

ENVIRONMENTAL REPORT 2022

Port Environmental
Review System



Version juin 2022

DUNKERQUE
PORT



Cover photo: Seagoing ships, that perform better in reducing air emissions than required by the current emission standards of the International Maritime Organization, identified by The Environmental Ship Index (ESI) and used by Dunkerque-Port

INTRODUCTION

This environmental report is intended to inform anyone interested in the environmental implications of the port of Dunkirk and provides information on the environmental management implemented which aims to avoid, reduce or compensate detrimental effects.

Since 2018, Dunkerque-Port obtained Port Environmental Review System (PERS) standard of the Ecoport network¹ from the Organization of European Seaports (ESPO). The PERS certificate is valid for a period of two years. At the end of this period, the sustainability and environmental preservation of the port of Dunkirk are reviewed. This report is developed as part of the recertification process². It therefore present the way in which the port compiles the requirements of the PERS.

It again documents the successful environmental management that has been practiced in the port of Dunkirk for several years. PERS is an environmental management system specially developed for the requirements of ports. It refers, for example, to voluntary instruments for preventive environmental protection for the systematic recording and prevention of the environmental implications of a port. Consequently, the report mainly meets the requirements of the certification process in terms of content; it should be updated every two years and be available in the public domain.

The progress of the environmental and CSR initiatives were presented to the Employee Representative Committee and the Board of Trustees of Dunkerque-Port, respectively on 15 & 17 June 2022. Key KPIs for the port are constantly updated and published every year, under the control of the French government, in particular Ministry of Finance and Ministry of ecological and solidarity transition. Thus, since 2022, Dunkerque-Port respond to the request of the Ministry of Finance to fully integrating CSR issues into its corporate strategy and implementing appropriate governance for its purpose. The reporting aims ensuring the transition toward low carbon economy and limiting the impact of the company's activity on environment. Also, acting as responsive employer and generate a positive societal impact to contribute to local development were registered.

This clear policy of openness on the part of the port was recognised at the 2016 ESPO Awards, when Dunkerque-Port was one of the five finalists of this competition which rewards European ports working towards better community integration of their districts³. Since 2020, Dunkerque-Port has opened a Port center, an interface between the city, the port and the inhabitants, where the port can communicate its missions, projects and associated careers. In addition, the first booklet on CSR was published in June 2022⁴.

With this reporting procedure, the aim is, also in the future, to illustrate the constant willingness of Dunkerque-Port to work towards on-going improvements in the quality of the environment in and around the port and to proceed with corresponding organizational improvements in their own sphere and in interaction with all stakeholders involved in the ports.

¹ Port Environmental Review System (PERS) is a European initiative for environmental certification of seaports within the EcoPorts network promoted by the Organization of European Seaports (ESPO). The PERS methodology is one of the ESPO tool to demonstrate that Dunkerque-Port meets various requirements in terms of sustainable development and environmental preservation. <https://www.espo.be/>

² The Dunkerque-port Environmental Report can be found at : <http://www.dunkerque-port.fr/en/iso9001/environmental-policy.html>

³ The ESPO award booklet is available at : [https://www.espo.be/media/ESP-1926%20\(ESPO%20Award%202016\) Brochure FINAL.pdf](https://www.espo.be/media/ESP-1926%20(ESPO%20Award%202016) Brochure FINAL.pdf)

⁴ The 2021 CSR Report is available at : <http://www.dunkerque-port.fr/fr/capitainerie/developpement-durable-dunkerque-port.html>

1. DUNKERQUE-PORT

1.1 Sphere of Dunkerque-Port

The port of Dunkirk (Dunkerque-Port) is a state-owned industrial and commercial establishment. It is located 40 kilometres from Dover in England, 10 kilometres from the Belgian border, near the city of Lille and in the centre of the Brussels-London-Paris triangle. It comprises an onshore area of 7,000 ha and a marine area of 38,000 ha. Extending along 17 km, the onshore port district consists of two ports: the older Eastern Port, and Western Port which dates from the expansion in the 1970s. Each port has an outer harbour that allows it to berth large ships with draughts of 14.2 m in the Eastern Port, and 22 m in the Western Port.⁵

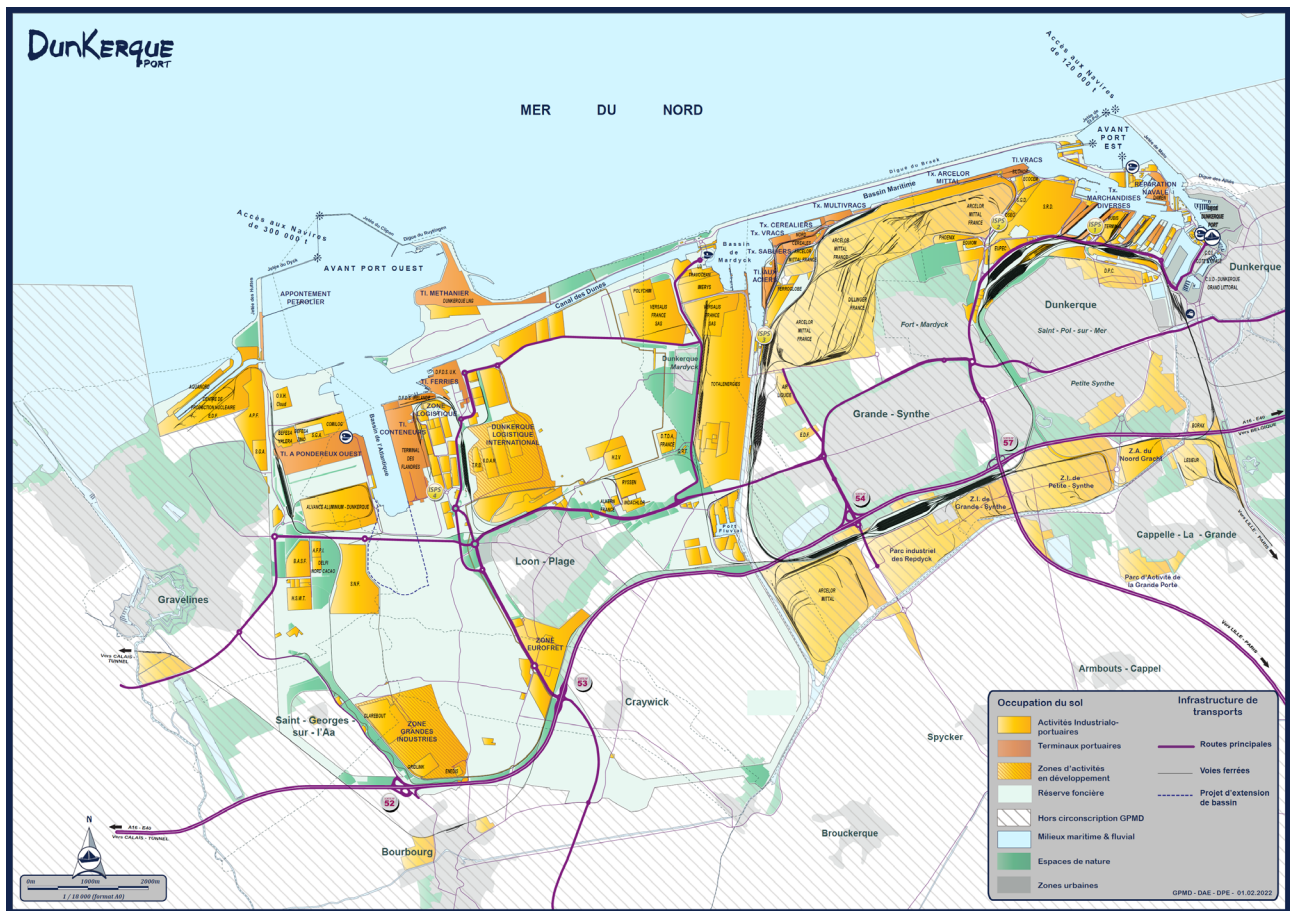


Figure 1 : Map of Dunkerque-Port

The Eastern Port and the Central Port are formed of many docks and channels, some of which are only accessible via locks. It is also connected to the waterway network by the Bourbourg canal and the wide-gauge canal. Finally, it is the outlet of inland canals for the wateringues⁶ whose purpose is to discharge inland water during flooding. The notable feature of the Central Port is that it hosts most of the industrial businesses installed on Dunkerque-Port's land. These include major multinationals such as Arcelor Mittal, Versalis, TOTAL, etc, as well as many terminals designed for the transport of bulk cargoes including grain.

⁵ Map of Dunkerque-port plan is available online on the Dunkerque-Port website

<http://www.dunkerque-port.fr/fr/presentation/documentation-port-dunkerque/plans-port-dunkerque.html>
<http://www.dunkerque-port.fr/fr/presentation/signalisation-numerique-portuaire/>

⁶ Wateringue or watergang: Drainage structure or ditch created to drain fens, wetlands or floodplains below high water level.

This makes it the part of the port with the highest number of high-risk sites, with several of the industries in this sector being subject to the SEVESO Directive. Eastern Port docks are specialised in handling general cargoes loaded on board conventional ships: copper, pipes, wood and manufactured products. All the dry-docking activities are carried out here, for both merchant ships and pleasure craft. Today there is not enough available land in this sector to allow the planning of any major economic development.



Figure 2 : The Eastern port

In both configuration and purpose, the Western Port is simpler than the Eastern Port, having two main docks and a channel connecting to the Eastern Port via a system of locks. It has no direct access to the waterway network. The Western Port offers direct access to the sea and allows fast calls for the world's largest container carriers, ore carriers and all RoRo vessels. This makes Dunkerque-Port the second-largest French port for trade with Great Britain. And finally, since 2016 the LNG terminal has accommodated ships carrying Liquefied Natural Gas (LNG). The particular feature of the Western Port is its land reserves of 2,000 ha which offer real opportunities for development and thus for economic growth. In addition, as this part of Dunkerque-Port is less industrialised, it presents fewer constraints in terms of technological risks.



Figure 3 : the Western port

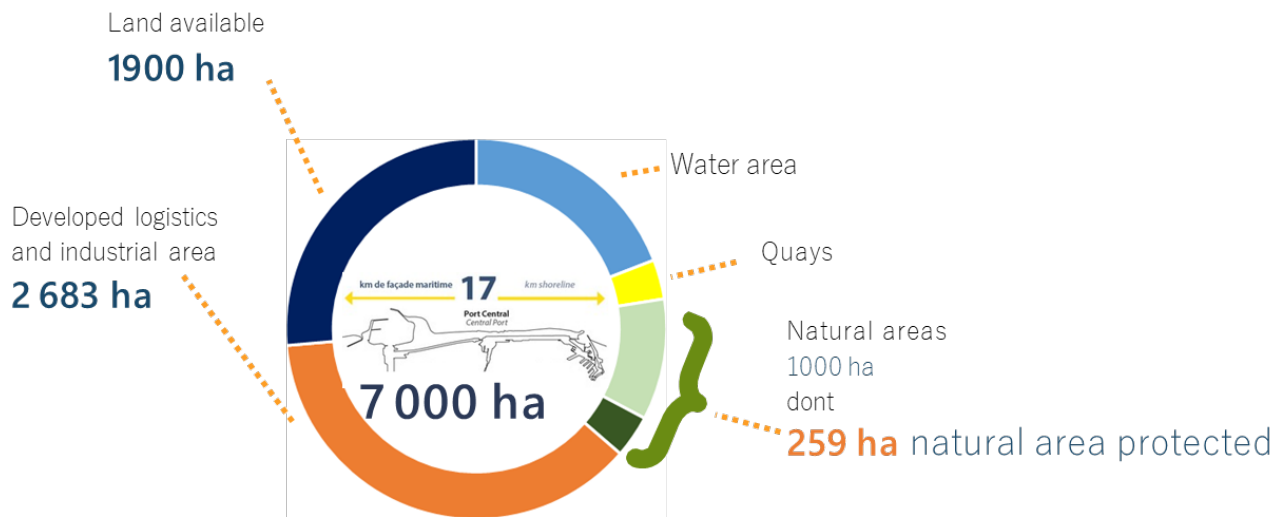


Figure 4 : Dunkerque-Port areas 2021

Private companies are responsible for operating the terminals, for actual handling operations in the port and for warehousing activities.

