1. Non-technical summary

Introduction

Environmental assessment is a process designed to take environmental impacts into account in development a project or program plan, right from the upstream phases. It serves to enlighten the project owner and the administration on the definition of the project or plan, with regard to environmental issues and those relating to human health in the area concerned, as well as to inform and facilitate public participation. It must give an account of the potential or proven effects of the project, plan or program on the environment, and analyze and justify the choices made with regard to the issues identified in the area concerned.

Plans and programs are referred to as Strategic Environmental Assessments (SEAs). Maritime spatial planning (MSP) documents are systematically subject to this process, in accordance with article R.122-17 of the French Environment Code. The preparation and implementation of this document are carried out under the authority of the coordinating prefects, the maritime prefect of the Atlantic and prefect of region Pays de la Loire. At national level, the project is steered by the ministries responsible for the sea, the environment and energy.

This report describes the environmental assessment process carried out to update the strategic section of the North Atlantic-Western Channel MSP document for the third implementation cycle of the Marine Strategy Framework Directive. It was drawn up in accordance with article R.122-20 of the French Environment Code. In particular, it covers issues linked to offshore wind farm planning, as the mapping of priority areas has been integrated into the MSP document by law n°2023-175 of March 10, 2023 relating to the acceleration of renewable energy production.

This report was produced by the government departments in charge of drawing up the plan (national services in charge of marine spatial planning, marine ecosystems, offshore wind development, along with local states services), with the support of external service providers: the EPICES and Biotope consortia, and the CREOCEAN consultancy firm for elements specific to offshore wind power.

It should be noted that the updating of the MSP document, like its preparation, is carried out in two stages - the strategic section and then the operational section. This report concerns only the update of the strategic section adopted in 2019. The operational component adopted in 2022 remains unchanged at this stage. **In the remainder of this report, we will therefore refer to the MSP document's strategic section.**

This assessment takes into account feedback from the Environmental Authority on the two components of the first MSP document.

Methodological choices and their limits

The SEA took place from April to December 2024. The SEA was structured around three main methodological choices:

a) Continuity with SEA of the previous MSP document

As the strategic section update is not a complete overhaul, the methodology is largely consistent with that of previous assessments, particularly the first exercice.

b) Particular attention to the development of marine renewable energies, especially offshore wind power

As planning the development of offshore wind power is the most significant evolution of the strategic section, particularly in terms of environmental impact, it has been the subject of specific assessment work, and developments in this report.

c) Taking into account the preliminary framework of Environmental Authority

At the request of the project owner, this SEA was subject of a preliminary review by the Environmental Authority (EA)[1], which helped to answer certain methodological questions.

However, the very fact that the environmental assessment in this case concerns a planning document implies the limits inherent to this type of plans/programs : the uncertainties concerning, on the one hand, the assessment of the good ecological status of many environmental issues, and on the other hand, the precise knowledge of the pressures applied on the marine environment by numerous human activities. The various impacts can thus be counted and compared according to various criteria, but in no way sized up in terms of their magnitude in relation to each other. The impact of the planning document will therefore depend on the implementation of planned projects and activities, for which the information available is limited. This last limitation explains in particular the difficulties encountered in fully applying the mitigation hierarchy and in precisely defining compensation measures on the scale of the strategic section.

Brief presentation of the plan and the context in which it was developed

With its maritime and coastal areas, France boasts a remarkable natural heritage and significant potential for socio-economic development. The sea and coasts are subject to multipe uses, as well as pressures climate change, land-based pollution and the impact of human activities. In order to guarantee the good environmental status (GES) of the marine environment while enabling the economic and social development of the sea and coast, a first national strategy was adopted in February 2017 for 6 years (2017-2023). This first National Sea and Coastline Strategy was revised in 2023, and the next one (2024-2030) was adopted by decree on June 10, 2024.

The **National Sea and Coastline Strategy** provides a reference framework for public policies concerning the sea and coast. It thus embodies the maritime pillar of ecological planning, and is thus articulated with other national strategies, notably the national port strategy, the national biodiversity strategy, the national low-carbon strategy, the multi-year energy program and the national coastline strategy.

The national strategy 2024-2030 sets four **main priorities for the period:**

- Carbon neutrality: to help achieve carbon neutrality by 2050, the accelerated deployment of offshore wind power, with a target of 45 GW installed by 2050, is combined with the decarbonization of ports and ship fleets and the preservation of blue carbon ecosystems;

- Biodiversity: drawing on knowledge and innovation, the strategy promotes the preservation of maritime and coastal ecosystems in mainland and overseas France, in particular through the deployment highly protected areas;

- equity: the action must contribute to the short- and long-term well-being of the populations, employees and players in the maritime and coastal areas of France and its overseas territories, in particular by rethinking the model of tourist and economic attractiveness of the coasts;

- economy: innovation and training are mobilized to strengthen the competitiveness of our sustainable blue economy and the sovereignty of France in mainland France and the French overseas territories.

