuguese. The nature of the extensive, diverse and ultra-deep Sea of Portugal encouraged the creation of a national capacity for exploring extreme environments, a capacity that today distinguishes Portugal, opening new door to international cooperation opportunities and that will determine the success of exploration, exploitation and preservation of natural marine resources.



# **2.** Portugal's return to the sea: path travelled (1997-2012)

#### THE ANALYSIS AND EVALUATION OF THE SEAS'S POTENTIAL HAVE RESULTED IN THE ADOPTION OF A SUCCESSIVE AND INCREMENTAL SET OF ACTIVITIES

The analysis and evaluation of the Portuguese sea's potential, its promotion while national goal, the strategic sea planning and the implementation of the respective actions resulted in the adoption of a successive and incremental series of activities and measures, mostly following the ratification of Portugal in 1997, by the UNCLOS [United Nations Convention on the Law of the Sea].

From the outset, in 1998, the report entitled "*The Ocean: our future*" was approved by the Independent World Commission on Oceans, under the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO). In that same year was held the Lisbon World Exhibition, under the theme "*The Ocean, a heritage for the future*" and was also established the Intersectorial Oceanographic Commission (IOC), of the Inter-ministerial Commission for the Delimitation of the Continental Shelf (ICDCS) and the Program for the Promotion of Ocean Sciences and Technology (PPOST).

With the new Millennium, in 2003, was established the Strategic Ocean Committee (SOC), the report of which, entitled "The Ocean, a national goal for the XXI Century" was published the following year.

In 2005, ICDCS gave rise to the Task-Group for the Extension of the Continental Shelf (TGECS) and in the same year the Task-Group for Maritime Affairs (TGMA) in order to elaborate the National Ocean Strategy (NOS2006-2016), for the period 2006-2016, which was approved in 2006, thus consolidating the vision contained in the SOC report with regards to the sea's potential as one of the major factors in the development of the Country, if duly exploited and safeguarded.

THE IMPLEMENTATION OF THE NOS2006-2016 ALLOWED FOR THE CARRYING OUT OF A SERIES OF MEASURES IN THE FIELD OF MARITIME IDENTITY AND INTERNATIONAL ASSERTION, CAPACITATION AND KNOWLEDGE, AS WELL AS MARITIME GOVERNANCE. With effect, the NOS2006-2016 comes in response to the need to give value to the Ocean through a national project, focusing on an integrated approach to governance, enhancing the efforts of different guardianships, operators, the scientific community, non-governmental organisations (NGO) and society in general, making everyone jointly responsible for exploiting the Ocean as a differentiator factor for economic and social development. The implementation of the NOS2006-2016 allowed for the carrying out of a series of measures in the field of maritime identity and international assertion, capacitation and knowledge, as well as maritime governance.

Within the framework of the NOS2006-2016, we will also highlight the dynamic awareness and mobilisation of the Portuguese society to the Ocean's importance, on a national, regional and local level, in particular through the development of the "Sea Kit" project, an educational resource tailored to different cycles of basic education (preschool, 1st cycle and 2nd to 3rd cycles) and framed within the respective curriculum guidelines. This project's objective is to sensitize children and youths in getting to know the seas and oceans, helping to promote more informed, responsible and active citizens with increased awareness of the strategic importance of the sea. In 2013, the "Sea Kit" involved over 70,000 students.

There was also development of the first stance for national maritime spatial planning, which enabled getting to know its existing and potential activities and uses in response to one of the strategic pillars of the NOS2006-2016.

PORTUGAL WAS A PIONEER IN ESTABLISHING A GOOD PRACTICE PARADIGM FOR A SUSTAINED AND SUSTAINABLE GOVERNANCE OF THE OCEAN WITH THE CREATION OF THE FIRST HIGH SEAS MARINE PROTECTED AREA (MPA) Ten years after the ratification of UNCLOS by Portugal, in 2007, the Inter-ministerial Commission for Ocean Affairs (ICOA) was founded, which established a Standing Forum on Maritime Affairs (SFMA). In that same year, Portugal was a pioneer in establishing a good practice paradigm for a sustained and sustainable governance of the Ocean with the creation of the first high seas marine protected area (MPA), called "Rainbow". In 2010, this was followed under the framework of the Convention for the Protection of the

Northeast Atlantic Marine Environment (OSPAR - Oslo and Paris Conventions), by the "Josephine", "Altair", "Antialtair" and "Mid-Atlantic Ridge" MPAs located in the water column overlying the continental shelf beyond 200 nautical miles, with a total area of approximately 120,000 km<sup>2</sup>, such areas currently integrated in the Azores Marine Park. Also Madeira, from the Seventies, have been implementing important landmarks in this field.

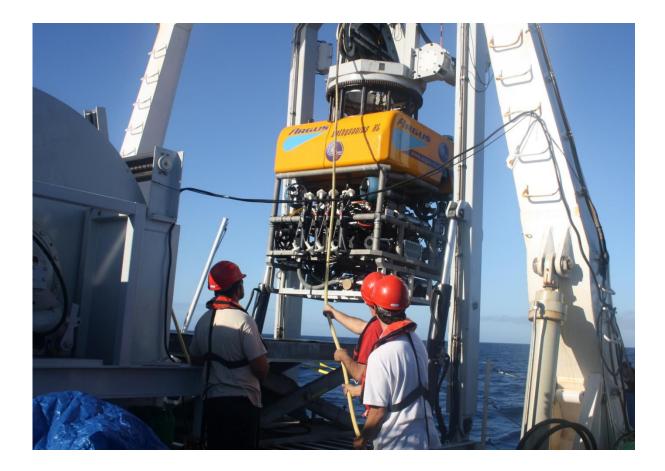
In 2008, during the 9th Conference of the Parties to the Convention on Biological Diversity (CBD), Portugal led the

EU in the negotiations for adopting the scientific guidelines and criteria (Azores Criteria) for identifying ecologically or biologically significant marine areas and for assigning representative networks of MPA in open ocean and deep sea, and also worth noting is the development of managerial measures to be applied in set areas beyond the national jurisdiction (ABNJ) of States (Madeira Process). The Azores Criteria are used to identify such



PORTUGAL CAN EXTEND NATIONAL JURISDICTION TO A CORRESPONDING AREA AT AROUND 40 TIMES ITS TERRESTRIAL AREA, COMING CLOSE TO 4,000,000 KM2

areas and in the classification of MPA by General Assembly of the United Nations (UN) and networks of areas



beyond national jurisdiction, and moreover in complying with the Implementation Plan of the World Summit on Sustainable Development, hosted in Johannesburg in 2002, and more recently, of §177 of the document arising out of the Rio+20 conference.

Another turning point was the presentation on the 11th May, 2009, of the Portuguese proposal for extension of the continental shelf, close to the UN and its later presentation, in 2010, to the Commission on the Limits of the Continental Shelf (CLCS). In this process, Portugal has developed the technical and scientific work that led to the proposed extension of its continental shelf beyond 200 nautical miles, to an area of 2,100,000 km<sup>2</sup>, which may extend national jurisdiction to very close to 4,000,000 km<sup>2</sup>, this being, circa 40 times the land size of Portugal. The area in question is the approximate equivalent, by comparison, to the EU land size, and corresponds to around 1% of the Earth's water surface and to 4% of the total area of the Atlantic Ocean.

The compilation of this Portuguese proposal depended, in part, on the acquisition, in 2008, of the Remote Operated Vehicle (ROV) "LUSO", a remotely operated underwater vehicle capable of operating up to 6,000m deep, allowing for the collection of geological samples and improving knowledge of this biodiversity of the deep national seas and its respective oceanographic features. For the first time in its history, this equipment gave Portugal the possibility to access their entire maritime areas, reinforcing the established national capacity to investigate, understand and protect the Ocean and a corresponding strengthening of human resources skills, turning Portugal into a world level, capable partner in the field of advanced deep-water research.

Over the years Portugal has sought to ensure its presence in the international decision *fora*. A good example of this is the integration of a Portuguese member in the CLCS, whose term ended in 2012, and the prior year election of a Portuguese representative for the "Legal and Technical Commission" of the International Seabed Authority.

Portugal also played a key role in drafting the EU Maritime Strategy for the Atlantic Area, presented in 2011, in Lisbon.

It is also worth stating, within this framework, Portugal's active participation in the "BluemassMed" project, a European pilot-project for integrating maritime surveillance in the Mediterranean and its Atlantic approaches, which also counted on the support from Spain, France, Greece, Italy and Malta.

The "BluemassMed" contributed to strengthening the ties between the different agencies involved in maritime surveillance, safety and security, through the development of common methodologies and procedures to all entities, constituting a first step in defining the architecture of the future European network for extended maritime surveillance, which will allow for interoperability between all maritime surveillance systems, current or future, based on an agreed benchmark model, and with a view to optimising efficiency in using patrolling and surveillance resources.

Other international cooperation projects promoted by Portugal over the years include, for example, the project "M@RBis - Information System for Marine Biodiversity", which aims to store and manage geo-referenced data on existing species and habitats in waters under national jurisdiction, which were initially dispersed through various institutions and in different formats.

THE ACTION OF PORTUGAL THROUGH PROJECT M@RBIS ALLOWS US TO GAIN BETTER KNOWLEDGE AND SUBSEQUENTLY PROTECT AND CONSERVE IN A MORE EFFECTIVE MANNER THE VALUES OF THE NATIONAL MARINE BIODIVERSITY AND ACHIEVE A SUSTAINABLE EXPLOITATION OF THE NATIONAL MARINE RESOURCES.

Within this project have been performed various oceanographic campaigns to fill gaps in knowledge of marine biodiversity from multiple locations, such campaigns counting on the participation of hundreds of scientists and students from national and international institutions. The action of Portugal in this project allows us to gain better knowledge and subsequently, more efficiently protect and conserve the values of national marine biodiversity, thus achieving a sustainable use of national marine resources, while maintaining its commitments under the process of extending the Natura 2000 Network to the marine environment. Of particular enhancement are the actions devoted to knowledge within an integrated vision and sharing of efforts, which have been implemented in coordination and close cooperation with regional governments, highlighting among others, the surveys conducted in locations elsewhere in the area of the Azores, in particular, in the Sedlo and Condor banks, the hydrothermal fields of Menez Gwen and Lucky Strike and the Isles of *Formigas* and on the islands of Porto Santo, *Desertas* and *Selvagens* of the Madeira region.

Likewise, at an EU level, it should be mentioned the transposing of the Marine Strategy Framework Directive (MSFD), which resulted in the development of marine strategies for the subdivisions of the continent and the continental shelf beyond 200 nautical miles, and work in course under the jurisdiction of the autonomous regions, basic essential documents that meet the environmental and social and economic information concerning the areas considered, conducting the respective initial evaluation and characterisation of good environmental status. Being a process currently undertaken at an EU level, the MSFD constitutes an "umbrella directive", in environmental terms, as regards the European marine waters.