1.2 The Port's missions and activities

As happened in most European ports, following the Ports Reform of 2008, France's major sea ports took on the duties of "Landlord Ports" by refocusing their missions on activities of strategic coordination involving a great variety of players, both local and from outside the port's territory.

Thus, with the adoption of the law of 4 July 2008, the role of Dunkerque-Port, as a State-owned establishment, has changed from that of an operator to that of a planner and developer, with sustainable development of the port district as its goal. Each of the French major sea ports carries out the missions defined in Article L. 5312-2 of the Transport Code, and in particular the following:

- development, operation and maintenance of shipping access channels and port infrastructures;
- development and management of its district (industrial and logistics areas);
- management and preservation of the natural areas which it owns;
- promotion of the rail and waterway links available;
- development and management of the industrial or logistics areas related to the port's activity;
- actions contributing to the general promotion of the port.

The port's governance was also modified by the formation of the Development Board and the Board of Trustees. Since 2020, the new Employee Representative committee is also consulted on several subjects and port's projects.

The Dunkerque-Port's Strategic Masterplan is an investment program, commercial actions plan and land property management. The review of the previous Strategic Masterplan 2014-2018 has been published⁷. The Strategic Masterplan 2020-2024 is in process⁸.

1.3 Selected Key Performance Indicators of Dunkerque-Port

⁷ Review of Strategic Masterplan 2014-2018 is available online on the Dunkerque-Port website <http://www.dunkerque-port.fr/index.php?cmpref=64081&lang=fr&module=media&action=Display>

⁸ Strategic Masterplan 2020-2024 is available online on the Dunkerque-Port website <http://www.dunkerque-port.fr/fr/presentation/documentation-port-dunkerque/>

Annually, key KPIs for the port of Dunkirk are constantly updated and published at press conference⁹. The 2021 activity report includes port statistics from 2010 to 2020. The 2022 report is not yet available online¹⁰.

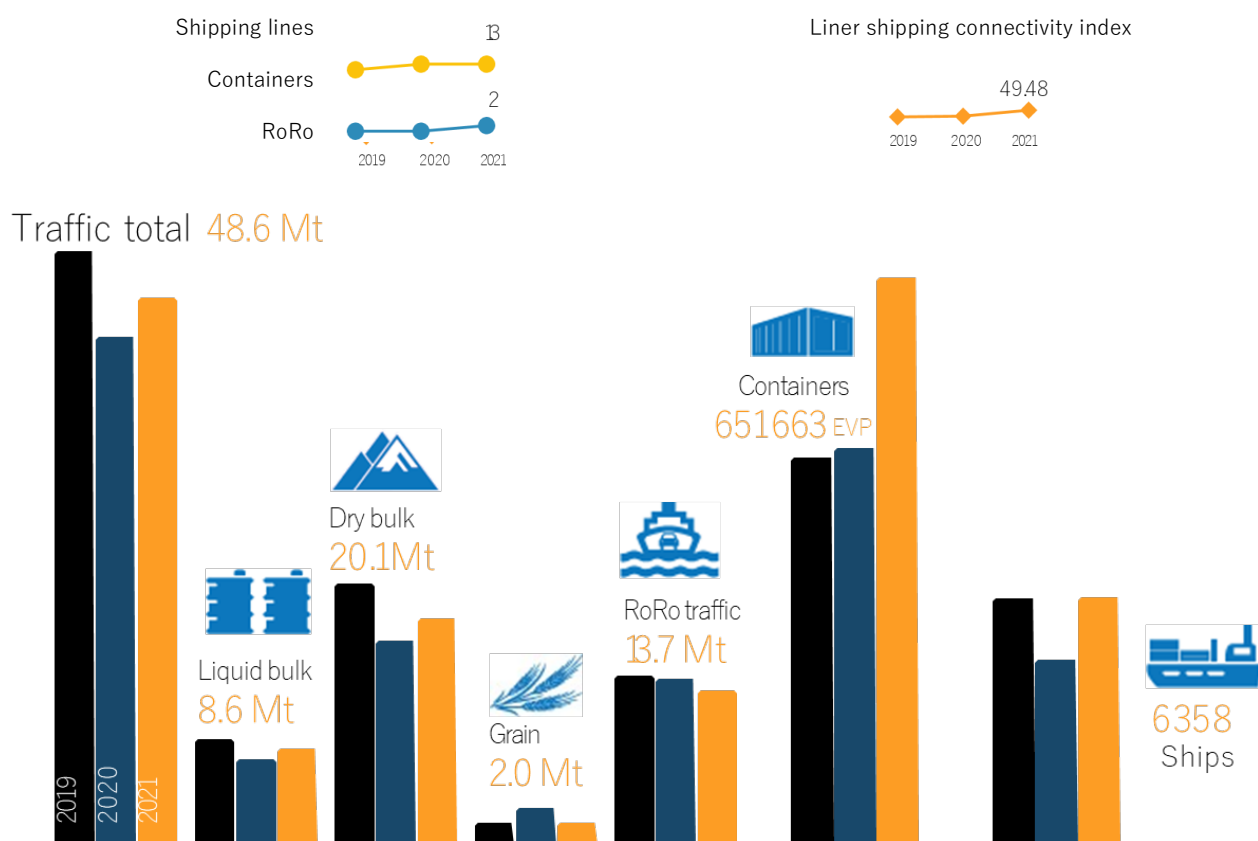


Figure 5 : Further KPI's Dunkerque-Port for 2021

1.4 Environmental issues

All the port's missions and the activities generated by Dunkerque-Port sector induce a number of constraints, besides the economic considerations in terms of added value and employment. Although affected by human activity, the port district is still the scene of many environmental issues, including ecological issues. Alongside industry and commercial maritime traffic, the port of Dunkirk has several outstanding natural areas in its territory and a remarkable degree of biodiversity, with many protected species on its shoreline.

Besides biodiversity and ecological continuity, the quality of surface water is also a major issue, particularly as regards the targets for good chemical and ecological status laid down in the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD). This issue concerns both the watergangs, ditches and canals which run through the port's onshore district, and the transitional water (harbour water) and coastal water. The quality of the sediment, which is related to the quality of the surface water, is a significant issue for a port such as Dunkirk in light of the volumes of sediment dredged (maintenance and works dredging) and managed every year, whether at sea or on land.

Similarly, natural and technological risks are important issues in view of the different parts of the port's territory that are covered by the Natural Risk Prevention Plan and the Technological Risk Prevention Plan.

⁹ All press conferences and activities reports are available online on the Dunkerque-port website : <http://www.dunkerque-port.fr/fr/presse/dossiers-presse-port-dunkerque.html>
<http://www.dunkerque-port.fr/fr/presentation/documentation-port-dunkerque/rapports-activite.html>

¹⁰ Activity report 2021 is available online on the Dunkerque-port website : <http://www.dunkerque-port.fr/index.php?cmpref=71106&lang=fr&module=media&action=Display>

Seawater flooding and inland flooding are among the greatest natural risks. As concerns technological risks, all the risks inherent in the presence of SEVESO-controlled industries must be considered.

Finally, quality of life, especially air quality and noise, odour and aesthetic nuisance, is also an issue that must be addressed in the port district, given the immediate proximity of the towns of Gravelines, Mardyck, Saint Pol sur Mer, Grande-Synthe and Dunkirk.

2. SUSTAINABILITY IN OUR POLICIES

2.1. Environmental policy

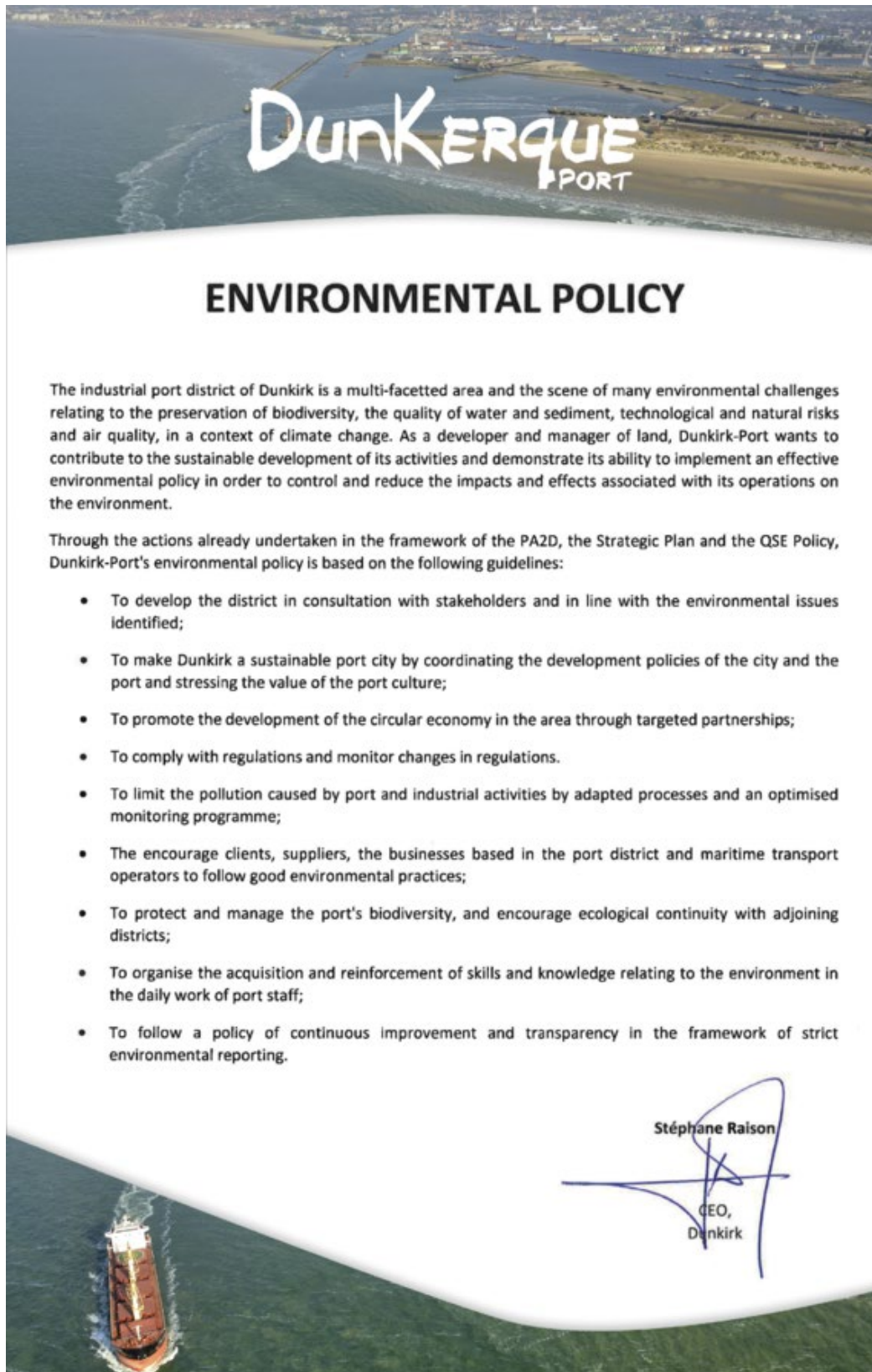


Figure 6 : Environmental policy

The port of Dunkirk has identified its actions which can help improve the environmental performance and the sustainability of its operations.

The environmental policy statement was shared with employees and all harbour activities. It is a declaration of public authority intentions and principles for the port's overall environmental performance. It provides a framework for the establishment of its environmental objectives and targets.

This environmental policy is also based on three other management initiatives : the Strategic Masterplan 2020-2024, the Sustainable Masterplan (PA2D) 2020-2024 and the Quality and safety policy (CSR), which contribute to the port's commitment to reduce the impacts of its activities on the environment, as well as to reduce its carbon footprint.