The MSP documents are the territorial declination of this national strategy.

France has chosen to use these documents to meet its obligations to transpose two European framework directives:

- **the Marine Strategy Framework Directive** (Directive 2008/56 of June 17, 2008) aims to maintain or achieve good environmental status in the marine environment. Accordingly, member states are required to draw up marine strategies, to be reviewed every six years.

[1] Avis délibéré de l'Autorité environnementale pour le cadrage préalable de l'évaluation environnementale stratégique des stratégies de façades maritimes intégrant le développement de l'éolien en mer - Avis délibéré n° 2024-039 adopté lors de la séance du 13 juin 2024.

- **The Maritime Spatial Planning Framework directive** (Directive 2014/89 of July 23, 2014), which establishes a framework for maritime planning and requires member states to ensure coordination of the various activities at sea. Plans have thus been drawn up that identify the spatial and temporal distribution of relevant, existing and future activities and uses in their marine waters.

As such, they include maritime spatial planning elements and the marine strategies. From a formal point of view, the Environment Code (articles R.219-1-7 to R.219-1-14) stipulates that these documents comprise four parts:

- the existing situation, the challenges and a vision for the future of the North Atlantic-Western Channel area (part 1);
- the definition of strategic targets from an economic, social and environmental point of view, and the associated indicators; these are accompanied by a vocation map that defines coherent zones within maritime areas with regard to the general challenges and targets assigned to them (part 2);
- procedures assessing the implementation of the MSP document (part 3);
- the action plan (part 4).

Parts 1 and 2 of the MSP document constitute the **strategic section.** The latter was drawn up in 2018 and was the subject of an initial strategic environmental assessment. Following subsequent consultations, this strategy was officially adopted in each maritime region on October 14, 2019. **This SEA concerns the update of this first strategy, initiated in 2023.**

The updating of the strategic section was the subject of a **public debate**, organized between November 2023 and April 2024, mutualized with the wind farm planning. Various events (public meetings, workshops, various initiatives, visits, mobile debates and webinars) were organized by the French National Commission for Public Debate. On the North Atlantic-Western Channel coast, 70 events took place over six stopovers in each of the coast's six départements, involving 20 communes. An online participatory platform was opened, and over 1,000 text contributions were received (for all maritime regions combined).

The minutes and balance sheet of the public debate, published by the French National Commission for Public Participation on June 26, 2024, summarized the public's contributions and included requests for clarification and recommendations to the project owner (the French government and French TSO). On October 18, 2024, the ministerial decision of October 17, 2024 was published following the public debate on the updating of the strategic sections of MSP documents, the mapping of study sectors for the development of strong protection and the mapping of priority maritime and land areas for offshore wind power [2], as well as the project owners' report on the lessons learned from the public debate [3].

Linking the MSP document's strategic section with other plans and programs along the coast

An analysis is proposed to meet the challenges of coordination with other plans and programs along the coast, based on their "functional" nature (the programs pursue objectives that are partly common), or their "structuring" nature (compatibility/consideration required by law), or their scale (national, regional or basin-wide).

Main elements of the update and justification for the choices made

The report examines the changes made during the strategic section update and explains:

- reasonable alternative solutions to meet the purpose of the plan, scheme, program or planning document within its territorial scope. The advantages and disadvantages of each alternative are indicated;

[2] Online access to the decision: https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000050362918

[3] Online access to the report: https://www.eoliennesenmer.fr/sites/eoliennesenmer/files/inline-files/Rapport%20MO_sep2024-A4-10_17.pdf

- a statement of the reasons why the draft plan, scheme, program or planning document has been selected, particularly with regard to environmental protection objectives.

The main changes from the previous cycle are as follows:

(a) **the introduction of offshore wind power planning** that meets France's commitments, with a national target of 45 GW commissioned by 2050, with a view to achieving carbon neutrality by that date. The priority zones identified in NAMO aim install 2 GW by 2035[4] and a further 2 GW by 2040 [5]. These zones are supplemented by zones with a 2050 horizon (see below).

(b) strengthening the protection of marine ecosystems through the development of **highly protected areas planned on the scale of each maritime regions**. In view of the combined effect of the many pressures exerted on a particularly constrained area (maritime traffic, fishing, tourism, offshore wind farms, etc.) and the objective of achieving good ecological status (GES) for marine environments, the target of 3% of the waters of the Norh Sea-Western Channel area covered by highly protected areas by 2027 has been included in the national sea and coastline strategy and in the national biodiversity strategy.