It also should be noted the critical role of the private sector for the analysis and evaluation of the Ocean's potential in Portugal, including the *Report of the Strategic Ocean Commission*, of 2004, which carried out a comprehensive assessment of the economic representativeness and of the main constraints and opportunities associated to the traditional and emerging sectors of maritime activities in Portugal, as well as the study "*Hypercluster of Ocean Economy - A field of strategic potential for the development of the Portuguese economy*" (SAER/ACL: 2009) which resulted in the creation of the Entrepreneurship Forum on Ocean Economy. Both documents comprise extremely valid contributions for boosting the Portuguese Ocean potential.

# **3.** The review of the NOS2006-2016: The Ocean as a national goal

Having arrived halfway through the estimated period for implementing the NOS2006-2016, a debate was started on the opportunity of a review and update being made, mainly taking into account the changes made to the EU framework, in particular, with regard to the strategic planning cycles, the development of common policies and multi-year frameworks. Moreover, notwithstanding the progress made and results achieved by NOS2006-2016, the evaluation of these results is not an easy task in that there was no action plan put into place for the implementation of NOS2006-2016, despite the monitoring, evaluation and review being common management instruments in the execution of a strategy and that have been specified therein. Under these terms, the lack of an action plan or a matrix of indicators prevents the objective assessment of how the situation is progressing and of the effectiveness of the plans and programs implemented under the NOS2006-2016.

Taking this difficulty into account, the National Ocean Strategy for 2013-2020 contains an Action Plan, in order for the envisaged programs and projects to refer to the respective objectives, calendar and affected resources. Only this way, will it be possible to check on progress made, the kindness of proposals made in light of strategic objectives; the respect for principles moulded on action; complying with set targets; the efficacy and efficiency reached, as well as, to complete the need on effecting changes, reviews and amendments to the respective Action Plan.

THE NEED FOR ENSURING THE PERMANENT UPDATE OF THE ACTION PLAN PROMOTED BY THE APPLICATION OF MONITORING, EVALUATION AND REVIEW INSTRUMENTS, IS JOINED BY THE UPDATE THAT SHOULD BE PROMOTED BY THE PARTICIPATION OPEN TO ALL PORTUGUESE

In addition to the need to ensure the permanent updating of the Action Plan promoted by the application of monitoring, evaluation and review instruments, comes the update that should be promoted by the participation open to all Portuguese for the Ocean's development. Under this framework, it is now viewed as appropriate to trigger a new wave filled with national will guided towards Ocean investment, and allow for the public discussion of the NOS2013-2020.



As mentioned, the need to review the NOS2006-2016 arises mainly from the changes made to the EU framework, namely, in what concerns preparing important common political reforms and the respective financing funds. In effect, since preparing the NOS2006-2016, several occurrences have taken place, which if considered as a whole, justify its review.

From the outset, even without itself creating the need for review, in the year following approval of the NOS2006 2016 the IMP was agreed, the vision of which falls in line with the national strategic thinking of that period, Portugal having then joined Spain and France, the group of countries that introduced the first document for strategic thinking within the process of creating the IMP.

More recently, in 2010, the EU presented the Europe 2020 strategy with the objective of triggering the transformation of the "*EU into an intelligent, sustainable and inclusive economy*" that would provide plenty of employment opportunities, productivity and social cohesion.

In 2011, also under strong impulse from Portugal, was launched in Lisbon, the EU Maritine Strategy for the Atlantic area, which integrated the guidelines of Europe 2020 and presented a new vision on Maritime Europe, turned towards the protection and potential long term exploitation of its Ocean, classed as a development platform for important intercontinental relations.

Already in 2012, the EU presented a communication dedicated to "Blue Growth" that defined and characterises the "Blue Economy" and establishes the fundamental areas for growth, which integrate the blue energy, the

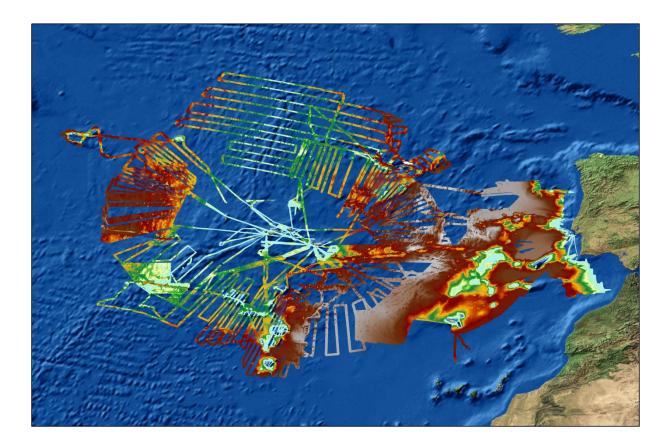
aquaculture, the coastal maritime tourism and that of cruises, the maritime mineral resources and the blue biotechnology.

Parallel to this, is currently being undertaken a reform of the Common Fisheries Policy (CFP) and its supporting financial funding, the new European Maritime Affairs and Fisheries Fund (EMFF), in addition to the reform of the multiannual framework on EU funding for the period 2014-2020. Important reports and documents of strategic reflection and thought were also published, the majority of which with a time horizon for coming into action up to the year 2020.

IN ADDITION, THESE TRANSFORMATIONS WERE ACCOMPANIED BY NEW DEVELOPMENTS OF THE STATES' ACTION ON THE OCEAN, ON A WORLDWIDE LEVEL. In addition, these transformations were accompanied by new developments of the State's action on the sea on a worldwide level. Indeed, the use, exploitation and preservation of the Ocean gained a new momentum and created new opportunities for development, including maritime transport, underwater mining, renewable and fossil energies, in establishing new marine protected areas, among others.

Therefore, given this framework, it is considered necessary, first, to align the period of duration of the Portuguese Ocean

Strategy with the specified time horizon of the EU action and, secondly, to take due account of the changes verified globally in the maritime sector, safeguarding, however, that the review of the NOS2006-2016 now presented in the form of a new strategy, the NOS2013-2020, may happen naturally and that it is indeed an essential tool for achieving the Sea of Portugal as a national goal.



## CHAPTER II THE SEA OF PORTUGAL

# 1.

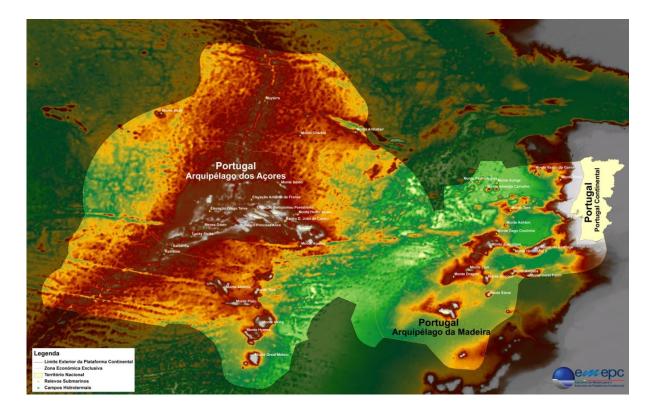
## **Territorial benchmarking**

The land territory of Portugal is confined to the western edge of Europe, covering an area of approximately 89,000 km<sup>2</sup>, and the insular Atlantic area, ultra peripheral and not very large, which corresponds to the Archipelagos of Madeira and Azores, of circa 3,000 km<sup>2</sup>.

Taking into account only its size and land characteristics, Portugal is a country of relatively small dimension, with scarce natural resources and away from the centre of Europe. However, if taking into account its maritime dimension, Portugal is an immense country and one of the great maritime countries of the world, with an additional geo-strategic, geo-political and economic potential.

#### IF TAKING INTO ACCOUNT ITS MARITIME DIMENSION, PORTUGAL IS AN IMMENSE COUNTRY AND ONE OF THE GREAT MARITIME COUNTRIES OF THE WORLD

Adding to this maritime dimension are the corresponding great challenges, but above all, unprecedented opportunities for Portugal. In effect, this new widespread territory promises a broad and diversified range of natural resources with a value not yet estimated, but whose potential is admittedly high, and above that which is known



and available on the onshore portion, by which its economic exploitation and environmental preservation stand out as strategic areas for action, which together with the prospect of social and territorial cohesion, will be essential to the promotion of a sustainable and sustained development of the country.

#### ADDING TO THIS MARITIME DIMENSION ARE THE CORRESPONDING GREAT CHALLENGES BUT ABOVE ALL, UNPRECEDENTED OPPORTUNITIES FOR PORTUGAL

However, in addition to the rights inherent to its maritime dimension, Portugal is equally bound to comply with the respective international obligations, as well as its responsibilities in the area of Ocean and seabed spatial management, in the surveillance and monitoring of activities that take place therein and the monitoring of its environment and ecosystems, in a framework of international governance of the Oceans.

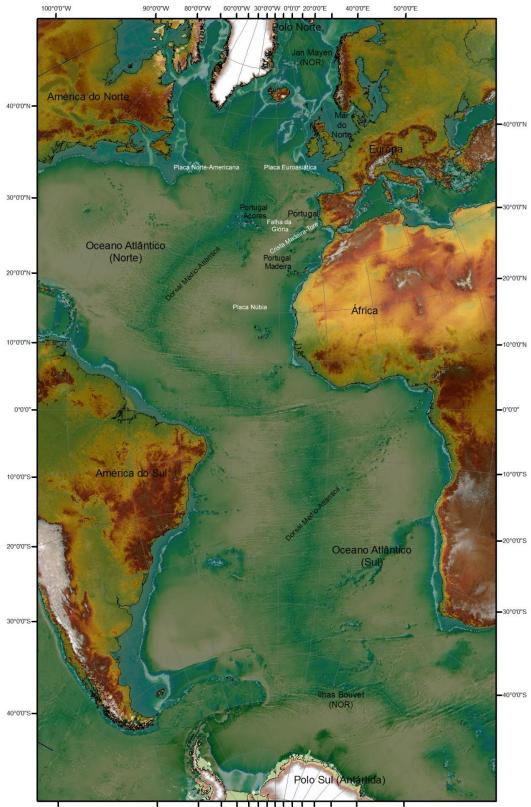
IN ADDITION TO THE RIGHTS INHERENT TO ITS MARITIME DIMENSION, PORTUGAL IS EQUALLY BOUND TO COMPLY WITH THE RESPECTIVE INTERNATIONAL OBLIGATIONS, AS WELL AS ITS RESPONSIBILITIES IN THE AREA OF OCEAN AND SEABED SPATIAL MANAGEMENT, IN THE SURVEILLANCE AND MONITORING OF ACTIVITIES THAT TAKE PLACE THEREIN AND THE MONITORING OF ITS ENVIRONMENT AND ECOSYSTEMS, IN A FRAMEWORK OF INTERNATIONAL GOVERNANCE OF THE OCEANS

The maritime dimension of the Portuguese territory also allows for a new focus point of the European space, constituting an unparalleled axis in connecting the three continents, in the directions east-west and north-south, and conferring to Portugal an incomparable geo-strategic positioning and, consequently, strengthening, on a large scale, its capacity of assertion and international intervention.

Portugal has a predominantly littoral geography and planning, with all of its centres of decision turned towards the Ocean. Moreover, Lisbon is the only Atlantic capital of the European space and the archipelagos of the Azores and Madeira extend the EU into the Atlantic space. As a result, Portugal, as a whole, defines a hinge on intercontinental links and with non-coastal European States.

