

Puertos del Estado



GOBIERNO
DE ESPAÑA

MINISTERIO
DE FOMENTO

SUSTAINABILITY REPORT OF THE PORT SYSTEM OF GENERAL INTEREST

YEAR 2013





PROLOGUE

The European Commission in its Communication “Ports: an engine for growth” (COM:2013), describes seaports as key elements for trade development in the European Union. In this document, it is noted that 74% of imports/exports of the Union and 37% of the trade between Member States are moved through ports.

The relevance of seaports for trade development becomes especially clear in the case of a country such as Spain, whose maritime facades face the main navigation routes, which exceed 8.000 kilometers, a figure just below the United Kingdom’s. Such geographic conditions lead us to move 85% of imports and 60% of exports through our ports.

Nevertheless, the primacy of maritime transport and ports for trade should not make us think that there is no room for improvement. The entire European transport system faces challenges that could alter seaport traffic. Among them, it is worth noting the necessary reduction of energy dependency on fossil fuels, the control of external costs of transport, paying particular attention to greenhouse gas emissions, and the continuous commitment to innovation for the service of competitiveness of the transport system as a whole.

In short, following the principles of the European Commission in its European 2020 Strategy (COM:2010), it is essential to support smart, sustainable and integrated transport networks that boost social development and territorial cohesion of the Union.

The urgency could not be greater due to the fact that according to estimations of the European Commission, in a reduced growth scenario, the volume of cargo transported through European seaports in 2030 will be 50% greater than that registered in 2001, when 3700 million tons of cargo had already been reached. It is vital, therefore, to implement optimization and efficiency strategies such that, an increase of transport needs, does not imply an equivalent increase in infrastructures or energy consumption and emissions, but rather a better uses of resources.

In this context, seaports are called on to contribute, in a decisive way, to achieve more sustainable transport of cargo, evolving towards integrated ways of multimodal logistic flows of the Trans-European Transport Network; in which are supported, in an efficient way, short and deep sea transport, shore-sea-shipping in the EU , railway and road transport. In addition, seaports, must make an efficient use of energy and provide diversified and sustainable energy services.

Spanish Port System is aware of challenges, so that Puertos del Estado has fostered a sustainable mobility strategy of cargo, articulated, mainly, in the following strategic courses of action:

- Boosting development of the Motorways of the Sea.
- Boosting railway transport.
- Optimizing mobility of heavy vehicles in the port areas.
- Defining energy saving initiatives in port facilities.
- Boosting the use of alternative energies in transportation.

Regarding **boosting development of the Motorways of the Sea**, the goal is to promote the use of sea transport by companies who usually opt for road transport, making use of navigation services specifically designed to transport trucks and semi-trailers. This course of action makes sea transport an extension of road infrastructures, through offering intermodal solutions with a high quality/cost ratio, that allow us to reduce saturation on large road axis and therefore optimize the use of energy and reduce emissions.

This course of action is driven by *infrastructural measures*, such as adapting ramps and Ro-Ro surfaces that enable an efficient loading of trucks and semi-trailers on board vessels; *commercial measures*, by which short sea seeping is provided by cost/profits assessment gateways; and finally, *financial measures*, such as reducing the base amount of the Vessel Charges, reducing the Cargo Charge and exemption of the Passage Charges to drivers of boarded trucks.

Among other *financial measures*, it is as well worth mentioning that there is undergoing work towards articulating mechanisms to support demand, among which stand out those that may derive from the *Eco-Bonus Project*, submitted by Spain, Italy, France and Portugal, to the recent call of the Connecting Europe Facility “Link Europe” of RTE-T.

Regarding **boosting rail transport**, the goal is to improve energy efficiency as well as the impact of emissions from land transport, whose origin and destination are ports, by promoting railroad employment in those cargo flows that, well because of their large cargo concentration or well due to covering long distances with high concentration at the destination locations, are susceptible of being captured by this type of transport.

This course of action is supported by *financial measures*, such as reducing the Cargo Charge that go in and out of the Port by railroad; *commercial measures*, catalysing the communication between potential clients with specialised operators in the cargo concentration; *operational measures*, such as improving the governing guidelines of the 17 agreements of connection signed so far between Puertos del Estado, Port Authorities and ADIF to improve the procedures of capacity allocation and those linked with traffic; and finally, *infrastructural measures*, such as improving rail access and providing ports with rail infrastructure.

In this regard, it is worth mentioning the launch of the Port Accessibility Financial Fund, created by law 18/2014, with the goal of boosting the participation of port organisms into financing projects on railroad connection to ports of general interest, as well as projects linked to improving general transport network of common use, being included in this last concept courses of action linked to dry ports and logistics platforms.

Regarding actions to **optimize mobility of heavy vehicles in the port area**, the goal is to reduce polluting emissions and consumption of fuels linked to truck traffic through urban areas and waiting time at access points, caused by traffic and stay of trucks at port and its surrounding areas.

Such course of action is promoted by *infrastructural measures*, such as improving road access to link ports directly to high capacity road networks, avoiding in this way traffic of trucks on urban areas, reducing emissions and consumption linked to this type of traffic; in this regard, and analogically to the railroad case, the Port Land Accessibility Financial Fund allows us to promote the participation of ports in financing projects regarding road connection to ports of general interest. On the other hand, measures are being promoted regarding *documental management* in order to reduce waiting time that may be related to delays and difficulties of documental processing linked to cargo traffic, being relevant, among this type of actions, extending the port’s single-window to the entire land transport system developed by Puertos del Estado.

With regard to **defining energy saving initiatives in port facilities**, the goal is to reduce energy consumption in facilities and services provided by the Port Authority, as well as in activities carried out by companies who operate at port.

In order for such action to have an effect on reducing energy consumption and emissions, *managerial measures* have been taken, including energy consumption indicators in the business plans of Port Authorities, according to which each one reports annually its consumption numbers and reduction goals. This measure is coupled with the publication of a *Port Energy Management Guide*, with recommendations on monitoring of consumption and the implementation of efficiency measures. In addition, *financial measures* are articulated, such as charge rebates to operators who sign good environmental practice agreements with the Port Authority, which include the applications of efficiency measures in those activities that implied an intense use of energy

At last, but not for that matter lacking of strategic importance, **boosting the use of alternative energies** in transport which has as goal contributing, within the port domain, to applying directive 2014/94/UE regarding the implementation of an infrastructure for alternative fuels on transport, which has as goal reducing polluting gas emissions caused by transportation; diversifying the sources of energy utilised by transportation; and stimulate technological development in the field of propulsion or motorization of transport systems.

In the case of sea transport, the implementation of such directive and the consecution of the mentioned goals involve a strong stimulus to use LNG on vessels and the corresponding distribution of such fuel at ports.

In this context, Spanish ports constitute key pieces in LNG promoting policies on sea transport and, consequently, on boosting commercial and industrial sectors linked to it, due to the fact that these are essential nodes not only at the reception and storage of LNG, but also at the provision of fuel to vessels.

This strategical action is fostered by Puertos del Estado throughout *financial measures*, such as a 50% rebate on the Vessel Charge for those vessels that use LNG as fuel to propel themselves at sea or for those vessels that, whilst berthed at port, use LNG or electrical power provided onshore to power their auxiliary services; *managerial measures*, that throughout managing concessions promote LNG bunkering services at port; and, finally, support measures to *technological innovation* aimed to obtain operative and safe LNG bunkering schemes , as well as a technological update of port machinery that allow us to guarantee a sufficient LNG demand within the port that promotes investments from private initiative.

Within this line of work are worth mentioning projects such as “CORE LNGas hive”, led by ENAGAS with more than 40 partners among which are featured 13 Port Authorities and Puertos del Estado, which has among its goals improving loading systems from land and barge, adapting several port equipment to work with LNG and contributing to develop the National Action Framework of infrastructure for alternative fuels on transportation; in this line it is featured as well “Cleanport Project”, led by Gas Natural-Fenosa and the Port Authorities of Baleares and Barcelona as participants, which has among its goals to adapt the auxiliary engines of the vessel that operates the regular service to work with LNG; finally and similarly, project "Gainn 4 Ship Innovation", led by Fundación Valenciaport, having the Port Authorities of Tenerife and Valencia as participants, has as goals adapting the engines of a ferry to work with LNG as well as analysing the commercial and environmental advantages of this type of option.

Nevertheless, the adoption of a strategy is not complete without the definition of indicators that allow us to assess its level of implementation and its results. To this regard, Puertos del Estado will continue working so that Sustainability Reports include sound and verifiable indicators, that allow us to describe transparently and objectively our commitments regarding sustainability, our achievements and our to-do tasks.



José Llorca Ortega
President of Puertos del Estado

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INTRODUCTION

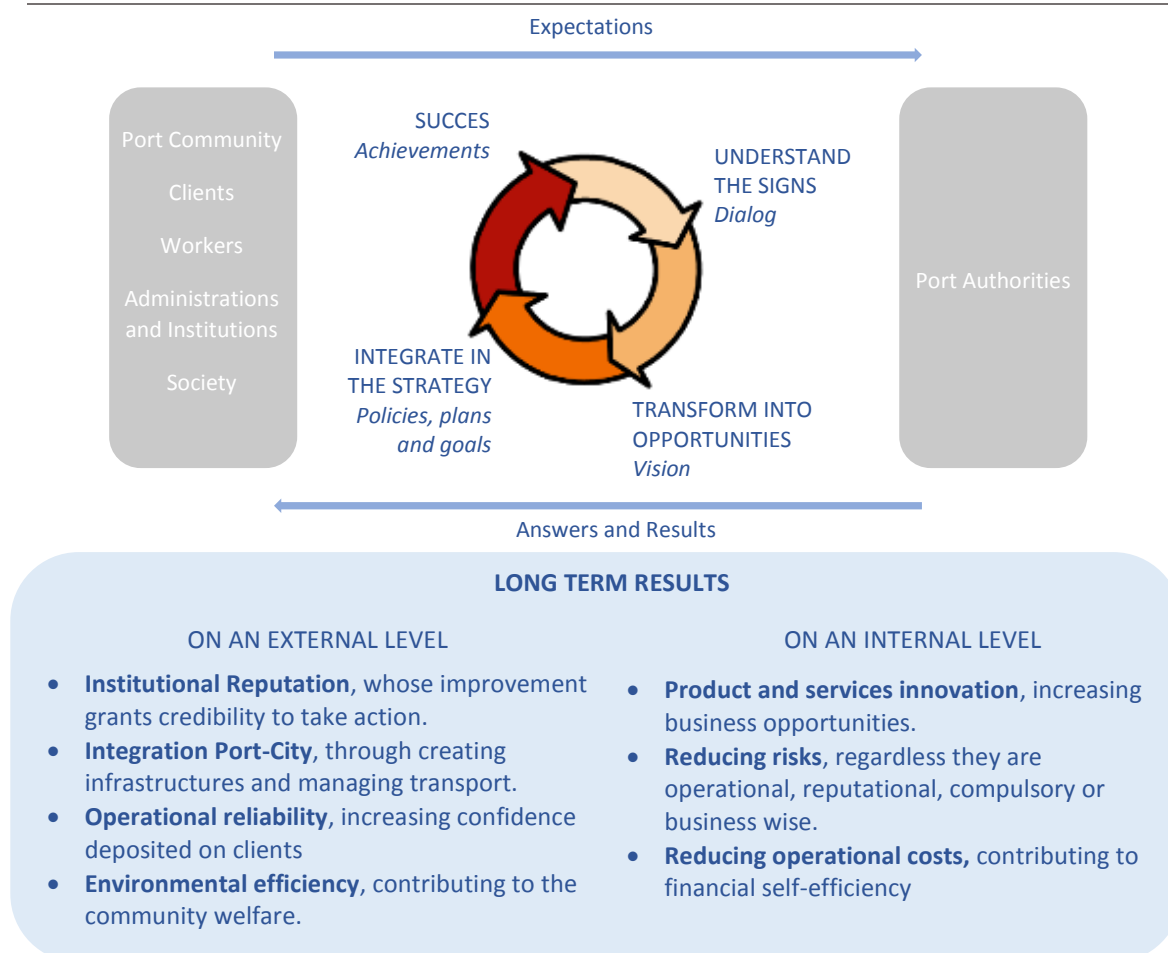
The Port Authorities, as administrators of port infrastructure, regulators, coordinators of the service provided and, especially as leaders of the community, cannot remain aloof the society they serve and what happens in them; **they must understand the environment in which they develop an answer to it in the appropriate manner**, contributing in this way to a medium and long-term sustainable development of the port system.

The *Consolidated Text of the Puertos del Estado and Merchant Shipping Law (RDL 2/2011)* already **includes Sustainability as one of the principles that must govern the model of planning and management of Ports**. This principle is related to two complementary objectives of great relevance in the port context:

- Reaching a port development committed with environment and according to the available resources
- Contributing to a transport integrated system, which fosters the achievement of a sustainable mobility, in line with the European policy current guidelines

Sustainability should be then understood as an **element contributor of value** for the entities and for the society as a whole. It is a **transversal and multidimensional concept that must be integrated in the strategy policies and actions** of the port authorities to answer the social, environmental and business needs. It will simultaneously allow us to increase the **capacity of value creation of the organizations and their condition of long-term success factor**, focusing in improving the aspects in an internal and external level as shows the following image.

Sustainability as an element contributor of value



From this premise, since 2010 the 28 Port Authorities integrated in the port system of general interest introduce a **Sustainability Report based on the *Guide for the development of the sustainability report of the port authorities*** approved by Puertos del Estado. These documents allow us to know the current situation and the evolution that each have suffered at an institutional, financial, social and environmental level, by means of a series of common indicators that allow us to standardize the methodology. The current report collects the aggregated information of the port system and has a double function:

- **Inform** on one hand to stakeholders of the strategies, commitments and achievements of the port authorities, reflecting their value only as financial operators but also as social and environmental operators.
- Become on the other hand a **management tool that allows us to detect risks and transform them into opportunities**, guaranteeing the medium-long term sustainable development and creation of value.

The report is divided in four dimensions: institutional, financial, environmental and social, in accordance as well with the *Guide for the development of the sustainability reports of the port authorities* approved by Puertos del Estado. In each section it is described the approach that port authorities develop for their adequate management and form of the results obtained, throughout the corresponding indicators. This group of indicators is described in the Annex I, which shows as well the location of each answer in this Report.

The **institutional dimension** describes the main challenges and achievements of sustainability in relation with aspects such as: infrastructures, objective market, financial feasibility, institutional communication, operational efficiency or service quality.

In the following chapter, **financial dimension**, are gathered every indicator regarding the financial situation of the port authority as well as the level and a structure of investments and some indicators regarding productivity.

The **social dimension** is based mainly in the human resources policy, including the training actions developed under the scheme of the competency-based management (which has as a goal obtaining an optimal efficiency of the human resources of the company, by means of developing the individual and collective competencies), the quality plan and the efforts made regarding safety and health.

Last and with regard to the **environmental dimension**, although the port authorities do not have environmental competencies, they do develop a key role in the adequate environmental management of the port (due to the fact that operate as administrators of infrastructure, regulators, coordinators of the service provided and, especially, as leaders of the community). The activity of the port causes an impact not only in the aquatic environment but also in the land and air, and such chapter assesses the impact on the measures carried out to reduce them.

To conclude, it's worth mentioning that Puertos del Estado carries on advocating for a sustainable development model, throughout its goals of financial viability and its long-term environmental and social commitment.

Institutional Dimension

OWNERSHIP

Port Authorities, in charge of the ports of general interest, are **public business bodies, with legal personality and own assets, with total capacity to act for the development of their goals**. From the port business perspective, generator of economic activity, the port authorities adjust to private law even in their acquisitions and contracts, except for the exercise of the governmental tasks that the legal system assigns it.

As public bodies, port authorities **depend on the Ministry of Development, through Puertos del Estado**; and from the legal point of view, it is ruled by its specific law, by the dispositions of the General Budgeting Law that applies to it and, additionally, by law 6/1997, April 14, of Organization and Functioning of the State's General Administration. Its specific regulation is concretized, fundamentally, by the Royal Decree-Law 2/2011 of September 5 by which the Consolidated Text of the State Ports and Merchant Shipping Law (from now on Ports Law) is approved.

MANAGEMENT SCHEME

Ports integrated in the port system of general interest follow a **management model known as Advanced Landlord Port** or of port ownership and leader of the comprehensive package. Under this model, Port Authorities provide space and port infrastructures and regulate the operations developed in the port, however do not provide port or commercial services, such as technical-nautical (pilotage, towing, mooring), cargo handling or those linked to passengers, among others. In general, these services are provided by private operators, with technical and human means that do not belong to the Port Authority.

Ports integrated in the port system of general interest follow a management model known as Advanced Landlord Port

Within the Landlord scheme the Port Authority has as one of its most relevant goals to **boost the public-private collaboration** in matters such as investments, taking into account that the port is the business core of the port's private companies. The regulation facilitates this balance between the public and private stakes, and opens several possibilities to attract private initiative to the ports.

In this framework, the management of the state port public domain is oriented, guaranteeing the general interest, to the following:

- Provide and manage basic port infrastructures.
- Promote the economic activity of the port.
- Promote and increase the participation of private initiative in the funding, construction and operations of the facilities, by granting licenses, authorizations and concessions to operate in the port public domain.

- Guarantee the service provided by the port to the shipping cargo traffic in conditions of safety and quality, optimizing the cost of the cargo in its way through the port.
- Managed infrastructure and the public port domain with profitability and efficiency criteria.
- Manage support sustainability criteria, boosting such principal in the totality of the port community.

In the following table is summarized the public participation in the private participation in ports according to the Landlord model of operations.

Landlord model of operations Public Private

PORT AUTHORITY	Administrative management of the port space Enabling private operators to operate at the port
	Activity organization Ordinance, vigilance and control of the port activity
	Basic infrastructure Development of preventing levees, dredges.
PRIVATE INITIATIVE	Complementary infrastructure Development of docks, moorings, roads, service networks
	Superstructure Equipment for cargo handling, storage facilities, auction halls, buildings
	Port services Vessel services, handling of cargo, passenger services, and vessel waste collection.
	Commercial services Storage, bunkering, cargo added value activities, naval repairs

Table 1.1

COMPETENCIES

The basic functions of the port authority are the **planning, projection, construction**, conservation and operations of the works and services of the port, **collaboration** with official bodies, and **coordination** of the port private companies and management of the port domain.

The competencies of the Port Authority are:

- Management and control of the port and commercial services
- Provision of the general port services
- Ordinance of the port service area and the port uses
- Promote, maintain and operate the port infrastructures
- Manage the port public domain
- Optimize the financial management and profitability of its patrimony and resources
- Foster commercial activities, logistics and, in its case, industrial, related with the shipping or port traffic.
- Coordination of the operations of the different types port transport.
- The ordinance and coordination of the port traffic, in the water as well as on the land.

FUNDING

The **financial self-sufficiency** is one of the guiding principles of the Spanish port system that the port authority must integrate in their management.

Therefore in general, the port authorities with their **own resources, created mainly by the application of the occupation fees, activity and utilization**, must be able to face their expenses and investments with a minimum demanded profitability, without needing the support of the general State budget.

Despite the fact that fees collection constitute the main source of income, port authorities find finance through the following resources:

- Port fees from activities or occupation of space from private companies that develop their economic activity in the public port domain (Image 1.1)
- Products and lease of its patrimony, as well as income from the disposal of its assets.
- Income whose nature is that of a private law resource obtained through the exercise of its functions.
- Those from credits, loans and other financial operations
- Contributions from the Interport compensation fund.
- Those that could be assigned by the general State budget or by other public administrations.
- Aid and subventions.
- The product from the application of the sanctioning regime.
- Donations, legacies and other contributions from particulars and private entities.
- Any other attributed by the legal ordinance.

It is a matter for the port authorities to manage and administrate these resources, in an autonomy management framework, with effectiveness, efficiency and environmental sustainability criteria, adjusting always to the principles established by law.

The financial self-sufficiency is one of the guiding principles of the Spanish port system that the port authority must integrate in their management

Income linked to port fees

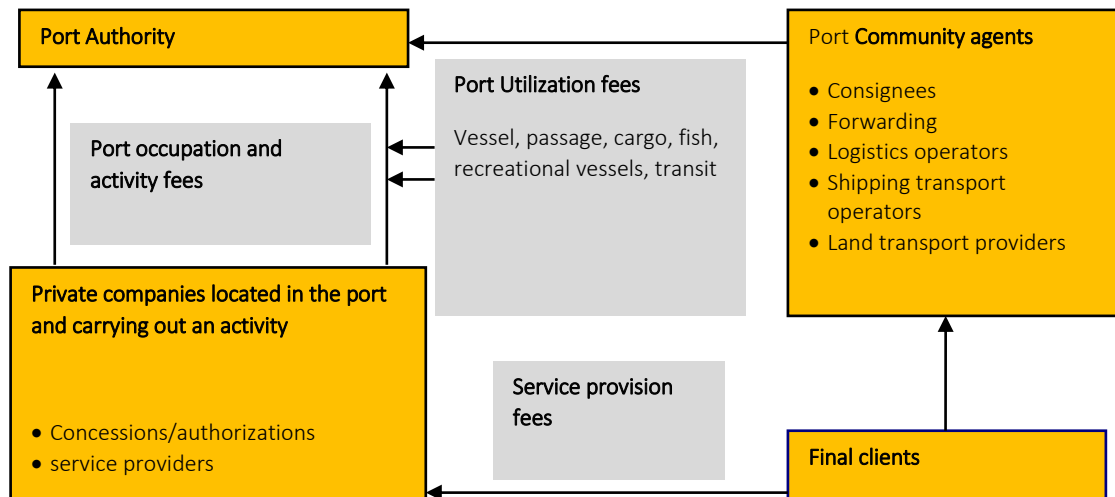


Image 1.1

GOVERNING BODIES

The governing bodies, management and assistance to port authorities are reflected schematically in the following image 1.2.

Governing bodies

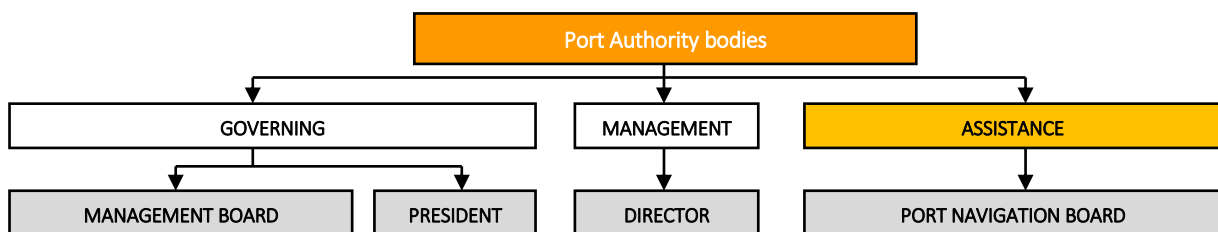


Image 1.2

Port Authority's management board

The appointment of members of the management board is carried out on the proposal of the Public Administrations and Entities and Bodies represented. Their tasks are schemed in Table 1.2.

Tasks of the management board

TASKS OF THE MANAGE- MENT BOARD OF THE PORT AUTHORITY	Govern and administrate
	The Port represented on the different levels of the administration: Central, Regional and Local.
	Establish
	Its management regulations and internal functioning rules
	Approve
	The organization of the entity
	Budgeting projects
	Multiannual actuation program
	Annual balance
	Projects that involve property occupation and rights acquisition
Agreements, pacts, treaties it determines	
Port Ordinance	
Grant	
Concessions and authorizations	
Define	
Tasks and responsibilities of its bodies	
Collect	
Utilization or operation fees of the port public domain	

	Encourage
	Open competition in the provision of port services regarding private companies
	Exercise
	Police powers that the law assigns and that are necessary for the compliance of its goals. Other tasks established by law
	Carry out
	The necessary management acts, disposition and administration of its own patrimony
	Fix
	The annual management goals The fees for the commercial services that provides the port authority
Propose	
The assets and liabilities financial operations whose approval corresponds to Puertos del Estado	
Authorize	
investments and financial operations loans for the financing of the working capital	
Agree	
regarding the exercise of actions and resources that correspond to the Port Authority to defend its interests among Public Administrations	

Table 1.2

President of the Port Authority

The president of the port authority is appointed and separated from the competent body of the city or Autonomic Community, in which the port is included, among people of known professional competency or suitability. His or her tasks are synthesized in Table 1.3.

President's tasks

TASKS OF THE PRESIDENT OF THE PORT AUTHORITY	Represent
	The Port Authority and its Management Board
	Call
	And preside the Management Board meetings
	Establish
	General guidelines for the entity service management
	Watch
	After the compliance of the port authority's applicable regulation and agreements reached by the management board.
	After the compliance of obligations attributed by law to the Port Authority before Puertos del Estado.
	After the provision to the Port authority of information relevant to the Port System
	Introduce
The Business Plan to the management Board	
Prepare	
Expenditure and order, together with the director of payments or funds' flow.	
Exercise	
The special powers that the Management Board appoints.	
Other	
Powers assigned by Law.	

Table 1.3

Director of the Port Authority

The director is appointed and separated by absolute majority from the management board, on proposal of the president, among persons with a Bachelor's degree, of known professional prestige and with an experience of, at least, five years in port techniques and management. The tasks of the director are described in Table 1.4.