This environmental policy aims to be coherent and integrative of all environmental management procedures and actions existing at the Dunkerque-Port

2.2. Strategic masterplan

Port of Dunkirk is an integrated hub where goods, residual streams, data, people and ideas come together, where is room to experiment and where the strengths of businesses, the city and the region are all fully integrated. The port is an economic driver for Dunkirk metropolitan region and for the Haut-de-France regional authority as well.

The Strategic masterplan sets out the road map for the next years from 2020 to 2024, by bolstering clusters and networks, becoming the port of choice, diversifying and innovating, being a smart and clean port. The ambitions of the port of Dunkirk are fourfold. This development actions plan has been built with the relevant stakeholders during 2019. Today, there are in progress⁸.

The results of the previous Strategic masterplan 2014-2018 is available⁷.



Figure 7 : The Strategic masterplan

2.3. Sustainable masterplan (PA2D)

Aware of the challenges associated with its activities, Dunkerque-Port has also undertaken the drafting of a Sustainable masterplan (PA2D) through a strategy of participatory governance, alongside many partners in the port area. The new one PA2D provides the framework for scheduled implementation of the 2020-2024 Strategic masterplan in the field of sustainable development. It consolidates all the actions

undertaken and now reflects the policy, objectives and implementation of sustainable development in the port's growth and activities. In particular it is intended to ensure consistency between the various regional or local planning documents. The corrective actions identified by PERS methodology reducing significant environmental impacts have been included in the PA2D actions plan, in order to show the complementarity and coherence of the two documents.

A partner of Dunkirk city development

To work for a clean, future-proof and sustainable port by investing in promising initiatives and to improve quality living environment, together with the territory

A partner in environmental performance of industries

to promote a sustainable and responsible chain with its customers to limit the direct and indirect impacts of port activities

A responsible organisation

to start with port organisation, reduce our CO2 footprint and invest in being a good employer



Figure 8 : PA2D

Associated with relevant assessment indicators, the action programme will evolve to ensure sustainable development of the port area. Each action of the programme brings together the partners concerned by the subject in an working group. In addition, the overall progress of the PA2D action programme is monitored by a technical committee made up of members of Dunkerque-Port's Development Board, so making it possible to pursue the dynamic of partnership and governance initiated by the drafting of the PA2D.

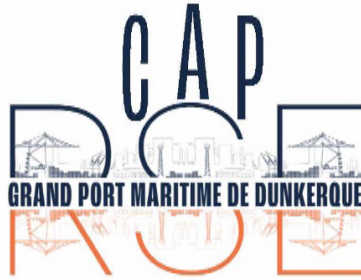
PA2D strive for health, prosperity, decent work, circular economy and energy transition for territories, and also care about innovation, infrastructure, economic growth and climate change. It contribute to Sustainable Development Goals (SDG), formulated by the United Nations, creating economic and social value by working together with customers and stakeholders.

2.4. Corporate Social Responsibility (CSR)

Alongside the PA2D and fully in line with it, Dunkerque-Port has been engaged in a process of continuous improvement of quality service to its customers while ensuring the sustainability of its activities and the well-being of its teams which resulted in the award of ISO 9001 certification in 2009 for the handling of maritime and waterway traffic. The management's policy for handling maritime and waterway traffic is broken down into goals for each process, interacting with each other, to ensure that we can meet our client's expectations in compliance with regulations.

In accordance with ISO recommendations, the pilot of each process has listed the risks associated with their activity. During annual reviews they report on the risks and the means put in place to control them, as well as an analysis of the indicators used. The quality security action programme is thus reviewed annually.

Alongside this approach, the port of Dunkirk is continuing with its commitment to provide information and communications, particularly on social and environmental actions.



TOUS ENGAGÉS POUR UN DÉVELOPPEMENT, ÉCONOMIQUE, SOCIAL, SOLIDAIRE ET RESPONSABLE, DU TERRITOIRE PORTUAIRE

SÉCURISER NOS ACTIVITÉS

Parce que c'est la priorité du **monde maritime**, logistique et industriel, Dunkerque port s'engage, avec détermination, pour la promotion, la coopération et les actions dans le domaine de la sécurité.

PRÉSERVER NOTRE ENVIRONNEMENT

Parce que nous voulons des écosystèmes **littoraux, marins** et terrestres résilients, Dunkerque port, en coopération avec tous les acteurs portuaires, s'engage à réduire l'empreinte environnementale, en favorisant l'économie circulaire, la décarbonation des activités et l'innovation écologique, la protection de la biodiversité et l'amélioration du cadre de vie.

AGIR ENSEMBLE

Parce que l'équité, l'écoute, la responsabilité, le partage et la gestion du progrès sont nos **valeurs-phares**, Dunkerque port, territoire d'échange et de culture, s'engage avec fierté à renforcer le capital humain pour l'épanouissement des talents.

NOUER DES LIENS DURABLES

Parce que nous visons l'excellence, Dunkerque port s'engage à offrir à ses clients et partenaires, des infrastructures, des aménagements et des services attractifs répondant au mieux à leurs attentes pour leur **ancrage** durable sur notre territoire.

DUNKERQUE-PORT S'ENGAGE AU QUOTIDIEN, ET DANS LA TRANSPARENCE, DANS UNE DEMARCHE D'AMÉLIORATION CONTINUE DE NOS ACTIONS POUR LE DEVELOPPEMENT DE NOTRE PORT, NOTRE TERRITOIRE ET NOTRE AVENIR.

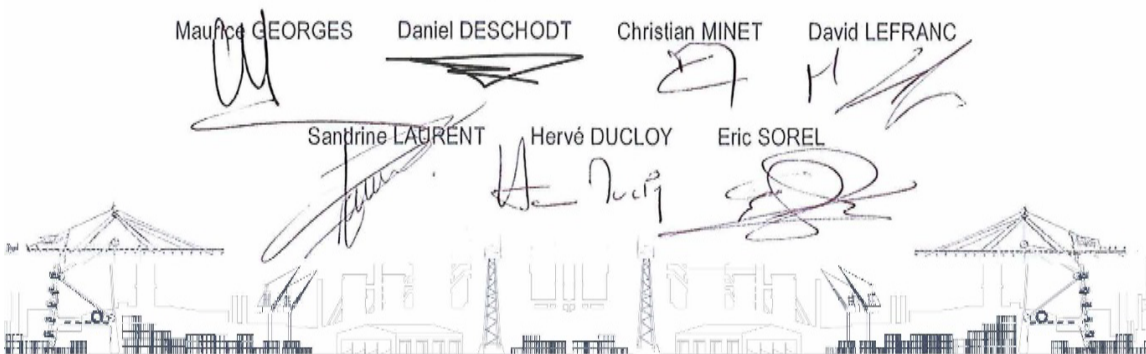


Figure 9 : CSR statement

Further, Dunkerque-Port since June 2022, is committed to an ambitious Corporate Social Responsibility (CSR) statement, showing its responsibility for its social impacts, safety priorities and environmental objectives.

3. REGISTER OF ENVIRONMENTAL ASPECTS, LEGAL REQUIREMENTS AND PERFORMANCE INDICATORS

3.1. Significatives environmental aspects

The port district is home to many activities which, in view of their interactions with the natural environment, are governed by French and European regulations. Efficient management of environmental performance requires a thorough knowledge of the environmental aspects which concern the port's activities, products and services. In this respect, the identification of regulatory requirements is of paramount importance in the port's environmental management system.

As part of its continuous improvement process, Dunkerque-Port has made an environmental analysis of its activities across its district. An internal procedure integrated in the port's management system (PAD.PRO.1602) resulted in a list of 260 environmental aspects related to the activities identified. They concern dredging, the storage of hazardous materials, energy consumption, water consumption, etc. The places, activities and environmental impacts of each environmental aspect are defined.

A raw score is applied according to their frequency of occurrence, their seriousness and their legal requirement. This raw score is weighted by integrating an index for control of the environmental aspect. This is quantified on the basis of the human, technological and organisational resources used to reduce the risks. This rating grid is the same of the one used in the previous environmental report (PERS, 2020¹¹). It allows a better characterization and prioritization of the impacts in order to highlight the significant environmental aspects. The result of this analysis provides an indication of the residual criticality, categorised according to its significance. If this criticality exceeds a score of 160 points, the environmental aspect is considered as significant.

$$\text{Calcul de la cotation : } \frac{Q \times F \times G \times CR}{M}$$

Q : quantity
F : frequency
G : seriousness
CR : compliance
M : means implemented to limit the risks

Figure 10 : Scoring method

This means that an activity having a strong environmental impact according to the *frequency* and *seriousness* criteria may be allocated a low or average level of significance in terms of criticality in view of the means implemented to limit the risks.

Thus, dredging operations do not appear as significant in the environmental analysis because the process for managing the potential environmental impacts and effects is well controlled under the Dredging Master Plan¹² (SDD) which the port of Dunkirk has followed since 2010. It is one of the strong components of the environmental and sustainable development policy developed by Dunkerque-Port to ensure the successful coexistence of industry, town planning and the marine environment. It sets the environmental

¹¹ Dunkerque-port Environmental report 2020 is available online on the Dunkerque-port website : <http://www.dunkerque-port.fr/index.php?cmpref=64366&lang=en&module=media&action=Display>

¹² The Dredging Master Plan booklet is available online on the Dunkerque-port website : <http://www.Dunkerque-Port.fr/fr/capitainerie/developpement-durable-Dunkerque-Port.html>

objectives, and defines and schedules the action plan to be followed for monitoring and control of the quality of sediment and water. In particular it recommends the implementation of solutions for onshore management and recycling of "undumpable" sediment.

The environmental analysis register is in an adapted and dedicated software, Bluekango which integrates and centralizes both social, quality, safety and environmental assessment and rating tools to generate action plans and affected operational control. This is reviewed at least once a year, depending on changes in context, activities and actions carried out.

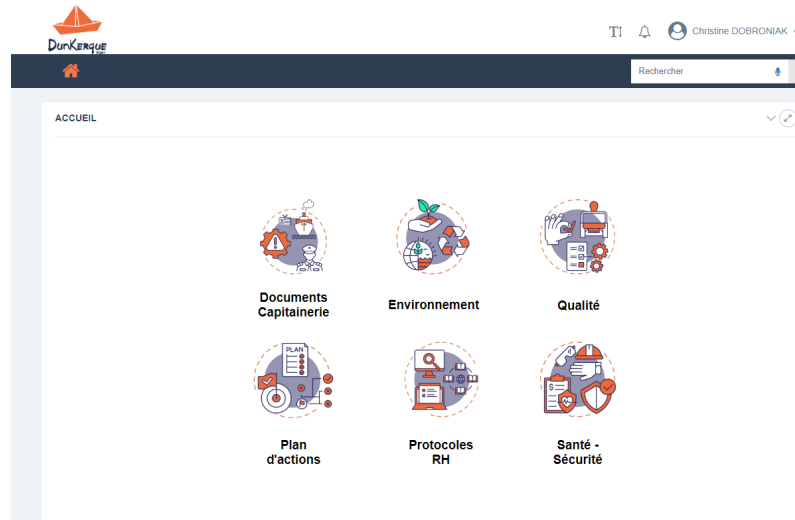


Figure 11 : screenshot of Bluekango software

By means of this methodology, 6 Significant Environmental Aspects have been identified and are shown in the table below. They are divided between the seven main activities specific to Dunkerque-Port or present on its territory :

- Operations (rail networks, structures, footbridges, cranes, dry and wet docks)
- Maintenance (maintenance of equipment, quays, dikes, sewerage, buildings, car fleet, workshops, roads and utilities)
- Activities related to maritime and waterway traffic
- Developments (Works)
- Commercial, industrial and logistics activities
- Leisure activities (public, pleasure boating, hunting, etc)
- All activities

The table presents the Significant Environmental Aspects identified for 2021 as well as the corrective actions that are implemented and integrated in the PA2D programme.