IN THE PORTUGUESE SEAS, GEOGRAPHY AND DIMENSION ARE JOINED BY MARITIME IDENTITY OF A PEOPLE THAT AGAIN, HAS THE AMBITION OF SEEING PORTUGAL IN THE OCEAN. In the Portuguese Seas, geography and size are joined by the maritime identity of a people, that again ambitions Portugal in the Ocean. These features are enough to turn Portugal into a unique territory and make the Atlantic North space, that is Portuguese, the Mar-Portugal, a benchmark territory.

# 2. The geography



50°0'0''W 10°0'0''W 20°0'0''E 100°0'0"W 90°0'0"W 50°0'0"E 80°0'0"W 40°0'0"E

The Atlantic basin has an overall area of approximately 106,000,000 km<sup>2</sup>, corresponding to around 20% of Earth's surface and around 26% of its water surface, dimensions that make this Ocean, the second largest on Earth.

The Atlantic extends in latitude, from the North Pole to the South Pole, from the Artic Sea to the Continent of Antartica and in longitude, from the European and African Continents to North, Central and South America.

The Atlantic seabed presents an extremely varied physionomy. In it, the Mar-Portugal comprises the coastal border of the emerse mainland Portuguese territory, with its rich estuary and lake regions and its rocky and sandy coastlines.

Unlike the Atlantic region of northern Europe, corresponding to the North Sea, where depths generally low and the geological continental shelves are broad; the geological continental shelf adjacent to mainalnd Portugal is generally narrow and the continental slopes are crossed by prominent submarine canyons that empty into vast abyssal plains.

The central space of Portugal is the intersection zone of three tectonic plates: the Eurasian and Nubia to the East, and North-American, to the West.

The nine islands of the Archipelago of the Azores are spread throughout these geological structures. The Western group, comprising the Islands of Corvo and Flores, lies in the North-American plate, geologically isolated from the others by a line chain of sea-mountains, the Mid-Atlantic Ridge, which extends from the Norwegian islands of Svalbard and Jan Mayen to the Bouvet islands, at the southern intersection, between the Indian and Atlantic oceans. The other islands of the archipelago are distributed along the boundary between the Eurasian and Nubian plates, extending east to Portugal, through a major underwater geological structure, the geological rift of Gloria.

The complex geographic evolution of the Atlantic, also contributes towards the numerous mountain formations that peak out all around the Atlantic North.

In this vast maritime space, the tops of the sea-mountains, the long sections of coastline, the vast ultra-deep areas, the mud volcano areas south of Continental Portugal and the many hydrothermal systems present in the Mid-Atlantic Ridge, in the Azores, enclose in its entirety, oceanic ecosystems unique to the world and which contain a vast marine biodiversity, not yet fully known.

Besides the marvel of the hydrothermal systems of the Azores region, elsewhere on the borders of the Madeira Archipelago, emerge living and non-living systems of the same or otherwise larger potential. These are only now being subject to a more systematic acknowledgement, associated to scientific expeditions carried out on the geological structures of first magnitude that contains them, such as the Madeira-Tore Crest, a chain of seamountains that extend from the Island of Madeira to the latitude of Peniche.

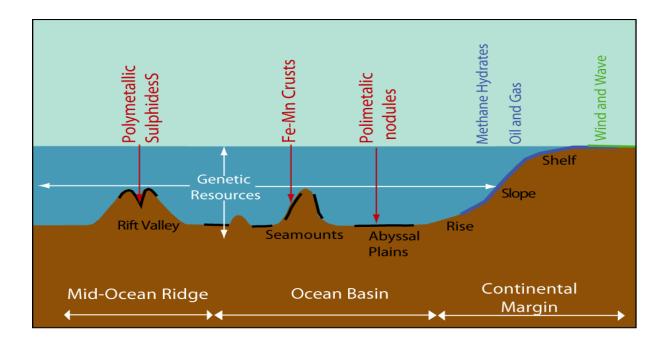
#### THE INTERACTION OF OCEAN CURRENTS ALONG WITH THE SEABED AND ATMOSPHERE AFFECTS THE DAILY LIFE OF THE PORTUGUESE.

The ocean circulation of the Atlantic North is instrumental in regulating the weather and justified, in itself, by the moderate climate of great part of the European territory. The movement of wind induced water mass occurs to the North of the Azores, in general from west to east, being dominated by Gulf current that defined the north border of the Sub-tropic Giro of the Atlantic North.

When reaching the European continent, the Gulf current turns south in the direction of Madeira on the southeast border of Mainland Portugal and, continuing West towards the Gulf of Mexico and then North, where it closes the Great Giro. From the Straight of Gibraltar flow out Mediterranean waters that flow along the south coast of mainland Portugal and turn North at the Cape of St. Vincent, bordering the surface waters of the entire west coast of mainland Portugal and which, also in depth, flow towards Madeira.

On the west coast of Portugal occur frequent passages of deep cold waters, rich in nutrients that occur due to the winds that blow in from the North along the coast.

The interaction of ocean currents along with the seabeds and the atmosphere, affects the daily life of the Portuguese, even of those who live away from the sea; it promotes the concentration of biodiversity of the underwater sea-mountain tops; it affects the dinamics and distribution patterns of marine species and their habitats; it has implications on fishing and in the distribution of algae; on coastal tourism; in the existence of periods of drought and in many other aspects of our daily lives.



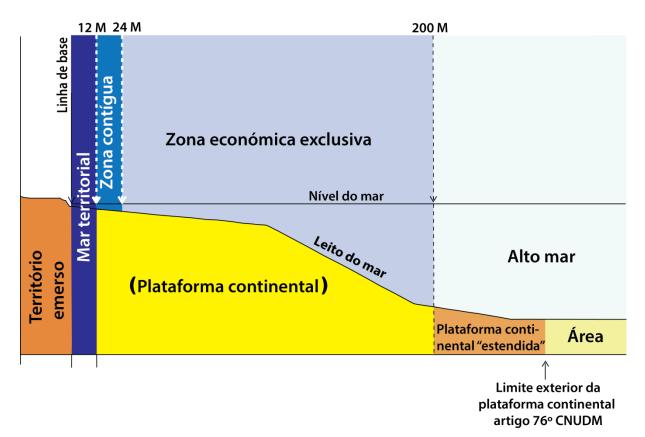
# **3.** The dimension

THE MAR-PORTUGAL IS AN AREA OF GREAT AND VERY COMPLEX DIMENSION, IN THE NATURE AND TO THE EXTENT OF THE SYSTEMS IT ENCLOSES

The Mar-Portugal is an area of great and very complex dimension, in the nature and to the extent of the systems it encloses. In addition to the naturally imposed borders of the Atlantic Basin, many are the borders and legal limits that cross its space, imposed by international agreements and conventions.

The Convention on the Law of the Sea (CLS) is an international reference in defining maritime zones, being considered *"the Constitution of the Oceans"*. In the framework of this Convention, the Mar-Portugal comprises, at the sea bottom, the seabed and subsoil that on the national coastline extend throughout the territorial sea to the outer limit of the continental shelf, deemed by legal concept as being under the exclusive jurisdiction of Portugal as to its exploitation of natural resources contained therein.

If considering the water column, it is further deemed, under the CLS framework, the Exclusive Economic Zone (EEZ), defined by the line that sits 200 maritime miles away of the normal base line, the straight line or the closing line. Within this framework Portugal hold one of the largest EEZ's in the North Atlantic and in the world. The maritime spaces are equally contained in the Mar-Portugal.



Beyond the EZZ or where this doesn't exist, beyond the territorial sea, the CLS determines the application of the high seas regime for the water column, consecrating the freedom of use for peaceful purposes. Juxtaposed to the EEZ and, partially, to the high seas are further defined other areas of relevance guided towards environmental management and preservation, such as, for example, the MPA established under the OSPAR.

THE MAR-PORTUGAL COMPRISES AT THE BOTTOM OF THE SEA, THE SEABED AND SUBSOIL THAT FROM THE NATIONAL COASTLINE EXTEND THROUGHOUT THE SEA TO THE OUTER LIMITS OF THE CONTINENTAL SHELF. IF CONSIDERING THE WATER COLUMN, PORTUGAL HOLDS ONE OF THE LARGEST EEZ'S IN THE NORTH ATLANTIC AND IN THE WORLD

Given the regulatory and mitigation impacts

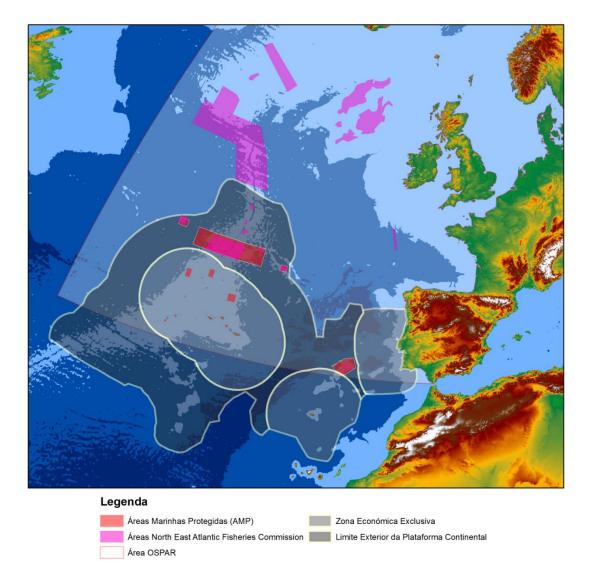
of fishing, the North-East Atlantic Fisheries Committee (NEAFC) defined interdiction polygons or reservation fisheries that have direct influence on some of the OSPAR areas classified by Portugal.

Of equal importance, one must highlight the recorded developments of the CBD, namely with regards to the description process and repository of the MPA, which comply with criteria insofar as its ecological and biological importance.

Finally, it is also worth noting the different areas of regulation and environmental protection mechanisms that define the Natura 2000 Network within the marine environment and in the framework of the European Habitats and Birds Directives.

# WHILE AREA OF PRESERVATION OF MARINE ENVIRONMENT, THE PORTUGAL-SEA ASSUMES A DIMENSION THAT CONTEMPLATES THE ATLANTIC AS A WHOLE.

As such, within the framework of international responsibilities assumed by the country; of the answers to the main environmental issues, including that of climacte changes, and of the necessary international articulation and cooperation that these bring, i.e.: while area of preservation of marine environment, the Mar-Portugal assumes a dimension that contemplates the Atlantic as a whole.



# **4.** The maritime identity

#### THE SEA HAS BEEN A MARK IN THE HISTORY OF PORTUGAL.

THE LINK BETWEEN PORTUGAL AND THE SEA GAINED A LARGER RELEVANCE DURING THE DISCOVERIES ERA AND MARKED, IN A DECISIVE MANNER, THE START OF THE GLOBALISATOIN PROCESS

The sea has been a mark in the history of Portugal. The link between Portugal and the sea gained a larger relevance during the Discoveries Era, having decisively marked the start of the globalisation process

Trade, as well as cultural, scientific and technological exchanges resulting thereof, promoted the development of our great country and forever marked the processes of transmitting knowledge and of interaction between the people. It is in the course of this historical context that a country with a strong maritime character has been developed, expressed in historical and cultural values, which as a whole, define us and which emphasize a strong emotional relationship between the Portuguese and the sea. Hence Portugal is one of the subscribing States to the Convention on Underwater Cultural Heritage of UNESCO, 2001, acknowledging its important role in the worldwide maritime dimension.