Director's tasks

TASKS OF THE DIRECTOR OF THE PORT AUTHORITY	Direct and manage
	the entity and its services
	Raise
	To the president the proposal of the organic structure of the entity
	Open and arrange
	The administration files
Issue	
Prescriptive reports regarding authorizations and concessions	
Develop and suggest	
To be consider by the president the management goals and action criteria of the entity, budgeting drafts, action programs, investment, funding, and annual balance	

Table 1.4

STRUCTURE OF THE MANAGEMENT BOARD

The structure of the management board is established by law, according to the following general guidelines:

- The **president of the port authority**, that act as the president of the board
- An **ex officio member**, who will be the Shipping Captain
- Aa number of **members** between 10 and 13, except in the insular port authorities where the number can reach 16, *to be established by the Autonomous Communities or Autonomous Cities according to the following criteria:*
 - The General Administration of the State will be represented by four members, among which will be included the Shipping Captain, a State Attorney and a representative of Puertos del Estado.
 - The Autonomous Community will be represented by five members, one of which will be the President of the Port Authority.
 - In the case of the Canary Islands each Cabildo (Council) will have a representative and in the case of the Balearic Islands each Consell (Council) will have a representative.
 - The municipalities in whose district is located the area of the Port's service will be represented by the 33% of the representatives not described in the previous points a), b) y c)

- The Chambers of Commerce, Industry and Navigation, business organizations and Trade Unions, and relevant financial sectors, will be presented by the 66% of representatives not described in the previous points a), b) y c)

In Table 1.5 is shown the number of representatives per sector that have the majority of the non-insular Port Authorities in their management board.

Most frequent composition of the management boards

NUMBER OF REPRESENTATIVES PER ADMINISTRATIONS AND SECTORS				
General Administration of the State	Autonomous community	Council	Business organizations	Trade unions
4	5	2	3	1

Table 1.5

The Port authorities count with sectorial technical committees that assist the management board. These committees are:

- **Safety and Protection Advisory Committee:** gives advice in the development of the procedures or guidelines for the implementation of protection measures of the Port. Its origins are the result of the special concern to prevent and detect acts that pose a threat to the sector of the shipping transport. The members of the Advisory Committee are appointed by the President of the Port Authority, on proposal of the responsible authority of the body or institution which they represent.
- **Port Services Committee:** assists and informs the Shipping Captain as well as the President of the Port Authority. Are integrated the users of such service, the organizations that represent them, the most representative service providers on the sectorial organizations of workers that count with greater representation. The Port Services Committee is part of the **Board of Navigation and Port**, body of advice for the Presidency of the port authority and the Shipping Captaincy. In it are represented the natural and legal persons with direct and relevant stake on the proper functioning of the Port, shipping commerce or that can contribute to the same in an efficient way.

In addition to these two committees, sump authorities count with other additional that support pursuing a sustainable development model. Some instances are:

- Sustainability Committee
- Corporative Social Responsibility Committee
- Equality Committee
- Conduct Code Committee
- Quality and Environment Committee

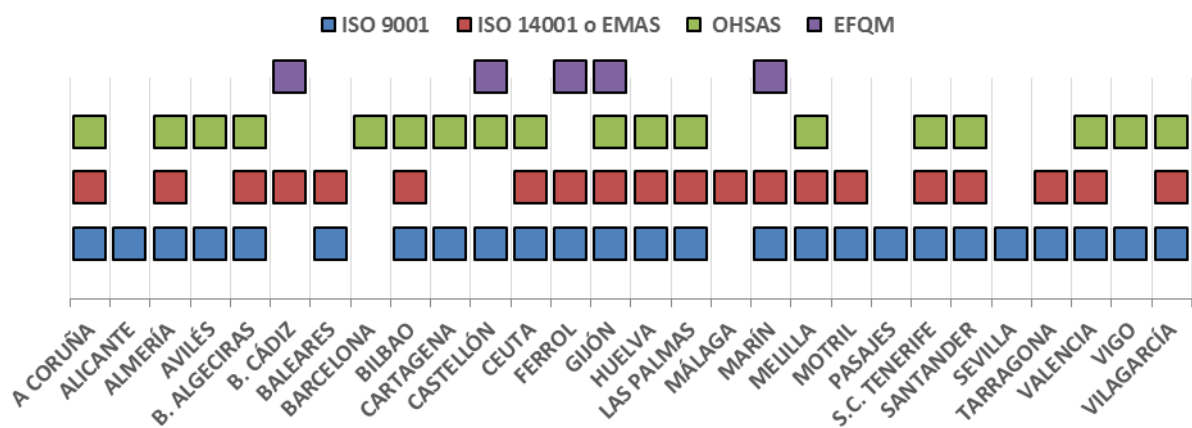
MANAGEMENT SUPPORT TOOLS

In addition to the bodies established by norm, there are different management tools to assist in the decision-making, goals definition and their follow-up in the Port Authorities. These tools are, among others:

- Balanced Scorecards for the implementation of strategies and goals definition.
- Quality Management Systems according to norm ISO 9001
- Occupational Risks Management Systems according to standard OSHAS 18001
- Environmental Management Systems according to standard ISO 14001 o EMAS
- Management Excellence Standards such as EFQM (*European Foundation for Quality Management*)

In Graph1.1 is shown the degree of implementation of some of these management standards in different port authorities, along 2013.

Management systems implementation



Graph 1. 1

INFRASTRUCTURES AND CAPACITY

As it was mentioned in the Management Scheme section, the port system of state ownership follows a Landlord management model. Under these premises, the port authorities provide space or port public domain and developed the basic infrastructures, while the provision of port and commercial services (cargo, passage and vessels) is left to private companies, in possession of their correspondent licenses.

The infrastructure (basic and complementary) provided by the Authorities must face and adapt to:

- The evolution of traffic, taking into account the foreseeable growth of cargo volume as well as the volume of passengers.
- The structure of these traffic, taking into account the different types of cargo (solid bulks, liquid bulks, general cargo, etc.) and technical requirements for its handling and storage (cranes, forecourts, etc.)

- The evolution of the size, technology and specialization of vessels. The increasingly level, in the capacity as well as specialization of vessels, involves deeper drafts and greater storage areas.
- The integration of shipping transport with other means of land transport and optimization of access to the Port.
- The integration of the port with its natural and urban environment.

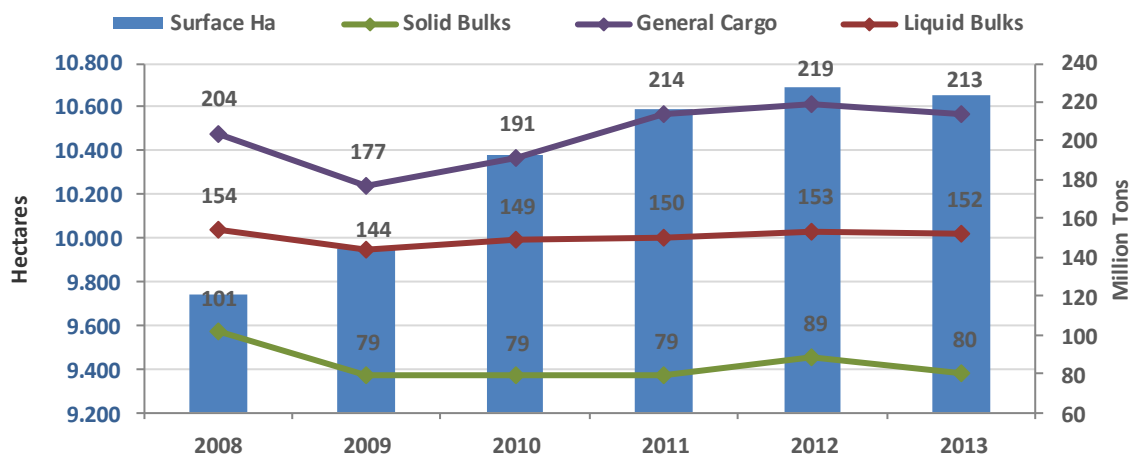
In this sense, the investments in infrastructures aimed to increase the surface of harboured water, the land surface for Port use or length of docks, **are planned considering the foreseeable evolution of the different types of traffic and profitability of the infrastructures created.**

In those developments of infrastructures that involve the construction of a new port, or the extension of an existent port that involves a relevant modification of its physical limits in its shipping side, it is required an Infrastructures Director Plan. This Plan must be developed by the Port Authority and approved by Puertos del Estado. Its main objective is to establish a reference framework for the design and schedule of the physical development of the port. These allows us to harmonize the execution of the different construction projects on guarantee its reliability, functionality and integration with the environment.

Land surface and land demand

The movement of goods experienced a clear increase starting in 1992, to finally experience a reduction as a result of the crisis that began in 2008. As shown in graph 1.2, the creation of port land (in thousands of hectares) has kept a progressive growth ever since then, adapting to the increasing demand of traffic (in millions of tons). Exceptionally, in 2013 it experienced a reduction of 0,4% in surface due to the disposal of land towards the municipalities.

Evolution of Land surface and cargo traffic

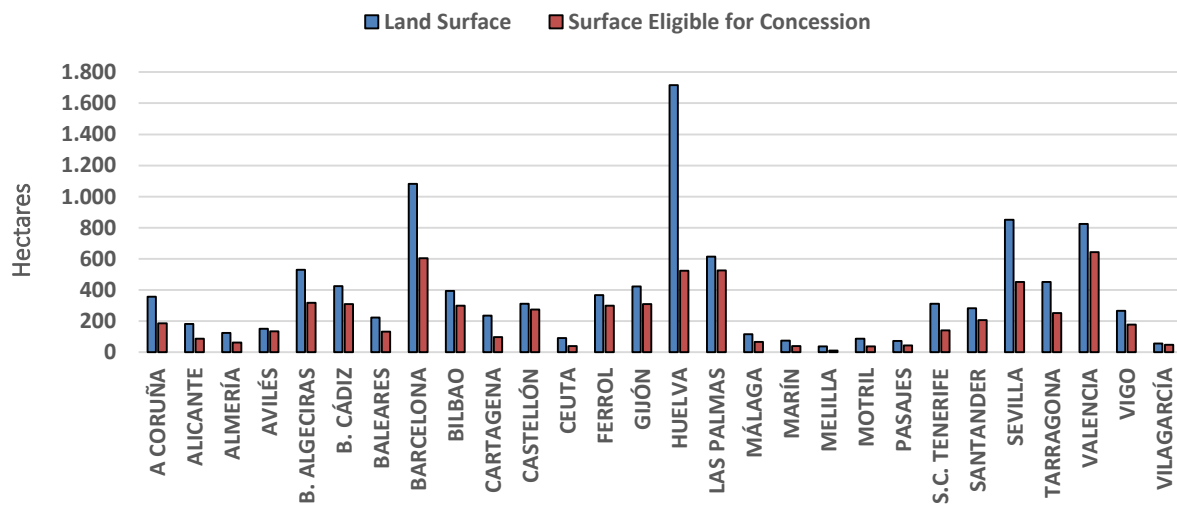


Graph 1. 2

Surface eligible for concession

In the following graph 1.3, are shown the hectares of land surface for each port authority and hectares of surface that can be used for concessions. Taking into account the totality of the port system, the average percentage of the surface eligible for concession over the land surface has been 61% in 2013.

Distribution of the land surface and surface eligible for concession

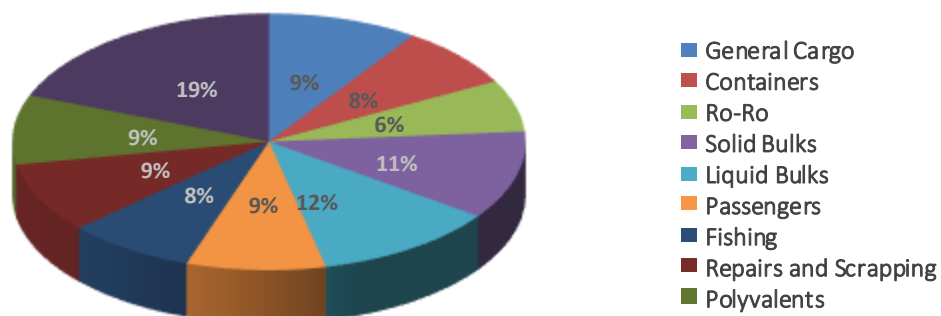


Graph 1.3

Docks and their functions

In the following graph 1.4 is shown the use that is assigned to the docks, indicating the percentage of berth line dedicated to each one of such uses.

Use of docks per type of activity. Percentage of length dedicated to each one



Graph 1.4

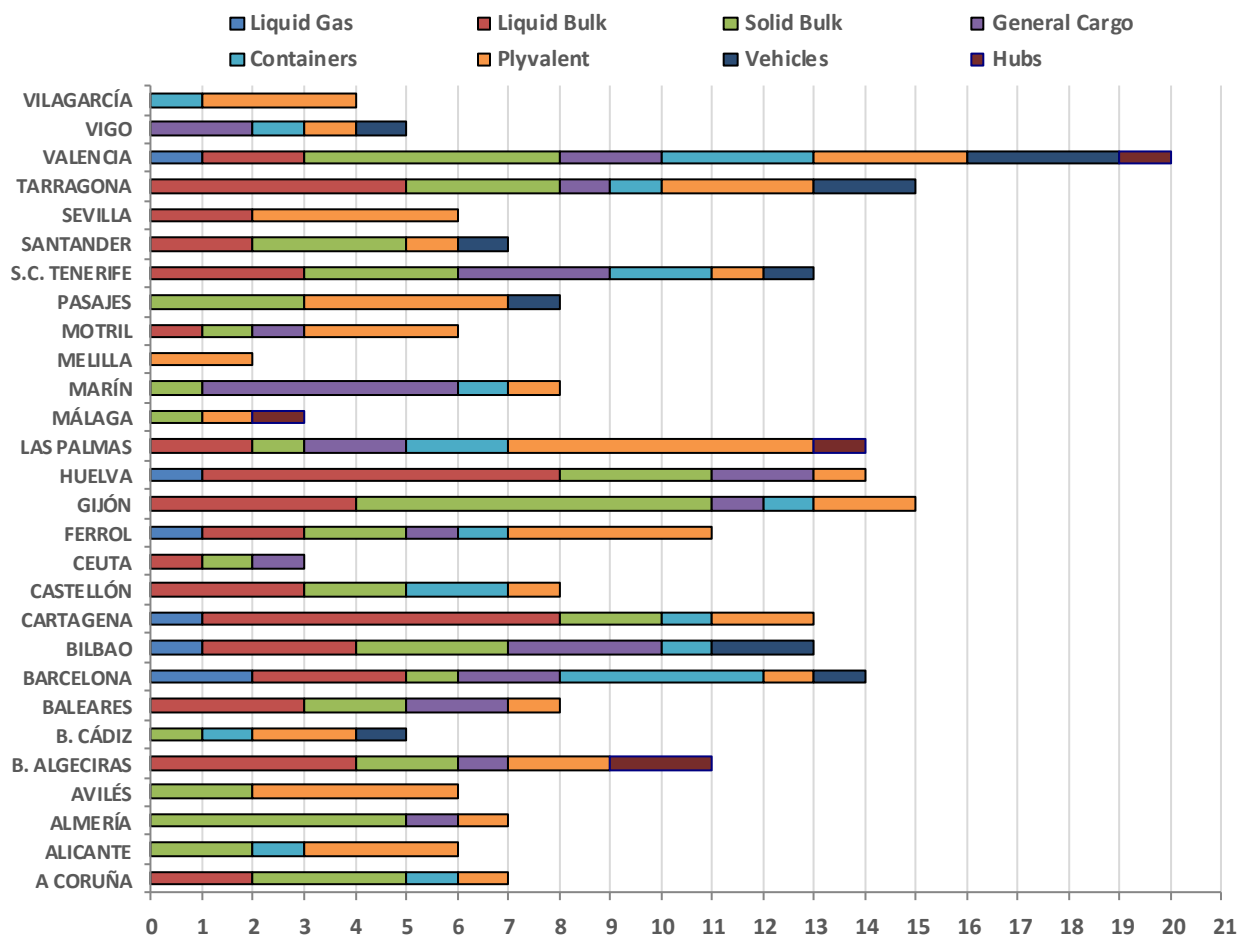
It is emphasized the activity related to the handling of solid and liquid bulks, corresponding to more than 30 km of dock per each one (considering drafts greater than 4 meters).

Uses of port land and types of terminals

As a result of the consolidation of the Landlord exploitation model, the use of the port land has progressively specialized. The importance of the polyvalent and terminals has reduced, allowing the assignment of land for specialized uses.

In Graph 1.5 is shown the distribution of terminals per use for each Port Authority. Despite the fact that the polyvalent and terminals make up an important number to certain ports, a progressive process of specialization is noticeable, emphasizing the importance of container traffic and hub¹ terminals. On the other hand, there is a prevalent number of terminals used to the handling of solid and liquid bulks.

Number of terminals according to typology



¹ Hub terminals, also known as HUB, are in charge of the redistribution of cargo. On one hand, receive cargo from shipping long route lines and redistribute it among short rout lines. On the other hand, concentrate cargo that receive in smaller amounts and redistribute them in larger quantities.

Graph 1.5

It is worth to mention that the Liquid Glass is not categorized as a liquid bulk in the previous graph, in such way that it is emphasized the potential of the Spanish ports to promote the use of this alternative fuel. The Liquid Natural Gas (LNG) is stored in ports, put through regasification and distributed to be used in land transport as well as shipping transport.

Land access

In the Port, land and sea transport join together, so that it is an intermodal infrastructure between these two means of transport and not only a transport infrastructure. Therefore, the importance of the points of access, among which there can be clearly distinguished two types:

- **Road access:** for vehicles by road, most of them trucks.
- **Railroad access:** for the port railroad network and the general interest railroad network.

In the following section related to *Transport: boost towards a sustainable mobility*, will be explained in depth the plans of action to improve these types of access, favouring and integration of the ports in the transport system. It is worth mentioning that, from this year, the Port Authorities will deepen into the commitment they make with their transport outside the classic port domain, having already started to develop different projects along 2013.

CREATION OF PORT INFRASTRUCTURE

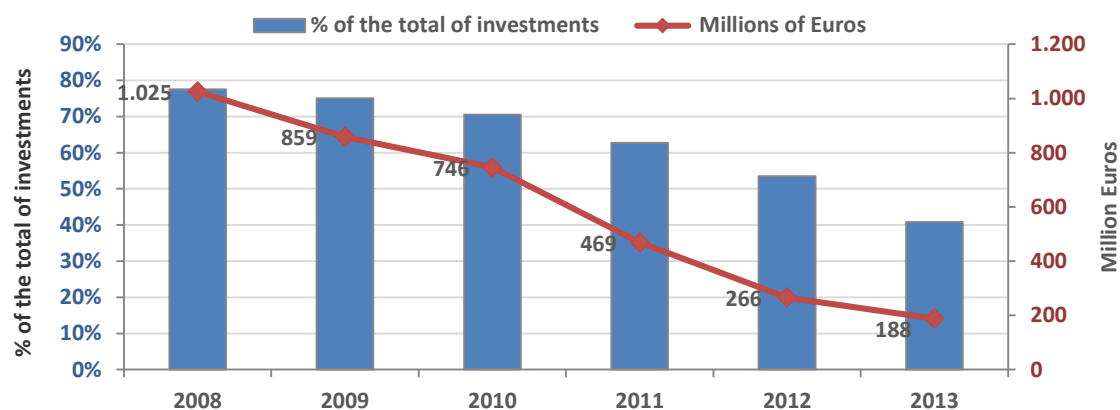
Investment in basic and complementary infrastructure.

Since 2008, the financial crisis has two effects on the investment efforts in infrastructure:

- The drop of traffic makes the harboured water surface and port land to become sufficient to meet the foreseeable demand.
- The public expense contention policies limit the availability of financial resources.

Due to all of this and as shown in graph 1.6, since 2008 **the total investment in basic and complementary infrastructures decreases**, aimed to increase the basic capacity of ports. In addition, its relative importance is also reduce in the total of investments.

Evolution of investments in basic capacity (harbouring, docks y forecourts)



Graph 1.6

Industrial or logistic promotion

The logistics function of ports is a very relevant aspect and has great influence over the competitiveness of the country in the foreign commerce.

The shipping transport is influenced by ports but also by **Logistic Activity Zones (LAZ)**. Both act independently, but at present tend to link with each other more fluently to make operations more agile and contribute with a greater added value to the general movement of cargo. Approximately 30% of the port authorities promote and take part in the development of ALZs currently.

ALZs can create added value in different ways, such as can be the aggregation or separation of cargo, packaging, pallet configuration or labelling. These added value services can be concreted after completing the change from sea to land mode.

Another initiative developed by some Port Authorities for the industrial or logistic promotion is their participation in which is known as **Dry Port**. Approximately 15% of the Port Authorities count with these interior intermodal terminals linked with the shipping terminals, which allows them to make cargo traffic more agile and decongest their operations. In addition to the operational coordination of the ports, these areas serve as deposit and storage of cargo and allows them carry out logistic and industrial activities related with the port.

The goal of these initiatives is to **boost transport, competitiveness and widen the influence area (hinterland)** creating new port traffics and new services.

TRANSPORT. A BOOST TOWARDS A SUSTAINABLE MOBILITY

In the ports meet the sea, road and railroad transport, enabling the development of integrated chains of sea-land transport. The financial and environmental efficiency such chains of transport are conditioned by the efficiency in which such ways of transport are coordinated.

From the Port Authorities different strategies are promoted aimed to reach a greater integration and coordination of the different ways of transport, which allows them to improve the environmental efficiency as well as the competitiveness of the port transport chains. Among such strategies, it is important to highlight the following:

- **Optimize the mobility of heavy vehicles.** The goal of this action is to reduce the transit and call time of trucks at the port and in the vicinity.
- **Boost Ro-Ro traffic.** The goal of this action is to promote the use of shipping transport by companies dedicated to land transport, making use of shipping services specifically designed for the transport of trucks and trailers. This action turns the shipping transport, regarded as a service infrastructure, in an extension of the road infrastructure, so that the road transport is given several efficient alternatives to complete the transport relation Origin/Destination while reducing the saturation of the greatest transport axes.

- **Boost railroad traffic.** The goal of this action is to increase the volume of cargo that enters and exits the port by train, as well as the weight of this mean of transport opposite to road transport, due to the fact that the train can constitute an optimal scheme in relation with the volume of cargo and the distance to travel.

From the Port Authorities different strategies are promoted aimed to reach a greater integration and coordination of the different ways of transport, which allows them to improve the environmental efficiency as well as the competitiveness of the port transport chains.

All these is strategies to boost a sustainable mobility of cargo and to improve the competitiveness of traffic are developed in the following action dimensions:

- **Physical:** initiatives related to the planning and design of infrastructure.
- **Functional:** initiatives oriented towards the technical management and coordination (exploitation) of the operations
- **Commercial:** related to the commercial management of the land and sea transport services, guaranteeing the concentration of cargo with the goal of making financially feasible each one of the means of transport.

Actions of physical nature to boost intermodality

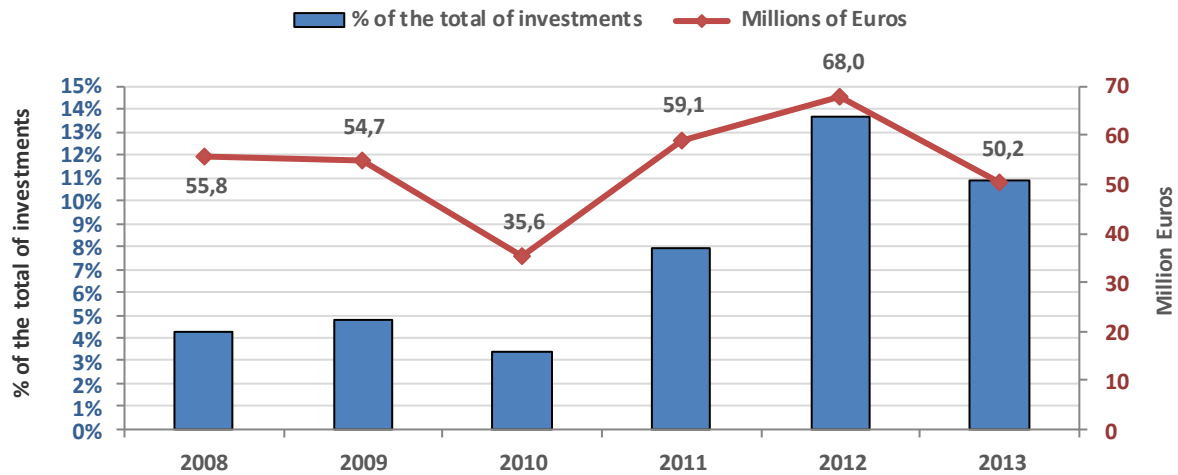
This dimension of action is carried out through the planning and investment in infrastructures related to the access, movement of cargo and their modal exchange, as can be:

- **Improvement of road access to the Port.** That prevents trucks from crossing urban centres and connect the port directly with high capacity road networks.
- **Improvement of internal road networks.** That eases the mobility of cargo within the port and help avoid overcharging the urban network.
- **Ramps and Ro-Ro surfaces.** That enable the efficient load and unload trucks and trailers in vessels.
- **Improvement and development of railroad accesses.** That permits the access and direct expedition of circulation between the railroad network of the port and the rest of the railroad networks of general interest.
- **Infrastructures are modal exchange.** Surfaces aimed to achieve a more efficient exterior exchange between different modes of transport.