The full table (french) can be consulted on request and on the office of Dunkerque-Port.

Significant environmental aspect	Environmental impact	Responsible organisation	Regulatory and other legal requirements	Dunkerque-Port reference documents for contrôle mesures	Score 2019	Measures (PA2D)	Score 2021
Operations (railway lines, structures, footbridges, cranes, dry and wet docks)							
							NS
Maintenance (maintenance of equipment, quays, dikes, sewerage, buildings, car fleet, workshops, roads and utilities)							
Discharge of rainwater from the port district into the natural environment	Water, Soil, Sediment Marine and land biodiversity Landscape and quality of life Health/infectious products Waste	ANI	Arrêts préfectoraux GPMD	Sewerage Master Plan	196	100% of the rainwater system is compliant in eastern port Finding solutions in western port	196
Activities related to maritime and waterway traffic							
Consumption of fuels during navigation, manoeuvres and calls	Energy	CP			280	Offer on terminals : Cold ironing GNL refuelling	280
Transit of hazardous substances (maritime, waterway)	Air, Water, Soil, Sediment Marine and land biodiversity Landscape and quality of life Waste	CP		Software Hazardous Merchandise in progress	280	Implementation of a new active software (Masterplan 2020-2024 action)	280
Spatial developments (Works)							
							NS
Commercial, industrial and logistics activities							
Deliberate environmental damage: littering, wild deposits	Air, Water, Soil Marine and land biodiversity Landscape and quality of life Health/infectious products	CP/ANI/V FP			196	Installation of dissuasive advertising signs in the port area Mapping wild deposits to better anticipate for proactive management	196

Leisure activities (public, pleasure boating, hunting, etc)							
							NS
All activities							
Production of non-hazardous liquid waste (by own Dunkerque-Port's vessel)	Air, Water, Soil Marine and land biodiversity Landscape and quality of life Health/infectious products	ANI			280	Purchase a new Dunkerque-Port's vessel	280
Resources consumption	Resources consumption	EOO		Industrial network (« toile industrielle ») Masterplan	280	Environmental requirements guidelines for industries drafted (cf. Good practice) Optimized management of industrial water and energy resources in a circular economy approach	280
Using electric vehicles on the port area	Resources consumption	EOO					2
Recycling organic waste	Resources consumption	ANI/SSQE					4
Recycling plastic waste	Resources consumption	ANI/SSQE					9

Tableau 1 : Significant environmental aspect identified

The last three aspects did not exist in the last review (PERS, 2020).

NS means non significant environmental aspects identified.

3.2. Environmental performance indicators (EPI)

Knowledge of the environmental issues is an indispensable prerequisite of reporting. This tracking, which takes the form of indicators, allows a better grasp of the evolution of the port's environmental performance and an assessment of the effectiveness of the actions carried out. This work of assembling data is carried out by Dunkerque-Port and formatted in the form of a PA2D digital dashboard tool. This contains nearly 150 indicators serving to measure the environmental effects of the port's operations, the port's efforts to control or reduce these effects, and the quality of life. For each of these indicators, a contact person is appointed to facilitate feedback.

This PA2D dashboard, which is updated annually, can be consulted on the office of Dunkerque-Port. An excerpt is given below according to the requirements and PERS guidelines¹³. It's also be found in CSR report⁴.

The thirteen indicators, which were chosen (PERS, 2018), were amended by more significant indicators for the latest recertification (PERS, 2020). For all of the 32 indicators which are listed below, the necessary basic data and statistics are available ; at the same time, the evaluation of these indicators supports to verify environmental improvements. For the management performance indicators goals for the environmental performance have been quantified or formulated.

3.2.1. Emissions to air

The port is reducing CO₂ emissions and making operations sustainable. It extend these efforts to the organisation as a whole from premises to vehicule fleet. The port building's renovation resulted in a significant reduction. The modernisation of dock lighting also represented a major contribution. But energy consumption remains closely linked to the opening of locks and therefore to maritime traffic.

The industry in the port region, shipping and freight traffic jointly produce a substantial amount of CO₂ emissions. Dunkerque-Port encourage a shift in freight transport less by road, more by water and rail. Since 2019, Dunkerque-Port has joined the Environmental Ship Index (ESI) rebate, an international environmental rebate arrangement of port dues for sea-going vessels.

Code		2011	2014	2017	2020
G.1.4	Total annual Carbon Footprint by SCOPE 1 et 2 (teqCO ₂)	1287	1194	1328	1185
-	Percentage of traffic share				
			2019	2020	2021
-	Number of ESI ship		85	172	228

¹³PERS – Requirements and guidelines Version 5 (2016)

The history and geographic location of port and city have made Dunkirk as an essential link in the European energy network, due to the number and size of the facilities on its territory for the generation, import, consumption and transformation of energy. Industry, maritime traffic, road traffic, and the high density of the urban population induce high levels of atmospheric pollutants.

Across the entire port territory, ATMO Hauts de France ((Air Quality Monitoring Association) has set up a monitoring network for many years on regulated substances. The conclusions are encouraging, the trend has now been down for several years. Indeed, bulk terminals operator have put in place many measures to reduce the quantities of airborne dust (the discharge and loading gantries are equipped with dust-suppression systems; the wagon loading towers are hooded; a system for water spraying stock and some of the traffic areas is in place). Also industries

All data are available on Atmo Haut-de-France website ¹⁴ and station monitoring on live. Since 2021, Atmo Hauts-de-France with Dunkerque-Port have been involved in air quality assessment project in port areas : Pirate Project (Port Inventories ReAl TimeE) to achieve the development and validation of real-time port emission inventories.

Code		2008	2010	2012	2015	2018
G.3.2	Emissions of particulate matter PM10	3.8	3.6	3.5	3.3	3.7
G.3.3	Emissions of particulate matter PM2,5	3.3	3.1	3	2.9	3.3

Code		2018	2019	2020	2021
-	Percentage of good and very good air quality indices)	75%	77%	81%	In progress
-	Number of days of nuisance due to dustfall in the Western Port	30	13	46	9

In 2020, Dunkerque-port has joined the “Getting to Zero” Coalition to support the decarbonization of the maritime industry. Since 2021, with its decarbonation roadmap¹⁵, Dunkerque-Port is firmly committed of the ecological and energy transition by reducing its carbon emissions. It also carry on with the french objective of carbon neutrality in 2050. With the least possible impact on the climate and nature, several action for transition energy can be highlighted around the circular economy, efficiency and carbon sobriety in connection with Rev 3 of the Hauts-de-France, Euraénergie and the Innovation Territory program (“Dunkerque L’Energie creative”¹⁶): photovoltaics power plan, strategic industrials electricity needs plan, circular economy and eco-materials cluster, development of the large-scale hydrogen network across the port complex, and

¹⁴ Several publications of Dunkirk area are available online on the ATMO Haut-de-France website : https://www.atmo-hdf.fr/sites/hdf/files/medias/documents/2022-01/series_chronologiques_2011-2020.pdf
https://www.atmo-hdf.fr/sites/hdf/files/medias/documents/2022-05/AtmoHDF_Emissions_EPCI_M2020_A2018_%28CU%20de%20Dunkerque%29.pdf

¹⁵ more information : <https://invest.dunkerquepromotion.org/fr-fr/dunkerque-territoire-energie-decarbonee>

¹⁶ more information : <https://drive.google.com/file/d/18AHjXc7kL75TeUz-HZSyCszGDBKN04UB/view>

finally, the launch of various partnerships with industrialists or research centers around activities related to decarbonation.

The port of Dunkerque is working on the transition from fossil energy to sustainable energy. Shore-based power is an important aspect of this. In line with the deployment of low-carbon services for ships and after cold ironing in 2019, the container terminal was approved in 2021 as an "LNG Ready Terminal" which authorizes ship-to-ship LNG bunkering operations.



Figure 12 : GNL Bunkering

3.2.2. Resource consumption indicators

Dunkerque-Port has been engaged since 2010 in an eco-responsible action plan for its employees, its own buildings and its process in connection with the reduction of CO₂ emissions. All of its actions are included in the PA2D.

The electricity consumption (buildings, street lighting, security/safety lighting and the consumption of structures) of the port's activities is the main source of CO₂ emissions. It is interesting to note that 70% of the electricity consumption of the port comes from the works and equipments (cranes, pumps, locks,...). These consumptions are directly linked to the activity of the port and certain equipment can be very energy expansive : this is the case of the pumps which consume large quantities of electricity, particularly during periods of flooding in Dunkirk district.

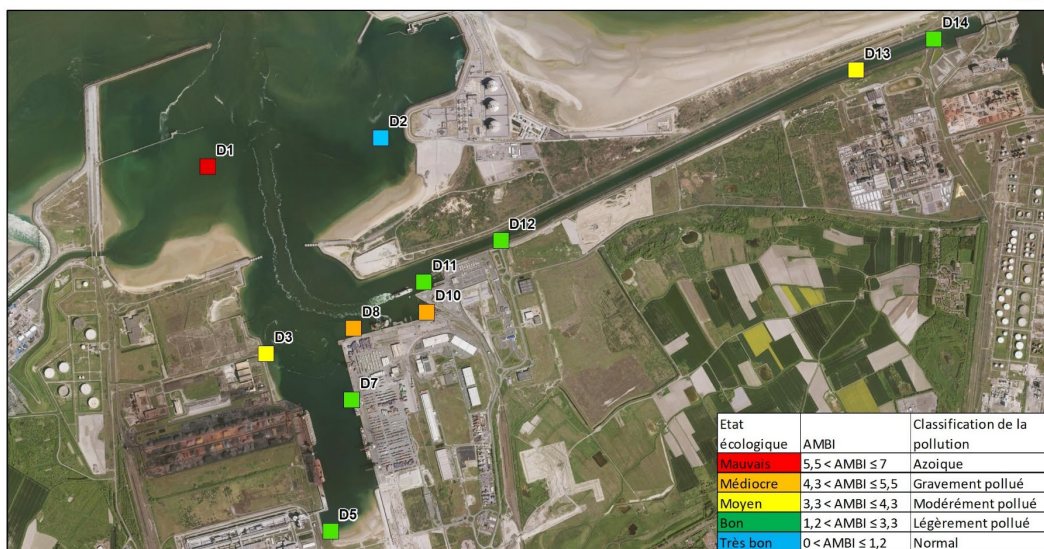
Code		2019	2020	2021
	number of employees	387	375	371
G.10.1	Total annual water consumption (port's building) (m ³)	2 320	323	In progress
G.11.1	Total annual electricity consumption (without customers) (kwh)	7 554 165	7 313 210	7 658 796
G.12.1	Total annual fuel consumption			
	• Diesel for land vehicles (l)	86432	71882	73409
	• Gasoline for land vehicles (l)	2555	2673	5008
	• Diesel for vessels (l)	1679	1615	867
	• Electric car (% vehicles)	0,7	8	8
	• Fuel for building heating (m ³)	83101	72450	72800

The vehicle fleet is being gradually renewed and electric car and hybrid vehicle have been purchased. In addition, there are awareness-raising actions and training of agents in eco-driving.

3.2.3. Sediment quality

The dredging master plan (SDD) includes a major system for monitoring the quality of sediment and water in the port area but also along the coast from Dunkirk to the Belgian border. As a result of the efforts to reduce pollution, sediment quality has improved overall.

- Evolution of sediment quality by benthic monitoring (AMBI) 2021



In order to gain a better understanding of coastal benthic marine habitats, a macrofauna and flora monitoring network has been set up. It must make it possible to detect impact of port's activities by changes in these habitats, in the medium and long term, and contribute to measures for the management or protection of natural environments.

3.2.4. Waste management

The port has set up a policy for shared management of ship waste, through a ship waste collection and treatment plan approved by Prefectural decree on 5 August 2015¹⁷. In accordance with the provisions of the MARPOL Convention, the port of Dunkirk has all the equipment necessary for collecting operational waste and cargo residues (solid and liquid) from ships.