#### WITH THE EXECUTION OF THE NOS2013-2020, PORTUGAL WANTS TO ASSUME ITSELF AS A MARITIME COUNTRY BY EXCELLENCE THAT LIVES WITH THE SEA; THAT BRINGS THE SEA BACK TO EUROPE, AND THAT BRINGS EUROPE BACK TO THE SEA

The political and social evolution, in particular during the last quarter of the twentieth century, along with the EU integration, determined the guidelines of the country towards the European space and a slow move away from its Atlantic vocation.

With the execution of the NOS2013-2020, Portugal want to assume itself as a maritime country by excellence that lives with the sea; that brings the sea back to Europe and that brings Europe back to the sea.

### THE GENETIC CODE OF THE NEW MARITIME PORTUGAL: A GREAT COUNTRY OF ULTRA-DEEP NATURE, WITH VAST POTENTIAL IN NATURAL RESOURCES; AN UNPAIRED NATURAL HERITAGE AND A GREAT GEOSTRATEGIC CENTRAL POINT.

Portugal is the Atlantic face of Europe and the European connection to the deep seas. One must thus assume the initiative, leading the European and international procedures relating to maritime governance, with a view to encouraging economy and valuing and preserving that, which is its greatest natural heritage.

In this sense, it is necessary to recreate a modern, maritime identity that does not relegate traditional values, but is focused on the future and encourages a new spirit for discoveries, directed towards conceptual creativity; entrepreneurship of preparations and proactivity of actions, realising the opportunities that the Mar-Portugal has to offer.

These are the multiple dimensions of the Mar-Portugal benchmark territory. As a whole, they define the genetic code of a new maritime dimension: a great country of ultranature, with vast potential in natural resources; an unpaired natural heritage and a great geostrategic central point that is, after all, the engine to international assertion.

These genetic codes is the context and subtract of the NOS2013-2020 and affirms the sea as a national goal, favouring the implementation of a new paradigm for sustainable development for the present and future of Portugal.



# CHAPTER III THE DEVELOPMENT MODEL

# EMERGAR PORTUGAL

## **1** "Blue Growth"

The NOS2013-2020 fits the new paradigm for sustained development, guided by the vision of the European Commission for the maritime sector: the "Blue Growth".

This new paradigm seeks to identify and provide answers to economic, environmental and social challenges through the development of synergies between sectorial policies. To this effect, one must consider and study the interaction between the various activities, its impact on marine environment, marine habitats and biodiversity.

The intention is to define a route towards development under an essentially inter-sectorial perspective founded on

#### A ROUTE TOWARDS DEVELOPMENT UNDER AN ESSENTIALLY INTERSECTORIAL PERSPECTIVE FOUNDED ON KNOWLEDGE AND INNOVATION OF ALL MARITIME USES AND ACTIVITIES, PROMOTING A BROADER EFFECTIVENESS IN USING RESOURCES, WITHIN A FRAMEWORK OF SUSTAINED AND SUSTAINABLE EXPLOITATION

knowledge and innovation of all maritime uses and activities, promoting a broader effectiveness in using resources, within a framework of sustained and sustainable exploitation.

The "Blue Growth" seeks to identify and support the activities with a raised potential for long-term growth, eliminating administrative obstacles that make growth difficult, promoting investment in research, as well as the development of skills through education and professional training. The aim is thus to increase the competitiveness of the economy and generate an increase in employing qualified staff, strengthening social cohesion.



FOR A SUCCESSFUL DEVELOPMENT MODEL THE HARMONIZED EXERCISE OF ADEQUATE POWERS IS ESSENTIAL, WITHIN THE FRAMEWORK OF DECISION MAKING AND SHARED MANAGEMENT BETWEEN THE PORTUGUESE REPUBLIC'S GOVERNMENT, THE REGIONAL GOVERNMENTS OF THE AZORES AND MADEIRA AND THE MUNICIPALITIES. The NOS2013-2020 is the integrating, concerted and consistent tool that will result in the development advocated by the "Blue Growth", promoting and putting in place an action plan to materialise the objectives of the maritime economy, and that will enable the central, regional and municipal administration to facilitate the creation and maintenance of an environment in favour of public and private investment for the development of various activities related to the Ocean. To this extent, the regional specificities are reflected in the programs and projects to be implemented under the Strategy, whereby it is essential to the success of the development model, the harmonised exercise of its own competences in the framework of a decision and management process shared between the Republic Government, the Regional Government of the Azores and Madeira and the municipalities.

## **2.** Challenges of the development model

#### 2.1. Administration (intelligible and simplified regime)

The inefficiency of public policies should be reduced and the traditional governance model properly transformed in order to minimise the obstacles in pursuit of the objectives proposed by "Blue Growth".

To increase the competitiveness and development of the maritime sector, one must eliminate overlapping responsibilities and reduce bureaucracy, thereby capturing private investment and avoiding its bottleneck. It is the State, through its governing arrangements, that must adopt the necessary measures to ensure administrative simplification, speed of procedures, transparency of decisions, the essential accountability of those involved and the monitoring and control of the execution of investment projects.

THE DEVELOPMENT OF THE NATIONAL MARITIME INDUSTRY ESSENTIALLY DEPENDS ON A STANDARD, OBJECTIVE AND ADEQUATE FRAMEWORK, THAT CONTRIBUTES TOWARDS THE CLARIFICATION OF COMPETENCES AND TOWARDS ADMINISTRATIVE SIMPLIFICATION The development of the national maritime industry essentially depends on a standard, objective and adequate framework, which among other things, contributes towards the clarification and simplified administration previously mentioned.

The NOS2013-2020 identifies the broad outlines of the national model of Ocean development. It is up to the Portuguese Republic Government to, within the framework of its powers and given the shared management legally provided of marine areas adjacent to the Azores and Madeira, define a national strategy that includes the entire national territory.

Current legislation is often poorly suited to meet the challenges posed by new activities. To this extent, the coming into force of the Basic Law on Planning and Management of National Maritime Space will be crucial to the growth of maritime economy.

The Basic Law that aims to create an effective legal framework for reconciling compatibilities between uses or competing activities, contributing towards a better and more economic use of the marine environment, allowing for the coordination of public authority actions and private initiative, minimising the impacts of human activities in the marine environment, en-route towards sustainability.

The spatial planning and management enshrined in the Basic Law embody a new vision and a new practice, which aims to simplify the use of all national maritime space, bearing in mind, at the outset, that full recovery of the maritime space in a framework of sustainability, requires the processing of three action vectors: the use,

preservation and exercise of economic activities. The Basic Law thus envisages the establishing of a new and widened framework for the vector of use, without prejudice to the necessary articulation with the remaining vectors.

Simplification shall be achieved through centralising access to licensing the use of the sea with the help of electronic means for attributing titles of spatial usage, promoting administrative procedures in the framework of the remaining action vectors, with a view to speeding up the process.

The efficacy of planning the national maritime space also depends on the creation of a legal framework, applicable to the use of maritime space that regulates the concession, licensing and authorisation of the use of maritime zones under national sovereignty or jurisdiction.

Given the increased use and activities and in order to take precautions over the economic, social and environmental impact, it will be necessary to promote systems that ensure the surveillance, monitoring and control of the entire national maritime space, as well as evaluate those existing, in particular, with regards to operating efficacy that allow for a quick and judicious analysis of the risk phenomena, as well as support the response to threats of a human or natural nature, including cases of natural calamity or natural catastrophe.

Promoting the competitiveness of Ocean Economy and formation policies framed by the needs of the labour market, should be a priority in the proposed development model.

Particular emphasis is given to the dynamics of private agents who, taking advantage of favourable conditions, develop competitive business models in a global market.

SENSITISING AND ACKNOWLEDGING THE ROLE OF THE OCEAN AND OF THE ACTIVITIES THAT THEREIN TAKE PLACE, TAKING INTO ACCOUNT ITS MULTIPLE SIDES, AS WELL AS ITS POTENTIAL LINKED TO NEW OPPORTUNITIES, ENTREPRENEURSHIP, INNOVATION AND RESEARCH AND DEVELOPMENT



#### 2.2. Communication and culture

The "Blue Growth" implies a higher degree of perception of the Ocean's value as strategic asset and of the increasingly important role it will play in improving the quality of life of the Portuguese. It is therefore important to sensitise and raise awareness, in a more effective manner, of the Ocean's role and the activities that take place therein, taking into account its multiple sides, in particular, its cultural, social, educational, environmental and economic aspects, as well as its potential linked to new opportunities, entrepreneurship, innovation and research and development (R & D). The perception of this role and its potential will also allow to contribute in a more decisive manner towards renewing the collective maritime identity, which, to date, has been essentially affective, based on historical and cultural values.

#### 2.3. Education, science and technology

The new Ocean economy presents complex problems based on technology in the majority of its development vectors, which require the involvement of a highly qualified workforce.

#### THE ACKNOWLEDGEMENT AND MAINTENANCE OF PROFESSIONAL QUALIFICATIONS OF CURRENT AND FUTURE GENERATIONS ARE FUNDAMENTAL TO MAINTAIN AND DEFINE THE SPECIALISED STANDARDS REGARDING ALL TYPES OF SEA RELATED ACTIVITIES

Recognition, maintenance and valorisation of professional qualifications of current and future generations are fundamental to maintain and define the specialised standards regarding all types of sea related activities. There are not currently provided the necessary conditions for the education and training of such work force, in particular, those that allow for a growing number of technicians to become qualified in the subjects related to the sea, in all its aspects. To this effect, it will also be necessary to assess the opportunities created by the NOS2013-2020 for the future professionals, attracting youths to this labour market.

#### KNOWLEDGE IS TRANSVERSE TO ALL AREAS OF PERFORMANCE OF THE NOS2013-2020 AND INVOLVES A PREVALENCE OF R&D COMPONENTS

Knowledge is transverse to all areas of performance of the NOS2013-2020 and involves a prevalence of R&D components. The agenda of the R&D programs must involve investing in qualified human resources and science and technology infrastructure linked to the seas and oceans, as well as the optimisation of existing resources, fostering and strengthening cooperation, sharing of resources among national institutions and active participation, duly framed within international networks. The R&D should be funded in a stable manner and with programmatic consistency, guided towards the functional needs and knowledge arising out of the implementation of the NOS2013 2020.

#### 2.4. International assertion and cooperation

The dimension of the geostrategic issues associated to the seas and Oceans is, by nature, international and intercontinental. As previously mentioned, Portugal, for its dimension and the location of its maritime space, plays an important role in the IMP and in the EU's Maritime Strategy for the Atlantic area, as well as in the framework of international organisation of which it is a Member-State.