In graph 1.7 is shown the **increase of investment in intermodality** over the last years, in absolute value as well as relative value, related to logistic zones and accesses. This represents an effort to progress towards the integration of the port with the different means of land transport.

It is worth mentioning that the effectiveness of such investments does not rely solely on the Port Authorities, due to the fact that the connection of the ports to the general road and railroad networks **requires a close collaboration and coordination of the Port Authorities with other administrations.**

Evolution of investments regarding intermodality



Graph 1. 7

Actions of functional nature to boost intermodality

The integration of the shipping and land ways of transport in the chain of efficient transport not only requires of an adequate infrastructure, but also of an **antiquated coordination between the ways of operate** of each type of transport.

The performance of the functional type is linked to the **handling of cargo in its way through the port** and have as goals:

- Improve the efficiency in time and cost of such operations
- Obtain the maximum possible performance of the current infrastructures in safety conditions and respect to the environment.

In table 1.6 are mentioned instances of several actions developed in this dimension.

Actions of functional nature to boost intermodality

Improving the intermodal efficiency of the	
Railroad	<ul style="list-style-type: none"> • Agreements of connection. Between the Port Authorities and the rest of operators of railroad networks that permit regulating the scheme of integration of the port with the railroad. • Regulations of circulation and safety. That define protocols of action specific of the railroad operations in the port environment guaranteeing the safety of the operations.
Road	<ul style="list-style-type: none"> • Automated terminals that enable more efficient schemes of load/unload. • Automatic truck access to the Port through license plate readers. • Mobility management that limits in peak hours the use of specific infrastructures of access to the Port by vehicles that are not part of commercial traffic. • Lift without papers, which through computerized schemes facilitate the entrance and exit of trucks to and from the port premises tracing automatically the movement of cargo.

Table 1.6

The development of the actions of functional nature, by Port Authorities, require **coordination with other administrations** with competencies in the management of transport infrastructures, as well as actions of private initiative aimed to optimize the efficiency of the current stations in conditions of safety and respect to the environment.

Actions of commercial nature to boost intermodality

Being provided by adequate infrastructures and efficient protocols of coordination between the different means of transport do not guarantee an efficient use of such. It is necessary, in addition, **that the transport chain created reaches the potential final clients** offering competitive services that add value to their respective commercial activities.

The strategies of commercial nature promoted by the port authorities have as a goal to bring the port closer to the final client, introducing transfer services **that integrate all of the operators** that intervene in the transport chain on introducing types of logistics services able to **add value to the cargo moved**.

This type of services or initiatives are especially important in the promotion of transport by railroad, where it is necessary to put in contact the client with the operators specialized in concentrate the cargo from different clients, **creating great batches of cargo that allows them to make the most financial profit possible from the railroad transport**.

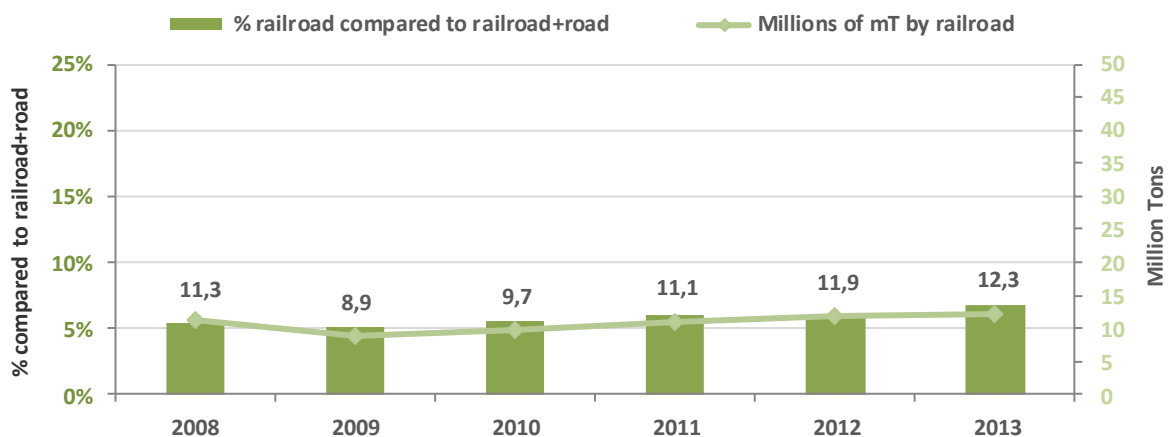
Among these type of initiatives is to highlight:

- Introducing in **commercial forums** the services as well as those from all the port community.
- Participating in the **development of internal dry ports** connected by railroad to the Port.
- Promotion and participation in the development **Logistic activity zones at port**.
- Developing **IT portals of presentation** and fully integrated contract of port services (“port community systems”)
- Initiatives for the **promotion of transport Ro-Ro**, such as price valuation portals and presentation of the operators involved in this type of service.

Transport by railroad

In graph 1.8 is shown the evolution of cargo moved by railroad in the port system, entering as well as departing. It is clear the recovery of transport by railroad after the drop experienced in 2009, in absolute value as well as relative importance of the railroad opposite to the road.

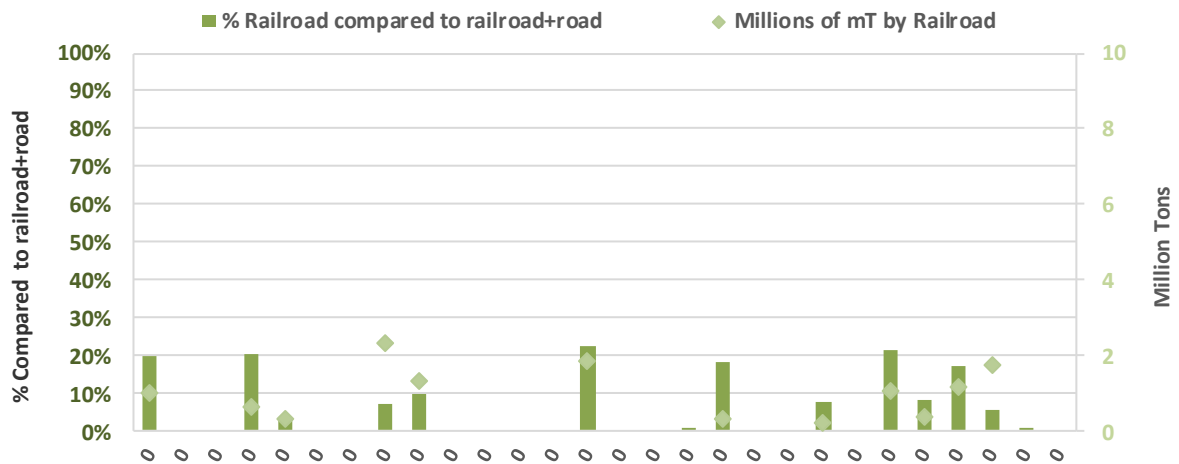
Evolution of cargo moved by railroad



Graph 1. 8

As it is shown in graph 1.9, railroad transport has yet a very unbalanced implementation level between different port authorities, being linked to the transport of cargo moved, bulk in many occasions.

Cargo moved by railroad

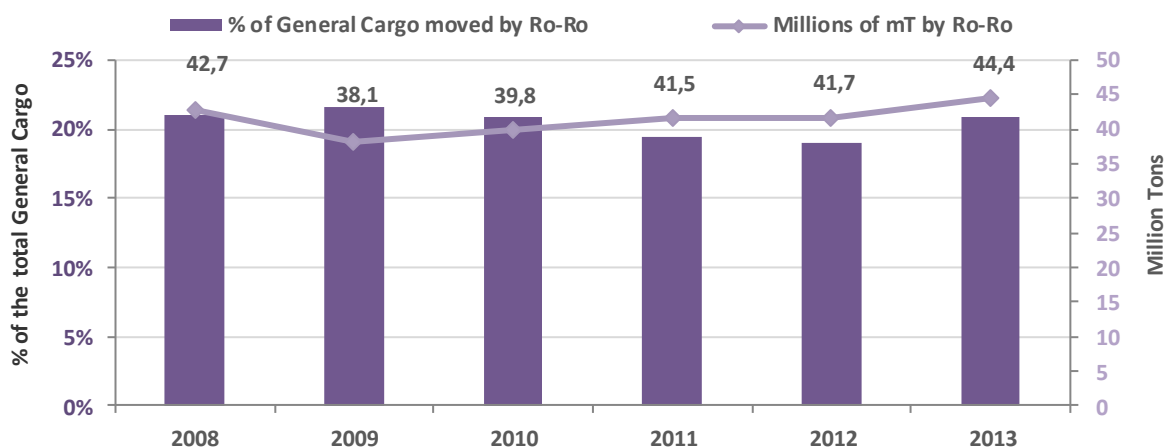


Graph 1.9

Ro-Ro transport

As shown in graph 1.10, railroad traffic has experienced a progressive recovery in the total volume moved after the drop experienced in 2009. However, the percentage moved compared to the total cargo has not suffered any substantial changes. This loss of relative importance is due to an increase in containers export and, above all, an increase of traffic in containers transshipment.

Evolution of the general cargo moved by Ro-Ro



Graph 1.10

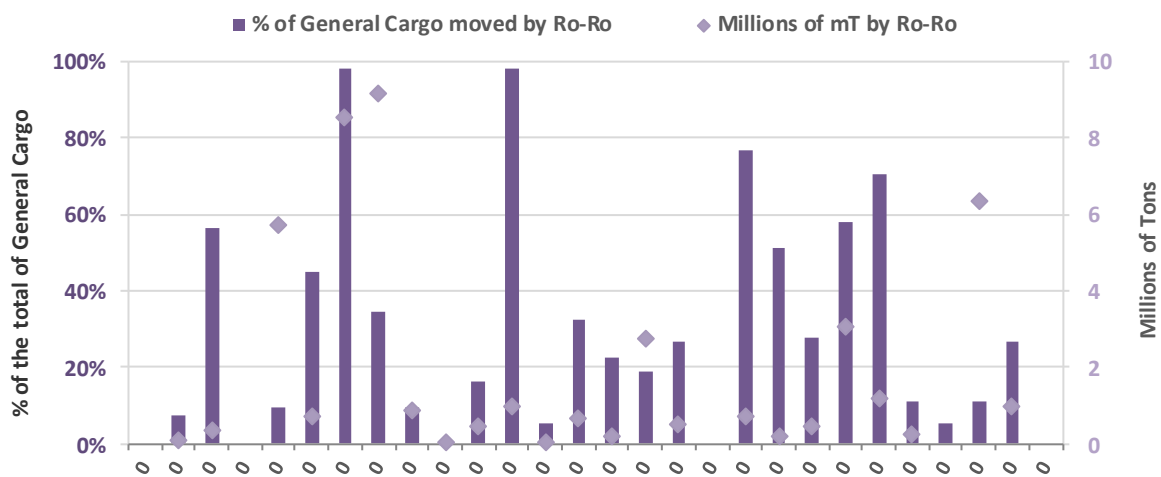
It is worth mentioning that the regular lines of the Western Mediterranean that connect the Ports of Barcelona and Valencia with Italian ports keep channelling a relevant percentage of cargo that years

ago was covered by trucks that crossed the French Blue Coast roads. Overall, more than 5 million tons are moved in both directions through regular lines between Italy and Spain.

It is also necessary to mention good performance of the regular line Gijón – Nantes/Saint Nazaire, in a scheme framed in the concept of the Motorways of the Sea promoted by repair institutions and the State of Spain and France. This scheme has permitted to more than double the traffic Ro-Ro between both countries since such motorway opened its service in 2010.

Finally, in graph 1.11 is shown the relative and absolute importance of Ro-Ro traffic into different authorities. It is worth to mention the high relative weight of this type of transport in insular ports and in autonomous cities such as Ceuta and Melilla. Regarding the total volume in millions of tons, stands out the cargo moved in Barcelona, Baleares y Valencia.

Cargo moved by Ro-Ro



Graph 1. 11

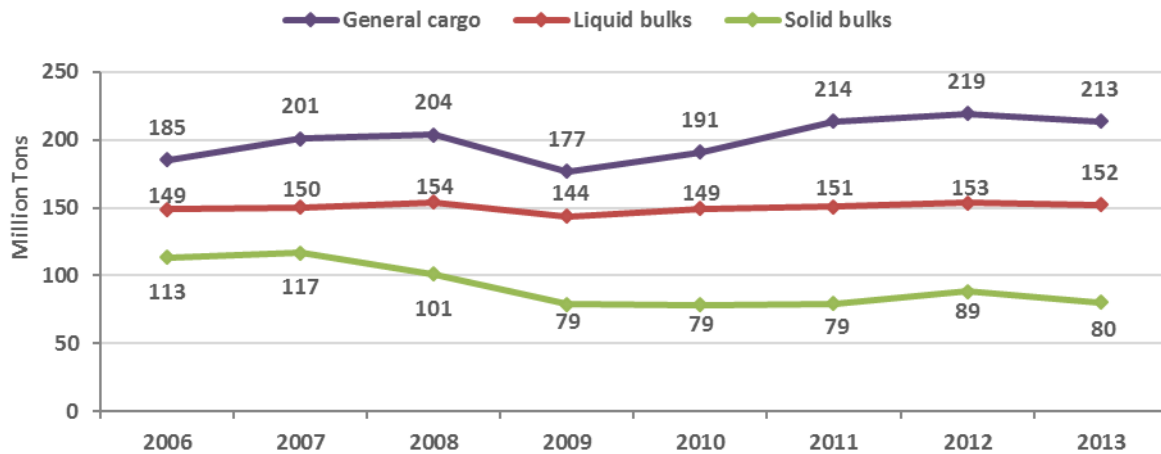
TRAFFIC

Evolution of traffic in the port system

As it was mentioned in the previous section *Land surface and land demand*, cargo traffic has experience and increasing evolution in the last years. In the next graph is shown a breakdown of such evolution according to the type of cargo.

The traffic of liquid bulks has shown a relatively steady behaviour, while traffic of solid bulks has experience a considerable drop in 2008, from which point has also remained steady. General cargo traffic experienced a recovery this starting after a minimum suffered in 2009, coming to a halt in the present year 2013.

Cargo traffic evolution

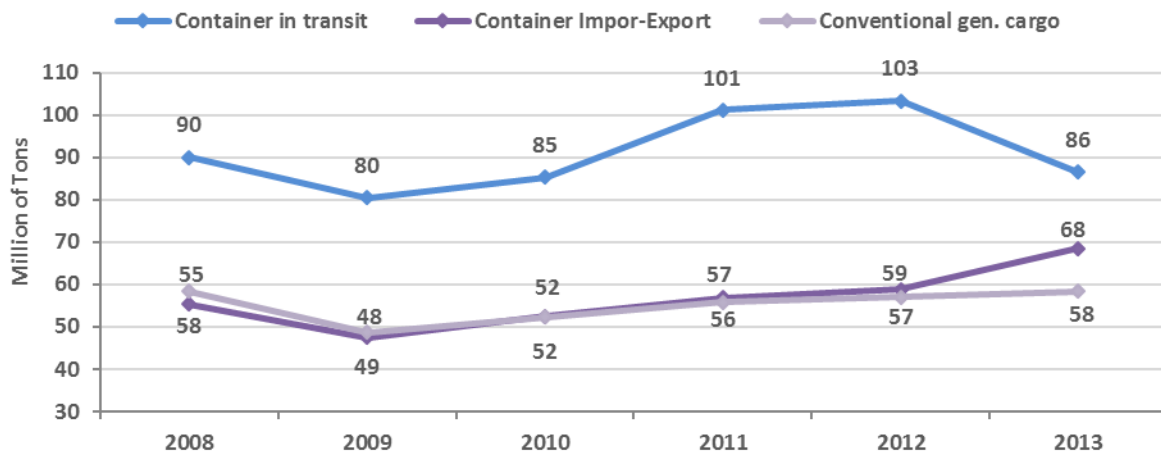


Graph 1. 12

In the following graph 1.13 the general cargo is broken down into three types and it is shown that, the recovery process as well as the halt suffered this year, are motivated mainly by the variation of containers in the transit regimen. In addition, although the container traffic import-export has recovered more slowly, its sharp increase in 2013 stands out.

The container transit recovery has been achieved in a scenario of strong competitiveness by the Ports of Northern Africa, which shows the importance of keeping, inside the port system, a clear commitment to competitiveness and the quality of service provided vessels and cargo.

General cargo traffic evolution according to regimen



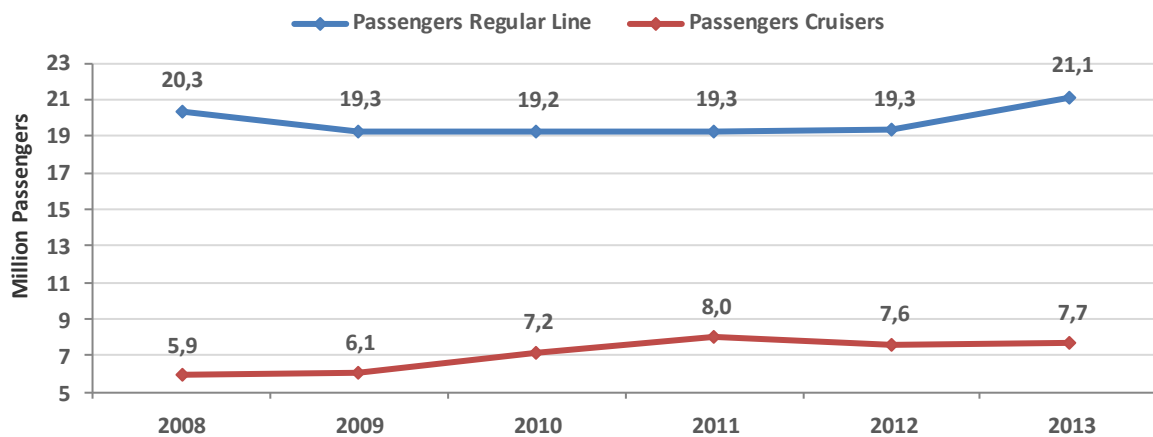
Graph 1. 13

Finally, as shown in Graph 1.14, the traffic of **passengers in regular lines** has remained steady after the decrease experience in 2008, increasing considerably throughout this last year 2013. Regarding the traffic of **passengers in cruisers**, there has been a steady increase since 2008 until 2011, hampered by the light decrease in 2012 and recovering slightly in this last year 2013. It is important to emphasize

the effort that the port system is making to promote the traffic of cruisers, which is a clear stimulus for the industry of tourism and the cities visited.

The port system makes a great effort to promote the traffic of cruisers, which is a clear stimulus for the industry of tourism and the cities visited

Passenger traffic evolution

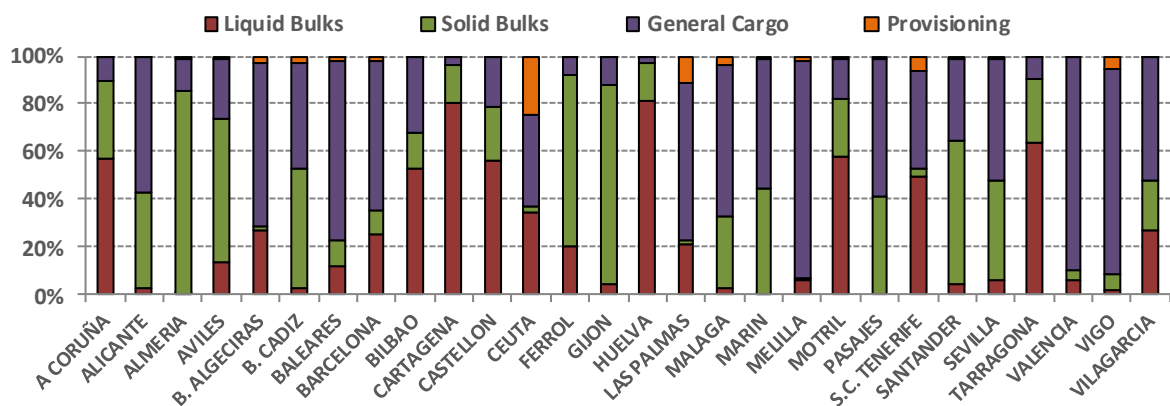


Graph 1. 14

Distribution of traffic in the Port Authorities

In graph 1.15 it is shown the relative importance of the different types of traffic for each one of the Port Authorities. This demonstrates again the specialization promoted by each one of them. This specialization coexists with a tendency by the totality of the system to reach certain diversification through capturing, above all, container traffic (general cargo).

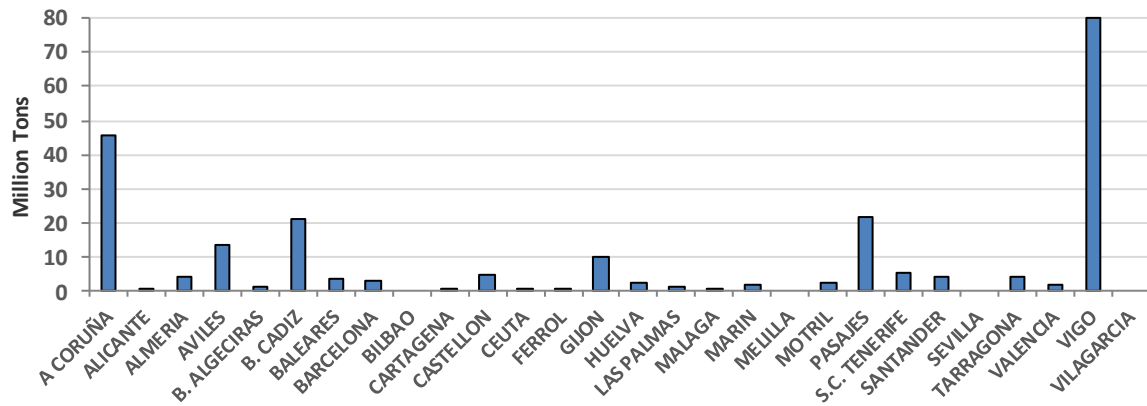
Distribution of the different types of traffic



Graph 1. 15

In addition to the types of traffic previously described, in graph 1.16 is shown the volume of fishing in the support system, which shows **the importance of the Port Authorities inside the fishing activity**. These act as support for the maintenance of an activity of special financial and social relevance in its own environment.

Fishing

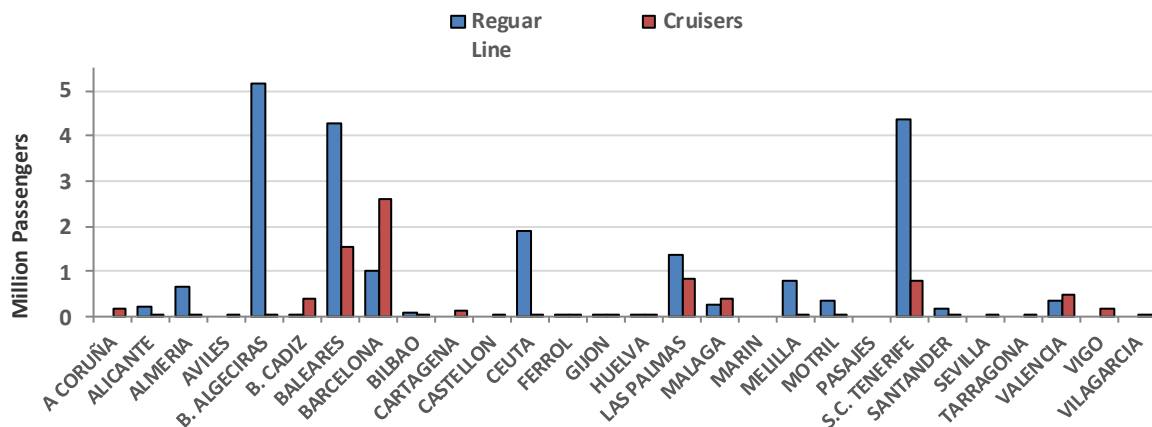


Graph 1. 16

In the same way, in graph 1.17 is shown the role developed by the port system regarding the movement of people, regular lines as well as cruiser lines.

It is important to emphasize, that the support given to the movement of cruisers makes the port system an important engine of tourist activity in its environment.