The waste produced by ships consists of oily waste, harmful liquid substances (chemicals), wastewater and miscellaneous waste (soot, detergents, paints, sweepings, plastics, dunnage, shoring, lining materials, packaging, cloths, glass, food waste and so on). Liquid waste is collected at the request of the ship's agent by truck or barge. Collection is done by accredited companies.

Code		2019	2020	2021
G.22.3	Percentage of disposal methods of port waste (%)			
	• Recycling	15	12	22
	• Incineration (Energy recovery)	0	0	0
	• Controlled landfills	85	88	78

3.2.5. Port development indicators

The Port of Dunkirk needs to maintain the necessary draughts for shipping in all its docks.

In agreement with governmental departments, Dunkerque-Port carried out repair and reinforcement Port Infrastructure Works with dredged "safe" sand without contamination above the regulatory thresholds in force (heavy metals, TBT, HAP and PCB), in order to protect its coasts and shores against erosion and the advancing water. In 2014, This first large-scale operation (1,500,000 m³) reinforced the Digue des Alliés in order to provide better protection from exposure to storm swells. Today, beach renourishment may subsequently be repeated on other sites if the need arises, as Digue du Break in 2019.

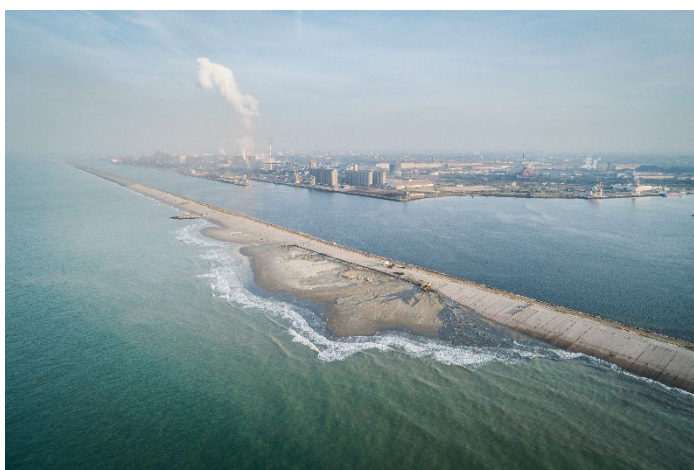


Figure 13 : Digue du Braek beach renourishment

¹⁷ The Waste Masterplan is available online on the Dunkerque-Port website <http://www.Dunkerque-Port.fr/index.php?cmpref=41101&lang=fr&module=media&action=Display>



Figure 14 : Dredged treatment platform

Rigorous analyses have shown that in a few inland docks, the dredging operations encountered silt sediment with a level of contamination above the regulatory thresholds, that not allow them to be returned to the aquatic environment. To compensate for the impossibility of dumping this sediment, Dunkerque-Port has implemented solutions for onshore management and recycling of so-called "undumpable" sediment after a precise definition of the contaminated sectors identified. This approach, begun in 2009 with universities¹⁸, is part of a circular economy dynamic, replacing the

systematic dumping of these materials which are considered as waste. The Port of Dunkirk has developed a treatment platform of 6 hectares, operating on the principle of natural dehydration, that can handle 60,000 m³ of silt per storage campaign. After treatment on the platform the silt, previously waste, is recycled in Ecodesign landscaping (92%), which contributes to the creation of a nature enclave within the port's green and blue corridor; roadbuilding (25%); concrete blocks (13%) for sea defence and different aggregate.

Code		2018	2019	2020	2021
G.24.1	Annual quantity or volume of dredged sediment (m ³ <i>in situ</i>)	2 725 893	4 948 416	2 674 186	3 399 855
G.24.3	Dredged sediments going to beneficial use (m ³ <i>in situ</i>)				
	• Creation of land (for building new areas in ports)	155 174	114 320	238 593	448 338
	• Recovery of beaches	192 313	1 694 563	104 274	472 315
	• Recovery quay walls	4 517	26 666		
	• Polluted dredging sediment rehab (deshydrated via treatment platform)	4 517	26 666	6717	0
G.24.4	Polluted dredging sediments (m ³ <i>in situ</i>)	65 094	-	64773	0

All dredging operations and destination of sediments dredged are listing into Dredging Master Plan¹⁹ (SDD) which the port of Dunkirk has followed since 2010.

3.2.6. Biodiversity affectation

¹⁸ more information

<http://www.sedilab.com>

<https://ecoseddigital.wp.imt.fr/>

¹⁹ The Dredging Master Plan booklet is available online on the Dunkerque-port website :

<http://www.Dunkerque-Port.fr/fr/capitainerie/developpement-durable-Dunkerque-Port.html>

Dunkerque-Port drew up a Natural Heritage Master Plan (SDPN)²⁰, representing a full-scale green and blue infrastructure for the whole port district, a strategic tool designed for the structuring and planning of actions to preserve and enhance the natural environments of the port's territory²¹.

The aims of the SDPN were therefore to preserve the natural heritage in nature enclaves (biodiversity hubs), and reinforce the functionalities by ecological corridors, in an iterative approach of anticipating future development projects and preferential siting of their future compensatory measures. The policy was drawn up jointly with the area's operators and is fully integrated in the green and blue corridor of the Dunkirk area.



Figure 15 : Natural Heritage Master plan

Finally, each of these newly created nature enclaves and corridors is subject to a multi-annual management plan for optimum deployment of the biodiversity. Monitoring of fauna and flora is organised with local environmental associations.

In the framework of the SDPN, the inventories were regularly updated at the broader scale of the district. All these data have been organised in a SIG database.

Code		2018	2019	2020	2021
G.17.5	Total port area protected	259	259	259	259
-	Percentage port area protected of port district (%)	4%	4%	4%	4%

Also Dunkerque-Port has developed its own biodiversity index, to quantitatively and qualitatively assess the state of health and the biodiversity richness of the port's territory, based on indicator species. The results show a balance of biodiversity on the port area. The next one will be calculated from biodiversity inventory data carried out in 2021.

Code		2011	2018
-	Ecobalance biodiversity, index for port district (number of points)	15712	15095

²⁰ The Natural Heritage Master Plan booklet is available at :

<http://www.dunkerque-port.fr/index.php?cmpref=49662&lang=fr&module=media&action=Display>

²¹ « Nature in port » is available at :

<http://www.dunkerque-port.fr/index.php?cmpref=64097&lang=en&module=media&action=Display>

3.2.7. Environnemental management

The Sustainable master plan (PA2D) supported by the CSR statement set out priority goals and actions for achieving environmental targets and beneficial use objectives over the coming year. The progress of the actions is monitored, environmental crime and environmental non-compliance are reported.

Code		2018	2019	2020
G.23.3	Total annual budget allocated to environmental protection (k€)	5103	4674	3426

Code		2021
	Progress of PA2D 2020-2024 in % (action done)	28

Moreover, Dunkerque-Port drew up a Sewerage Master Plan (SDA) in 2010, to define the actions which the port must carry out to bring the port sewerage networks into compliance and set the targets to be achieved in terms of discharge. With the Dredging Master Plan (SDD), its aim is to improve the quality of the aquatic environments and particularly the quality of the harbour water, in line with the quality targets set in the Water Framework Directive (WFD) and the french Water Management and Development Master Plan (SDAGE). To reduce the sources of pollution in transitional waters and therefore in coastal waters, one of the SDA action is to sign a contract with industries imposing the knowledge of discharges into water and technical solution at the outset.

Code		2019	2020	2021
G.23.21	Annual number of environmental incidents			
-	Number of infringement records and/or formal notices for pollution involving ships in commercial operation, during provisioning or when moored	01	0	0
-	Number of new contract of discharges water with industrie	01	01	01

Dunkerque-Port informs the public and other interested parties about its environmental performance and the progress of the port's undertakings as made in its strategic documents (PA2D, CSR, Strategic masterplan). In the framework of the PA2D, the port of Dunkirk conducts this type of information campaign through a report on the actions undertaken to promote sustainable development of the port district.

Code		2019	2020	2021
G.23.10	Percentage of employees working on environmental issues (%)	6.7%	6.7%	6.8%
G.23.12	Percentage of port employees that received environmental training	25,8%	-	20%
G.23.16	Number of Port center visitor	-	-	1400 (mid year)
-	Number of environmental events organised or supported			19



Figure 16 : Port center

Opened just before the Covid health crisis, as an educational and cultural tool, Dunkerque Port center was opened²² in front of Historic Port museum. It is a place of knowledge and information about the port, its actors, its development projects and the challenges of tomorrow. It gives to see and understand the port world thanks to an information and exhibition space accessible free of charge but also thanks to visits of the port by bus. Today, after the long phase of closure, several actions have been set: the programming of or participation in events allowing the establishment to be known by professionals, the recruitment of volunteer guides within the port area and the development of partner networks.

To continue to be closer to the citizens of Dunkirk, the port continues to invest in local or national cultural and sporting operations. Like its recent participation in cycling competitions: 4 days of Dunkirk, Tour de France...

Internally, Dunkerque-Port has joined the Eco-responsible Public Services scheme in accordance with the desire for Sustainable transformation of French authorities. Despite the impact of the health crisis, major upheavals in our economies and our ways of living and working, the year 2020 revealed and reinforced high ambitions to accelerate the ecological transition within the departments. The mobility plan and action plan have been updated: deployment of videoconferencing, carpooling yards, pool of electric cars, plebiscite of electric terminals.



Figure 17 : Cycling race promotion



Figure 18 : Green workshop Dunkerque-port

The environmental footprint of our digital uses and the circular economy in our purchasing policies will be the subject of debate in 2022. In addition, numerous information campaigns and training courses on best environmental, practices are carried out several times a year, particularly in the context of National green events (European Sustainable Development Week, European Mobility Week, European Waste Reduction Week), such as «Au boulot à vélo» operation, the «Midis de l'environnement» green corporate workshop, collaborative Climate Fresk workshop or low-carbon trees planting operation. These event may also cover practices related to the health or safety of employees.

²² More information : <https://dunkerqueportcenter.fr/>

4. DOCUMENTED RESPONSIBILITIES AND RESOURCES RELATING TO ENVIRONMENTAL ASPECTS

4.1. Organisation of Dunkerque-Port

Dunkerque-Port is directed by the Executive Committee which is formed of four people and chaired by the Chief Executive officer who is appointed by decree. This body's decisions are collegial in accordance with the law: "The executive committee directs the establishment and is responsible for its administration. To this end it is vested with the broadest powers to act in all circumstances in the name of the major sea port". However, its chair has sole authority to manage the staff, which means that he has the capacity of employer.

The organisation of Dunkerque-Port is shown in the diagram below²³.