The process of identifying and implementing highly protected areas has been underway on the maritime region since the first MSP cycle. 8 existing highly protected areas were recognized in 2023, for a cumulative total of 27 km^2 (i.e. 0.02% of the maritime region). The updated strategic section now includes trajectory elements for the development of new highly protected areas, making it possible to reach the target set for 2027 and contribute to the national objective of 5% of highly protected metropolitan waters by 2030. It is based on the study sectors identified in the first cycle (as a priority, 45 potential study sectors in the territorial sea), supplemented by potential study sectors offshore.

(c) **an updated vision for the North Atlantic-Western** maritime region, with a 2050 horizon instead of 2030 for the former SFM. The vision is strengthened in terms of biodiversity (integration of highly protected areas) and marine renewable energies. It also maintains strong ambitions in terms of well-being and employment, and introduces the notions of sobriety and sovereignty.

(d) **updating of the assessment of initial status of** marine waters, to evaluate whether or not good ecological status has been achieved for each ecological issue.

(e) the **updating of environmental targets** to make more operational those adopted in the previous cycle that lacked monitoring indicators or had indicators that had not been evaluated, and to adjust the wording of certain EOs or indicators to make them more readable. Some targets have been created to take account of changes in public policy (for example, the setting of a target for the development of high protection).

(f) **updating the socio-economic targets** to reflect the objectives of the National Strategy 2024-2030 and following the work carried out on the façade (changes in context and issues), and also taking into account the actions of the maritime region action plan (2022), which provide specific responses to certain issues. The first strategic section identified 15 socio-economic strategic targets, broken down into 41 specific targets, monitored via 76 indicators, a number of which appeared on initial analysis to be complicated to fill in today, or insufficiently representative of the targets concerned. There was therefore a need to develop these indicators for the purposes of assessment, steering and readability.

(g) **updated vocation maps**, which identify coherent zones within the maritime region and provide spatial reference points for the strategies implemented.

The report considers different alternative scenarios to updating the strategy: no update, no articulation between marine planning and offshore wind planning, or with the development of high protection. The focus is on the reasonable alternative options discussed for offshore wind power.

[4] This target may be updated depending on the outcome of consultations, but should not be less than 1.2 GW.

[5] In whole or in part, the remaining part of the 2 GW mentioned may be in MEMN, up to a maximum of 1 GW.

The reasons for updating socio-economic and environmental targets are also presented.

Offshore wind power development

The rapid reduction of greenhouse gas emissions, in line with France's international and European commitments, is at the heart of mitigating climate change, which is now a major threat to all ecosystems.

The national strategy 2024-2030 identifies carbon neutrality as one of four priorities, and places the development of offshore wind power as a pillar of the decarbonization of energy in France. Objective 13 sets national targets of 18 GW commissioned by 2035 and 45 GW of generating capacity by 2050. In order to achieve this target, the updated maritime façade strategy introduces offshore wind power planning for two horizons:

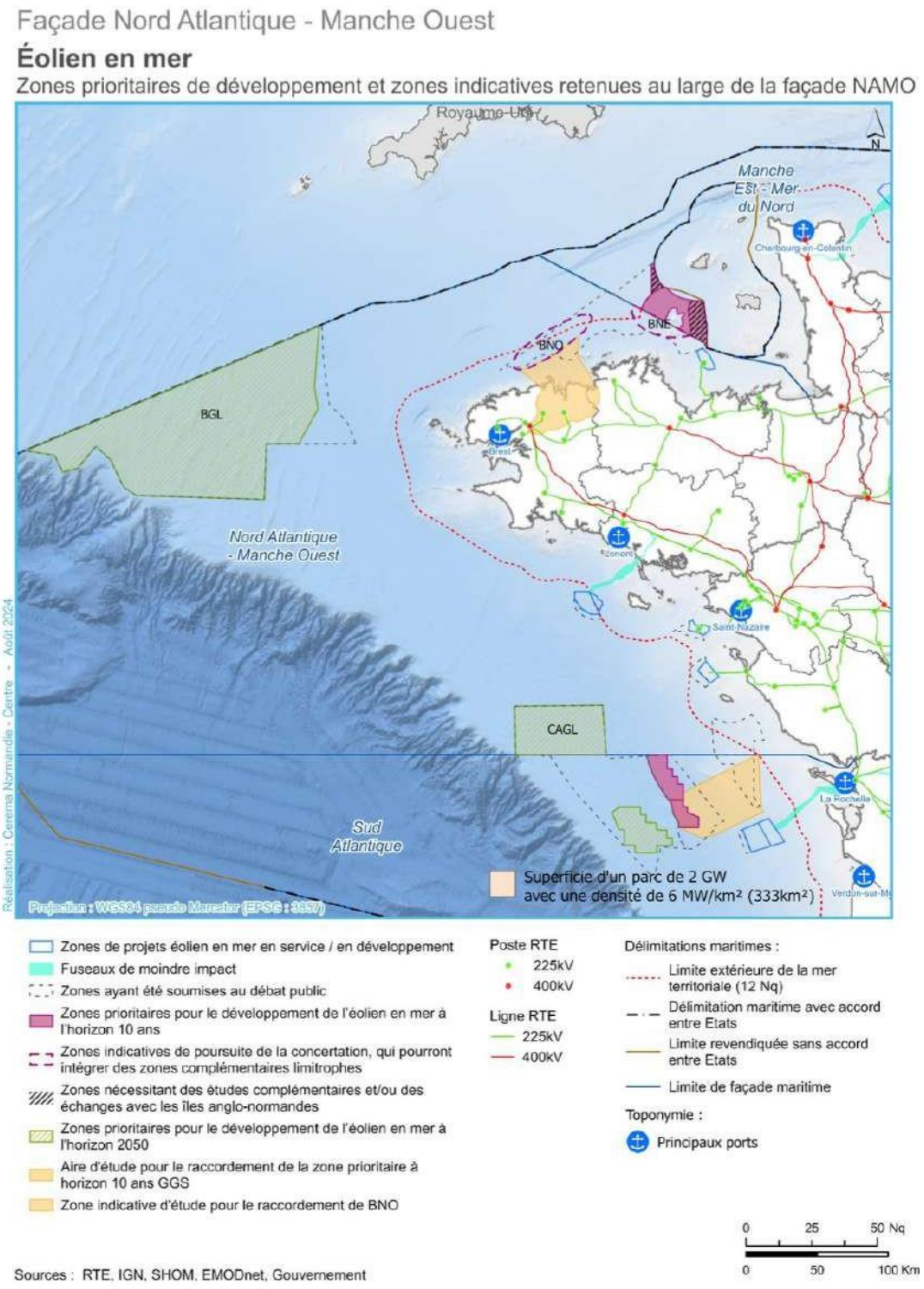
- **A map of priority areas in which offshore wind farm projects can be awarded within 10 years** of its adoption;