Movement of passengers



Graph 1. 17

PORTS AS BUSINESS AND COMPETITIVENESS BOOSTERS

Ports have far key role in the foreign business of Spain. Competitiveness and dynamism of the country's economy receives a direct impact from:

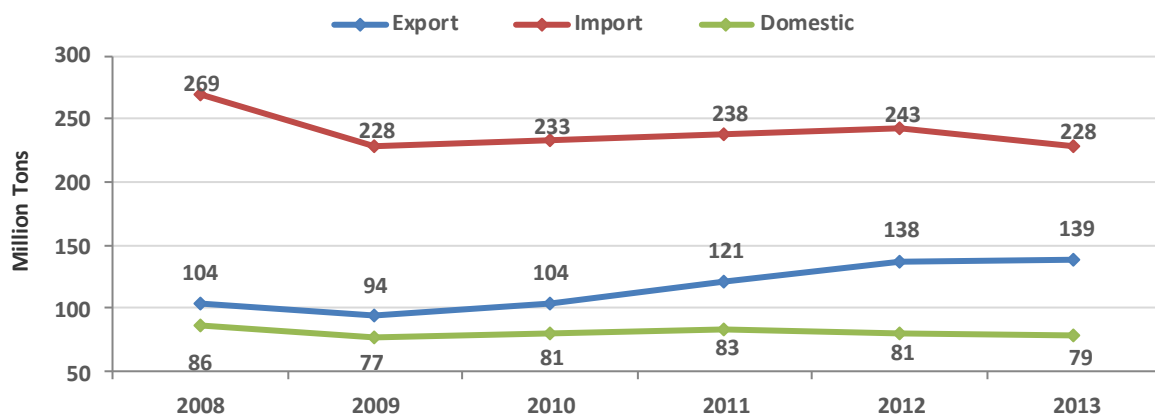
- Availability of adequate infrastructures
- management of such infrastructures with competitive operational costs

Evolution of domestic and foreign business.

Productivity is a clear indicator of the financial and commercial pulse of our country.

As graph 1.18 shows, ports experienced between 2007 and 2009 a drop of domestic and foreign traffic. This drop was light for the **domestic traffic**, progressively recovering ever since then.

Traffic evolution

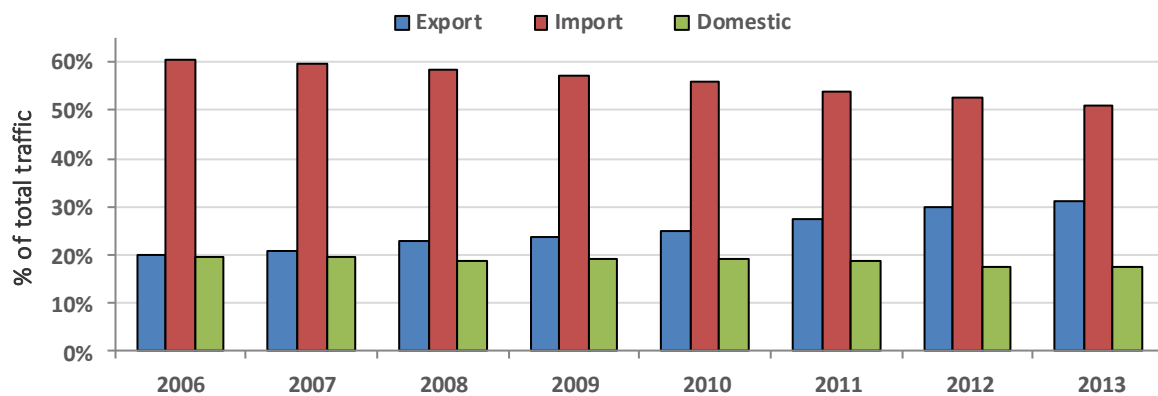


Graph 1. 18

The decrease was severe for the **import foreign traffic**. Then, a very slow recovery occurred, not being able to reach the levels previous to the crisis. In this last year 2013 it has experienced a light decrease. On the other hand, **export foreign traffic** has experienced a fast and sustained increase after the drop suffered in 2009, which makes 2013 the year that all the previous records were exceeded.

These data show the change of tendency in the Spanish business, in which the expectations are gaining relative weight in that business activity. In this regard, Graph 1.19 shows that the exiting traffic turned from involving the 20% of the activity, over to reaching a 31% in 2013. This clearly quantifies key role of the port system to **boost exportation** and the **foreign projection** of our productive activity.

Evolution of traffic distribution



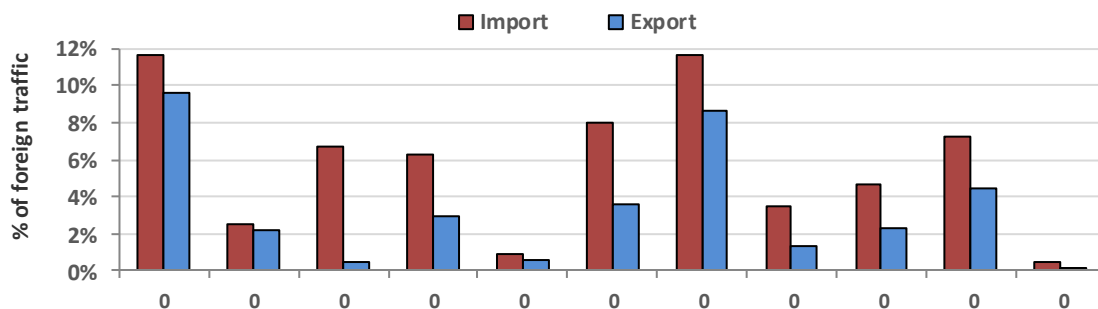
Graph 1. 19

This change in the business balance raise to the port system new challenges regarding competitiveness. It is essential to **progress in strategies that reduce the costs of cargo passing through port**, with the aim to contribute towards the exportation efforts made by the Spanish economy as a whole.

Foreign business structure of the port system

Port traffic is also a relevant indicator when analysing the structure of our country's business relations. Graph 1.20 shows a global image distributed in geographic zones, of the business of the Spanish boards with the rest of the world.

Distribution of traffic according to geographic areas

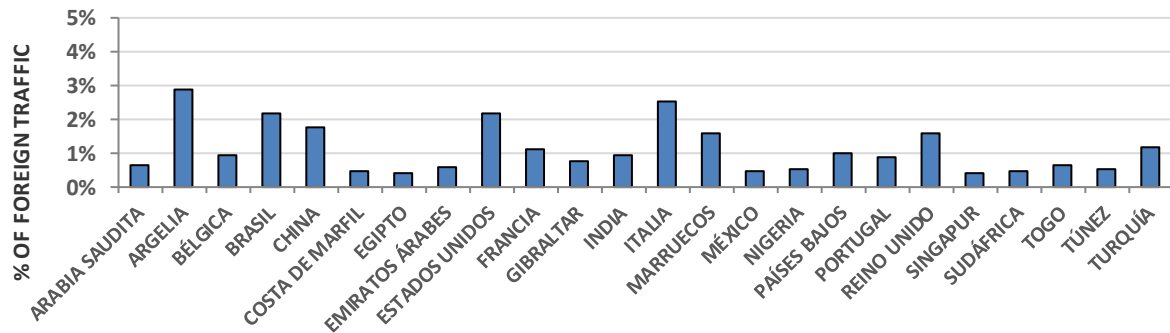


Graph 1. 20

The **European Union** and **northern Africa** stand out as main areas to where Spain exports and from where it imports. Accordingly, South America and Asia have a relevant role in the Spanish port system's foreign traffic. It is important to underline that the volume of importations has a greater relevance opposite to the volume of exportations.

Graph 1.21 shows the countries to which more than 70% of the Spanish exportations are directed, indicating the percentage of such traffic over the total foreign (imported + exported) and alphabetically sorted.

Export traffic according to destinations

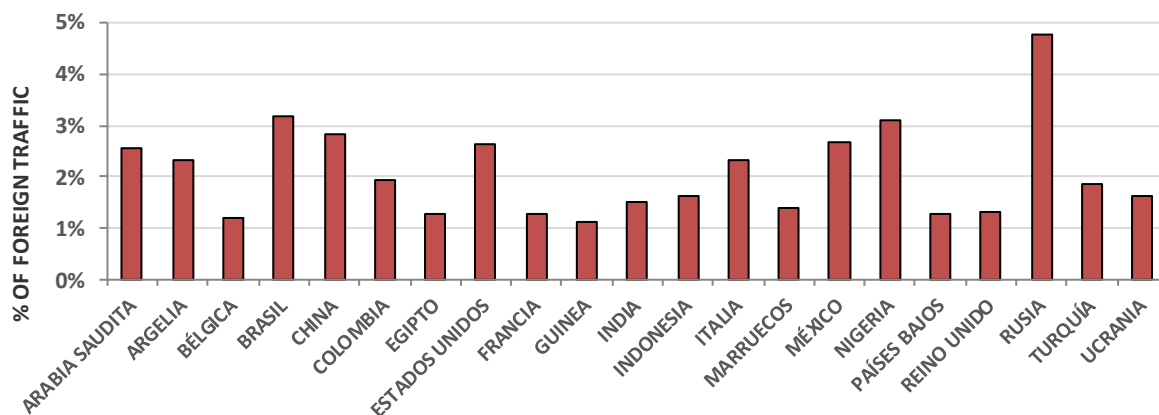


Graph 1. 21

2,9% of the foreign traffic corresponds to exportations **Algeria**, while the 2,5% of the foreign traffic to **Italy**. In this way, **United States and Brazil** stand out representing the 2,2% each. The majority of exportations are referred to processed goods, such as tools, food or vehicles.

Graph 1.22 shows the countries from which 70% of importations are received, indicating the percentage of such traffic over the foreign total (imported + exported) and alphabetically sorted. 4,8% of foreign traffic course to importations from **Russia**, while the 3,2% from **Brazil** and the 3,1% from **Nigeria**. These countries are the main energy and raw material providers of the Spanish port system.

Import traffic according to countries of origin



Graph 1. 22

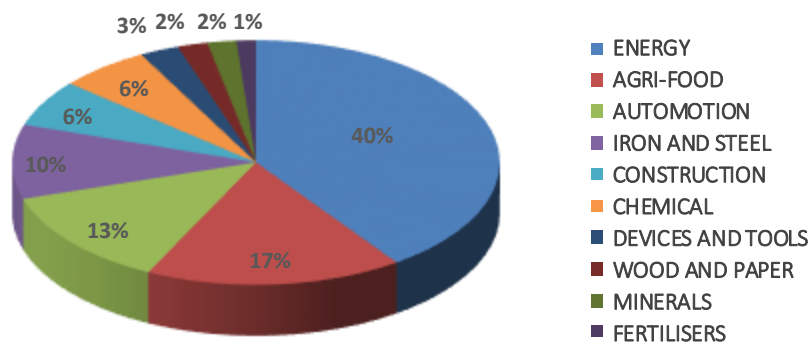
In general the volume of export and import with each country is not balanced, which causes that many countries that appear in graph 1.21 do not coincide those represented in graph 1.22. This is the case, for instance, of countries providers of energy and raw material, such as Mexico, Colombia, Russia or Ukraine, in which the volume of cargo imported is far from being balanced with the cargo exported.

Sectors covered by the port activity.

As previously stated Spanish port system has a key role boosting foreign business, being entry and exit gate raw materials, food and manufactured products.

Graph 1.23 shows that **the energy and agro-food sectors are the most important in the Spanish port system**, taking into account imports as well as exports. Simultaneously, the importance of the ports in the development of the automotive industry stands out, being Spanish ports the main channel of departure of vehicles manufactured in Spain.

Generic productive sectors, covered by port traffic



Graph 1. 23

The importance of the ports in the development of the automotive industry stands out, being Spanish ports the main channel of departure of vehicles manufactured in Spain

SERVICES

In the ports several services are provided that, according to their nature, are developed directly by the Port Authority or by private companies accredited by the Port Authority to provide them. These services can be categorized as follows:

- **General Services.** Provided by the Port Authority, these general services are those from which the port users benefit without the need of a request and those necessary for the compliance of the functions assigned to the Port Authority.

- **Commercial or Port services.** Related to the rest of the services and including the majority of the activity deployed in the Port. Generally, are provided by private companies in a license or authorisation regimen, except commercial services of water and electrical power provision (which are provided directly by the Port Authority in some occasions).

Table 1.7 synthetically shows the different services provided by the Port, their ownership and regulation scheme.

Types of services provided by the Port.

Type	Description	Ownership and Regulation
General	<p>Common Services, as well as coordination services, vigilance and control, such as:</p> <ul style="list-style-type: none"> • Port traffic ordinance, coordination and control • Coordination and control of other services • Signalling, beaconing and other navigation assistance • Port enforcement services in common zones • Lightning in common zones • Cleaning of common land and sea zones • Prevention and emergency control 	<p>Ownership: The Port Authority provides these services directly, although can outsource certain operations.</p> <p>Regulation: Ports of the State law and State contracts.</p>
	<p>Activities aimed to make possible the realisation of operations associated with shipping traffic. Are port services:</p> <ul style="list-style-type: none"> • Services provided to vessels (pilotage, towing, berth and detachment) • Services provided to passage (boarding and disembarking of passengers, loading and unloading of luggage and vehicles in a passage regimen) • Vessel's waste collection services. • Handling services provided to cargo (loading, stowage, unloading, offload, shipping transit and cargo transfer) 	<p>Ownership: Private entities. Port Authority do not operate them, but ensures its adequate coverage.</p> <p>Regulation: License granted by the Port Authority that includes the conditions established in the "Terms of specific prescriptions" for the provision of port services.</p>
Port	<p>Commercial nature services related to the port activity, as for instance:</p> <ul style="list-style-type: none"> • Bunkering to vessels and other supplies • Shipyards and Naval repair facilities • Services related to fishing (auction halls, ice factory...) • Services to recreational boats and vessels 	<p>Ownership: Private entities.</p> <p>Regulation: Authorisation granted by the Port Authority in which are</p>

Commercial	<ul style="list-style-type: none"> • Storage and distribution of cargo 	included the “Particular Terms and Conditions” for the provision of commercial services
Shipping signalling	Installing, maintenance, control and inspection of devices aimed to improve navigation safety.	Ownership: The Port Authorities provide this service directly or regulate and manage elements from other agents.

Table 1.7

Service regime

Generally, Port Authorities regulate the conditions with which companies that provide services in the Port must comply. The goal is to guarantee that such companies operate in competitiveness conditions, in a framework of free access to the provision of the service, and in quality, safety and environmentally respectful conditions. Particularly, such **port services** are regulated by means of the “Terms of specific prescriptions”. In such terms are established the conditions those companies that opt to provide port services in the port must meet.

License proceedings scheme to offer port services.

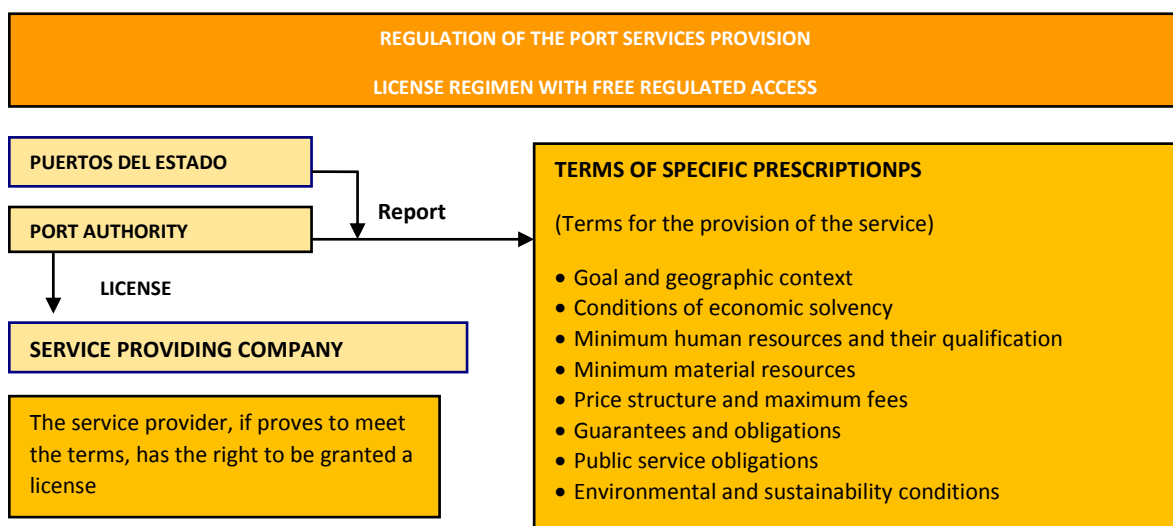


Image 1.3

The previous image schematically shows the process of license proceedings to provide a port service. In case that the exercise of any of these activities requires a sustained and private occupancy of the port public domain, it will require the authorisation or concession of such license by the Port Authority.

Concession and Authorisation

Port Authorities manage the port public domain in a concession or authorisation regimen, so that private initiative can make use of the port soil throughout titles granted by Port Authorities to entitle companies.

The applicable conditions to the port public domain occupancy and the exercise of activities deployed in the granted spaces are regulated by these corresponding terms:

- “**General** Terms and Conditions for granting a concession in the port public domain”
- “**Particular** Terms and Conditions for granting a concession in the port public domain”

Table 1.8 schematically collects the different formulas with which the Port Authority is provided to regulate occupancy and utilisation of the public domain by private companies.

Private or exclusive occupancy formulas of the port domain by private operators

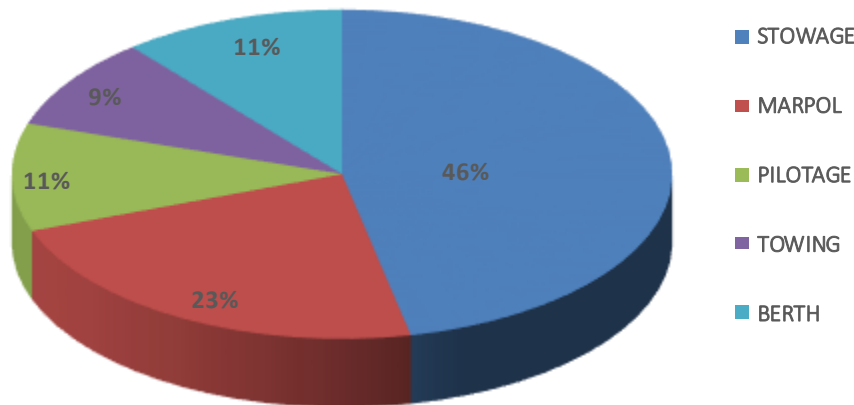
Occupancy formula	
Private use Authorisations	The company privately occupies the port public domain with or without property assets or facilities, for a term longer than three years. Utilisation of fixed port facilities by vessels, passage and cargo.
Concession	The company builds and operates non removable facilities for a term between three and thirty-five years
Public work concession	The company develops the construction and operations of a new port or a port area allowing the independent exploitation.

Table 1.8

PRESENCE OF PRIVATE INNICIATIVE IN THE PORT OPERATIONS

On average and in the port system, 51% of the companies operate under a concession regimen while the 49% do it under an authorisation regimen. The following graph shows the average distribution of the service providing companies in the different Port Authorities, according to types of services. As it's noticeable, the highest number of companies carry out STOWAGE and MARPOL services.

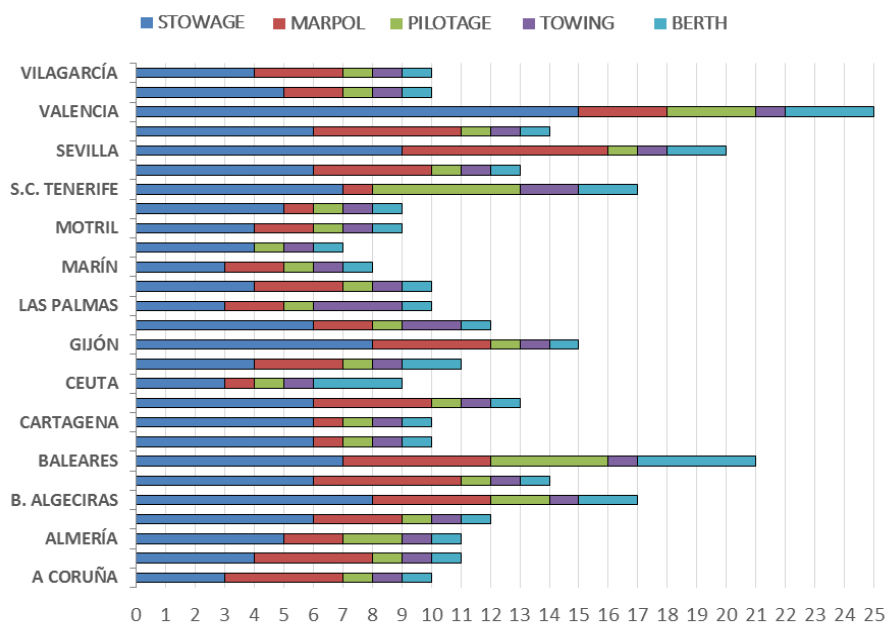
Distribution of service providing companies according to type of service



Graph 1. 24

The following graph 1.25 breaks down the number of service providing companies for each Port Authority, according to the type of service. It is worth to emphasise the number of companies dedicated to the STOWAGE service, being between 3 and up to 15 per Port Authority.

Number of service providing companies per Port Authority

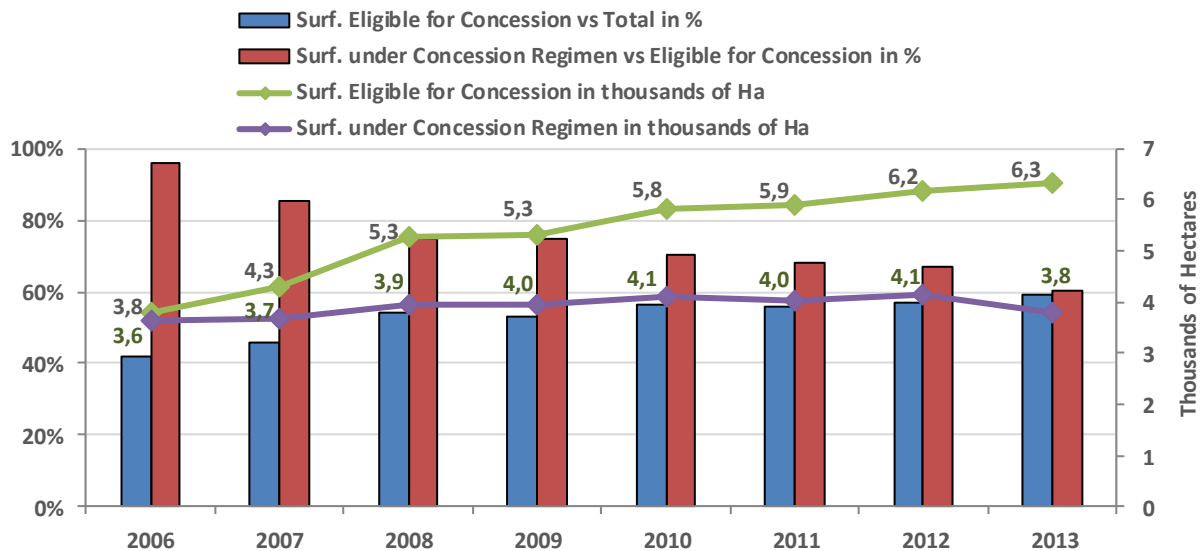


Graph 1. 25

Progression in the use of land eligible for concession

The progression in the private-public operational model of the ports requires an effort to increasingly cause more port surface to be exploited directly by private operators throughout concessions of port soil. Graph 1.26 shows the evolution of the surface available for concessions and the surface already under concession regimen.

Evolution of the Surface under concession regimen in the port system



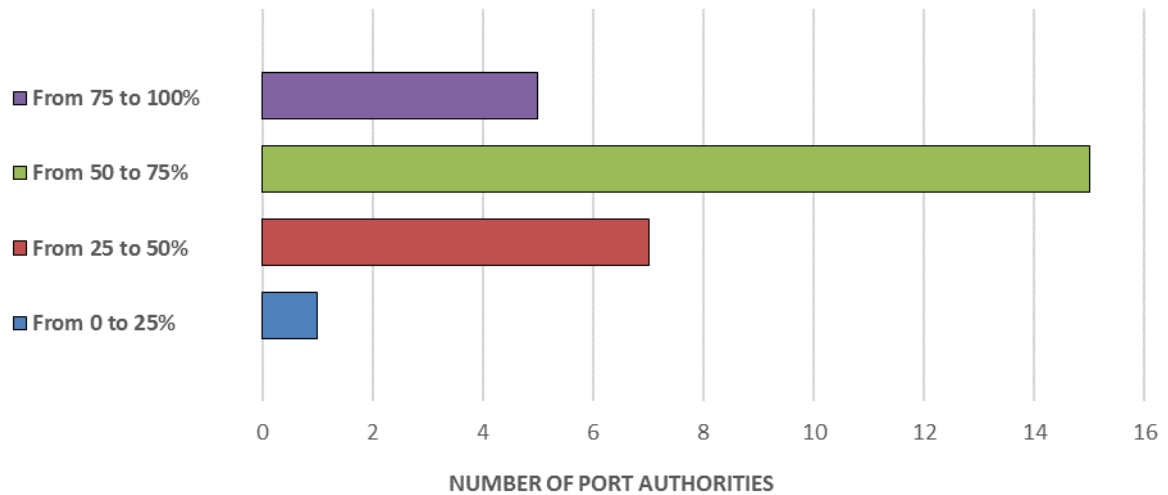
Graph 1. 26

In regards to **surface eligible for concession**, it is noticeable a progressive increment of the total (thousands of hectares) as well as the percentage over the total Surface. Regarding the **surface under concession regimen**, since 2008 the increment comes to a halt of the total (in thousands of hectares) due mainly to the financial crisis situation.

The percentage of the surface under concession regimen opposite to the surface eligible for concession has experience a progressive decrease in the last years, due to an increase in the surface eligible for concession (as a result of an effort to progress in the Landlord exploitation model).