In particular, the IMP constitutes an inexpensive element for the sustainable energy and climate policy. It mainly aims at transectorial and transnational integration of maritime surveillance and the international dimension of the

THE IMPORTANT GEOSTRATEGIC POSITIONING OF PORTUGAL CARRIES SERIOUS CHALLENGES AND IMPOSES GREAT RESPONSIBILITIES IN THE INTERNATIONAL GOVERNANCE OF THE SEAS AND OCEANS community maritime policy. The IMP is an important action tool for promoting the economic potential of the European maritime and costal space, seeking simultaneously protection through new governance dynamic and of exploitation of the synergies of the various policies that the sea has as its element.

However, in addition to the rights inherent to its maritime dimension, Portugal is equally bound to comply with the respective international obligations, as well as its responsibilities in the area of spatialisation of the Ocean and the maritime seabed, in the surveillance and monitoring of activities that take place therein and the monitoring of its environment and ecosystems, in a framework of international governance of the oceans.

Although Portugal's participation in different international *fora* may have costs, it is essential for the contribution that the country can give for the creation and development of measures adopted under the scope of those same *fora*, as for its implementation on national soil.

Portugal will have to ensure their participation in different international *fora* and ensure effective and full coordination between the different guardianships on the representation and position of Portugal in these *fora*, in order to not compromise the possibility of continuing to be part of the international decision processes. Hence it should be a national and in particular the priority NOS2013-2020, the active participation of Portugal in international *fora* and effective coordination of its representation, so you can assume a greater role within the governance of oceans and seas.

PORTUGAL SHOULD CONTRIBUTE IN THE FRAMEWORK OF THE CPSC FOR THE PRODUCTION OF STRATEGIC THINKING IN RESPECT TO CONCILLIATING POSITIONS OVER THE GLOBAL OCEAN POLICIES

## 2.4.1. Community of Portuguese Speaking Countries (CPSC)

Portugal can and should contribute in the framework of the CPSC for the production of strategic thinking in respect to conciliating positions over the global Ocean policies. One should highlight in this context, the participation in biennial meetings of Ministers of the Sea as well as the presentation of a joint statement of this ministerial group to the Rio+20 Conference.

Furthermore, Portugal, over the past years has been strengthening its operational and multidisciplinary capacity in project preparation for extending the continental shelf and access to the seabeds, in particular within the framework of international cooperation developed as part of the CPSC.

Portugal thus constitutes a bridge between the east and west and an interface between the north and south hemispheres, valued for its maritime culture, for its language and trade, whose current expression is the CPSC. Also highly relevant are the cooperation activities under development with CPSC countries, such as areas of navigation safety, threat assessment information sharing, security and policing and safety and assistance on beaches.

#### 2.4.2. Protecting the marine environment

Portugal currently ascertains itself as one of the great maritime countries of the world, and therefore has a particular responsibility to set the model of sustainable development and contribute to solving major environmental problems, with the necessary means and international cooperation that this entails.

PORTUGAL THUS CONSTITUTES A BRIDGE BETWEEN THE EAST AND WEST AND AN INTERFACE BETWEEN THE NORTH AND SOUTH HEMISPHERES, VALUED FOR ITS MARITIME CULTURE, FOR ITS LANGUAGE AND TRADE The size of the national territory is accompanied by a huge potential that the asset comprised of a diversified series of natural resources represents. However, economic exploitation and environmental preservation present themselves as strategic areas for action, which together with the prospect of social and territorial cohesion, are essential to promoting a sustained and sustainable development of the country.



THE ECONOMIC EXPLOITATION AND ENVIRONMENTAL PRESERVATION ARE PRESENTED AS STRATEGIC FIELDS OF ACTION THAT ARE ESSENTIAL TO PROMOTING A SUSTAINED DEVELOPMENT OF THE COUNTRY

This makes it essential to establish an approach that

enhances its recognition, its environmental sustainability and its social and economic valorisation.

#### 2.4.3. Protection and safeguarding

The immensity of the maritime space and the absence of physical boundaries make the prevention and control of illegal acts practice or illegal activities at sea and on board vessels particularly difficult.

Likewise, the political boundaries between different coastal States are irrelevant to the preservation and protection of the marine environment and the measures to be taken in this context should take into account the interlinking of different marine ecosystems.

In this regard, the States should cooperate in the safety and security of the right to exercise freedom of navigation, in particular, through the adoption of measures to protect and prevent the practice of unlawful acts against ships and the implementation of measures to ensure the preservation and protection of the marine environment in the exercise of such freedom. To this end, the States should effectively exercise their jurisdiction and control over vessels that fly their flags; likewise States with ports should monitor and control vessels therein, without prejudice

PORTUGAL SHOULD PROMOTE THE USE OF ITS AVAILABLE RESOURCES, ACCORDING TO THE LOGICS OF EFFICIENCY AND SUBSIDIARITY, DEVELOPING A COOPERATIVE CIVILIAN AND MILITARY EFFORT THAT WILL CONTRIBUTE TOWARDS ENSURING AN EFFECTIVE RESPONSE to the rights of the coastal States to adopt the necessary and legally provided measures to prevent, reduce and control pollution coming from vessels in the exercise of their right to passage and/or freedom of navigation. In this sense, it is important to develop the studying and implementation of safe havens, as an effective way to responding to accidental pollution at sea, with the aim of mitigating its effects on the marine environment.

With this in mind, Portugal should promote the use of its available resources, according to the logics of efficiency and subsidiarity, developing a cooperative civilian and military effort that will contribute towards ensuring an effective response. To this effect, it is first necessary to promote sharing of information between the surveillance, monitoring and control systems.



Also within this framework and without prejudice to other international cooperation efforts, namely in external action, including combating piracy, Portugal actively participates in European projects aimed at the integration of maritime surveillance, including through the exchange of information between agencies of the different Member-States participating in the project, in particular with regard to the monitoring of borders and customs, fisheries and marine pollution from

ships and ports, to the prevention and suppression of illegal activities and navigational safety and safeguarding of human life and assets.

## **3.** Areas of intervention

THE "BLUE GROWTH" IDENTIFIES FIVE STRATEGIC AREAS OF PREFERENTIAL INTERVENTION, NAMELY BLUE ENERGY, AQUACULTURE, TOURISM, MARINE MINERAL RESOURCES AND THE BLUE BIOTECHNOLOGY

The "Blue Growth" identifies five strategic areas of preferential intervention, namely blue energy, the aquaculture, the coastal maritime tourism and that of cruises, the marine mineral resources and the blue biotechnology. Currently, in the European economy, the business sectors relating to living and non-living resources, as well as the infrastructures, uses and activities, although in different stages of development, have a significant weight, whereby the annual contribution towards gross added value is estimated at 500,000,000,000 Euros, and maintenance of at least 5,600,000 work posts.

In Portugal, monitoring of the combined weight of maritime activities is still very poorly consolidated in the national accounts. However, the *"Hypercluster of Ocean economy"* study (SAER/ACL: 2009) refers to direct contribution maritime activities of around 2% of the PIB with the creation of around 75,000 direct employment. On the one hand, the work *"Blue Growth for Portugal: an business vision of the ocean economy"* (*COTEC:* 2012) presents slightly less conservative economic perspectives, pointing to values close to 2.2% of the PIB, although it also refers to the lack of consolidation of national accounts that allows for a more contextualised sampling. Likewise, according to the document: *"Ocean economy in Portugal"*, coordinated in 2012 by the Directorate-General for Maritime Policy (DGMP), and which involved a broad set of institutional representatives of the sectors, in 2010 Ocean economy represented in direct terms around 2.5% of the gross added value and 2.3% of national employment.

Meanwhile, the "*Report for a sustainable growth - a post-troika vision*" presented in December 2012 by the Sustainable Growth Platform, defends five strategic guidelines for the Ocean to be seen as an engine for the development and assertion of Portugal in the world: reorganise, restructure and regulate the Ocean economy; create a distinct mark held onto the proximity of the Portuguese folk to the sea; strengthen knowledge, science and technology and skills in the sea area; establish a new Ocean funding and governance model; and protect the oceans from the consequences of climate changes

The development model adopted in the framework of the NOS2013-2020 aims to be sufficiently wide so as to be applied to all fields of intervention, without prejudice to its capacity to attend the short and medium, small scale duration challenges and with a lower incidence on space. The challenges and opportunities of the maritime sector assume the valorisation of its potential and the equitable division of the benefits obtained from the different activities that are included therein.

THE NOS2013-2020 REFERS FROM THE OUTSET THAT IT SHOULD BASICALLY BE THE PORTUGUESE THAT SHOULD, AS A MATTER OF PRIORITY, GIVE FULL POTENTIAL AND TAKE ADVANTAGE OF THE EXPLOITATION AND DEVELOPMENT OF THE NATIONAL MARITIME SPACE

In this sense, the NOS2013-2020 refers from the outset that it should basically be the Portuguese that should, as a matter of priority, give full potential and take advantage of the exploitation and development of the national maritime space.

#### 3.1. Living resources

Fishing and its subsidiary activities, such as the transformation and valorisation of fish, constitute a sector with huge tradition in Portugal and has a significant social and economic weight. Over recent years, fishing has maintained almost constant catching levels, mainly due to increased efficiency and effectiveness of the fleet





resulting from its progressive renewal and accompanied by a decrease in the number of fishermen and vessels registered.

The pressure of demand has implicated a consistent negative record on the Portuguese commercial scales in this sector. The insufficient capture can be progressively reduced with the development of onshore and offshore aquaculture. This activity continues to be poorly exploited in our country, partly due to the adverse physical conditions of the Portuguese coast. The improvement of productivity techniques and technologies may contribute towards a significant development of aquaculture in Portugal and, within this, shellfish farming.

Another sector with growth potential, in the near future, is that of genetic resources in the framework of marine biotechnology development and through the use of marine organism compost on bio products with

industrial, pharmaceutical, medical, cosmetic and technological industrial application, among others. Until now, this is a universe that has been, in an almost exclusive manner, supported by a strong R&D component.

In Portugal, the existence of a vast and largely unexplored, ultra-deep geographic area and the presence of associated extremophiles, among others, the hydrothermal occurrences in the Azores, as well as the occurrences associated to underwater structures, originated from methane gas emissions, have good prospects for the development of marine biotechnology products in the near future. It is also worth mentioning the growing expectation in respect of the potential associated to development of the algae culture for the manufacturing of bio fuels.

#### 3.2. Non-living resources

In the international scene, the activities relating to the exploitation of non-living resources have an enormous economic growth potential and in creating employment, thus being classed as strategic.

The potential for metallic mineral resources in the Portuguese marine environment includes ores of zinc, copper, cobalt, gold, silver, manganese, high tech metals THE ACTIVITIES CONCERNING THE EXPLOITATION OF NON LIVING RESOURCES HAVE A HUGE POTENTIAL FOR ECONOMIC GROWTH AND CREATING EMPLOYMENT

and rare earths, as well as non-metallic aggregates. Subject to confirmation through research studies and prospection, the geological context of the national maritime space is favourable to the occurrence of mineral deposits with substantial economic value, particularly in geological structures of Middle-Atlantic ridge, near the Azores, in the Madeira-Tore Crest and along the adjacent platform that extends from Madeira to the west coast of Portugal.

So as to confirm the potential of the national marine resources, the conventional energy resources, and in particular hydro carbonates, have been significantly increasing in Portugal.