- **A map of priority areas by 2050**, which will be refined and revised following a new public consultation process scheduled to take place within the next ten years**.**

Alternative scenarios to the development of these additional offshore wind power capacities to be installed by 2050 (to meet our needs for decarbonized electricity and achieve our climate objectives of lower greenhouse gas emissions) reduce or even eliminate the effects of these installations on the marine environment, but make the decarbonization of the French energy mix highly uncertain. The environmental report examines alternative options (no development of other means of production, or development of other renewable or nuclear means of production).

Four sectors have been selected for the North Atlantic-Western Channel area (see map below):

- **Bretagne Nord Ouest (BNO) - Indicative area for continuing consultation** with the maritime authorities of the coastline and the Conférence Régionale pour la Mer et le Littoral (CRML) de Bretagne, so as to reduce its perimeter to around 350 km² by the end of 2024 and launch the 10th offshore wind energy tender (AO10). Power output may be updated according to the results of the consultation process, but will not be less than 1.2 GW;
- **Bretagne Nord Est (BNE) - Indicative area for further consultation** the maritime authorities of the coastline and the Conférence Régionale pour la Mer et le Littoral de Bretagne (Regional Conference for the Sea and Coastline of Brittany) to reduce its scope to around 250 km² by the time the tendering procedure is launched;
- **Bretagne Grand Large (BGL) - Priority area for the development of offshore wind power by 2050,** subject to further studies and continued local consultation with stakeholders;
- **Center Atlantique Grand Large (CAGL) - Area for offshore wind power development** as soon technological conditions allow (by 2040), subject to further studies, technological developments and continued local consultation with stakeholders.



Initial state of environment

The MSP document implements the marine strategy framework and, as such, directly targets the maintenance or achievement good ecological status in marine waters. The "marine environment" section includes an initial state of the environment and targets dedicated to achieving good ecological status.

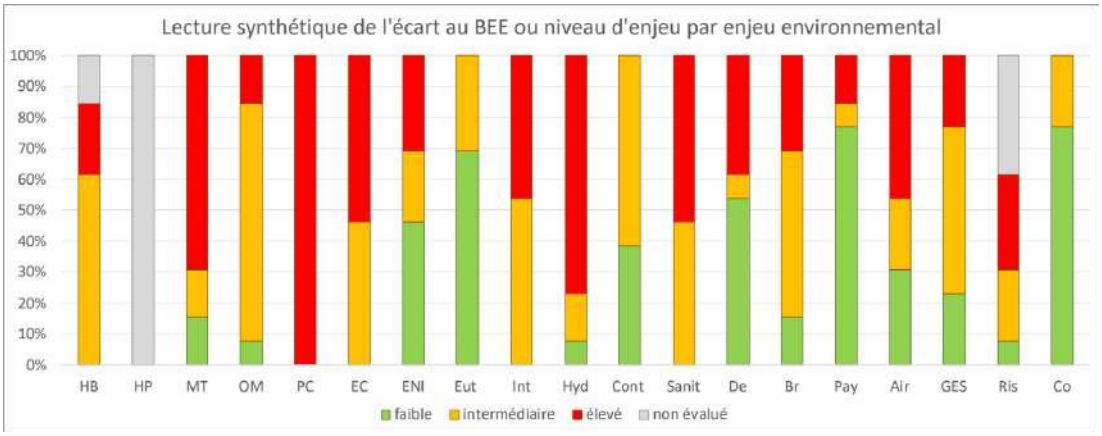
However, the notion of environmental issue as defined by the SEA is broader than the notion of ecological issue defined by the MSFD and based on "descriptors" of the good ecological status of marine waters. The present