Graph 1.27 shows that the advance in the management of public domain throughout concessions has a heterogeneous behaviour, so that 20 of the 28 Port Authorities operate with more than 50% of their commercial surface under a concession regimen.

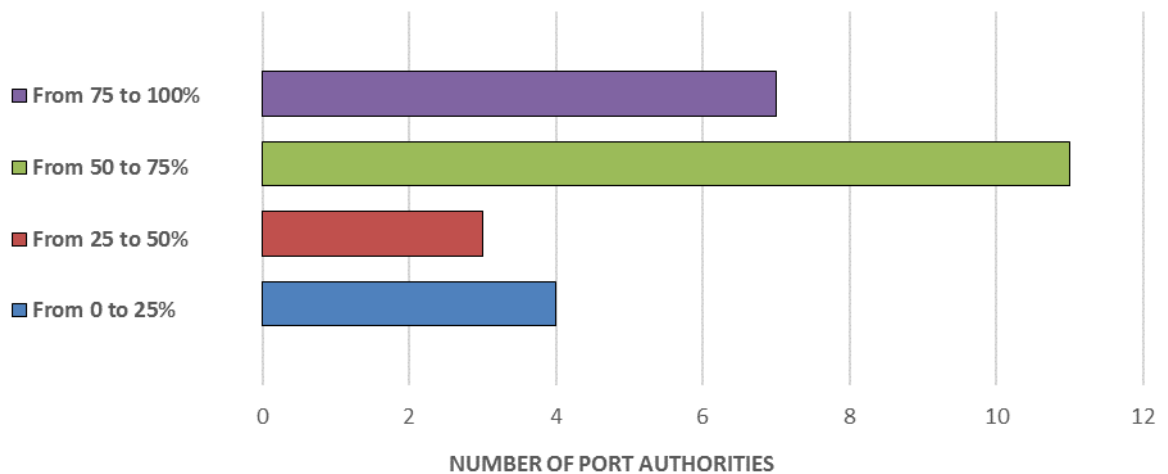
Distribution of surface under concession regimen



Graph 1. 27

In regards to cargo traffic, an average of 60% of tons are moved in concession terminals in the port system, estimated over the total of cargo volume. Graph 1.28 shows that most of the Port Authorities are within a range of 50% and 75%.

Distribution of cargo moved in concession terminals



Graph 1. 28

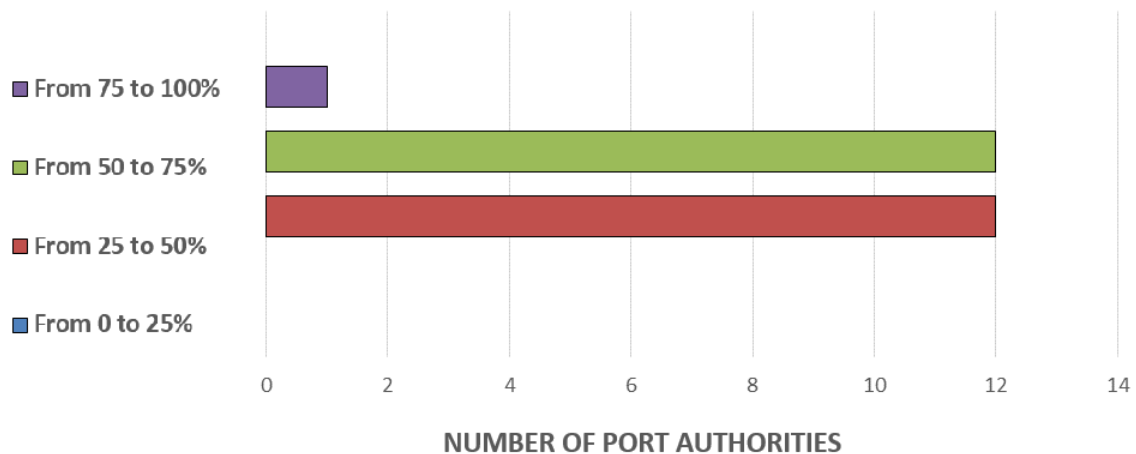
Diversification of clients, users and port land

As explained in section *Funding*, Port Authorities must fund themselves with their own resources, created mainly through fees provided by port users. Such scheme of financial self-funding must be compatible with an independence in decision making and an **adequate risk control**, which requires to

reach certain level of diversification in the number of companies that make up the main source of income of the port.

Generally, Port Authorities have been able to make compatible certain level of diversification with an adequate diversification of income. Graph 1.29 shows the percentage of total turnover invoiced by Port Authorities to the five main clients of each one of them.

Turnover invoiced to the five main clients



Graph 1. 29

As it is represented, there is one Port Authority with a high level of dependency of its five main clients and 12 Port Authorities locate such clients' income between 50% and 75% of the total invoiced. It must be taken into account that the sample includes 25 of the 28 total Port Authorities.

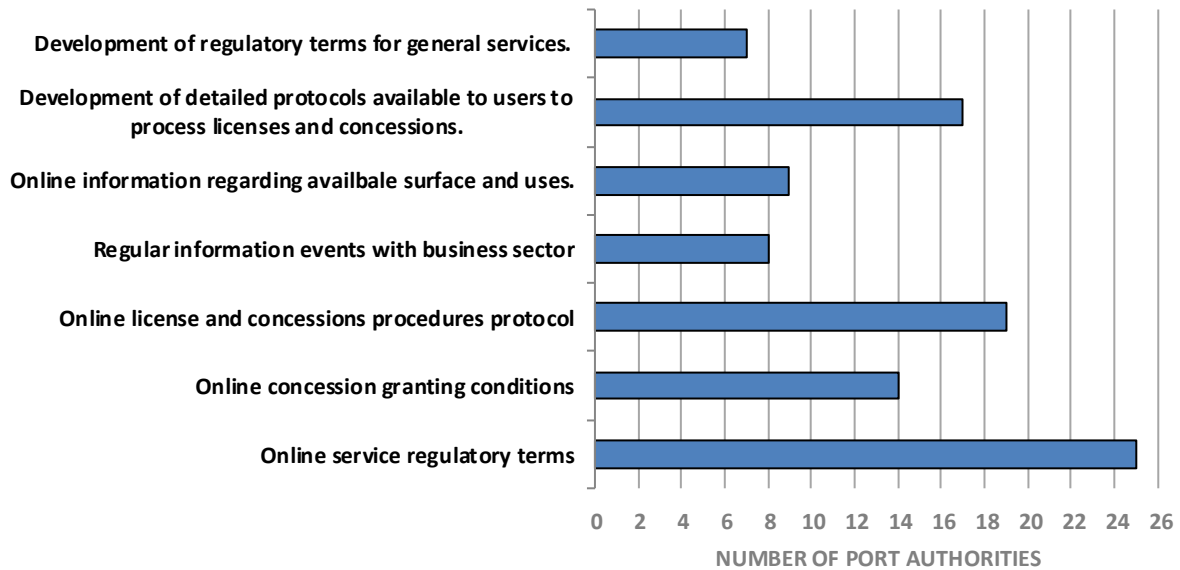
TRANSPARENCY AND FREE CONCURRENCY

Port's Law establishes different mechanisms to guarantee that companies operating the port public domain provide their services in a regimen of free competitiveness and free concurrency. In this way, situations of dominant abuse that could alter the quality and fee conditions for the final clients are avoided.

In addition to the guarantees provided by the legal framework, Port Authorities adopt different initiatives aimed to guarantee that **every operator** that wishes to provide services in the port or opt to a concession **can transparently know** the conditions to operate in the port and the administrative mechanisms that regulate such process.

Next graph 1.30 shows the most common initiatives from Port Authorities to make the access for private sector to service operations and port soil more transparent. These initiatives are aimed to provide a greater spread of the business opportunities within the port and administrative proceedings that they require.

Implemented initiatives to promote transparency



Graph 1. 30

Among such initiatives, it is worth mentioning the publishing of the internet service regulatory terms and the publishing of the protocol of online license procedures and concessions. In addition, more than half of Port Authorities develop a detailed protocol to process licenses and concessions, which is at users' disposal.

QUALITY IN SERVICE PROVISION

A service management is quality oriented when it seeks client or user's maximum satisfaction. Therefore, the concept of quality is linked to aspects such as optimization of available resources, analysis of client's needs, standardisation of processes and continuous improvement.

Particularly, within the processes of movement and storage of cargo in the port, a quality oriented service involves:

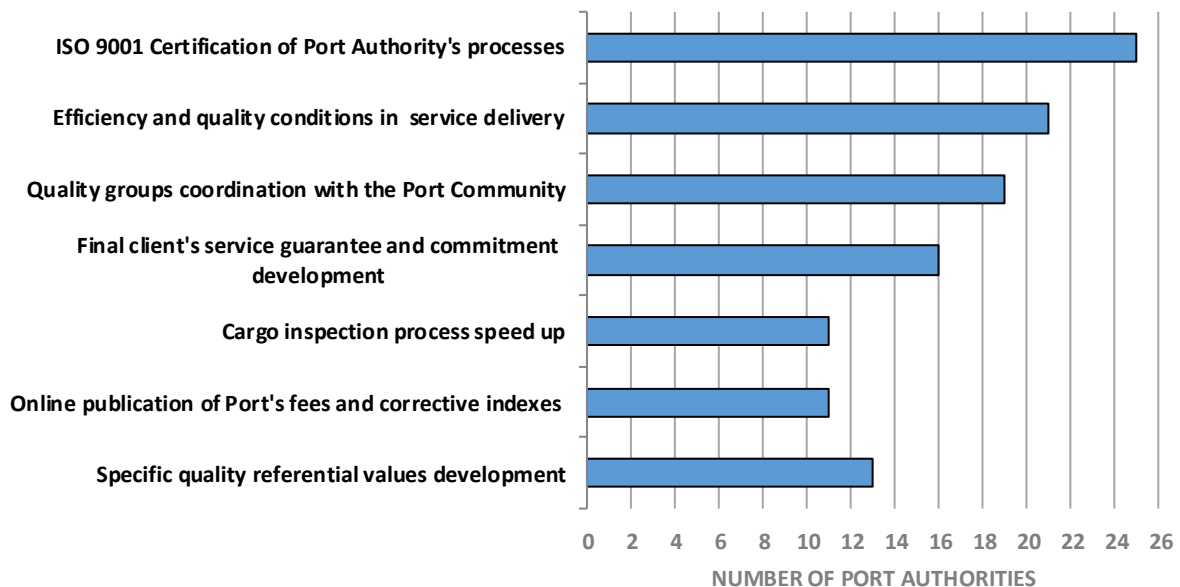
- Optimising the room and time require to carry out the operations.
- Guaranteeing the integrity, quality and traceability of the cargo.
- Guaranteeing the flow of information and procedures linked to cargo flow.
- Assessing the suitability of the service provided and the client's needs.

A port's quality service provision **requires the integration of different tasks**, some of which are provided by administrators and others by private operators.

Mechanisms to promote improvements in service quality and competitiveness

Graph 1.31 informs of the level of implementation of initiatives that are more frequently promoted by Port Authorities to improve the global efficiency and quality of the services provided by the Port.

Initiatives implemented to improve service quality



Graph 1.31

Following are described in more detail the content and scope of the data collected in Graph 1.31.

- **ISO 9001 Certification of Port Authority's processes**

By means of ISO 9001 quality management systems implementation, Port Authorities introduce a continuous improvement scheme of contract, public domain management or customer service processes.

- **Efficiency and quality conditions in service delivery**

The requirements regarding efficiency and quality of the regulatory terms allows us to transfer the service improvement philosophy to the activities developed by private companies operating within the port. Examples of these conditions are those aimed to obtain the specialization of terminals, so that it guarantees high performance in safety and environmentally respectful conditions.

- **Quality groups coordination with the Port Community**

Port Authorities establish and coordinate committees and quality groups with the port community, whose goal is to promote improvement to the quality of the port operation and global efficiency in the value chain.

- **Final client's service guarantee or commitment development**

The promotion of a warranty or guaranteed services label is aimed to offer a guaranteed comprehensive service to final clients. All the operators who participate in these types of service compromise to comply with certain standards of operation, as well as financially compensate final clients in case of guaranteed service standard infringement.

- **Cargo inspection process speed up**

An example of an initiative is the coordination with public administrations involved in the inspection of cargo in order to define protocols that speed up the process of import and export. On the other hand, the improvement of infrastructures related with customs inspection is another type of measure implemented to speed up such processes.

- **Online publication of port's fees and corrective indexes.**

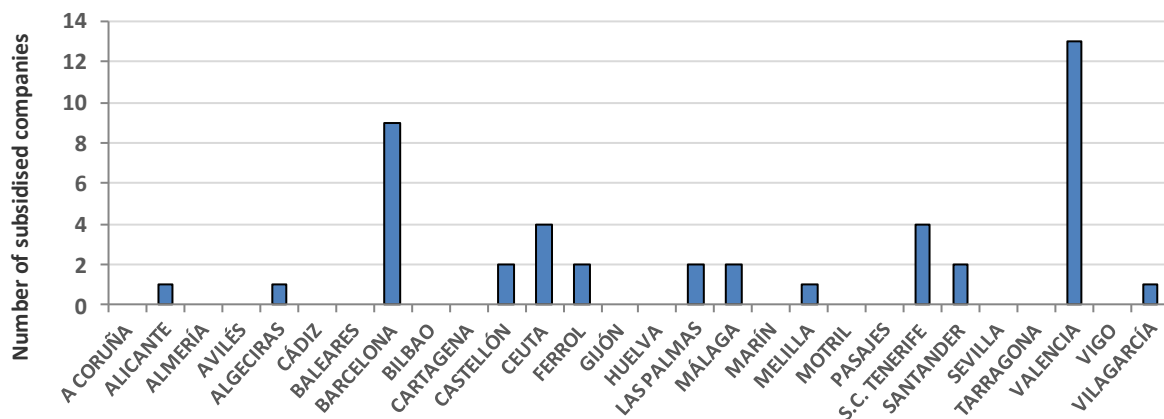
Port authorities publish online in their websites their current fees and corrective indexes.

- **Specific quality referential values development**

This measure consists in subsidising the activities fee by those operators that certify the compliance of certain service delivery conditions, specified in Quality Referential Values developed by Puertos del Estado and Port Authorities. Such referential values can be particularised by each Port Authority to each port's specific conditions.

Graph 1.32 shows the level of implementation of this initiative in different Port Authorities in 2013, as well as the number of companies subsidised for complying with quality referential values in their service delivery.

Number of company who benefit from quality subsidy



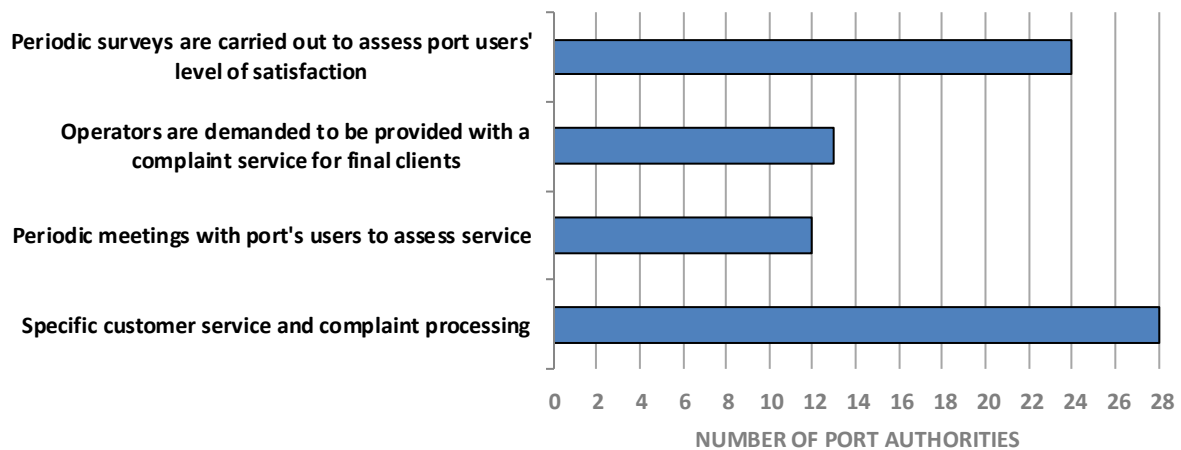
Graph 1. 32

Service quality assessment mechanisms

The definition of efficient strategies by the Port Authority requires of an adequate knowledge of the needs and satisfaction levels of port users. This way, it is possible to guarantee that the service provided by the port satisfies the quality needs demanded by the market. These are, for instance, the adequacy of facilities, performance, price, cargo quality warranty, or safety and respect for the environment.

To achieve this, the Port Authority includes in its Management Board **several representatives from the business sector**: representatives from the regional chambers of commerce and business associations. This business sector representation mechanism is complemented in many Port Authorities with initiatives aiming to assist and survey the needs of different clients and level of satisfaction with services provided. Graph 1.33 shows the level of implementation of some of these initiatives in the port system.

Initiatives to assess service quality



Graph 1. 33

It is worth to highlight that 100% of the Port Authorities count with a specific service of customer service and complaint and suggestion processing. In addition, 24 Port Authorities carry out periodic surveys to port's users to assess their level of satisfaction.

STAKEHOLDERS

The activity in most of the Spanish Ports is developed in the vicinity of urban areas, fundamentally influencing the financial, social and environmental welfare of a large part of population. Therefore, there is a **large group of social, financial and administrative nature collectives** that are affected or influenced by the activities developed by Port Authorities, who at the same time influence or may influence the development and performance of the activities of Port Authorities.

It is essential to Port Authorities to identify the group of collectives and stake holders, characterising their expectations regarding the Port Authority, assessing the relative importance of each one of these groups and defining possible frameworks of communication or participation with each one. The

following Table 1.9 shows schematically the five largest collectives identified, summarising the current communication scheme and main concerns or preoccupations for these groups.

Stakeholders

Stakeholder	Relation Model	Concerns
CLIENTS	<ul style="list-style-type: none"> • Customer Service • Satisfaction surveys • Suggestions and complaints management • Business appointments • Web 	<ul style="list-style-type: none"> • Service quality • Prices and fees • Clear Invoicing • Transparency
WORKERS	<ul style="list-style-type: none"> • Committees and work groups • Internal informative reports • General broadcast of activities and open results • Management Board 	<ul style="list-style-type: none"> • Steady employment • Internal promotion • Income level • Work conditions • Transparency • Safety and protection
PORT COMMUNITY (Service delivery companies and Fishing sector)	<ul style="list-style-type: none"> • Work roundtables • Official Bulletin BOE • Service committee • Coordination protocol • General broadcast of activities and open results 	<ul style="list-style-type: none"> • Fees and fares • Availability of infrastructures • Communication channels • Service quality • Administrative transparency • Competitiveness
ADMINISTRATIONS AND INSTITUTIONS	<ul style="list-style-type: none"> • Trade fairs and events • Media • Web • Collaboration agreements with universities, councils, chambers of commerce, etc • Business Forums 	<ul style="list-style-type: none"> • Institutional, professional and scientific relations • Current Law compliance
SOCIETY	<ul style="list-style-type: none"> • External promotion • Trade fairs and events • Media • Web 	<ul style="list-style-type: none"> • Relations Port-City • Financial influence • Cruisers related tourism • Environmental quality of the surroundings • Port areas dedicated to citizens

Table 1.9

It is worth mentioning that as part of the current relation model with the group of Administrations and Institutions, Port Authorities establish different collaboration agreements with, for instance, universities, councils or chambers of commerce. In addition, some port Authorities take active part in or belong to technical or business associations.

BUSINESS PROMOTION

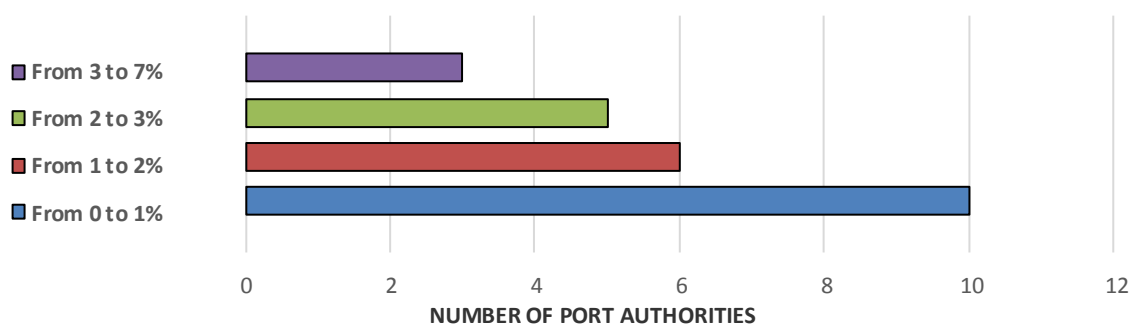
Port Authorities count with own strategies to promote business, largely through taking part in trade fairs, forums and events of this sector.

In addition to developing promotional and divulging material, such as are the annual reports or informative leaflets, some initiatives implemented in 2013 have been:

- Sector research in order to prospect new markets and identify industrial companies or sectors.
- Introducing business opportunities to potential clients, through developing descriptive reports of the facilities and available services and tailored cost analysis for each client.
- Follow up of the business contacts made.
- Client oriented relation management.
- Promotion of the port as destination for cruisers.
- Promotion of the Port's logistics services among companies of the sector.
- Specialised media publications.
- Informative sessions and port presentation.
- Patronage of activities related to the port sector.
- Partaking in promotion associations.

Graph 1.34 shows the relative importance of the port Authorities' expense in business promotion in relation to operational expense. Taking into account that the sample includes 24 Port Authorities, for the majority of them the estimated expense in business promotion is lower than 3%. Due to the large number of concepts that intervene in this type of expense, it is necessary deepen in the process of defining criteria to be able to improve its right estimation and future analysis.

Business promotion expense in relation with operational expense



Graph 1. 34

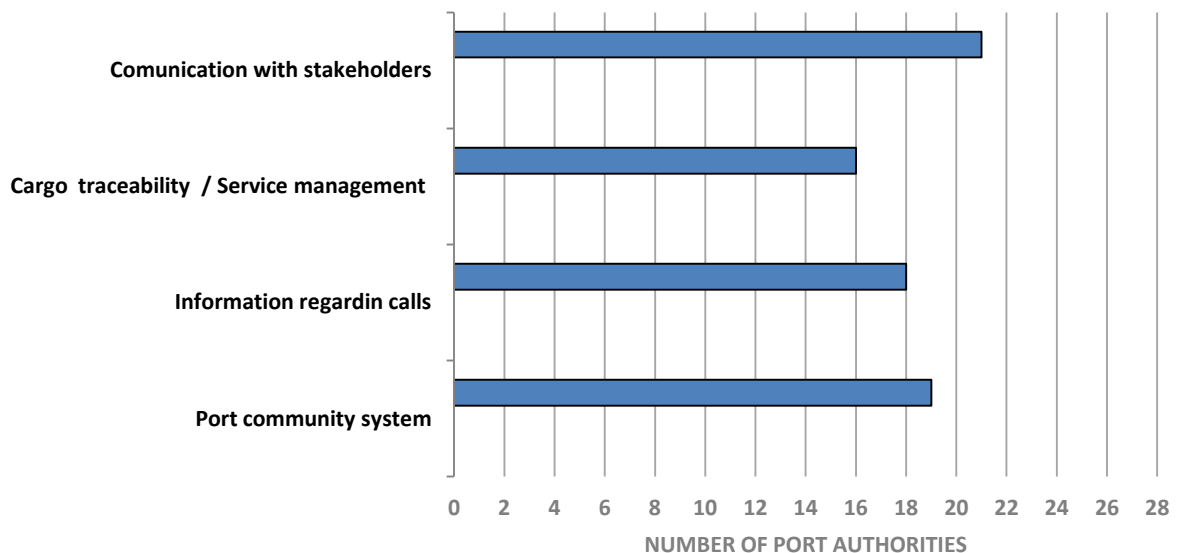
INFORMATION TECHNOLOGIES

Port Authorities have launched different initiatives to improve the port's operations processes, so that they get simplified and ease the administrative procedures and information Exchange associated to the transit of vessels cargo and passengers through the port. Most of these projects are linked to the use of information technologies, online exchange of documents and development of the online Administration.

In 2011 Port Authorities completed the creation of **online websites and online registries** prescribed by law 11/2007. Both elements are the base upon which to structure the task of one-stop window the Port Authorities carry out and to implement electronic administrative procedures. At present, every Port Authority inform about the stage of development and scope of their online web services, specifying which services are enabled.

The following Graph 1.35 shows the frequency internet of other online channels for different projects are used. The most frequent use is for **communicating with stakeholders**, as for instance clients, service providers or neighbourhood associations. On the other hand, 19 Port Authorities are provided with a **Port Community System** for the integration of services in their website and 18 publish in it information regarding **scheduled calls**.

Use of information technologies



Graph 1.35

Regarding the 16 port authorities that use the information technologies to improve **cargo traceability and service delivery management**, there are several projects associated to this use:

- **Call integrated Procedure**

It includes, through exclusively online means, the declaration of all the information that a vessel must hand regarding its call and berth in Spanish Ports of general interest (Regulation FOM 1194/2011). Puertos del Estado has at the operators' disposal an online application, known as DUEWB, to submit the declaration and follow the correspondent procedures.