There is also a strong potential for economic exploitation of methane hydrates, with occurrences having been confirmed throughout all of the offshore area, to the south and southwest of Portugal. However, the development of these resources would mean an increase in the existing technology and may bring about environmental issues that must be considered.

Confirming the existence of non-living resources may on its own, contribute towards the development of a wide range of activities and sectors, from port infrastructures and maritime shipping, to environmental monitoring and technological development.

Portugal has shown, through studies of the national continental shelf, carried out by various national research institutions, the existence of huge potential and ideal conditions for the development of renewable energy in the maritime space. In particular, harnessing the potential of wave powered energy, as well as the use of wind in offshore areas, which is characterised by a greater availability and more stability in view of the absence of natural barriers. Both uses have, besides the pilot-project in operation, applications to the financial instrument of the European Commission NER300, there having already been approval, in 2012, of the 27 MW offshore wind project application, called Wind float.

The growth of this sector will, in the medium and long term, be important for the decarbonisation of the national economy, helping towards ensuring compliance with the goals of penetration of renewable energy in gross final

consumption and goals for reducing greenhouse gas emissions (GGE), international missions undertaken by Portugal. In addition, it will have a further significant impact on reducing fossil fuel imports and increase security of energy supply. In this scenario, it is expected that one will attend the lookout for a wider range of products and services related to an industrial boosting, with significant economic impact.

The physical conditions of the Portuguese coast, particularly given its bathymetry, involve the optimisation of existing technology, including the use of floating wind generators, a solution that has been adopted in existing projects, which appeals largely to the incorporation of national industries in the manufacturing of components and infrastructures.

Other forms of energy production can be addressed in the near future, as the production of energy from waves, tides and currents, a sector that has been developed in Portugal, and for which are being designed and developed a series of engineering projects.

Also manufacturing of sea salt, the history of which has been lost over a distant past, represents an activity that has nowadays been monitoring consumer trends allowing streamlining and modernisation of this industry in a particularly demanding market.

#### 3.3. Infrastructure, use and activities

#### 3.3.1 Ports, shipping and logistics

The commercial ports sector has had a significant economic development, accompanied by a diversification of infrastructure and port services, associated to an increase in the availability of skills and capabilities to meet with significant traffic requirements, such as import/export and transhipment of containerised cargo or petroleum products, natural gas and coal.

The widening of the Panama Canal, fully operational from 2014, will allow passage to even larger vessels with greater cargo capacity.

Portugal holds a strategic position in the Atlantic front of the Iberian Peninsula and in the crossroads of the main equatorial and meridian maritime shipping routes. The full use of this potential should be based on an integrated offer, with ports capable of receiving the largest intercontinental cargo carriers, in particular container-carriers. The integration of national ports in the international freight transport networks will, undoubtedly, be a factor of distinction and competitiveness of our Ocean economy.

The Port of Sines is one of the few deep water ports of Europe, currently being one of the few harbours along the Atlantic side of the Iberian coast, able to respond to those requirements, with the ability to constitute itself as a port or relevance for the entry and exit of goods in Europe.

#### PORTUGAL HOLDS A STRATEGIC POSITION IN THE ATLANTIC FRONT OF THE IBERIAN PENINSULA AND IN THE CROSSROADS OF THE MAIN EQUATORIAL AND MERIDIAN MARITIMESHIPPING ROUTES

It should also be noted that the Strategic Transport Plan, published in November 2011, provides feasibility studies related to the increasing capacity for receiving intercontinental traffic ships

The commitment, within the framework of the Europe 2020 Strategy, towards the development of a transport network infrastructure in Europe, based on innovation and addressing the environmental, climate and energy challenges, through non-polluting and low-carbon emission transportation systems, encourages the transfer of intra-European goods traffic for distances greater than 300 km to the rail, maritime and fluvial modes, thus promoting short-sea shipping and boosting the motorways of the sea, enhancing the development of the ports and shipping sector.

The activity of national merchant navy lost dimension as a productive activity, having failed to keep up with competition created by the liberalisation of the sector. And within this framework, the time is of opportunity; to take advantage of a series of previously mentioned factors; to create a new momentum for development in line with a new paradigm for maritime shipping.

The current framework is thus favourable to a continued growth in this sector.

The fishing ports and shipyards require restructuring and reorganization on a national level. This task entails a detailed social and economic study of coastal communities that are associated with them, the value chains generated by them, the adequacy of infrastructure support, maintenance and natural conditions existing therein, in a cost-benefit perspective. Re-planning of this sector should be linked to the sector for ports and recreation harbours, with a view to creating synergies and simultaneously mitigating potential conflicts in the use of the national maritime space.

#### 3.3.2. Leisure, sport and tourism

Recreational boating and touristic cruises are industry sectors that have, in short period of time, had a significant growth potential in Portugal.

#### IT IS EXPECTED THAT TOURISM ASSOCAITED TO NAUTICAL ACTIVITIES MAY HAVE A VERY STRONG INCREASE OVER THE COMING YEARS

The activity with the most impact in this set is coastline tourism (Sun and Sea), where it is expected that the tourism activity associated to nautical activities may have a very strong increase over the coming years, for which will have to be created on, in an ordered framework, the necessary support infrastructures, such as marinas and boating



and ship repair centres. These may be the catalysts to the increase of sporting activities, which in itself contribute to boost the sector and, in parallel, enhance a communication and education policy in order to consolidate the image of Portugal as a country with a strong maritime identity.

The internationalisation of sporting activities, of which surf is a good example, with Peniche being rated as the "Capital

City of the Wave"; Ericeira, as "World Surfing Reserve"; the "Wave of Nazaré" and the acknowledgement of The Azores as a new world destination, actively contribute towards strengthening this identity, in particular among the younger generation. Moreover, in this area, the projections of water sports in Portugal turn our country into a world reference in other sports, such as sailing and canoeing.

Similarly, the creation of underwater archaeological parks may potentiate the development of a local level added value sector of tourism, similar to what is already happening with the Archaeological Parks of Angra Bay, created in 2005, and Dori in 2012, both located in the Autonomous Region of the Azores. The activities linked to observing cetaceans and other marine species is also of particular importance in the Archipelago of the Azores, Madeira and mainland. Also, the so-called leisure tourism may take on a leading role, mainly on islands, promoted, for example, by the acknowledged medicinal and therapeutic qualities of the sands and clays of the island of Porto Santo, as well as the thermal waters that are exploited on the shorelines of some coastal islands of the Azores archipelago and that have led to a rejuvenation of thermal infrastructures and a commitment to the quality of this tourism sector.

#### 3.3.3. Construction, Maintenance and Ship Repair

A re-planning of national shipyards, with a concentration of skills and expertise in innovative market segments, can reverse the current situation of shipbuilding in Portugal.

In ship repair and maintenance, the situation is more favourable, insofar as Portugal continues to be a country of international relevance in this sector, mainly through shipyards, holders of relevant shares; that hold one of the major ship repair yards of Europe and the third largest in the world, in some market segments.

However the innovating incentives scheme may be important to the modernisation and restructuring of shipyards.

IN SHIP REPAIR AND MAINTENANCE, PORTUGAL CONTINUES TO BE A COUNTRY OF INTERNATIONAL RELEVANCE IN THIS SECTOR





#### 3.3.4. Maritime constructions

Finally, according to a sustained risk analysis, the dynamics and processes inherent to the ocean-atmosphere integrated system require the implementation of maritime coastal defence works and the availability of early warning requiring specific technical and scientific approaches.

#### Past and future trends dynamics

	Historic (~1994-2009)		Trends (~2010-2020)	
Activity	Socio- economic dynamics	Deteriorating dynamics on marine	Socio- economic dynamics	Deteriorating dynamics on marine
		waters		waters
Commercial fisheries	$\checkmark$	$\rightarrow$	$\rightarrow$	$\rightarrow$
Fish and aquaculture processing industry	$\rightarrow$	<i>→</i>	1	<b>→</b>
Aquaculture	÷	$\rightarrow$	1	<b>&gt;</b>
Seaweed and other sea-based food harvesting	$\checkmark$	÷	÷	÷
Bioprospecting and extraction of genetic resources	negligible	negligible	ſ	÷
Shipbuilding and ship repair	$\checkmark$	÷	÷	÷
Port operations	1	÷	1	÷
Shipping	ſ	÷	ſ	÷
Tourism and recreation	۲	÷	1	÷
Extracting non-energy geological resources	negligible	negligible	۲	÷
Extraction of salt	→	→	→	<b>→</b>
Research and extraction of oil and gas	ſ	negligible	1	<i>→</i>
Marine-based renewable energy generation	۲	÷	1	<i>→</i>
Coastal defence, land claim and anti-flood protection	۲	<i>→</i>	1	<i>→</i>
Submarine cable and pipeline operations	÷	÷	1	<i>→</i>
Desalination/ water abstraction	-	negligible	-	<i>→</i>
Solid wastes disposal incl. dredge material	-	÷	-	<i>→</i>
Municipal waster water discharge	-	$\mathbf{h}$	-	$\mathbf{h}$
Storage of gases	negligible	negligible	negligible	negligible
Defence operations	÷	÷	÷	÷
Marine research, survey and educational activities	۲	-	1	-

 $\uparrow$  - increase;  $\rightarrow$  - stabilisation;  $\downarrow$  - reduction (of activities and impacts in marine waters)

Ref.: MAMAOT (2012). Maritime Strategy for Continent Subdivision. Marine Strategy Framework Directive. Ministry of Agriculture, Sea, Environment and Spatial Planning. October 2012.

## CHAPTER IV THE NATIONAL OCEAN STRATEGY FOR 2013-2020



## **1**. Vision

THE MAR-PORTUGAL IS A NATIONAL GOAL, THE POTENTIAL OF WHICH WILL BE REALIZED BY THE ECONOMIC, SOCIAL AND ENVIRONMENTAL VALUE OF THE OCEAN AND THE COASTAL AREAS, FOR THE BENEFIT OF ALL PORTUGUESE.

This vision is embodied in an action plan, the Mar-Portugal Plan (MPP), the time horizon of which is fixed for the 2013-2020 period. In its whole, the MPP sums up all projects, programs and sectorial, trans-sectorial and private measures that are carried out under the NOS2013-2020.

The MPP frames and enhances synergies and scaled economies among all players and development sectors, reaffirming the value of the geostrategic position, competing for in a first stage and in the short term, establish the conditions essential to the achievement of Portugal's strategic maritime potential and the assertion of a plural national maritime identity and, in a second phase, corresponding to a broadened time limit, enable the full execution of this potential.

The MPP shall, as shall all of the NOS2013-2020, be a dynamic document, open to changes that, by renewal of the strategic national thinking or by addition, substitution or termination of programs and projects, are being recommended by all interested parties and approved by the ICOA.