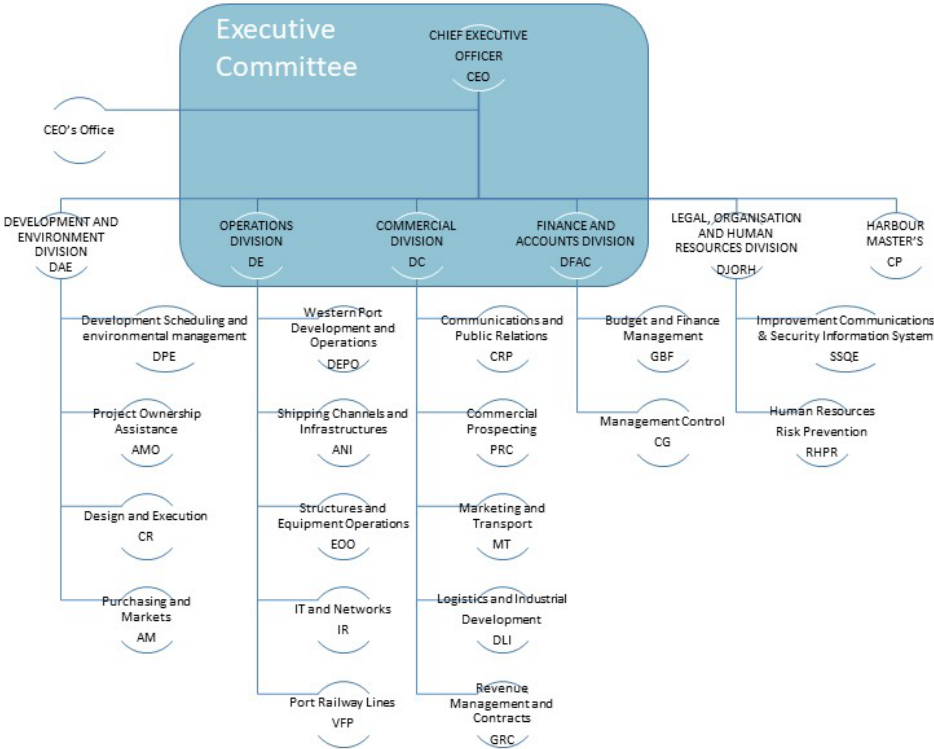


Figure 19 : The organisation of Dunkerque-Port

Alongside this, and following on from the 2008 ports reform, the organisation of Dunkerque-Port is based on strong governance involving many local players within two bodies, the Board of Trustees and the Development Board, which are also supported by an audit committee. These governing bodies are composed of government representatives, delegate of local and regional authorities, executive representatives, and qualified persons who intervene in the decisions of the

²³ See the complete organisation chart inside 2020 activity report : <http://www.dunkerque-port.fr/fr/presentation/documentation-port-dunkerque/rapports-activite.html>

establishment. Note that this entire organisation is placed under the control of the government, and of two ministers in particular. The diagram below shows the port's system of governance ²²:

The role of the Review committee is to support the Board of trustees by providing them with opinions and recommendations. In 2020, it notably examined the progress of the Strategic Masterplan 2020-2024, in particular the update of the financial trajectory.

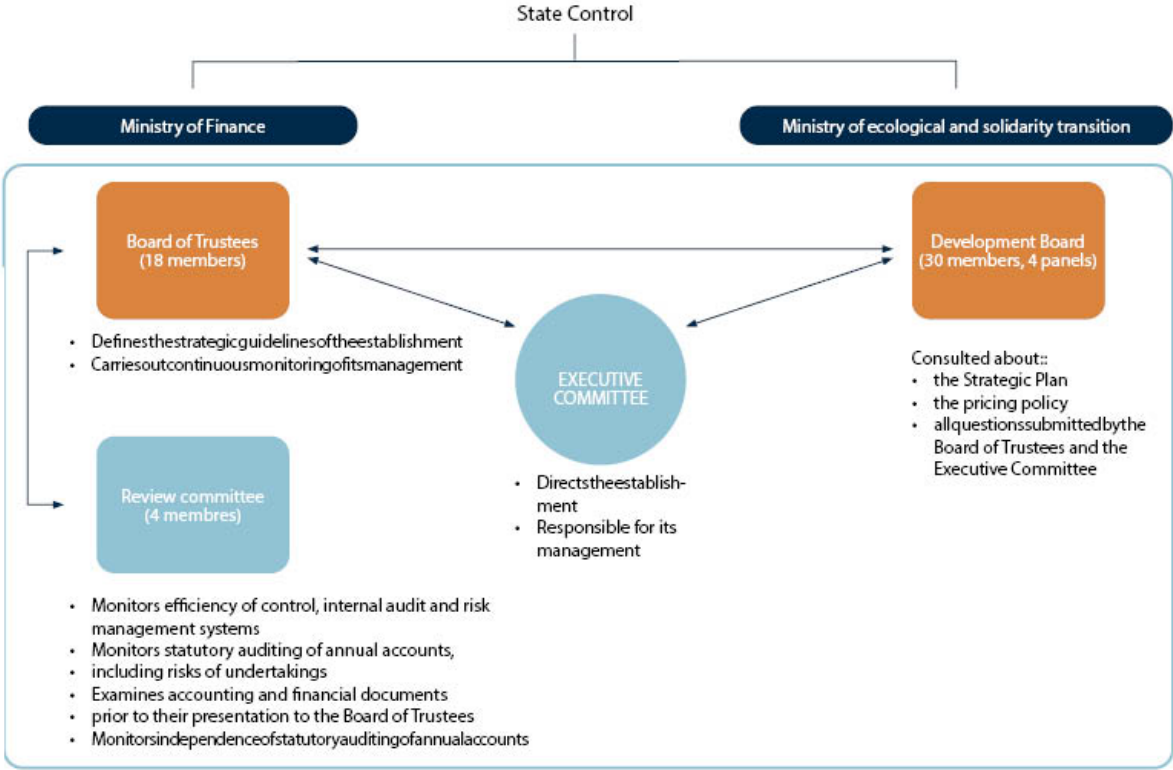


Figure 20 : Dunkerque-Port's system of governance

4.2. Environmental responsibilities of key staff

The resources, roles, responsibilities and powers are defined in the port's internal process « Management of Human Resources » that is available for consultation on the premises of Dunkerque-Port (Ref. PCS.6001). The purpose of this document is to ensure that, the company has the appropriate human resources with the required skills to accomplish its missions, in compliance with legal obligations.

This process is carried out through skills mapping based on job descriptions. The job descriptions include the objectives and rationale, key skills, technical skills and organisational skills, and in every case the concept of a Safety, Security and Environment attitude and behaviour. The roles and responsibilities are defined by means of diagrams included in each operating method integrated in the port's management system.

The following list indicates those liabilities affecting the environment in the port of dunkirk, which are in the requirements of PERS certification. These are activities that may cause, control or minimize environmental impacts when managed, or may cause environmental impacts if control was lost, or may result in a breach of environmental, safety and security policies guidelines or regulations.

Activity	Dep	Position
Port operations (dredging)	ANI	Head of Shipping Channel and Infrastructures Department
Port operations (navigation)	CP	Harbour Master
Port operations (terminals)	EOO	Head of Structures and Equipment Operations Department
Oversight of wharfs and piers	ANI	Infrastructure Maintenance Manager Maritime and waterway wharfs, Maritime and waterway piers, Fixed bridges
Site administration	RHPR	Head of Human Resources Department Risk Prevention
Scheduling	DP	Head of Development and Scheduling Department
Purchasing of supplies	AM	Head of Purchasing and Markets Department
Licences / Permits	DPE	Design Office Manager
Quality management	SSQE	Head of Continuous Improvement and IT Security Department
Management of on-site contractors	DLI	Head of Logistics and Industrial Development Department
Emergency planning	CP	Harbour Master
Waste management	SSQE	Environmental Quality Coordinator
Environmental management	ME	Head of Environmental Management Department
Management of environmental data	DPE	Environmental Research Officer Geomatician / Geographic Information System
Assessment of soil pollution	DPE	Environmental Research Officer
Monitoring of air quality	DPE	Ecology and Communications Assistant
Energy and carbon footprint	DPE	Sustainable Development Research Officer
Monitoring of water quality	DPE	Environmental Research Officer
Noise management	DPE	Ecology and Communications Assistant
Vehicle fleet management	EOO	Head of Structures and Equipment Operations Department
Port signage	DPE	Design Office Manager
Maritime traffic management	CP	Deputy Harbour Master
Control of natural and technological risks	DPE	Design Office Manager
Environmental communication	DPE	Ecology and Communications Assistant
Environmental coordination of worksites	DPE	Environmental Research Officer
Monitoring of biodiversity	DPE	Sustainable Development Research Officer
Regulatory monitoring	DPE	Environmental Research Officer
Port security	CP	Security Manager

Table 2 : responsibilities of key personnel

4.3. Memberships & stakeholder management

Memberships in associations and interest groups Dunkerque-Port is a member of the following associations and societies as OFFice français de la Biodiversité, Agence de l'eau, Norlink port, CERDD, GEODE, Natura 2000 networks, AIVP, Chamber of Commerce and Industry....

Relevant stakeholders/stakeholder groups in Dunkerque-Port were identified in connection with the quality certification (ISO 90001) in an internal workshop with the involvement of experienced colleagues from Environmental and Quality Management, Harbour Master and Operation divisions, Development, Controlling and Finance departments. Owing to Dunkerque-Ports' port management activities and the resulting broad field of business involving highly diverse duties, the number of relevant stakeholder groups that must be considered is high.

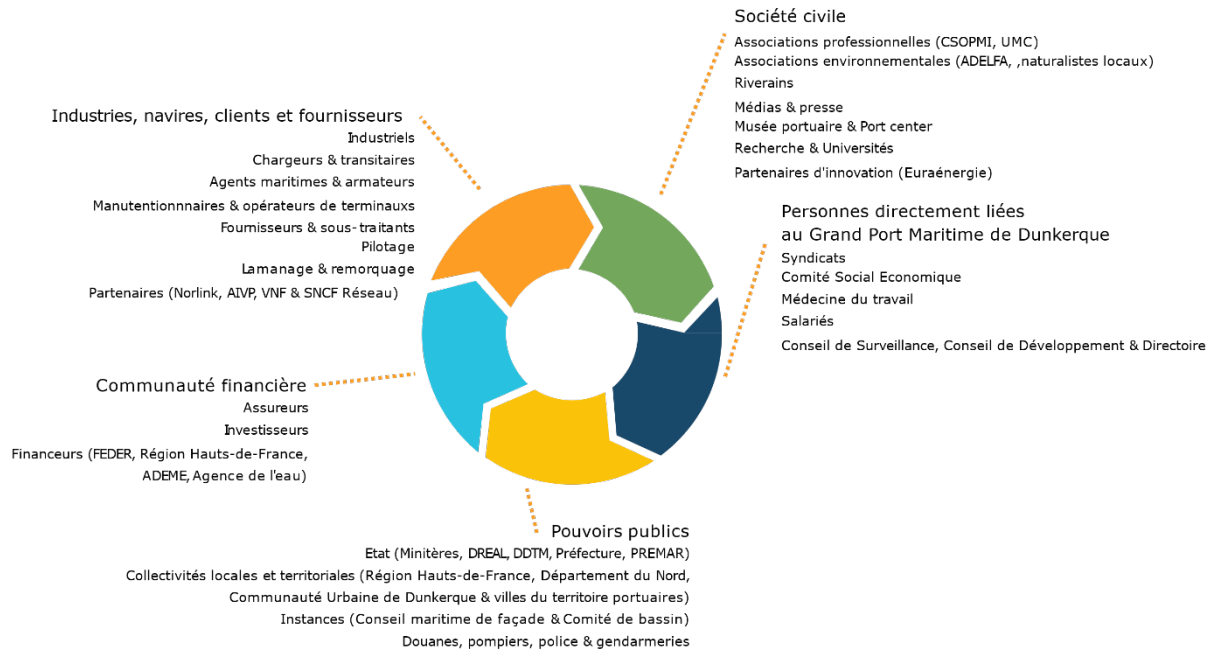


Figure 21 : Dunkerque-Port's stakeholders

All the stakeholders and stakeholder groups identified by the internal working group with claims on Dunkerque -port are given in the following list, checked and updated on a regular basis. The following overview shows the frequency or cycle of engagement with stakeholders and what form this usually takes. This register of "interested parties" which lists all the players who intervene in the port's activity is available for consultation on the premises of the port of Dunkirk. This table ensures correct integration of stakeholders' expectations and the port's obligations.

The various groups pursue very different objectives and require Dunkerque-Port to take different approaches to exchange together : formal works meeting, newsletter, series of routine and ad-hoc meetings facilitate full information sharing.

In addition, to maintain customer contacts, Dunkerque-Port uses various means (meetings, working groups, workshops, events, trade fairs, and the like), to facilitate mutual information on optimum location specific offerings and solutions.

Finally, the website www.Dunkerque-Port.fr is open to the public. It contains extensive information on the port's activities.