- **Hazardous cargo**

Most of the Port Authorities are developing systems to enable the online declaration for admission requests regulated by RD 145/89 and it's under study, in collaboration with the DGMS (Directorate-General for Merchant Shipping), the possibility to rationalise the notification submission system regulated by RD 210/2004 and RD 1593/2010 also through a system based on online information exchange. This will allow to improve the processes of information Exchange with EMSA and the development of a national SafeSeaNet system as an information integrated system linked to shipping safety and port operations.

- **Cargo Manifests and Entry Summary Declaration**

Since 1994 the Cargo Manifest and Entry Summary Declaration can be submitted online, being the Port Authorities, the exclusive one-stop Windows opposite to AEAT (Customs) for shipping agents. Likewise, the main Port Authorities are also working to improve other processes such as loading and unloading list exchange between shipping agents and terminals, or custom process for export to facilitate Customs agents the task of checking that the containers included in the loading lists are dispatched and can board without the intervention of paperwork.

- **Passenger screening**

It is worth mentioning a system based on electronic means for passenger screening boarded on regular lines between Peninsular ports and the Canary and Balearic islands, Ceuta and Melilla, which is the foundation from which to try to collaborate with the Ministry of Interior to simplify for the shipping lines the declaration of information regarding passengers in case of calls arriving from ports outside space Schengen.

- **Inspection checkpoints**

There is progress, with other border inspection bodies (Foreign Health, Animal Health, Plant and Seed Health and SOIVRE), regarding the online submission of inspection forms and the availability of online means to improve traceability of the declaring parties of the checkpoints and inspection of the mentioned bodies. All of it is related with improvements to the process of cargo positioning in the inspection zone, that allows for better management of the resources associated to physical inspection and, ultimately, to improving the process of customs dispatching.

INNOVATION IN THE PORT SYSTEM

The promotion of technological research and development in matters linked to economy, management, logistics and port engineering are lines of action included in the Ports law as key elements of the port system's sustainability, aimed to optimise its management.

However, within the field of R+D+i it is necessary to advance towards the integration of knowledge and experience of the whole port system, to guarantee that the efforts made by each Port Authority have a positive repercussion over the total system. In this regard, the Port System's R+D+i Inter-ports Commission has among its goals to diagnose the future system's innovation needs and align efforts in the port system on these matters according to the national and European strategy.

Among the priority actions included in the port system's innovation strategy are, among others:

- Optimising the reliability and functionality of the infrastructures of harbouring and port operations.
- Developing at present non available scientific knowledge according to the structural and functional behaviour of port infrastructures.
- Improving productivity by means of the use of ICT in port operations and commercialisation.
- Optimising water and energy, as well as waste valorisation in the port's productive chain.
- Integrating different means of transport to obtain competitive and sustainable logistics chains.

INSTITUTIONAL COMMITMENT WITH ENVIRONMENT

Port Authorities maintain a cultural and social integration policy with their environment, beyond business and financial exchanges that link the port with the city in which it lies. In this way, they set the goal of building a reference environment for citizens, improving their quality of life.

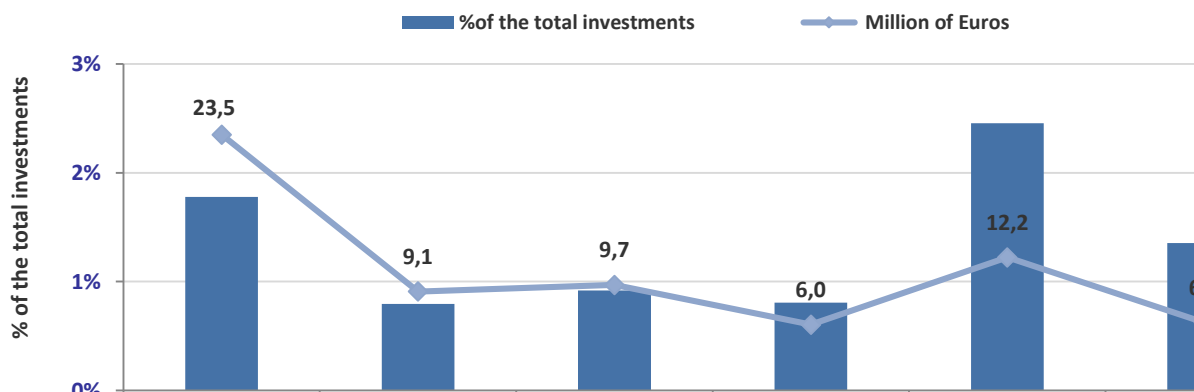
Aligned with this goal, most of the Port Authorities have worked throughout 2013 in several initiatives:

- **Collaborating with citizens and local entities**, promoting and sponsoring the celebration of sport, cultural or social events.
- **Collaborating with schools and universities**, promoting fieldtrips to port facilities, developing informative sessions to students, offering grants to the most disadvantaged or offering working internships in port facilities.
- **Collaborating with associations and foundations**, such as ECOPORTS, ESPO (European Shipping Ports Organisation), RETE (Association for the Collaboration between Ports and Cities), Cruise Europe Association, Tourism Consortium, etc.
- **Supporting several charity entities, aimed at disadvantaged groups** in the area.
- **Training sessions and informative campaigns**, such as publications or exhibitions, aimed at clients, employees or the local students.

The goals of these initiatives are promoting information of the Port Authority activities, promoting cultural Exchange, relation Port City and improving the urban environment perception of the Port. In addition, aiming to improve the Port Authorities' functionalities accordingly to urban integration, there is an important effort to modernise and renovate Port facilities. Graph 1.36 shows the evolution of the estimated investment to improve the Port-city interface, in absolute as well as relative values according to the total of investment.

It is worth mentioning that in 2012 there was a punctual increase of these investments, but in 2013 returned to their average values of previous years, in percentage over the total investment as well as in millions of euros.

Evolution of investments in actions Port-City



Graph 1.36

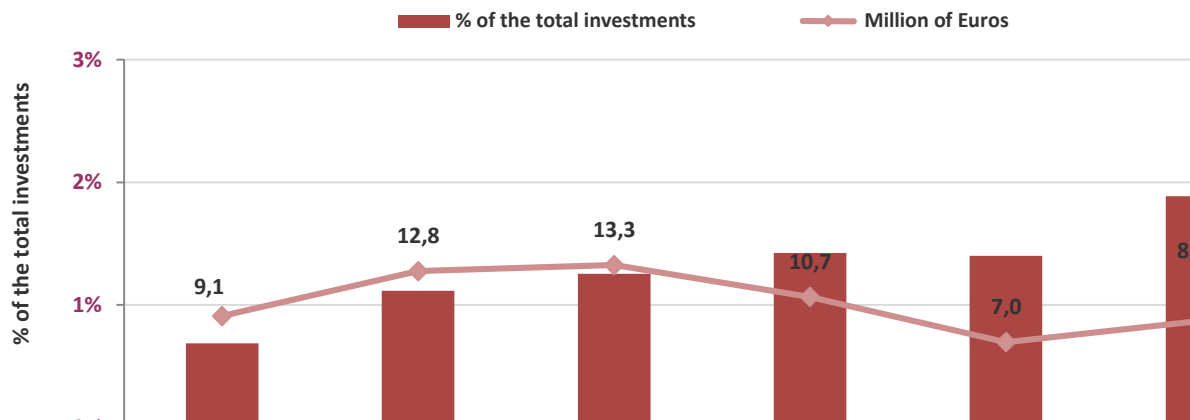
As part of the institutional commitment with environment, there is an important commitment in regards to **safety**.

Graph 1.37 shows the evolution of estimated investment to improve protection and safety, in absolute as well as relative values according to the total of investment. These investments are applied to improve:

- People's safety, including the acquisition of cameras, detectors and fencing
- Navigation's safety, including maintenance and modernisation of signalling equipment, or shipping navigation control systems.
- Industrial safety, including the acquisition of firefighting equipment and emergency systems to prevent or control accidents due to facilities' flaws.

It is relevant to mention that from 2012 to 2013 there has been an increase greater than 25 %, in millions of Euros as well as in percentage over the total of investments.

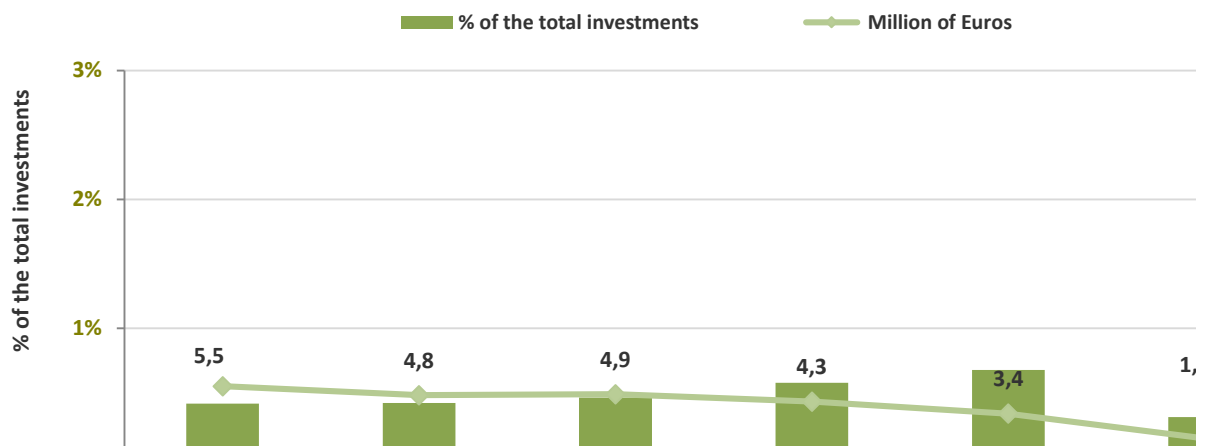
Evolution of investments in regards to safety



Graph 1.37

Finally, there is a commitment regarding the **environment**, related to environmental quality and people's health. Graph 1.38 shows the evolution of estimated investments on environment, in absolute as well as relative values according to the total of investments. These investments cover the purchase of measure equipment, improvements to the sewage network or infrastructures that give support to waste collection.

Evolution of investments in Environment



Graph 1.38

From 2012 to 2013 there has been a significant decrease in millions of Euros as well as percentage over the total of investments. The definition of this type of investment also includes those regarding compensational activities, which progressively decrease as civil works increase, after finishing a construction work.

A large number of concepts intervene in investments regarding the environment as well as those previously mentioned. It is necessary to go further into the definition of criteria to be able to improve its right estimation and future analysis.

CONCLUSIONS, ACHIEVEMENTS AND CHALLENGES

Generally, **Port Authorities have been able to make compatible certain level of specialisation with an adequate diversification of income**; appearing new opportunities over the last years regarding container and hub terminals.

Over the last years, it has become evident a **continuous increase in cargo and passenger traffic**, accompanied by an increase of land surface to enable such operations. Regarding passenger traffic, it is relevant the fact that **the traffic of cruisers is increasing, which results in a clear stimulus for the tourism industry of the cities visited**. Regarding foreign cargo traffic, most of the Spanish port system's **exports** correspond to **processed goods** and most of the **imports to energy and raw materials**. Therefore, the main countries of origin and destination are different and there is an unbalanced relation with these countries.

Regarding **transport**, Port Authorities promote **different strategies to obtain a greater integration and coordination of the different means of transport**, which allows improving environmental efficiency and competitiveness of the port transport chains. Despite the great effort made in the last years, there still is a challenge to **improve and optimise the links between high capacity networks**. It becomes evident a railway transport recovery after the drop experience during 2009 crisis, but still has a very uneven level of implementation between different Port Authorities.

In regards to the different types of **investments** (Port-City, safety, environment or business promotion), its right identification and analysis presents a challenge. Looking into the future, it will become necessary to **go deeper into defining its criteria**, due to the large number of concepts that intervene in this type of actions and the confusion that this involves for its proper analysis and report.

As for **institutional transparency**, it is relevant to mention the Ports law establishes different mechanisms to guarantee that companies operating in the port public domain deliver their service in a regimen of free competitiveness and free concurrency. In regards to the quality of the services it is also worth mentioning that some authorities count with mechanisms to boost quality improvements and competitiveness of their services, and with mechanisms to assess their quality.

Finally, it is worth to emphasise **the wide group of social, financial and administrative nature collectives** that are affected by the activity of the Port Authorities and that themselves affect the development and performance of such Port Authorities' activities. **Because of their institutional commitment, most of the ports identified their expectations and define communication or participation frameworks with each of those groups**.

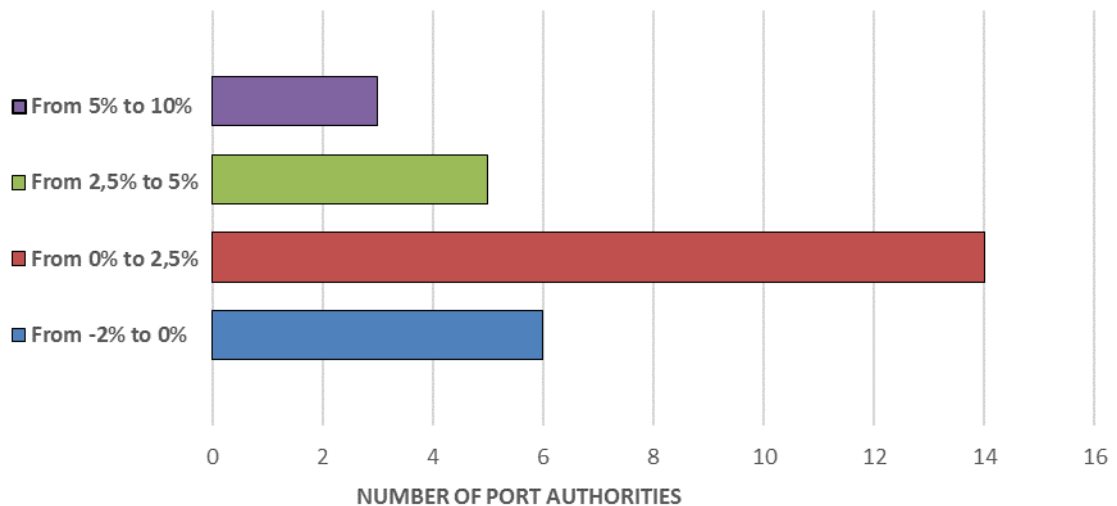
Financial Dimension

FINANCIAL SITUATION

Return on assets²

In 2013 there is a slight decrease of the added return of the system moving from 1,8% in 2012 to 1,6% in 2013. This light drop affects the whole system, modifying the range of variation of profitability.

Distribution of the return on assets



Graph 2.1

Return on assets. Statistical values

Return on Assets		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
1,60%	1,10%	2,40%
Min	Max	Max/Min
-2,10%	9,00%	n / a
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
0,00%	3,00%	n / a

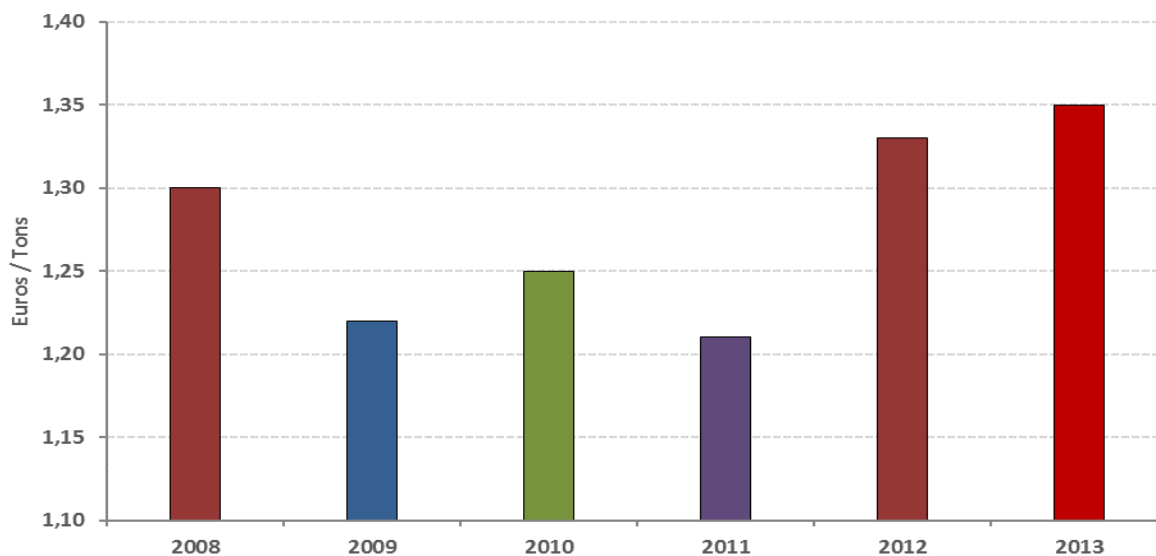
Table 2.1

² Return on assets, expressed as percentage of the result of the fiscal year after taxes opposite to the net average non-current assets, according to the definition *twenty-second final disposition law 2/2012, 29 June of the General State Budget*.

EBITDA created per ton moved

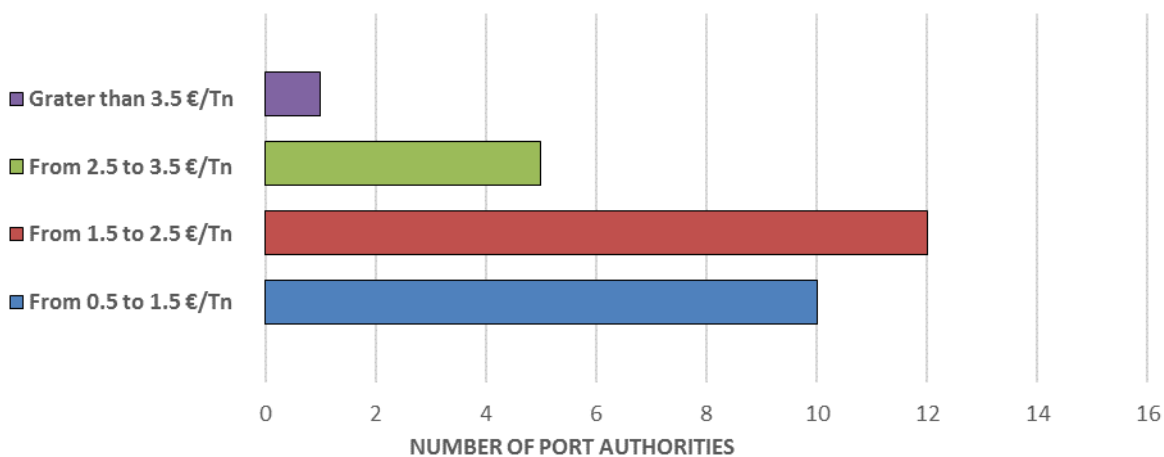
In 2013 there is an increase in the added value of the ratio EBITDA per ton moved that goes from 1,33€/Tn in 2012, to 1,35€/Tn in 2013; however, mode, or most probable value, keeps on accumulating in the lowest ranges, from 0.5 to 2.5€ per ton.

Evolution of ratio EBITDA created per ton moved. Accumulated values



Graph 2.2

Distribution of ratio EBITDA created per ton moved



Graph 2.3

This slight increase is due to the decline of expenses, in line with the policy stated by the Government for the public administrations as a whole, mainly in the personal expenditure, that has compensated the decrease of the turnover in 2013.

EBITDA created per ton moved. Statistical values

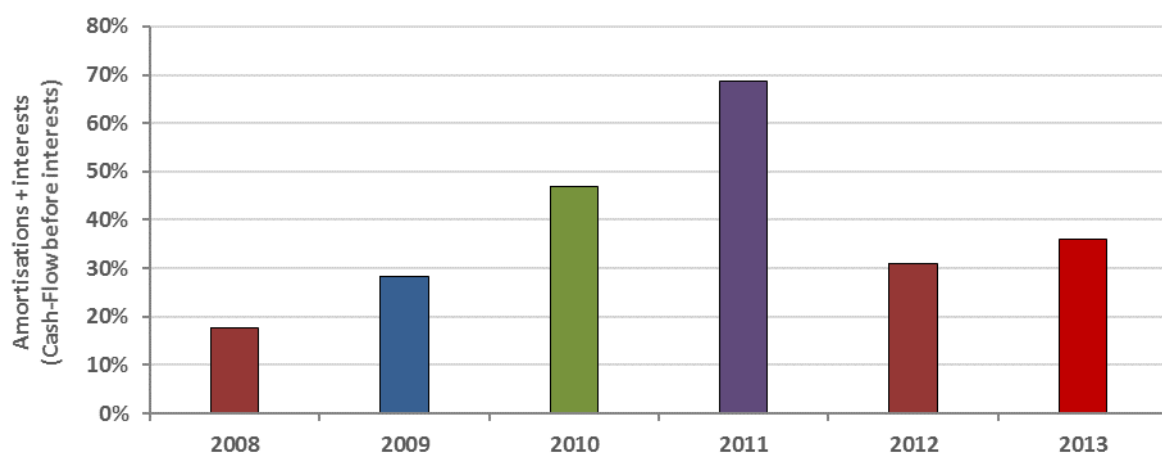
EBITDA created per ton moved		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
2,03%	1,86%	1,50%
Min	Max	Max/Min
0,63%	8,76%	13,90
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
1,04%	2,54%	2,44

Table 2.2

Debt service³

In 2013 the whole port system is affected by an increase in the pressure to pay the debt service over the cash flow, going from an aggregated value of 31% in 2012, to 36% in 2013.

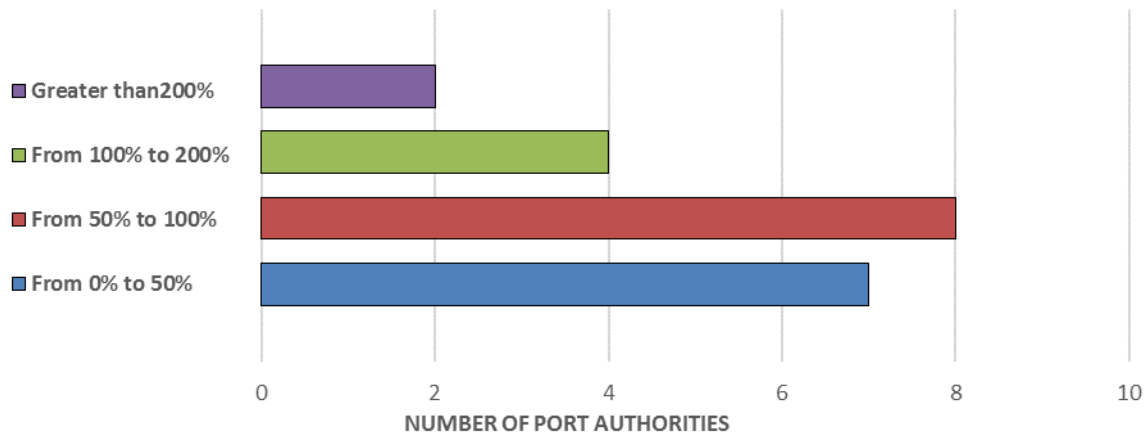
Evolution of the debt service. Accumulated values



Graph 2.4

³ Debt service, expressed as $100 \times (\text{debt amortisation} + \text{interest}) / (\text{cash flow before interest})$

Distribution of debt service



Graph 2.5

This increase does not only become evident in aggregated values, but in most of the Port Authorities, going the average value of percentile 80, from 79.0% in 2012, to 132.9% in 2013.

Debt service. Statistical values

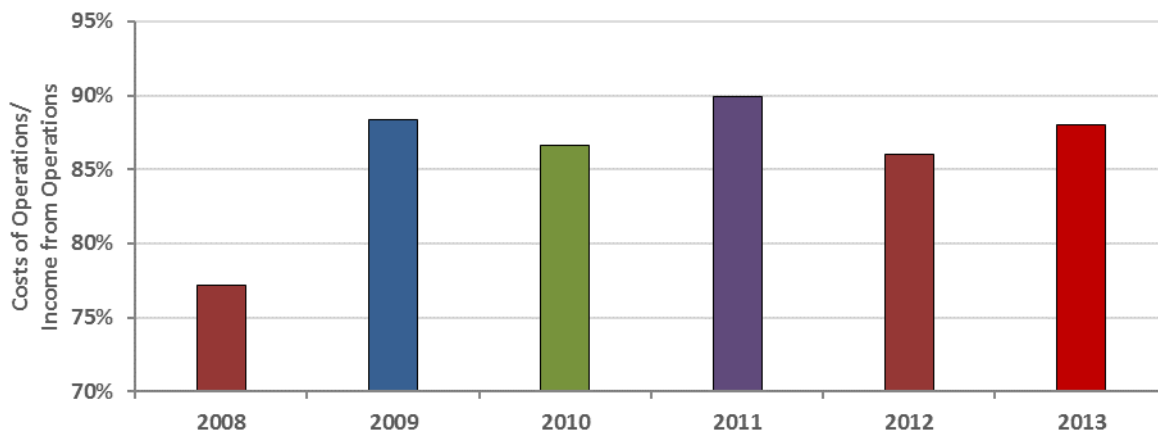
Debt service		
Statistical values for the whole port system with positive cash-flow in 2013		
Average	Median	Deviation
93,99%	48,40%	83,86%
Min	Max	Max/Min
6,31%	291,3%	46,18
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
31,90%	148,28%	4,65

Table 2.3

Operating expenses over operating revenue

Despite maintaining an expenditure rationalisation policy implemented in most ports, the evolution of the operating expenses opposite to operating revenue has experienced an increase in 2013.