he report takes up the structuring of the issues established during the SEAs of the first MSP Plan (strategic and operational sections), with a few changes to take into account (1) requests for greater detail expressed by the Environmental Authority in its opinions on the previous SEAs, and (2) new elements contributing to the establishment of this inventory (in the descriptor sheets in particular). The result is a list of 19 issues to be taken into account, divided into three categories (see table below).

Issue category	Acron.	Environmental issues	Correspondence with MSFD descriptors	Characteristic elements
Issues related to the components of the marine environment	HB	Benthic habitats	D1	Quality of major biogenic, rocky, sedimentary and wetland habitat types
	HP	Pelagic habitats	D1	Deep-sea habitats, food webs
	MT	Mammals and turtles	D1	Species distribution and abundance: home range of sedentary bottlenose dolphin groups, seal colonies, feeding areas, other cetaceans, turtles, etc. marine
	OM	Seabirds	D1	Species distribution and abundance: nesting, feeding areas, colonies, wintering sites for seabirds and coastal birds, areas of maximum density, functional areas, migratory birds
	PC	Fish and cephalopods	D1	Species distribution and abundance: functional fishing areas (spawning grounds, nurseries), localized populations (benthic invertebrates), elasmobranchs), concentration and migration areas for amphibian fish
	EC	Commercial species	D3	Stock status of commercially exploited fish, crustacean and mollusc species
Pressures on the marine environment	ENI	Non-native species	D2	Non-native species that are invasive or disrupt ecosystems
	Eut	Eutrophication	D5	Human-induced eutrophication
	Int	Integrity of funds	D6	Disturbance and physical loss of the seabed
	Hyd	Hydrographic changes	D7	Hydrographic conditions
	Cont	Contaminants	D8	Chemical contaminants in the environment
	Qs	Health issues	D9	Chemical or microbiological contaminants in seafood products intended for consumption human
	From	Waste	D10	Quantity of floating waste and micro-waste on the littoral, on the bottom, ingested
	Br	Noise	D11	Level of noise disturbance by impulsive noise or continuous anthropogenic
Other environmental issues	Pay	Landscapes and submarines	Not concerned	Elements of coastal landscapes (lighthouses, classifications) and submarines
	GHG	GHG emissions	Not concerned	GHG emissions
	Air	Air quality	Not concerned	Air pollutants
	Ris	Natural hazards and humans	Not concerned	Climatic, natural and industrial risks
	Co	Knowledge	Not concerned	Production of knowledge about environments species, socio-economic activities

For each of these issues, the report presents: (1) a summary of their main characteristics on the maritime region, (2) a summary of their current status, based on scientific productions integrated into the strategic section, (3) a spatial analysis of the deviation from good status or the level of issue at the scale of the vocation zones.

The graph below summarizes the analysis carried out on the good environmental status deviation or the level challenge.



Percentages are relative to the number of vocation zones (i.e. 13). For example: for benthic habitats, the deviation from good environmental statue is intermediate for around 60% of vocation zones.

Changing pressures and activities

The interactions between activities and the marine environment are manifold. Indeed, activities can generate pressures on the marine environment (environmental modifications, pollution, overexploitation, climate change, non-indigenous species, etc.) and lead to impacts on species and habitats.

Matrixes are proposed in the report to cross-reference the pressures generated by sectors of activity with marine environment and the potential impacts generated.

The report summarizes recent trends in activities and pressures over the last cycle.

A number of key findings stand out:

- The most important activities on the sea and coastline **have varied recent development trends**, with some declining (professional and leisure fishing), others increasing (shipbuilding, energy production, submarine cables), slightly increasing (material extraction) or stable (maritime transport, aquaculture, agriculture);
- of the 17 activities studied, trends for two could not be updated (coastal development - monitoring tools are currently being developed; and industry). For the other activities, trends remain the same for 8 and change for 7. **Pressure from** boating, coastal tourism (impact of the pandemic), public works and maritime transport seems to be **easing**, while agriculture is **increasing**. The pressures exerted by marines renewable energy (including cable-making) and shipbuilding are also increasing, while those exerted by aquaculture remain stable;
- the reliability of these trend estimates is highly dependent on the availability indicators for the entire maritime region.