## **2.** Objectives

In pursuit of the NOS2013-2020, through the action plan, comprise the following objectives:

- To reaffirm the national maritime identity in a modern, proactive and entrepreneurial framework.
- Realising the economic, geostrategic and geopolitical potential of the national maritime territory, turning the Mar-Portugal into an asset with permanent economic, social and environmental benefits.
- To create conditions for attracting investment, both national and international, in all Ocean economy sectors, promoting growth, employment, Ocean sector in the national GDP in around 50%.
- To strengthen national scientific and technological capacity,

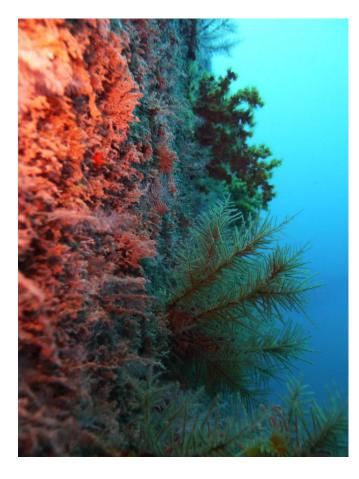


stimulating development of new areas of action that promote the knowledge of the Ocean and effectively, efficiently and sustainably enhance its resources, use and activities as well as the ecosystem's services.

• To consecrate Portugal on a worldwide level, as a maritime nation and as an unchangeable part of the IMP and of the EU maritime strategy, in particular for the Atlantic area.

## **3.** Guiding principles

The fulfilment, efficiency and effectiveness of the implementation and management of the NOS2013-2020 requires, in the context of the adopted "Blue Growth" development model, observance of the following set of guiding principles:



- Integrated Management: intersectorial, multidisciplinary and cross-cutting, ensuring the extended coordination of Ocean planning and action, promoting complementarity of acquisition and use of resources, ensuring subsidiarity and strengthening agility and adaptability.
- **Precaution:** anticipating, whenever possible, potential risks or damage to health of humans, animals or plants, or to environmental protection, without postponing effective measures in the pursuit of knowledge and sustainable use of the Ocean.
- Effective participation: of everyone from a central, regional and local level involving public and private entities and civil society as key partners for the identification and evaluation of threats and pursuing opportunities, ensuring reflection and production of strategic thinking.

## **4**. The Mar-Portugal Plan (MPP) Architecture

The MPP is a dynamic document, constantly being updated in line with the production of strategic thinking and is based on a matrix structure indexed to:

- Action Axes (AA) Research (AA1), Exploitation (AA2) and Preservation (AA3)
- Strategic Development Domains (SDD) Natural Resources (SDD1) and Infrastructure, Use and Activities (SDD2)

The Action Matrix (AM) elements, created by the AA and by the SDD, define the Program Areas (PA) that group, under the aforementioned themed topics of the preceding chapter, different Action Programs (AP), developed through Projects (p).

Sustainability, facilitation and promotion in carrying out the MPP is guaranteed by a Support Axis (SA1) - Governance.

The **AA** are characterised by:

SA1 - Research (getting to know the Ocean) - Actions intrinsically linked to research and knowledge of the Ocean, its interfaces and processes that occur therein, including decodification of the main functions and services. lt also comprises initiatives technologically based for monitoring of the marine environment or that lead to an improvement of the conditions of the different productivity sectors within a framework of sustainable economic exploitation.



**AA2 - Exploitation (living off the Ocean) -** Measures dedicated to the sustained valorisation of the Ocean, of the natural resources contained therein and as an environment where different uses and activities are developed, with a view to achieving the main objectives of social and economic development and the production of wealth.

**AA3 - Preservation (living with the Ocean)** - A set of initiatives and measures focused on safeguarding the marine environment, ensuring its sustainability and promoting a good environmental status, mitigating of environmental damage and reducing pressures that subsequently arise out of the desired economic development within the framework of blue growth.

On the other hand, the **SDD** are characterised by:



SDD1 - Natural Resources - Covering the ocean-atmosphere's integrated system, comprising the seabed and marine subsoil, and the living and nonliving resources therein. The economic value of this SDD includes, besides a portion inherent classic to the quantification of passive physical benefits of exploitation, a portion related to natural services and functions that the integrated ocean-atmosphere system provides as benefit to society.

SDD2 - Infrastructure, Uses and Activities - Combination of anthropic actions that occur in the maritime space and for the execution of which the Ocean is the means for achieving economic, social and environmental valorisation of the activity, including the intervention on the coastline's natural resources not

intended for extractive exploitation of living and non-living marine resources.

The **ES1** - The horizontal and structuring **Governance (to facilitate, promote and maintain the action)**, gives support and provides coherence to all evolution stages of the action, focusing on the development of execution measures by **AP**, crosscutting in general and that allow to facilitate and regulate the economic activity, promoting a more favourable environment and improve social well-being.

The **MPP agents** comprise public and private entities and NGO's, directly or indirectly involved in Ocean action. The involvement and role they assume in each **AA** is differentiated, necessarily varying according to the scope of work. It is expected that the State takes on a leading role on the sides of research and preservation; the NGOs on the side of preservation and the private entities on the side of exploitation. The ES1-Governance is, mainly, a Government initiative for which it is liable for.

Inherent to the Ocean's action are a series of threats and opportunities that require the participation and continued identification and evaluation of all players. Only this way can the MPP be effective, up to date, and integrate the various wills and initiatives. Assessment will assist analysis of the implications; positive (synergies) and negative (impacts), associated to he actions being implemented, in a framework strongly linked to interdependency of all action axes.

Analysis of the opportunities and threats shall equally contribute towards establishing a prospective vision of investment on different time scales in the course of implementing the MPP, mainly for those activities identified as having a major growth potential. The prospective need deriving thereof is the responsibility of all players and must be carried out, in an inclusive and cooperative framework, by a forum dedicated to producing strategic thinking.

This should promote a strategic reflection ensuring the building of scenarios that mould, rationalise and allow prioritisation, or correction, of actions to be developed in the **AM** framework. Producing strategic thinking will also allow for framing of different trans-sectorial implementation measures, essentially being the responsibility of the public sector, which merge into the support axis, i.e., Governance. With this framework, the MPP will be rolled out through the ICOA, a coordination structure that will define the key players and their attributions, the human, financial, material and information resources to mobilise its origin and, finally, the assessment indicators to be used during the period of implementation of the NOS2013-2020 and the respective action plan.

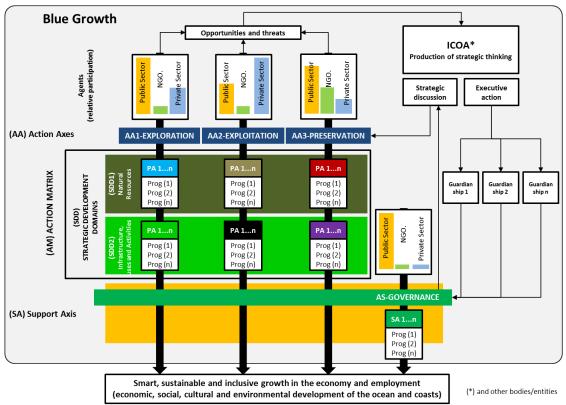
In brief, the implementation of the NOS2013-2020 through the MPP gives priority to the development of knowledge, skills and shared management tools, involving all players, in order to allow for the discussion of the causes and possible solutions to the problems, and not only, its symptoms. It therefore resorts to a management model that promotes the articulation of policies and the establishing of strategic measures and respective areas of intervention, thus adding value and making the overall result more than just the sum of the sectorial fractions.

## **5.** The Action Plan

The MPP is a dynamic document, constantly being updated in line with the production of strategic thinking and is based on a matrix structure indexed to: This way, defining the **PA** of the **AM** and the **SA1** presented in Annex A and forming integral part of the NOS2013-2020, can be subject to amendments, whenever necessary.

In Annex B, the description of the content of the AP is carried out taking into account each of the SDD's that define the AM, that is the SDD1 - Natural Resources and the SDD2 - Infrastructure, Uses and Activities, followed by the SA1 - Governance. SDD1 - Natural Resources closes the three sub-domains: SD1 - System; SD2 - Living Resources; SD3 - Non-living Resources.

The details for executing the MPP are included in the Appendixes to Annex B up to **projects (p)** level in framework of the AP of each of the **PA.** Appendix 1 includes the MPP Action Plan, while Appendixes 2 and 3 are included in the MPP Action Programs for the Autonomous Regions of the Azores and Madeira, respectively. The projects relate to practical actions, for which have already been identified human, financial and material resources, in order that be carried out, to which effect an implementation calendar has been established and the expected output defined; or, to which effect is in process a detailed definition of the implementation calendars and necessary resources.



#### National Ocean Strategy – Mar-Portugal Plan

Figure 1 - Integrating the Blue Growth model in the Mar Portugal Action Plan



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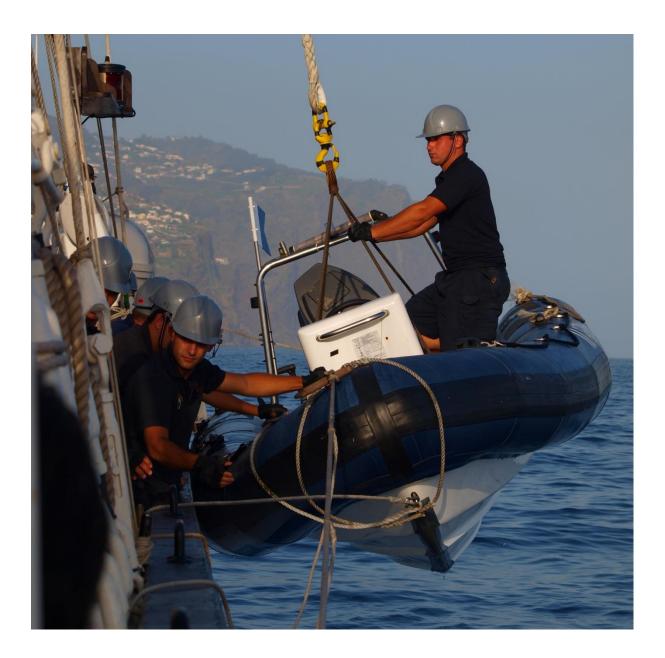
#### THE IMPLEMENTATION OF NOS2013-2020 RELIES ON A SET OF CAPABILITIES AND SIGNIFICANT RESOURCES WHICH REQUIRES HUMAN, FINANCIAL, MATERIAL AND INFORMATION RESOURCES TO BE MADE AVAILABLE

## **1**. Human Resources

The quality and diversity of the human resources skills required for the practical implementation of the MPP may, in general, be met by the scientific and technical community existent in Portugal.

Strengthening of national research, development and innovation teams in the scope of marine sciences and technologies achieved in the last decade has been significant and covers almost all of the expertise board inherent to research, exploitation and preservation of the national maritime space potential. To the increased activity and involvement of human resources, in the various frameworks, will necessarily correspond, in terms of greater demand on security functions and the exercise of authority, the current expedients, as well as its reinforcement and qualification, which are considered essential for the remaining activities to be conducted in a secure environment.

The installed capacity is expected to emerge stronger with political reform, rationalisation and upgrading of human resources in Public Administration and the promotion of greater intersectional cooperation. This combination of skills and competencies will be decisive in achieving the critical mass needed for excellence in knowledge, exploitation and preservation of the Ocean.