Stakeholder groups (non exhaustive list)	Stakeholder engagement	
	Frequency	Form
Employees and executive commission		
Staff	At least 2x/y	Meeting with the managing directors/annual performance review
Board of trustees	4x/y	Meeting with the managing directors
Development board	4x/y	Meeting with the managing directors
Employee representative committee	10-15x/y	Meeting with the managing directors/annual performance review
Review committee	5-10x/y	
Trade unions	Regular	Meeting
Chamber of labor	Regular	Meeting
Works councils	Regular	Meeting
Authorities		
State government	Regular	Project-specific working groups
Environmental authorities	Ongoing	Project-specific working groups
State agencies	4x/y	Meeting with the managing directors
Local authorities	Ongoing	Project-specific working groups
Regional authorities	Ongoing	Project-specific working groups
Society		
Press & media	Regular	All required and project-specific
Universities, school & research institutes	Ongoing	Project-specific working groups
Port museum & Port center	Ongoing and at least 2x/y	Project-specific working groups
Non-governmental organization	Non-regular	As required Project-specific working groups
Customers		
Industry associations	Regular	Meeting
Trade association	Non-regular	As required
Industries	Non-regular	As required
Fishermen trade	Rare	As required
Farmers chamber	Non-regular	Meeting
Farmers	Rare	As required
Shippers	Regular	As required
Shippers agents	Regular	Meeting
Port service providers	At least 1x/y	Meeting with the managing directors/annual performance review Project-specific working groups
Hunters	Regular	As required
Representatives of other ports		
ESPO	Rare	Meeting

French port institution	Regular	Meeting
Partners		
Boatage operations	At least 1x/y	Meeting with the managing directors/annual performance review Project-specific working groups
Maritime pilots	At least 1x/y	Meeting with the managing directors/annual performance review Project-specific working groups
Towage services	At least 1x/y	Meeting with the managing directors/annual performance review Project-specific working groups
Suppliers		
Construction firms	Ongoing	Project-specific working groups
Waste, material and energy suppliers	Ongoing	Project-specific working groups
Provider of studies, surveys and plans	Ongoing	Project-specific working groups
Providers of capital		
Investment bank	Rare	As required
European funds	Rare	As required

Table 3 : extract from interested parties register

Code		2019	2020	2021
-	Board of trustees	5	5	5
	Review committee	-	-	8
	Employee representative committee	12	9	10

5. CONFORMITY REVIEW OF ENVIRONMENTAL PERFORMANCE AND LEGAL REQUIREMENTS / ACHIEVEMENTS AND PLANNED ACTIVITIES

This environmental report demonstrates in chapter 3 the detailed analysis of environmental impacts, the legal standards for port-related activities and environmental policies for Dunkerque-Port.

The monitoring of legal requirements in chapter 3.1, the EPI's in chapter 3.2 and the monitoring of policy requirements in chapter 3.1 show the relevant indicators and aspects that are monitored for several years. They are in line with PERS standards and show a positive trend. If not, explanations are given and it can be assumed that in the coming years the trends gets better. So far, the port administration has been able to meet the legal standards of environmental legislation.

Furthermore, according to the environmental policy and the PA2D, the Dunkerque-Port is taking steps over notably for the dredging and the biodiversity and beyond the legally required environmental standards and installed with an ambitious continuous improvement policy.

5.1. Resources

All the documentation relating to the management system is available on « Bluekango software », our Internal computer application of our Intranet. The documentation is available to all the staff either via their workstation computer or via a shared computer which they can use. This documentation includes, in particular, the CSR Policy, the directors' meeting minutes and audit reports, the processes and operating methods²⁴ and the Harbour Master's document management system for the maritime aspect. Similarly, the PA2D and its annual review can be viewed on the Intranet. In 2020, a software dedicated to monitoring indicators and the CSR and PA2D actions programs will be installed to improve your environmental performance. The software will adapt our specific organization by improving sustainable operational performance from the field to top management by monitoring ours several environmental strategies: non-compliances and complaints, equipment and buildings, environmental impact, training, audits and surveys, self evaluation and certifications...

5.2. Conformity review of environmental performance

Sustainable development in the port of Dunkirk is characterized by a process of continuous improvement. The social, ecological and economic goals which we have set ourselves en route to a sustainable port as well as the specific measures in place for achieving the former have been bundled in the PA2D actions plan. This programme is annually published in the sustainability report and presented on the following pages. The relevant management aspects are presented with a goal, the dedicated measures, the actual status, the timeline and the resulting performance of the year.

²⁴ For example, the current documentation that can be viewed in Blukango software on the operation of the management system comprises :
PAD.PRO.1602 "Environmental analysis"
PAD.REF.1002 "Regulatory monitoring benchmark"
PAD.PRO.1601 "Assessment of compliance with environmental requirements"

Results are communicated notably in Sustainable day event As this programme is published, all stakeholders and the public get transparent information about our former and planned activities.

Sustainable and environmental priorities according to our PA2D 2020-2024 programme are presented below.

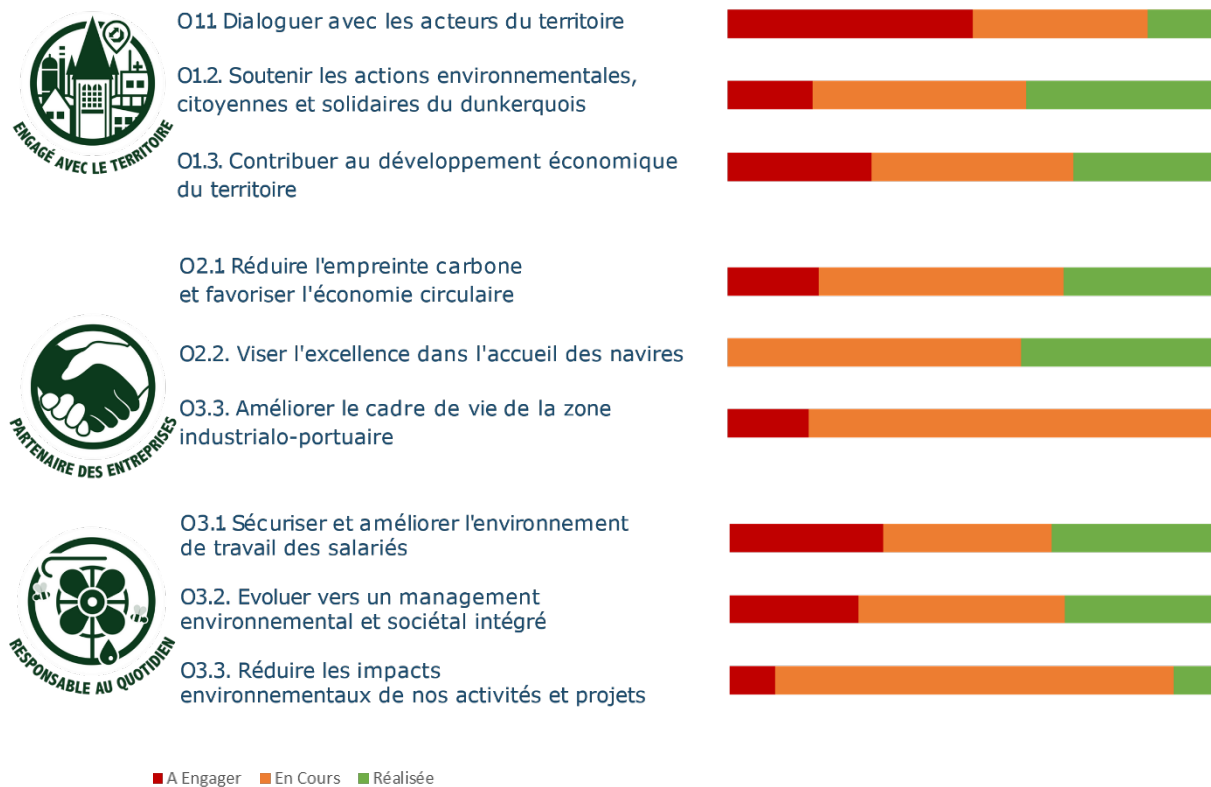


Figure 22 : General 2021 PA2D 2020-2024 status chart

This PA2D 2014-2018 actions program is now finished. In 2019, the latest review showed that 90% of the planned actions have been completed (3.2.7). Since the end of the 2019 year, it has been replaced by a new one the PA2D 2019-2023. The first reporting will take place in 2020.

5.3. Conformity review of legal requirement

Dunkerque-Port must ensure that its environmental performance is compliant with legislation and with the port's environmental policy. The compliance analysis, however, must not end with a declaration of compliance for each legal requirement, but must provide information to identify the measures for improvement which are and will be necessary to maintain or restore compliance with legislation or other standards.

In 2019, 2547 legal requirements have been identified, as well as the recommendations made in Prefectural decrees. As concerns the latter, reviews are conducted every year and the conclusions forwarded to the competent government departments for assessment of their compliance with recommendations. A software for management of monitoring and assessment of compliance is used to implement the regulatory monitoring. It includes the topic, the status of the article, the date of the conformity assessment, the person responsible for the assessment, the results and the justifications.

The screenshot shows a software interface for compliance analysis. At the top, there is a navigation bar with icons for ACCUEIL, VILLE, RÉFÉRENTIELS ET CONFORMITÉ, EVALUATION DES RISQUES, PLANNING, PERFORMANCE OPERATIONNELLE, EVENEMENTS ET ACCIDENTS, REPORTING ET INDICATEURS, and ADMINISTRATION. Below this is a search bar with 'Ma recherche' and a 'SUPPORTS ET FORMATION' button. The main section is titled 'CONFORMITÉ(S) À TRAITER'. It includes filters for 'THEME' (set to 'DECHETS / WASTE') and 'A enjeu'. Below the filters, there are checkboxes for 'A définir', 'A vérifier', 'Conforme', 'Non concerné', 'Non conforme', 'Non conforme du Client', 'Partiellement conforme', and 'Surveillance conformité'. The main data is presented in a table with the following columns: RÉFÉRENTIEL, THÈME, SOUS-THÈME, ETAT DE CONFORMITÉ, DÉFINITION DE LA NON-CONFORMITÉ, NOMBRE D'ITEMS, NOMBRE DE PLAN(S), and NOMBRE À ENJEUX. The table contains 12 rows of data related to environmental waste requirements.

RÉFÉRENTIEL	THÈME	SOUS-THÈME	ETAT DE CONFORMITÉ	DÉFINITION DE LA NON-CONFORMITÉ	NOMBRE D'ITEMS	NOMBRE DE PLAN(S)	NOMBRE À ENJEUX
Environnement / Environnement	Déchets / Waste	Prescriptions générales / General requirements (Déchets / Waste)	Conforme		9	0	
Environnement / Environnement	Déchets / Waste	Prescriptions générales / General requirements (Déchets / Waste)	Non concerné		4	0	
Environnement / Environnement	Déchets / Waste	Acceptation des déchets / Waste acceptance (Déchets / Waste)	A vérifier		7	0	
Environnement / Environnement	Déchets / Waste	Acceptation des déchets / Waste acceptance (Déchets / Waste)	Non concerné		4	0	
Environnement / Environnement	Déchets / Waste	Déchets dangereux / Hazardous waste (Déchets / Waste)	Non concerné		1	0	
Environnement / Environnement	Déchets / Waste	Déchets dangereux / Hazardous waste (Déchets / Waste)	Conforme		3	0	
Environnement / Environnement	Déchets / Waste	Déchets dangereux / Hazardous waste (Déchets / Waste)	Non conforme		1	0	
Environnement / Environnement	Déchets / Waste	Huiles usagées / Waste oils (Déchets / Waste)	Conforme		2	0	
Environnement / Environnement	Déchets / Waste	Huiles usagées / Waste oils (Déchets / Waste)	A vérifier		2	0	
Environnement / Environnement	Déchets / Waste	Déchets de papier, de métal, de plastique, de verre et de... (Déchets / Waste)	A vérifier		6	0	
Environnement / Environnement	Déchets / Waste	Déchets d'emballages / Packaging waste (Déchets / Waste)	Conforme		4	0	

Figure 23 : screenshot of the compliance analysis software

This allows consultation, retrieval and updating of the regulatory benchmark and regulatory monitoring. The analysis of compliance is carried out in its entirety over a period of 3 years.