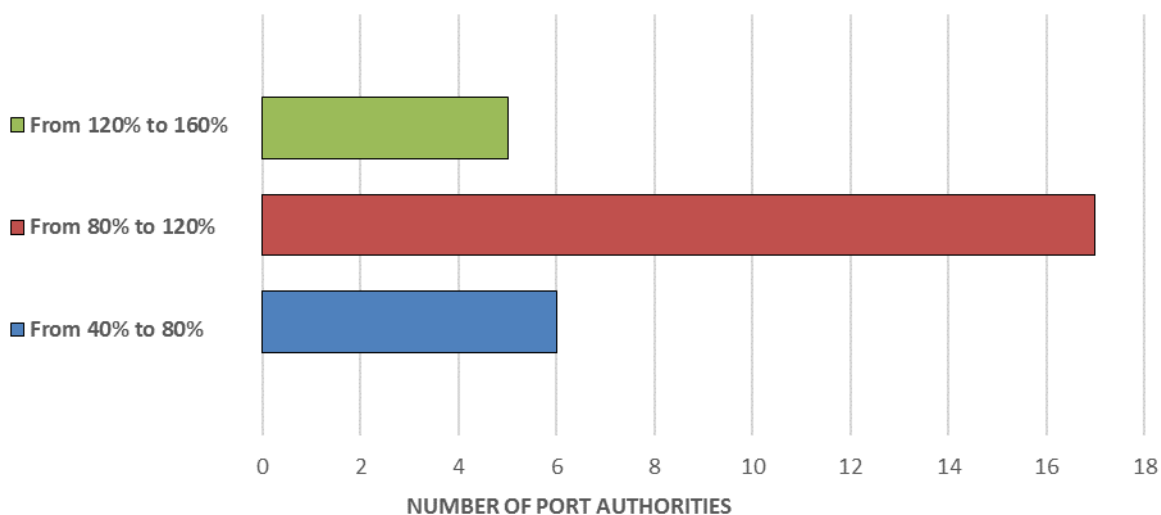
Evolution of operating expenses according to operating revenue. Accumulated values



Graph 2.6

Two of the Port Authorities reach a ratio above 140%, which none other Port Authority had reached in 2012.

Distribution of operating expenses opposite to operating revenue



Graph 2.7

Operating expenses according to operating revenue. Statistical values

Operating expenses according to operating revenue. Statistical values		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
100,58%	101,54%	22,28%
Min	Max	Max/Min
57,88%	149,14%	2,53
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
78,94%	117,27%	1,54

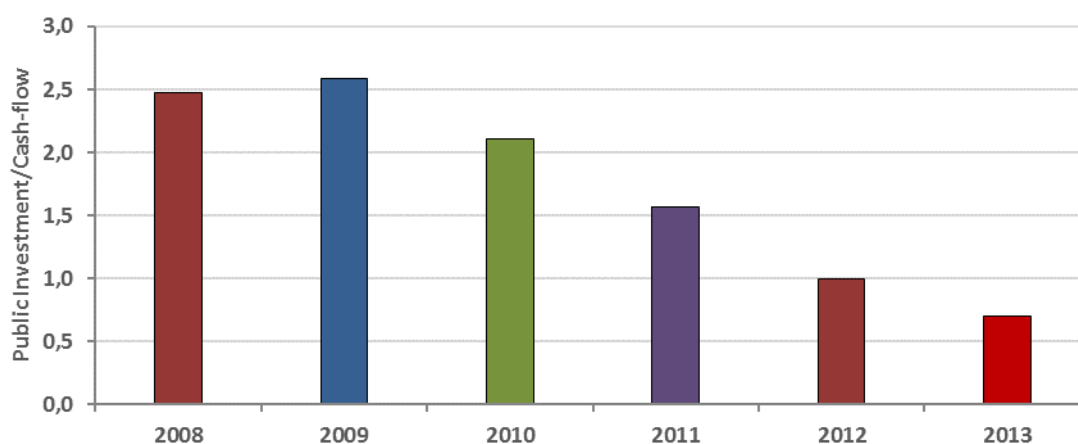
Table 2.4

LEVEL AND STRUCTURE OF INVESTMENTS

Public investment in relation to cash-flow

The investment efforts opposite to cash flow experience a decline in 2013 as a result of applying public expenditure rationalisation policies.

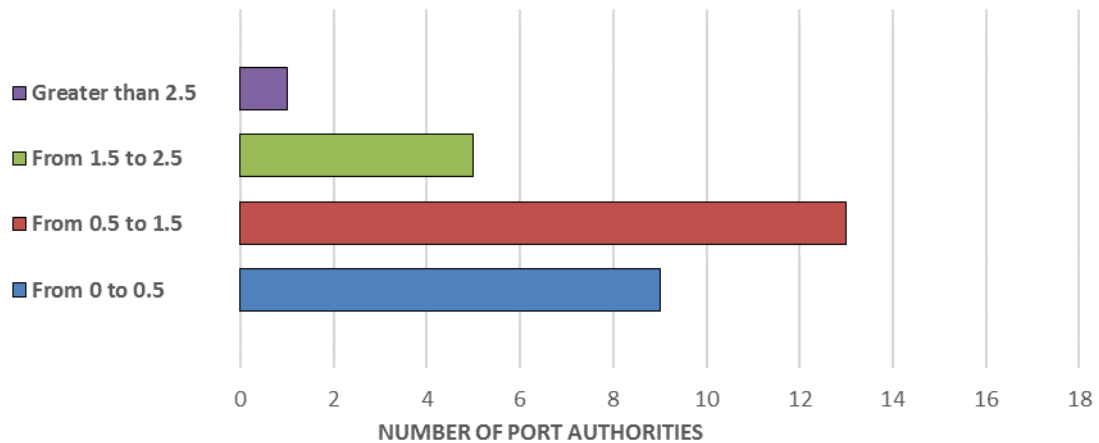
Evolution of public investment in relation to cash-flow. Accumulated values



Graph 2.8

Such decline is noticeable to the total port system as a concentration of the values of that ratio within range (0: 1,5], opposite to a more disperse behaviour in previous years. This behaviour shows the transition from an expansion model creating infrastructures to an optimisation model based on the optimisation of the performance through investments aimed to obtain an improvement in the functionality and inter-modality of the current facilities.

Distribution of public investment over to cash-flow



Graph 2.9

Public investment over cash-flow. Statistical values

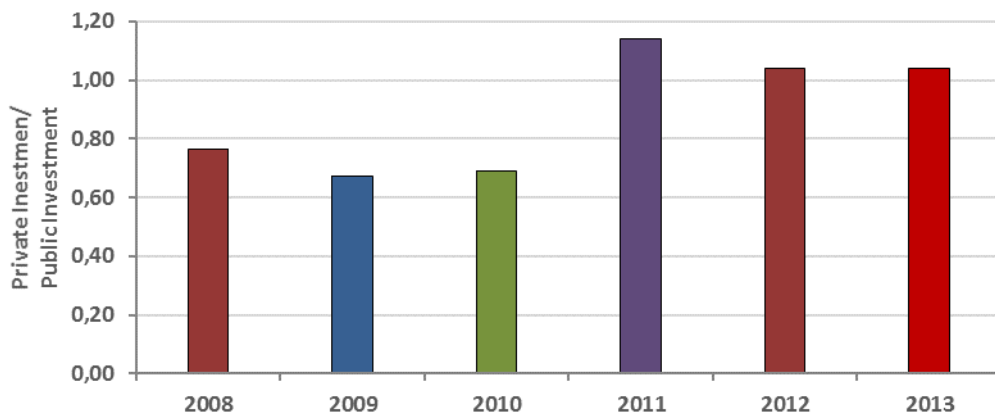
Public investment over cash-flow		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
1,14%	0,69%	1,52%
Min	Max	Max/Min
0,10%	8,10%	78,90
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
0,34%	1,37%	3,98

Table 2.5

Foreign investment opposite to public investment

The evolution graph of this ratio shows a clear increase in the importance of private investment opposite to public investment in the last.

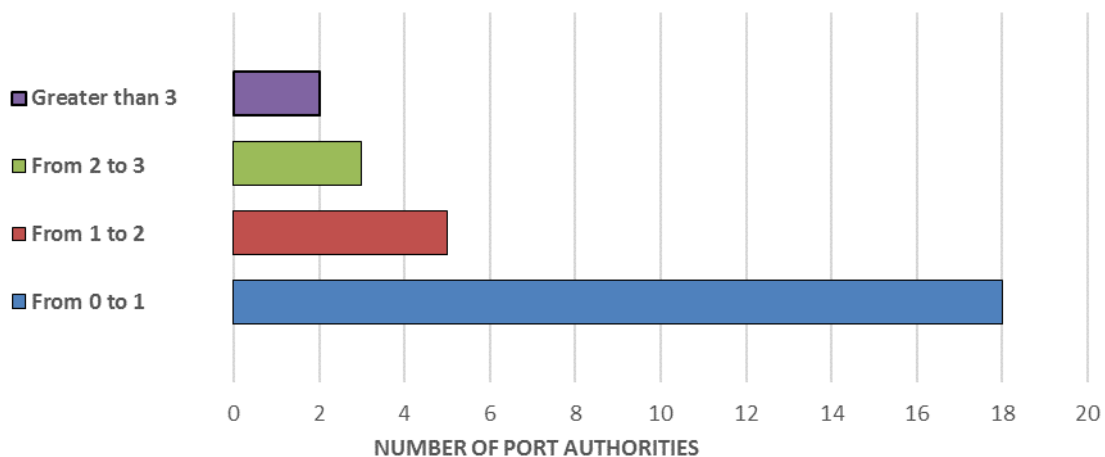
Evolution of private investment over public investment. Accumulated values



Graph 2. 10

In 2013 not only the aggregated value stays steady at 1,04 but also the distribution ranges, most of which concentrate in the range of 0 to 1, the same as in 2012.

Distribution of private investment over public investment



Graph 2. 11

Private investment over public investment. Statistical values

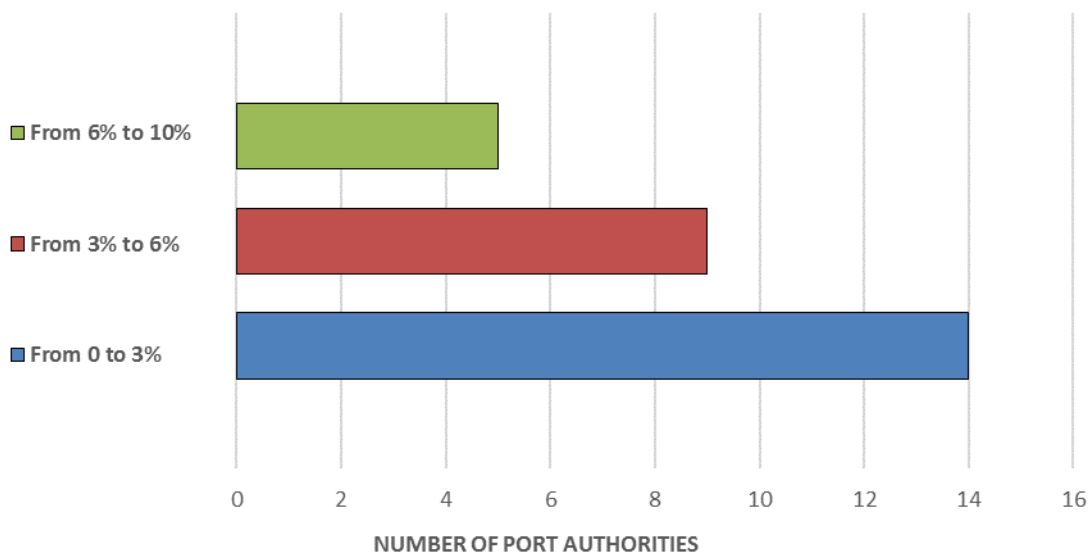
Private investment over public investment. Statistical values for the whole port system in 2013		
Average	Median	Deviation
1,40%	0,47%	2,61%
Min	Max	Max/Min
0,00%	12,64%	n.a.
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
0,12%	1,88%	15,85

Table 2.6

Renewal of assets⁴

Due to the decline of public investment, the renewal of assets in the port system expressed as percentage of public investment over net assets, goes from an aggregated value of 5,11%, in 2012, to 3,61% in 2013.

Distribution of assets renewal in the port system



Graph 2. 12

⁴ Renewal of assets expressed as percentage of public investment over net assets.

Investment in assets renewal. Statistical values

Investment in assets renewal.		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
3,63%	2,93%	2,68%
Min	Max	Max/Min
0,26%	9,83%	37,81
Percentile 20%	Percentile 80%	Percentile 80% / Percentile 20%
1,35%	5,45%	4,02

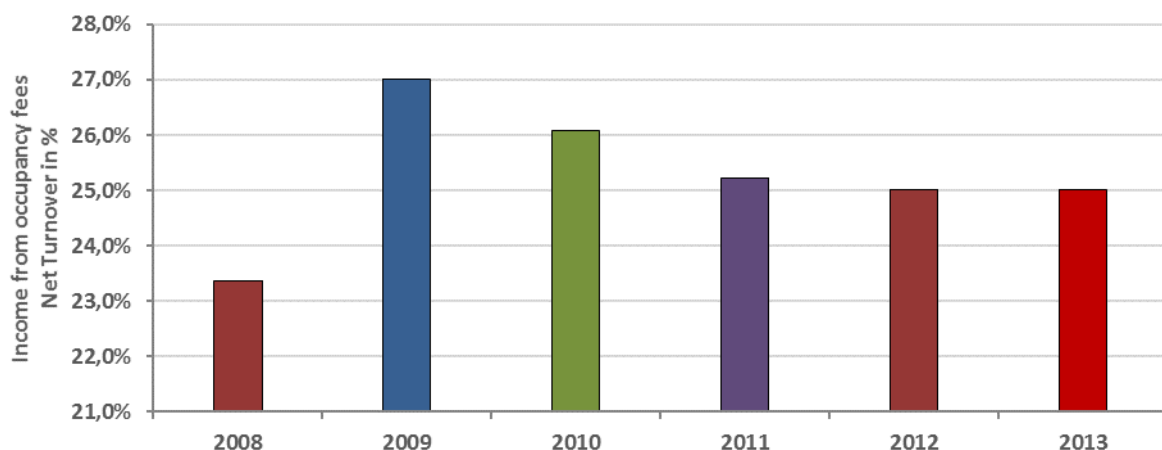
Table 2.7

BUSINESS AND SERVICES

Income from occupancy fees over the Net Turnover

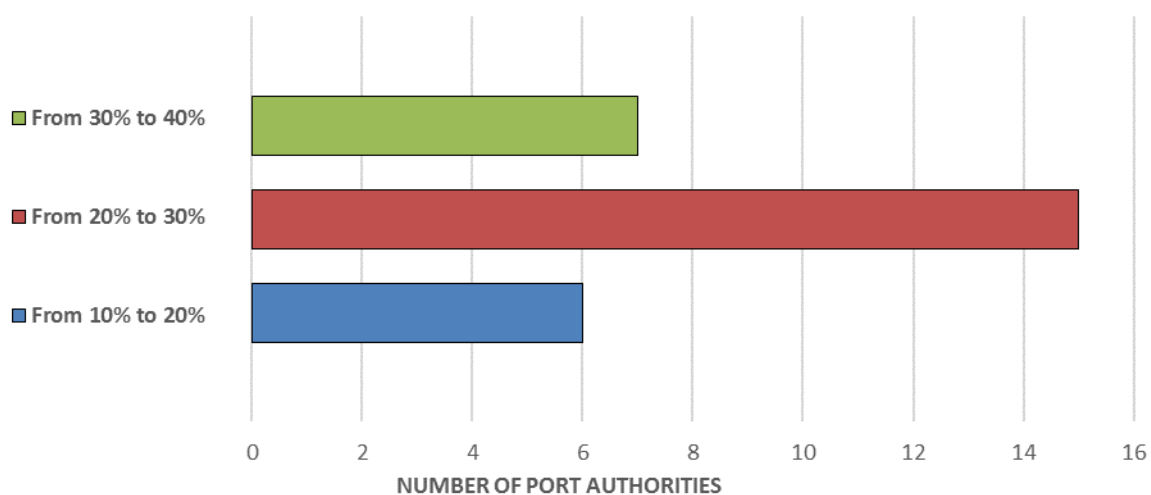
The income from occupancy fees over the net turnover does not suffer any relevant changes opposite to fiscal 2011 and 2012, which shows a stabilisation over the downward tendency that began in 2009 as a result of the slight decline of the surface under concession experienced as an effect of the financial crisis..

Evolution of income from occupancy fees over the Net Turnover. Accumulated values



Graph 2. 13

Distribution of income from occupancy fees over Net Turnover



Graph 2. 14

Distribution of income from occupancy fees over Net Turnover. Statistical values

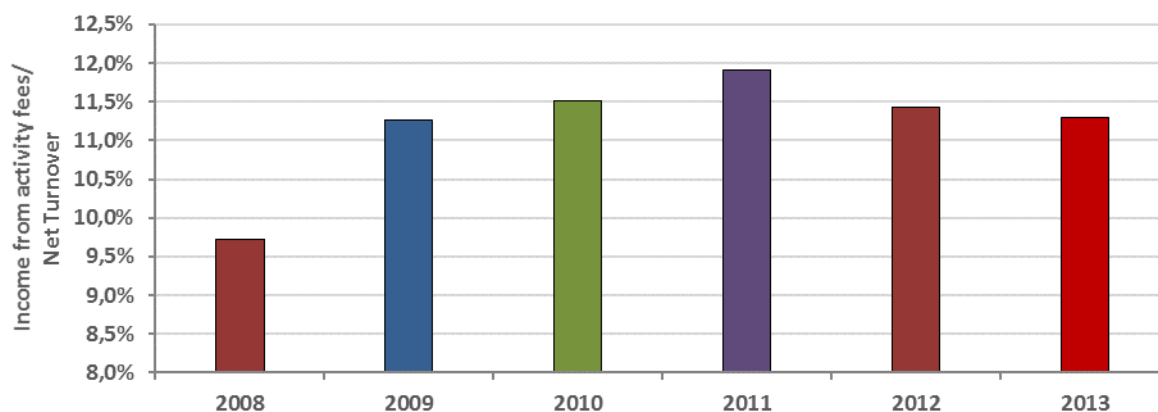
Distribution of income from occupancy fees over Net Turnover.		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
25,02%	23,77%	7,38%
Min	Max	Max/Min
11,62%	36,68%	3,16
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
20,14%	33,04%	1,64

Table 2.8

Income from activity fees over the Net Turnover

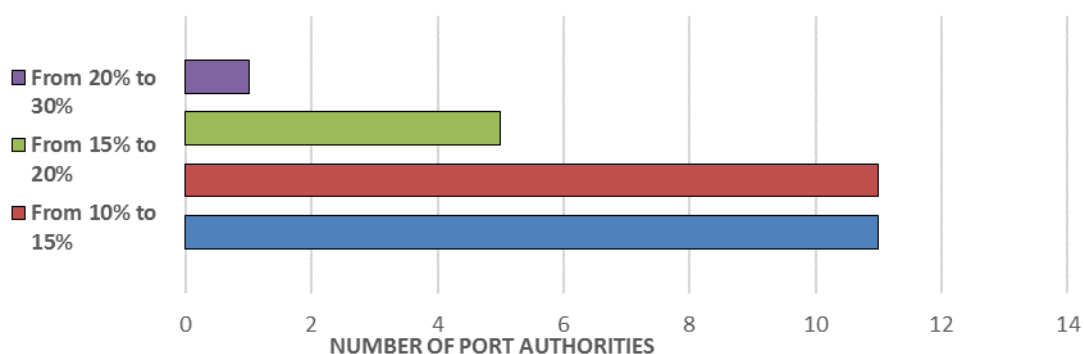
The income from activity fees over the Net Turnover remain at a downward tendency that began in 2012, due mainly to the decline of the activity in most Port Authorities. This is a widespread decrease as shown by distribution ranges, which remains the same than in 2012.

Evolution of income from activity fees over the Net Turnover. Accumulated values



Graph 2.15

Distribution of income from activity fees over the Net Turnover. Accumulated values



Graph 2.16

Distribution of income from activity fees over the Net Turnover. Statistical values

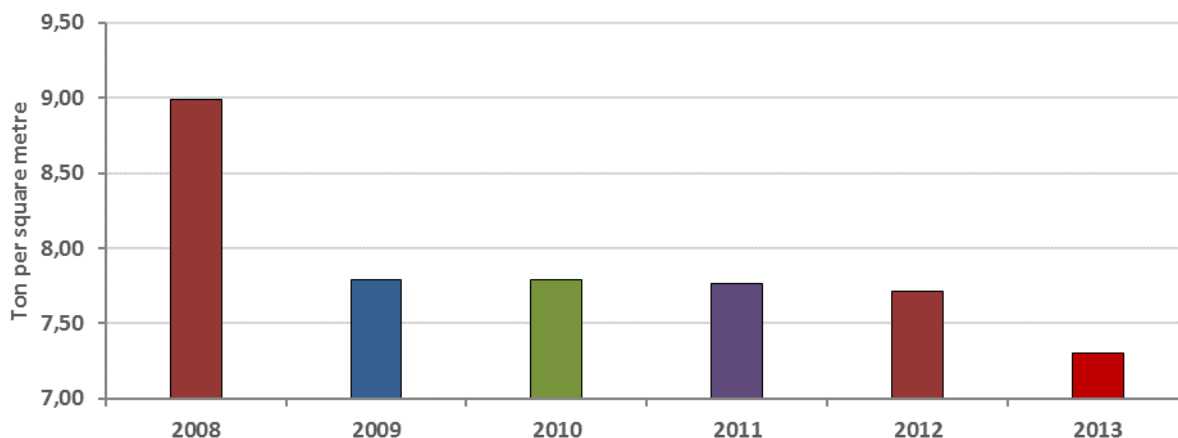
Distribution of income from activity fees over the Net Turnover		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
11,82%	22,03%	4,16%
Min	Max	Max/Min
7,03%	26,07%	3,71
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
8,50%	15,02%	1,77

Table 2.9

Performance of surface eligible for concession⁵

As the evolution graph shows, there has been a decrease in tons moved per unit surface for concession as a result of the widespread decline of every traffic experience in the last years due to the financial context.

Evolution of tons moved per unit business surface. Accumulated values



Graph 2. 17

Distribution of tons moved per unit business surface.



Graph 2. 18

⁵ Expressed as tons moved per square metre of land service area for business use.

Distribution of tons moved per unit business surface. Statistical values

Distribution of tons moved per unit business surface.		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
7,31	5,50	6,85
Min	Max	Max/Min
0,98	30,34	31,01
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
3,02	9,05	3,00

Table 2.10

Performance of active docks⁶

Opposite to 2012, the distribution of performances in 2013 does not show significant differences regarding the system's average performance. Globally, there is a decline, from 1846 tons per linear metre in 2012, to 1748 tons per linear metre in 2013, motivated by a widespread decline of traffic.

Distribution of tons moved per active dock linear metre



Graph 2.19

⁶ Expressed in tons moved per active dock linear metres. Active dock is that dock that has registered activity in the last three years

Distribution of tons moved per active dock linear metre. Statistical values

Distribution of tons moved per active dock linear metre		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
1424,25	895,09	1202,13
Min	Max	Max/Min
299,55	5108,96	17,06
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
535,49	2.195,57	4,10

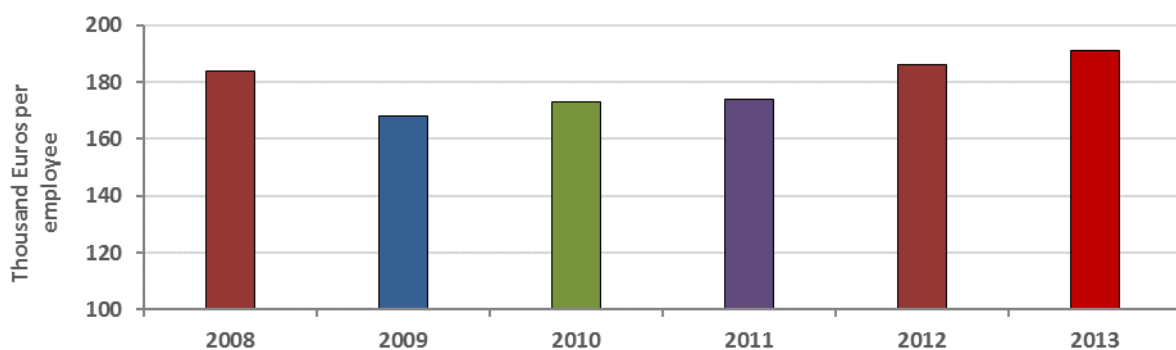
Table 2.11

PRODUCTIVITY

Creation of Net Turnover per employee⁷

Productivity, expressed as generation of Net Turnover per employee remains on an upward tendency for yet another year, reaching its maximum value since 2008. This result, has its origin in the decline of annual average staff, along with a slight decrease of the Net Turnover in most of the Port authorities.