On the other hand, monitoring and active participation in the various national and international *fora*, capitalising on experience, are a means to achieving a level of excellence in the most diverse technical and scientific fields, associated to the Ocean affairs.

## **2.** Financial resources

The financial resources include national and EU funds, as well as other available financial cooperation instruments<sup>1</sup>, managed by different guardianships that develop relevant Ocean policies, as well as private funding including the national component in the case of EU funds.

The financial instruments will contribute towards financing the actions and measures proposed in the NOS2013-2020, or that may be proposed or contribute for the desired effects, but will require the concerted and effective action of the respective guardianships, increasing synergies and optimising existing resources, as well as the tune of private interests with the proposed actions.

The costs of multi-year mobilising for the NOS2013-2020 will be determined under the various action plans defined, namely the MPP, and in conjunction with the various players. In this sense, one will need to search for a safer model, one that can be estimated and that is financially adjusted to the multi-year costs, ensuring a suitable governing mechanism of the NOS2013-2020 and of monitoring of the MPP.

It is intended that the NOS2013-2020 be a support to the regional development policy associated with the Ocean, as well as to the investments planned under the "Ocean Knowledge and Economy Cluster", part of the "Collective Efficiency Strategy" program of the National Strategic Reference Framework (NSRF). Moreover, the Regional Governments of the Azores and Madeira and, to an extent, the Commissions for Regional Coordination and Development (CRCD), while peripheral Central Administration bodies for Portugal, play a double role as development agents and Management Authorities for Regional Operational Programs. The latter having in addition, the Thematic Operational Programme for Territorial Enhancement (OPTE). One should also take into account the remaining financial envelopes of the European Fisheries Fund and the NSRF, which will be made available over the course of 2013.

In addition to the recently adopted regulation, within the EU framework, which establishes a program to support the development of the IMP,<sup>2</sup> there are programmes running currently running, namely, the 7th Framework Programme for Research and Technological Development of the EU (FP-7), the Financial Instrument for Implementation, Upgrade and Development of the Policy and Community Legislation for the Environment (LIFE), including integration of other IMP policies, in particular, with regards to nature and biodiversity, environmental politics and governance, and information and communication.

On the other hand, there forecast for the creation of a new financial support framework, and respective legal instruments, for the 2014-2020 time period. This multi-year framework, proposed by the European Commission,<sup>3</sup> accentuates the importance of strategies for the ocean basins and geographical synergies to be developed based on the transnational cooperation programs and respective partnerships.

<sup>&</sup>lt;sup>1</sup>Example: EEA Financial Mechanism 2009-2014 (EEA Grants)

<sup>&</sup>lt;sup>2</sup>Forecasting the financial envelope of €40M until the end of 2013.

<sup>&</sup>lt;sup>3</sup>Proposed total value of €1,025 B (1. Smart & Inclusive Growth - €491mM; 2. Sustainable Growth, Natural Resources - €383mM; 3. Security and Citizenship – €18.5mM; 4. Global Europe - €70.0mM; 5. Administration - €62.6mM) (Indicative values at the end of 2011).

Such financial prospects may benefit the Atlantic basin, being conferred a significant regional and local autonomy in relation to the applicability of the funding. These instruments are the following:

- A Strategic Common Framework for the European Structural and Investment Funds, with particular emphasis in areas such as competitiveness of small and medium sized companies, betting on innovation and on the environment. The EU Cohesion Policy will provide the main lines for common regulation of structural funds. Of these, the Cohesion Fund (CF), the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the European Maritime Affaires and Fisheries Fund (EMFF) were identified as being relevant to the implementation of the NOS2013-2020 and respective harmonisation with the EU Maritime Strategy for the Atlantic area. Still, under the Cohesion Policy there are plans for specific regulations, particularly for the European Territorial Cooperation Objective and the European Grouping of Territorial Cooperation (EGTC). Regarding the EMFF, this will be structured around four pillars, namely Green and Smart Fishing, Green and Smart Aquaculture, Sustainable and Inclusive Territorial Development (shared management) and IMP.<sup>4</sup> Also envisaged is that 6%<sup>5</sup> of the value of this fund be applied to programs related to the implementation of this last pillar. These funds will be applied through four Thematic Operational Programmes (OP) on the mainland, five Regional OPs on the Continent, two Regional OPs in the Autonomous Regions, the Integrated Maritime Policy and Fisheries Fund OP and the European territorial cooperation OP's that contribute for Portugal's commitment to the sea in 2014-2020.
- A European framework program for research and innovation, the "Horizon2020"<sup>6</sup> that will replace the FP-7, strongly linked with national research programs with the aim of promoting excellence, addressing social challenges and promoting competitiveness. In this program, marine and maritime research shall be the subject of a strategic programming approach and specific mechanisms, aimed at conferring the necessary cross-cutting in its implementation.
- A financial instrument to support projects relating to environment and nature conservation, the LIFE program, which will contribute towards financing the actions inherent to the environmental pillar of the NOS2013-2020, namely implementation of the MSFD.
- The Mechanism "Connecting Europe" in terms of financial assistance to trans-European networks, which is particularly relevant in the area of ports, shipping and logistics.

To the funds identified above, also come together, other important sources that allow for diversifying access to financial resources, including through private investment, and contributing also to the sustainability of achievement solutions. Of these, the following stand out:

- Cooperation funds such as the Financial Mechanism of the European Enlarged Area 2009-2014 and their operational programs.
- The effort to attract foreign direct investment and venture capital funds, both of which may also contribute to the co-financing of European projects by promoters.

<sup>6</sup>Estimated total value of € 80mm.

<sup>&</sup>lt;sup>4</sup>Smart, Green Fisheries (shared management), Smart, Green Aquiculture (shared management), Sustainable and Inclusive Territorial Development (shared management), Integrated Maritime Policy (direct and shared management) <sup>5</sup>6 % of the EMFF.

 The European Investment Bank Group (EIB Group), which according to the Action Plan of the European Strategy for the Atlantic Area, is ready to mobilise its financial instruments and its expertise in support of suitable projects, in order to carry out the priority implementations of this action plan, with which the NOS2013-2020 seeks to be aligned.

## 3.

#### **Materiel resources**

The implementation of the NOS2013-2020 also requires a concerted effort to take advantage of existing infrastructure and financed by leveraging and reusing the investments already made. In this scope, Portugal now has a significant number of materiel resources capable of responding to most of the needs for gathering of data and samples of the status of the integrated ocean-atmosphere system. The national capabilities on materiel resources for observing and monitoring of the ocean and the atmosphere will be greatly valued through promoting its sharing and integrated management.





# **4.** Information resources

The use of information resources should be directed towards promoting the federation of services and networks. This should feed the strategic management tools, situational awareness systems to support operational decision making systems and functional knowledge. This includes the security of the infrastructure, people and information; the dedicated and extended services; the fusion and analysis tools; user interfaces for sharing of information and data on social networks.

One should also take into account the economic and governance, as well as capacity building activities linked to the Ocean, which directly or indirectly involve a significant universe of citizens. It is thus imperative to provide mechanisms for communication, dissemination and collection of fluent and credible information that can ensure alignment, mobilisation and commitment of all players..

## CHAPTER VI MONITORING, EVALUATION AND REVIEW

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## **1**. Objectives

The implementation of the NOS2013-2020 will be subject to constant monitoring and evaluation, on one hand, to allow for measuring the extent to which the set objectives are pursued, and, secondly, to ensure its review and update, whenever there are significant changes to context that justify it.

## **2.** Competence e Procedures

The DGMP shall ensure adequate monitoring at various levels of activity, according to various aspects and shall propose whatever changes are deemed necessary to the realignment/improvement of the MPP, as action plan of the NOS2013-2020, proposing to ICOA new options or amendments to programs and projects running.

The structure adopted for the NOS2013-2020, will objectively assess the development of the situation, from an implementation level and effectiveness of actions, evaluating objectives and identifying the respective indicators and targets, particularly at a strategic level (Strategic Objectives) and related to these, at the level of each PA.

In each of the PA's, the NOS2013-2020 establishes the objectives for the respective AP and the expected short and medium term effects that, during the strategy's implementation phase, will enable working groups consisting of representatives of all involved guardianships and other relevant partners, to develop these adequately.

The AP's establish for a set period of time and/or for a specific geographic area, the required accomplishments and identify the features of the projects that embody them, also identifying and suggesting possible sources of funding and of other nature.

The projects identified as relevant to a given PA, and that will be executed, are also characterized by a portfolio analysis, to assess its impact on all AP's and respective NOS2013-2020 PA, which allows them to be compared with each other, as well as with alternative projects. Group projects shall also be liable to control the material and financial execution of each project.

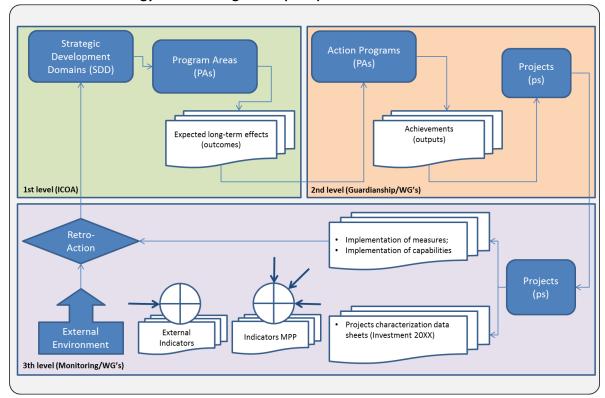
In developing this process, it is up to the DGMP, after having gathered all necessary information regarding the current execution of the NOS2013-2020, and according to the monitoring, evaluation and review procedures that include measures for risk analysis associated with each AP, to assess the suitable implementation of measures and use of capabilities.

In this monitoring process the focal points group of ICOA, coordinated by DGMP, plays a key role and ensures the monitoring of the various action plans and projects, developing the articulation and integration between all stakeholders in its implementation. Such monitoring is reported to the DGMP through a specific cooperative environment, with meetings on a quarterly basis, or any other that may so be determined. Based on this assessment and, together with the simultaneous analysis of other MPP indicators as well as external indicators, the DGMP shall, where appropriate, draw up NOS2013-2020 review proposals, to be submitted to the ICOA, for approval.

On the one hand, with the expected creation of a new framework for financial support at European level for 2014-2020, with the concrete objectives that Portugal has undertaken, it is essential that the projects supported under this heading be appropriately framed within the goals and outcomes established by the NOS2013-2020. Necessarily, an approach based on achievements and their outcome, or impact, this requires that the monitoring established be integrated, robust and focused towards those results. Out of this integration will also come a strengthening of commitment and cooperation, to reflect on the governance mechanism.

Executing the NOS2013-2020, and its implementation through the MPP, will thus be an open, living and dynamic process, integrating constant follow-up and monitoring, enabling the correction of imperfections in the meantime detected; correct the course in light of circumstances not initially foreseen and incorporate new knowledge, experiences and perspectives in the meanwhile acquired.

The recommended standing evaluation a review procedure for NOS2013-2020 will constitute a guarantee of full and correct fulfilment of the objectives of the strategy, which converge in the realization of Mar-Portugal as a national goal that will benefit all Portuguese.



#### National Ocean Strategy – Mar-Portugal Plan (MPP)