Impact analysis

At the strategic stage, the impacts identified remain "potential" insofar as the actual impacts depend, in particular, on the measures taken as part of the maritime region action plan to achieve socio-economic and environmental targets.

On the one hand, potential negative impacts are likely to be reduced by implementing the mitigation hierarchy as part of these measures. On the other hand, the environmental benefits expected from certain environmental targets will also depend on how they are implemented.

A) potential impact of environmental targets

It appears that changes in environmental targets are likely to generate 380 potential impacts on the 19 environmental issues.

By their very nature, environmental targets aim to improve the ecological status of the marine environment. However, while two-thirds (67%) of the impacts are considered positive, one-third (33%) are considered conservatively neutral at this stage.

This is due to the fact that some targets are based on compliance with existing regulations or the absence of any increase in anthropogenic pressures compared to their current level, or include indicators that have yet to be defined. Reinforcing the drive to improve ecological status will require knowledge and coordination with other planning processes (inland surface waters planning in particular).

B) potential impact of strategic socio-economic targets

An update of the impacts of the current socio-economic targets was carried out, by (1) analyzing the consequences of any changes in the titles and indicators on their impacts; (2) analyzing the consistency of impacts with the activities/issues cross-referencing matrix; (3) integrating the impact assessment of socio-economic targets-related actions analyzed during SEA of the operational component of the first strategy (2021); (4) assessing the impacts of the new socio-economic targets.

The specific socio-economic targets of the North Atlantic-Eastern Channel strategy are likely to generate some 220 potential impacts. The vast majority of socio-economic targets are likely to have a positive or neutral impact (over 70%), with the remainder likely to have a negative impact. However, the latter conclusion needs to be qualified, as actual impacts will depend on the precise conditions of implementation of the socio-economic targets and the application of the mitigation hierarchy.

The issues most affected by these impacts are greenhouse gaz emissions (16 impacts), seabed integrity, contaminants and air quality (15 impacts each), hydrographic changes and noise (14 impacts each), with four issues belonging to the second group (issues linked to pressures on the marine environment) and two to the last group (other environmental issues). Issues in the first group (issues related to components of the marine environment) have a number of impacts ranging from 10 (pelagic habitats) to 12 (benthic habitats).

C) potential impact of the vocation map

By organizing the various uses of the marine environment spatially, the vocation map itself has an impact on the environment. The distribution of marine protected areas and activities is designed to minimize negative environmental impacts and optimize positive measures. An analysis of cumulative pressure levels on the various environmental issues was carried out in each sector of the vocation map.

For each sector, activity levels (aquaculture, marine renewable energy, maritime transport, etc.) were cross-referenced with issue levels (environmental, pressure, other issues), in current and future situations, to identify a pressure level. There are limits to this exercise in terms of the availability and accuracy of information on activities, particularly in the future.

The report summarizes this analysis for all sectors of the vocation map, with regard to the current and future situation. It shows a very high level of cumulative pressure from socio-economic activities in zone 5f of the territorial sea (Loire Estuary), high in most of the other zones of the territorial sea (5b, 5c, 5d, 5e, 5h), medium to fairly high in the last two zones of the territorial sea (5a, 5g respectively), low to medium in the three zones of the continental shelf (3a and 3b) and the western Channel (4), and low to very low in offshore zones 1 and 2 (Abyssal Plain and Continental Slope). The levels of certain pressures could change in the future in certain zones in connection with offshore wind development (5b, 3a, 3b, 4), although it is not possible to specify to what extent.

D) Focus on offshore wind power

The development of offshore wind power makes a major contribution to mitigating climate change by producing low-carbon electricity. Combined with energy sobriety and efficiency, the decarbonized electrification to which wind power contributes will eliminate the need for carbon-based fossil fuels (oil, gas), with a view to achieving carbon neutrality by 2050.

It should be noted that the availability of carbon-free electricity will enable the production of carbon-free fuels (ammonia, hydrogen, etc.) that can be used by the various ship fleets, or their electrification, thus reducing greenhouse gases and atmospheric pollutants from these fleets.

This contribution underpins the offshore wind power development objectives set out in the National Sea and Coastline Strategy 2024-2030. However, this development must be carried out under conditions that minimize local negative impacts on the marine environment.

An analysis of the expected environmental impact of offshore wind farms is proposed for each development phase (construction, operation, dismantling) for the entire maritime region, and in particular for the most sensitive areas: benthic habitats, marine avifauna, marine mammals, fish and mega-invertebrates.

THE ANTICIPATED EFFECTS OF THE CONSTRUCTION PHASE WILL MAINLY AFFECT :

- benthic populations and functional zones for fish populations, directly impacted by modifications to the seabed;
- marine mammals sensitive to noise generated by construction work and the risk of collision with ships.

Priority is therefore given to locating developments outside benthic zones and reducing noise pollution.