In 2021, the last review showed that on the environmental legal requirement we are 99,77% up to date.

	Compliant	Partially compliant	Non compliant	uninvolved
Environnement	380	36	6	2207
Energy	0	0	0	340

Note that, as part of its management system, internal audits may be initiated to assess the compliance of the port's environmental performance. The services of an outside service provider may also be enlisted for this type of assignment. Since 2014, internal and external audits have been carried out, the reports and the list of internal auditors are available for consultation on the office of Dunkerque-Port.

6. SELECTED BEST PRACTICES

In the framework of the PA2D, Dunkerque-Port follows a proactive policy in favour of sustainable development of the port district. Since its launch in 2014, and even before then, many actions have emerged that have made Dunkirk an exemplary port nationally. Among many examples of this are the dredging and recycling of undumpable sediment, the management of biodiversity in the port's green and blue infrastructure, the recycling of materials as part of the circular economy, adapting to climate change, and improving the quality of the air.

The action plan respond to the sustainable growth challenges of the 17 Sustainable Development Goals (SDG) of the ONU for 2030. As a partner of the territory and of the industrialists, Dunkerque-Port are involved in SDG 9, 11 and 17, Our activities as a sustainability accelerator contribute directly to SDG 7, 12 and 13. Finally, it respond to SDG 8 through our investment programs. As health and safety has a central role in all of our activities, our selection also includes SDG 3.

These topical subjects, forming an integral part of the ESPO's environmental priorities, are the subject of special attention by Dunkerque-Port in light of the issues which they raise.



Figure 24 : PA2D's SDG priorities

The rest of this document contains a selected sheets giving significant actions implemented in the last two years by Dunkerque-Port in order to address the environmental aspects associated with the activities and businesses on its area. There are positive indications of the port management's ability to deliver environmental protection and sustainable development. They provide the ESPO reviewer with tangible evidence of achievement and contribute to several publication from ESPO²⁵.

The PERS application in 2018 described :

- Adapting to climate change
- Re-sanding of the Alliés Breakwater beach
- Natural Heritage Master Plan
- Environmental coordination
- Ship waste management
- Green industry and circular economy
- Governance and community integration
- Control of airborne dust in the Western Port bulk terminal
- Air quality – Modelling of emissions
- Sustainable management of rainwater in the Eastern Port of Dunkirk
- Recycling of undumpable dredging silt

Furthermore in 2020 four best practice examples were explained :

- Old industrial site redevelopment
- Employee sensitization
- A convention to open Dunkerque-Port company to the youth of the working-class neighborhoods
- Environmental requirements guidelines for industries

In this report, we highlight :

- Air quality – bee monitoring
- Relation Port/communities – Port center
- Economy circular and consumption ressources - Industrial canevas

²⁵ [https://www.espo.be/media/ESP-2844%20\(Sustainability%20Report%202021\)%20FINAL.pdf](https://www.espo.be/media/ESP-2844%20(Sustainability%20Report%202021)%20FINAL.pdf)

Special bee programme to monitor air quality



1. Project description

Contexte	An action led by the Grand Port Maritime de Dunkirk in partnership with the Local Health Observatory « Espace Santé du Littoral » include in « Dunkerque energie creative » project. This ambitious project is a collective ambition to be the industrial territory of the future, to succeed in our transition to the decarbonized industry and the new energies of the twenty-first century and in doing so, to respond to the major climate, economic and social challenges of our time. The bee project is one of the action.
Procedure	Dunkerque-Port have come up with an unusual approach to monitoring air quality. The port is using bees as “biodetectors,” their body, their materials, their honey regularly tested for toxins. The project want to develop a network of sentinel bees on the port territory extended to the communities. The first batch bees was tested in 2021. Beekeepers from the local neighborhood club keep the bees. https://fb.watch/dRVjs26GQJ/
Timescale	2019-2029
Cost	20 000 €/y

2. Environmental aspects concerned

Air, biodiversity

3. Operators concerned

Dunkerque-Port /local neighborhood club / Observatory Health
Parteners « Dunkerque energie creative » project

4. Contact

Name : Guillaume Debril
Position : Environmental research officer
Postal address : 2505 route de l'écluse Trystram 59140 Dunkerque
Email : gdebril@portdedunkerque.fr
Website: <http://www.Dunkerque-Port.fr/>

5. Documentation

Strategic master plan 2019-2023
PA2D 2020-2024

Website
Dunkerque energie creative <https://www.dk-energie-creative.fr/>

Port center



1. Project description

Contexte

Designed as an educational and cultural tool, a Port Center is a place of knowledge and information about the port, its actors, its development projects and the challenges of tomorrow. It gives to see and understand the port world thanks to an information and exhibition space accessible free of charge but also thanks to visits of the port by bus. It is the gateway to the port territory/. The name "Port Center" is a label awarded by the International Association of Port Cities (AIVP).

Around the world, the same observation is made: ports move outside cities and move away from the inhabitants. Several factors can explain this distance:

- The need to expand the basins to accommodate larger and larger boats and more and more goods
- The evolution of techniques and professions
- The highest safety and security standards since the Attacks of September 11, 2001 in the United States.

Dunkirk's people often testify to their attachment to the port and regularly express their desire to have access to the port territory to better know its activities, developments, projects ... Organized as part of the major CAP 2020 port development project, the National Commission for Public Debate was an opportunity for residents to reaffirm their desire to renew ties with their port.

The creation of a Port Center, a project under consideration for a few years, has therefore become obvious.

Procedure

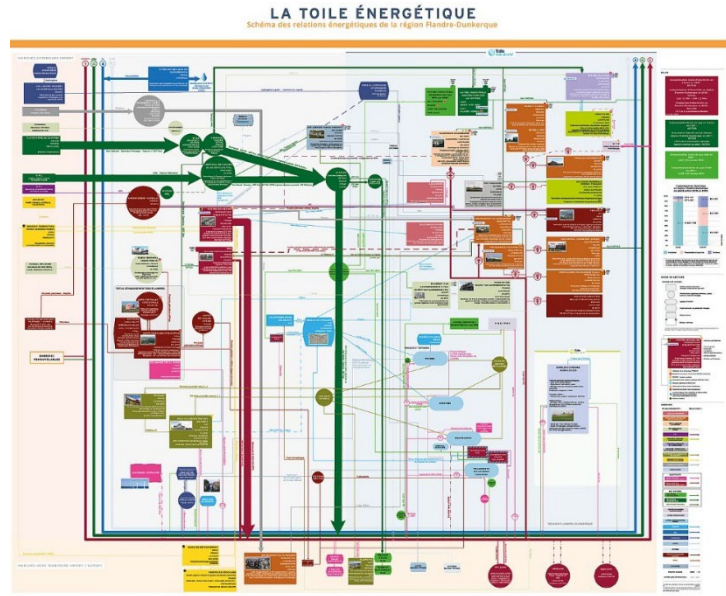
This new structure is supported by 3 founding members: Dunkerque-Port, the Urban Community of Dunkirk and the Historical Port Museum association.

The Dunkerque Port Center has a threefold objective:

- Contribute to the dynamism of the port area by creating a place of knowledge, promotion and exchange around the port activities and professions of today and tomorrow;
- Affirm the maritime identity of the port to contribute to the attractiveness of the territory;

	<ul style="list-style-type: none"> • Open the port to Citizens by communicating about what it is, what it does and its development projects. <p>Dunkerque Port Center offers an educational, interactive and fun experience, open to all audiences: residents, tourists, schoolchildren, students, families... Different mediation tools enrich the exhibition through the use of digital, computer graphics, games, photos, videos...</p> <p>Located in the heart of the city and easily accessible, Dunkirk Port Center is the starting point for visits to the port. The objective of these field visits is to be as close as possible to port activities. They are provided by the mediators or volunteer guides of the Port Center. The volunteers are all former port professionals who know the port like the back of their hand and who will make you live, thanks to their experience, a unique moment.</p>
Timescale	Since 2019
Cost	Internal cost
2. Environmental aspects concerned	
-	
3. Operators concerned	
CUD / Dunkerque-Port/ Historical port museum	
4. Contact	
Name : Christelle Miot Position : Director Postal address : 2505 route de l'écluse Trystram 59140 Dunkerque Telephone : 03 28 633344 Email : cmiot@dunkerqueportcenter.fr Website: http://www.Dunkerque-Port.fr/	
5. Documentation	
PA2D 2020-2024 Website : https://dunkerqueportcenter.fr/ http://www.aivp.org/	

Industrial canevass « Toiles industrielles »



1. Project description

Contexte

More than just tools for knowledge of the territorial ecosystem, "Toiles" are real strategic tools in terms of prospecting, foresight and decision support. Very widely valued, they are every day more and more emulated and conquer more territories: without claiming to be exhaustive, Since 2008, faced economic shocks. AGUR (Dunkirk urban agency) developed a first tool called « Toile ». Designed in the form of a flow diagram, this tool does not bear its name by chance: like the threads of a spider's web, links are forged between establishments located in the Flanders-Dunkirk region and those outside the territory. The « Industrial Toile » ® describes companies by demonstrating their interdependence and the extent of their local roots. This approach has a double interest: to understand and identify the potentials of territorial development, and to anticipate the impacts of changes on economic markets. The other advantage of the industrial web is its participatory dimension. Due to the nature of the project, the construction of a "canvas" requires a collaborative approach. It is difficult to set up this type of tool without crossing the expertise of each other. The effective synergies between the port, local authorities and other local actors make it possible to distinguish the territory and to see Dunkirk as a favorable breeding ground. Among the actors convinced by the project: the Port of Dunkirk, the Chamber of Commerce and Industry, journalists and industrialists. A rich partnership that made it possible

	to design the tool and allow its development. The « Industrial Toile » ® is also used to seek new economic opportunities. It is an ideal tool to present The industrial ecosystem and the circular economy potential of Dunkirk to prospects.
Procedure	<p>Since then, various thematic « Toiles » have been produced: energy, waste, agri-food... « Energy Toile »® is a representation of the energy ecosystem of a territory. It makes it possible to identify resources and energies imported, produced, transformed, exchanged between entities (production units, consumers, storers, etc.) and with other territories. The tool is aimed at all actors in the energy transition. It is used during strategic meetings with energy companies, logisticians, industrialists etc.</p> <p>With the support of its partners, the Urban Community of Dunkirk(CUD) and the Artois-Picardy Water Agency, AGUR and the Dunkirk Water Syndicate have developed a brand new tool for the development of the circular water economy and the preservation of resources: the « Industrial water Toile » ®.</p> <p>Today, all « Toile » continue their digital development with the creation of Web 3.0. Perspectives that attract new partners (Learning Center "Sustainable City", Port Museum ...).</p>
Timescale	
Cost	25000€ /y
2. Environmental aspects concerned	
water, air, energy,...	
3. Operators concerned	
AGUR/Dunkerque-Port/Industries/CUD....	
4. Contact	
<p>Name : Gwenaelle Cotonnec Position : Head of Development & scheduling Department Postal address : 2505 route de l'écluse Trystram 59140 Dunkerque Email : gcottonnec@portdedunkerque.fr Website: http://www.Dunkerque-Port.fr/</p> <p>Name : Jean François Vereecke Position AGUR Email : jf.vereecke@agur-dunkerque.org</p>	
5. Documentation	
PA2D 2020-2024 Website : https://www.agur-dunkerque.org/blog/des-toiles-qui-s-exposent-dans-le-monde-entier-billet-5455.html https://www.agur-dunkerque.org/blog/la-toile-industrielle-schema-des-relations-inter-industrielles-du-dunkerquois-billet-4821.html https://www.agur-dunkerque.org/blog/toile-energetique-schema-des-relations-energetiques-de-la-region-flandre-dunkerque-billet-4802.html	



2505 route de l'Écluse Trystram,
BP 46534,
59386 Dunkerque Cedex 1
France