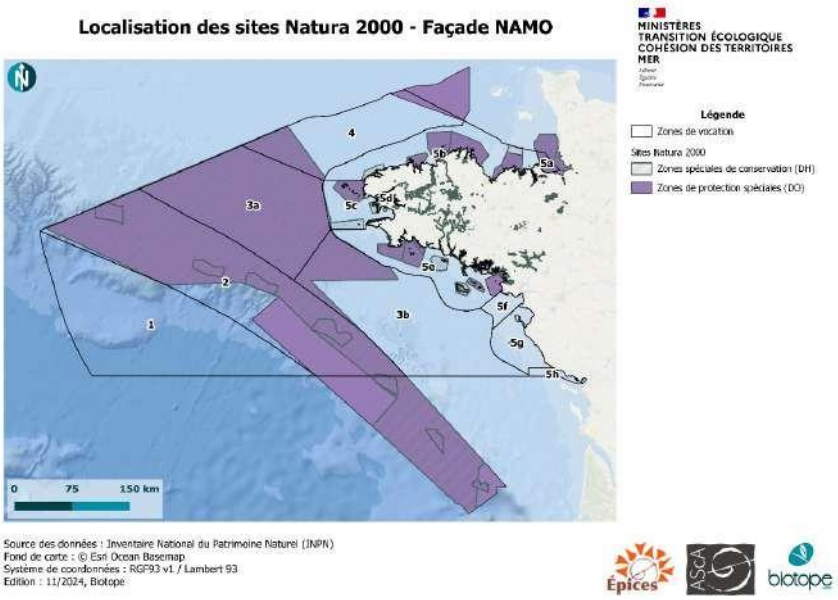
THE ANTICIPATED EFFECTS OF OPERATION MAINLY AFFECT :

- Birds, with the risk of collision, loss habitat and obstacles to movement.

Avoidance/reduction efforts are therefore particularly focused on locating parks outside functional zones for the most sensitive bird species.

E) potential impact on Natura 2000 areas

Of the 13 vocation zones on the NAMO coast, all - the exception of vocation zone 1 Plaine Abyssale - include Natura 2000 classified areas (38 Special Protection Areas and 53 Special Areas of Conservation, 10 of which are strictly marine.



Location of Natura 2000 sites within the 8 vocational zones of the NAMO coastline

On the North Atlantic-Eastern Channel area, the overall analysis of impacts on habitats and species of community interest justifying the designation of a Natura 2000 area shows that:

- the strategic section sets targets for improving practices in all socio-economic activities. A clear majority of the targets have been assessed as likely have a positive impact on the various stakeholder groups of community interest. While some targets are specifically aimed at restoring certain ecosystems (salt meadows, coastal wetlands), all actions aimed at reducing pressure contribute to the passive restoration of ecosystems, by reducing pressure;

- Very few targets have been assessed as likely to have a negative impact, although all environmental issues groups are concerned. Among the activities concerned by negative impacts, only offshore wind power is under development, while other impacts concern existing activities. The impact assessment of offshore wind projects on the maritime region, and the evaluation of any Natura 2000 impacts, will be able to judge the compatibility of each project with the conservation targets of Natura 2000 sites, and the mitigation measures to be implemented. At the scale of the strategic section of the planning document, these measures involve avoiding as far as possible the areas most frequented by species of community interest.

MSP document plays an important role in managing activities to limit their impact on the environment, notably through environmental targets and vocation maps. Several socio-economic targets also incorporate an environmental dimension, and should limit the negative impacts of these activities. As a result, the updated strategy should not significantly affect habitats and species of community interest. However, particular attention will need to be paid to ensuring that targets are properly taken into account during project development.

Additional measures have already been or will be implemented to limit the negative impact of socio-economic activities on the environment. This is the case, for example, with professional fishing, for which a "fishing risk analysis (impact assessment under the Nature directives) has been set up within the specific framework of establishing the guidance document of each Natura 2000 site. In the case of offshore wind farms and marine aggregate extraction, the impact studies and mitigation measures proposed will enable specific consideration to be given to the issues in each area affected by these activities. Projects likely to affect Natura 2000 sites must specify their impact and the mitigation measures implemented on these sites in a Natura 2000 impact. This assessment must ensure that the activity does not harm the conservation objectives of the species and/or habitats that led to the designation of the site concerned.

Lastly, the impact analysis highlighted a point of attention for amphihaline fish of community interest, marine mammals and marine turtles: environmental targets appear to be sufficient to limit the negative impact of existing and planned socio-economic activities for amphihaline fish, but in view of their overall reduced conservation status, more attention is needed to aim for an improvement in their status in most SACs. In these contexts, the analysis also highlighted the importance of planning highly protected areas within Natura 2000 sites, and in particular the importance of choosing which areas to prioritize. As far as marine mammals and turtles are concerned, particular attention should be paid to improving the state of knowledge of their conservation in SCAs where this has not yet been assessed.

Analysis of mitigation measures taken to avoid, reduce or offset impacts

Impact avoidance and reduction are often difficult to distinguish in practice. Avoidance is understood as a geographical avoidance, which avoids all impacts on a given target. If not all impacts on a target are avoided, the term reduction is used.

Avoidance is achieved in MSP document's strategic section by the spatial planning of different human activities in the vocations map. An example of this is the choice to locate wind power development in certain maritime zones, away from major environmental issues. Priority areas for wind power development are also located outside the study sectors for high protection.

Another form of avoidance lies in the choice of technologies associated with the development of socio-economic activities.

Then, at the level of the projects linked to each activity, additional avoidance or reduction choices can be made according to the context and the impact assessment.

It should be pointed out that, by its very nature, the strategic section is intended to include mitigation measures to avoid and reduce the pressures exerted on the marine environment. Indeed, insofar as the MSP plan must enable the maintenance or achievement of good environmental status in the marine environment, this ambition must be reflected in the strategic section, notably via environmental and socio-economic targets, as well as in spatial planning choices.

On the North Atlantic-Eastern Channel area, planning choices have been specified for the following themes: offshore wind power and highly protected areas.

When the strategic section was updated, a new cross-sectional target concerning the reduction of greenhouse gas emissions was adopted. Its potential impact is assessed as positive on both GHG emissions and air quality.
The strategy does not involve direct action to offset the impact of planning, but it is part of a broader approach to guide project developers towards degraded sites for investment.

The precise mitigation measures required to limit the impact of offshore wind farm projects will be defined at the end of the impact assessments. The report presents existing mitigation measures for these projects, as well as certain requirements imposed on future projects through tender specifications. Measures for monitoring the impact of projects and the effectiveness of the mitigation measures will also be defined at the end of the impact assessment.

Indicators for monitoring potential impacts

An assessment of the environmental targets was carried out, with regard to the goals set for the indicators associated with the previous version of those targets. It emerged that 57% of them could not be evaluated (46 indicators out of a total of 81). An operationalization project was launched, and it was decided that the indicators that could not be monitored and evaluated should be:

[6] https://www.igedd.developpement-durable.gouv.fr/IMG/pdf/4__ cadrage_dsf_bleu_v5_delibere_v2_cle5a794c.pdf

- for a majority of them, to keep them as they are[7] as soon as they can be made operational (implementation of a protocol, designation of service responsible of the monitoring, data banking, etc.);

- for a certain number of them, to retain them despite certain reservations about the possibility making them operational (but with prospects deemed sufficient to justify maintaining them): funding not yet secured, data provision procedures to be specified, monitoring procedures to be defined with the creation of a tool... ;

- for a small number them, to remove them as non-operational.

This work will enable us to better assess whether the environmental targets are achieving their goals - and the associated positive impacts - in the next cycle. However, four environmental targets have been retained without indicators, which have yet to be defined for the next cycle.

In addition, a number of environmental targets and indicators have been created to reflect changes in public policy. These targets and indicators are all based on operational monitoring systems, thus ensuring broader coverage all ecological issues and associated monitoring (e.g. marine litter).

With regard to socio-economic targets, the first strategy identified 15 socio-economic strategic targets, broken down into 41 specific targets, monitored via 76 indicators, a number of which appeared on initial analysis to be complicated to fill in today, or insufficiently representative of the targets concerned. There was therefore a need to develop these indicators for the purposes of assessment, steering and readability.

The main criteria used to update socio-economic targets in North-Atlantic Eastern Channel area are as follows:

- taking into account the national target for offshore wind power deployment in 10 years and 2050;

- the articulation with the national sea and coastline strategy;

- cross-referencing environmental and socio-economic indicators;

- broadening the range of topics covered: this has led to the inclusion of a cross-cutting target relating to the reduction of greenhouse gas emissions, and to increased monitoring of activities linked to and tourism;

- the reliability of indicators in terms of data sources and accessibility.

As a result of this updating work, the strategy now identifies 1 cross-cutting target and 15 strategic targets with a socio-economic purpose, broken down into 42 specific targets, monitored via 77 indicators. These 77 indicators can be broken down as follows: 33 new indicators, 14 indicators maintained as they are, 15 indicators with minor modifications to their titles for greater clarity, and 15 indicators replaced (i.e. with more substantial modifications than the previous ones). In addition, 32 indicators from the previous strategy (cycle 1) have been discontinued.

Most of the changes made to the indicators associated with the socio-economic targets involve enhancing their precision (their ability to reflect the stated objective) and their operational nature (their capacity to be filled in). Work on the operationalization of socio-economic indicators (structure in charge of evaluation, data sources, frequency, etc.) has largely begun and will be detailed as part of the updating of the MSP document monitoring system.

[7] With possible modifications to the wording.