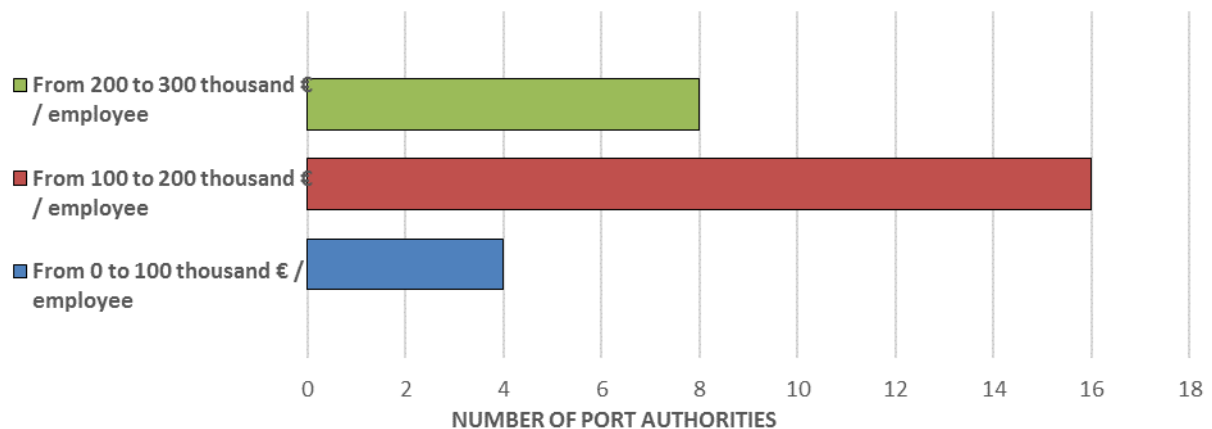
Evolution of Net Turnover generated by employee. Accumulated values.



Graph 2. 20

⁷ Net Turnover per employee over the annual average staff.

Distribution of Net Turnover generated per employee.



Graph 2. 21

Distribution of Net Turnover generated per employee. Statistical values

Distribution of Net Turnover generated per employee		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
163,75	161,07	67,18
Min	Max	Max/Min
64,56	303,24	4,70
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
100,83	226,08	2,24

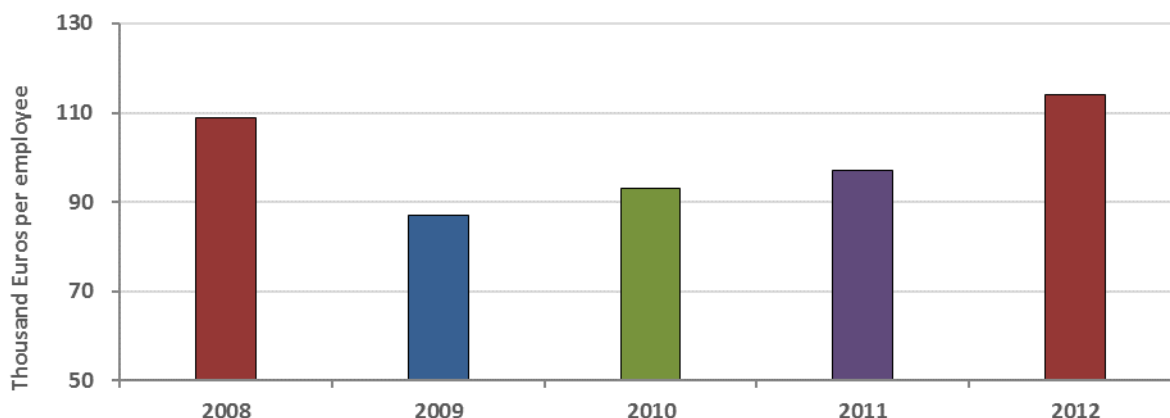
Table 2.12

Creation of EBITDA per employee⁸

Similarly to the average productivity of Net Turnover per employee, the average productivity of EBITDA per employee kept growing in 2013 because of the same reasons, a widespread decline in staff and slight increase in EBITDA.

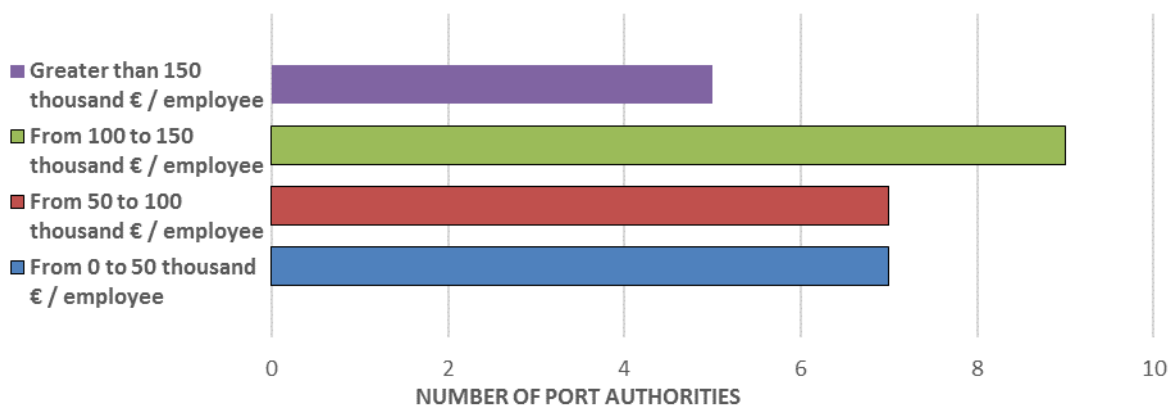
⁸ EBITDA per employee over annual average staff.

Evolution of EBITDA generated per employee. Accumulated values



Graph 2. 22

Distribution of Net Turnover generated per employee



Graph 2. 23

Distribution of EBITDA generated per employee. Statistical Values

Distribución de EBITDA generado por empleado		
Statistical values for the whole port system in 2013		
Average	Median	Deviation
97,22	99,41	52,54
Min	Max	Max/Min
26,86	193,15	7,19
Percentile 20%	Average 80%	Percentile 80% / Percentile 20%
46,15	134,60	2,92

Table 2.13

CONCLUSIONS, ACHIVEMENTS AND CHALLENGES

In 2013 there is a slight decline of profitability. Despite continuing with the expenditure rationalisation policy implemented in most ports, the evolution of operational expenses opposite to operational income has suffered an increase in 2013, which requires without a doubt a future revision, from a financial sustainability perspective of the system as a whole.

Income per occupancy fees remained the same according to previous years, stabilising at last after the downward tendency experienced as an effect of the financial crisis. It is not the case of the activity fee, which keeps declining, as a result of the widespread decline of all activities and traffic experienced in the last years due to the current financial context.

In regards to investments, there is a clear decline of public investment, due to the application of rationalisation policies, which was compensated by a slight increase in private investment. This behaviour shows a transition from an expansive model based on generating infrastructures to a model based on optimisation and performance through investments aimed to improve the functionality and inter-modality of the present infrastructures.

In regards to 2012, the distribution of performance of 2013 does not show significant differences over the average performance of the system, however, productivity per employee keeps on an upward tendency mainly due to the decline of average staff, caused by a policy based on expenditure reduction.

Social Dimension

HUMAN RESOURCES POLICY

Staff competencies correspond to governmental bodies of the Port Authorities, in other words, to Management Boards, without more limits than those regulated by Labour and Budget Regulations.

Personnel of Port Authorities are linked to these by a relation subject to the Labour or private Law rules that are applicable. Recruitment is carried out according to systems based on the principles of merit and capacity, and with the exception of directive or trusted staff, through public call. The regimen of remuneration and non-compatibility adjusts to what is in general established regarding staff of Public Law Entities which article 6 of the amendment Budget General Law refers to.

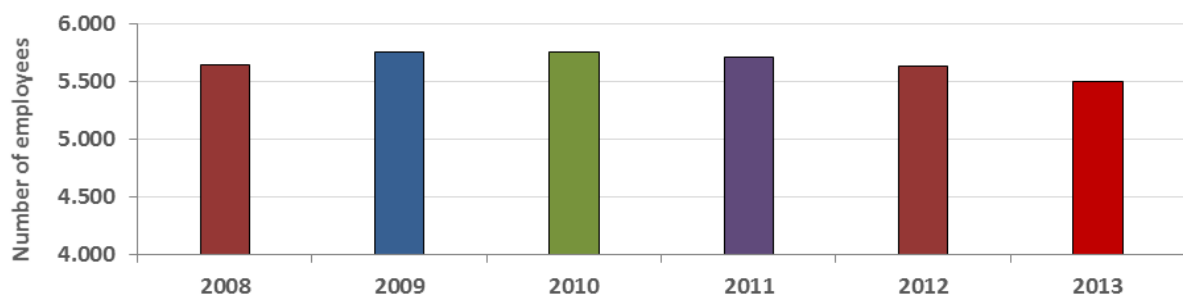
Personal type structure in the port system is split into the following groups: A president, a Director, Personnel excluded from the Collective Agreement and Staff included in the Collective Agreement (current agreement, II Collective Agreement 2004-2009 passed through the Resolution of the General Direction of Employment on December 21st 2005, Official State Bulletin January 2006), extended until 31 December 2015.

In regards to personnel not included in any collective agreement, with the exceptions of the former Autonomous Ports (Barcelona, Bilbao and Valencia) and the Port Authority of Algeciras Bay, their regulation is subject to the “Activity Framework” in the matter of structure and remuneration, which was passed by CECIR (Remuneration Executive Commission of the Inter-Ministerial Commission) through Resolution on May 31st 2000. The remaining rules applicable in the matter of Labour are regulated by the Statute of Workers and the clauses included in the individual working contract.

EMPLOYMENT

As graph 4.1 shows, in 2013 the decline in the volume of employees in Port Authorities in 2010 consolidated, due to a halt in Public Employment Offer.

Evolution of average total staff

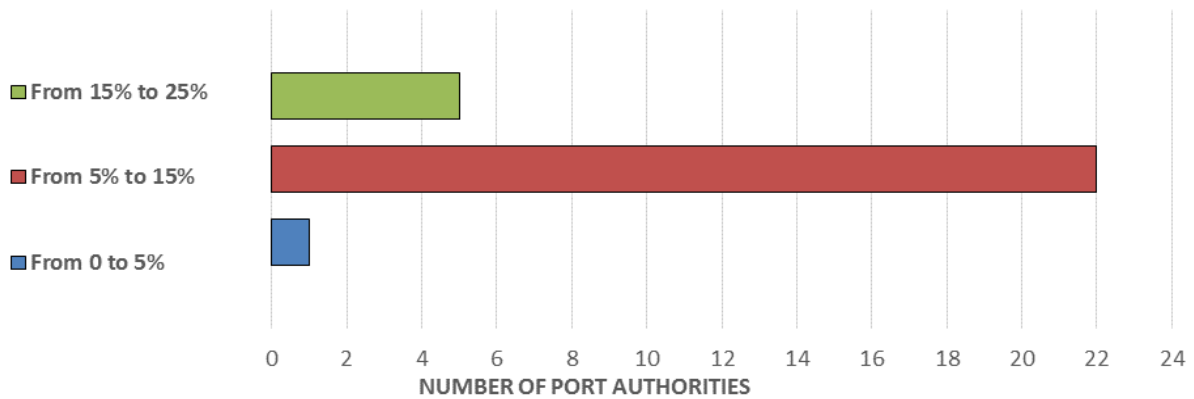


Graph 3.1

This halt manifests as well in temporary contracting, focused basically on contracts for production circumstances, contracts for a specific project or service, relief and interim contracts. Graph 4.2 shows

that temporary employees involve, on average, between 5% and 15% of the total staff, practically the same than 2012.

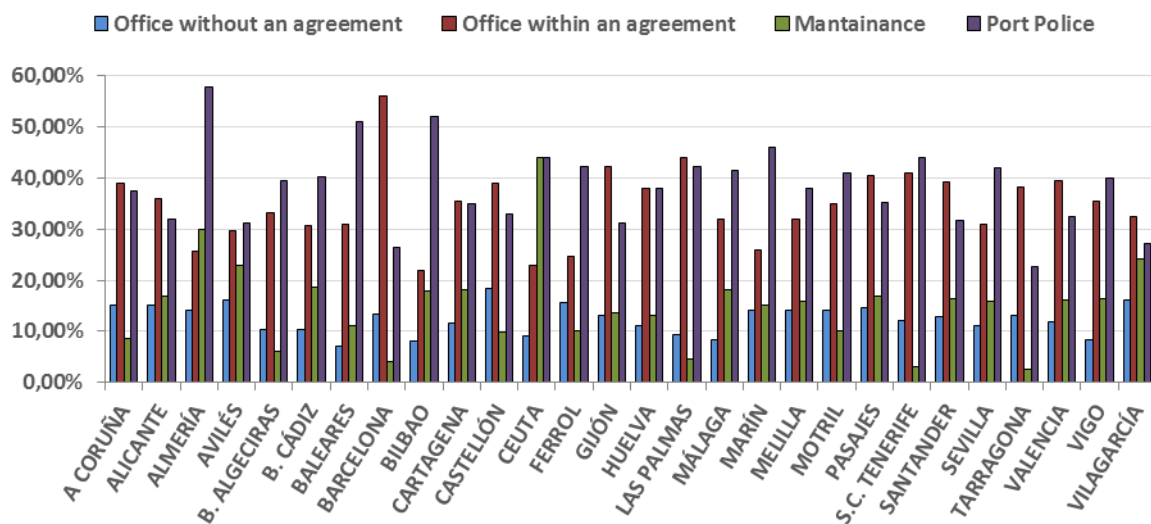
Distribution of temporary employees over the total permanent employees.



Graph 3.2

Graph 4.3 shows the distribution of personnel in four generic areas of activity: Office personnel not included in any collective agreement, office personnel within a collective agreement, maintenance and port police. Staff structure is strongly conditioned by tasks of surface supervision and vigilance of the port operations, which causes that in 15 of the 28 Port Authorities the greatest percentage of the staff corresponds to port police service.

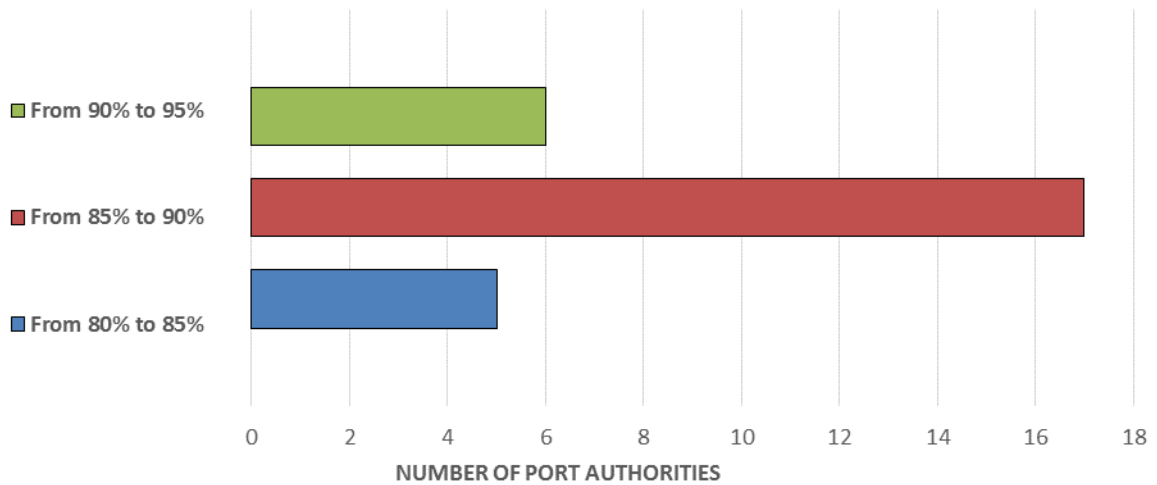
Distribution of staff per activity area



Graph 3.3

Graph 4.4 shows that most of the staff of the port system work in work conditions regulated by Collective Agreement, involving this group an 80% of the staff in every port.

Percentage of employees covered by collective agreements

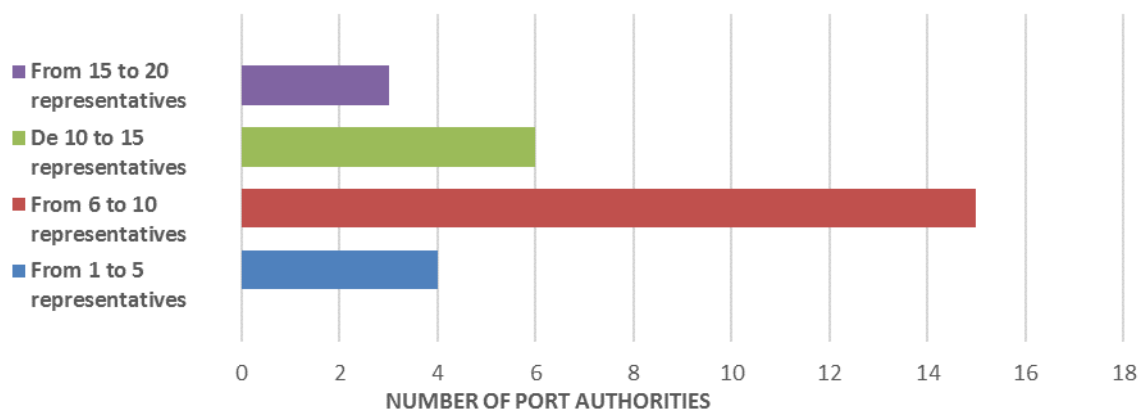


Graph 3.4

INTERNAL COMMUNICATION AND PARTICIPATION

In general, staff interests are represented in the works council through the unions, on average, 10 representatives per Port Authority. The distribution is as follows:

Number of union representatives in the works council



Graph 3.5

In addition, in those Port Authorities where management systems are implemented, employees can take part in improving productive processes through different mechanisms.

Employees' participative mechanisms

	Number of Port Authorities
Quality committee	13
Environmental committee	9
Safety and health committee	11
Other committees	7
Suggestion box	6

Table 3.1

TRAINING AND COMPETENCY-BASED MANAGEMENT SCHEME

The competency-based management scheme has as a goal to reach an optimal efficiency of the company's human resources, through the development of individual and group competencies; therefore, improving productivity by obtaining the maximum efficiency from the skills and knowledge of employees.

Competency-based management allows organisations to experiment with a transition from personnel administration models to a conception where people are seen from a perspective of human capital, and therefore, with capacity to contribute in the continuous improvement of the company.

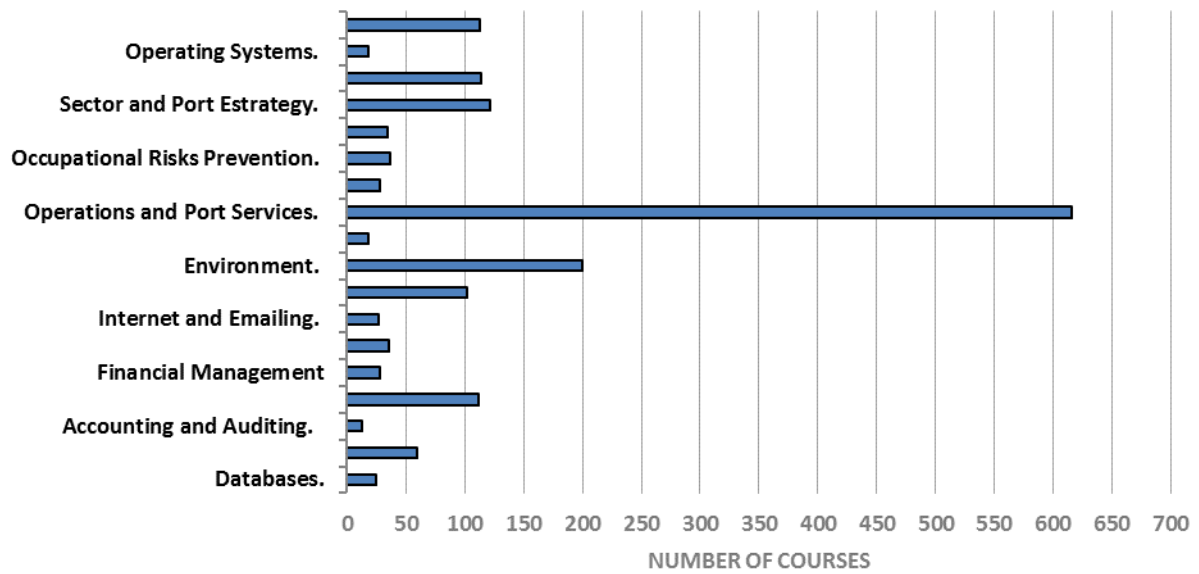
Within this human capital management scheme, Technical Competencies training plays a key role, which should provide people the knowledge to develop their work in an efficient and effective way.

For it to be operational, training must be provided in such way that it is integrated with the ordinary activity, being flexible, and adapted to the specific needs of each individual and work position.

To achieve these goals, the port system developed a training *Virtual Classroom* that, by means of information technologies, enables to cover a large spectrum of training needs with sustainable costs.

In most of cases, such training activities have as a goal updating the knowledge of employees on new requirements that affect the port operations.

Number of training programmes according to the competency-based management system

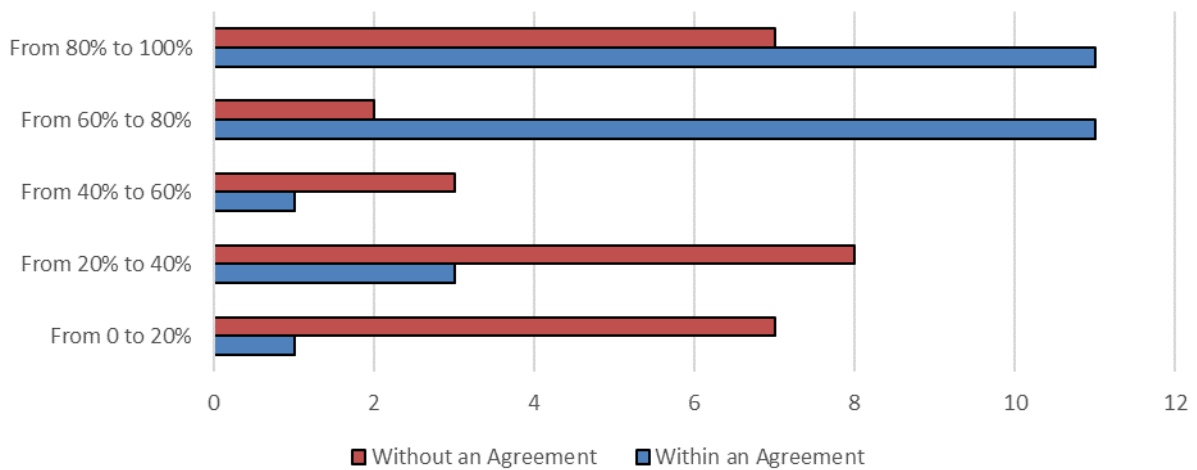


Graph 3.6

The objective in the following years is to increase the training programme range by creating new courses from the Competency Catalogue, so that staff qualifications increase and their professional projection improve.

In most Port Authorities, employees follow training programmes in a significant percentage, although it is significant the difference between employees within and off a collective agreement.

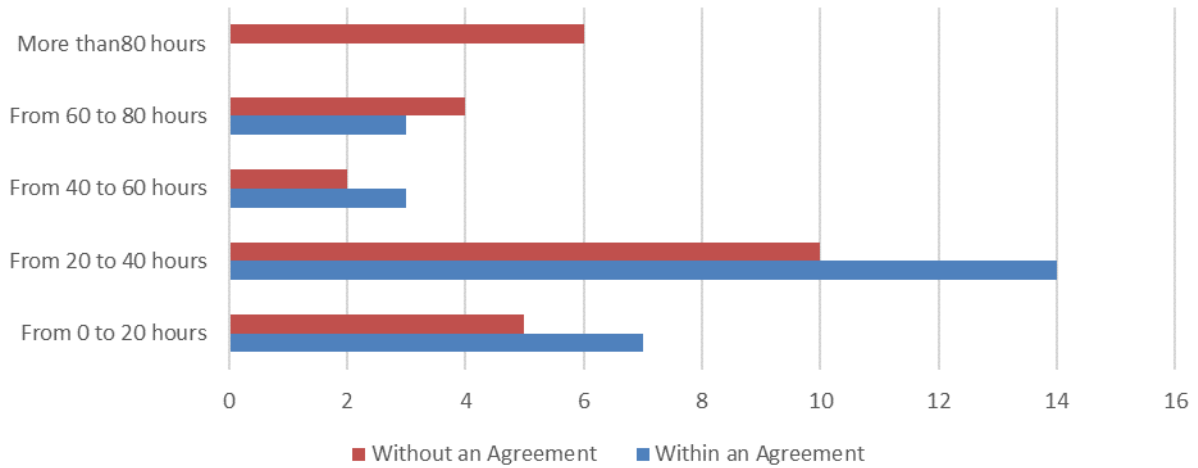
Percentage of employees that follow a training programme



Graph 3.7

The number of training hours per employee on average remains similar to 2012, in most of cases between 20 and 40 training hours per person.

Average number of training hours per employee



Graph 3.8

Training. Statistical values

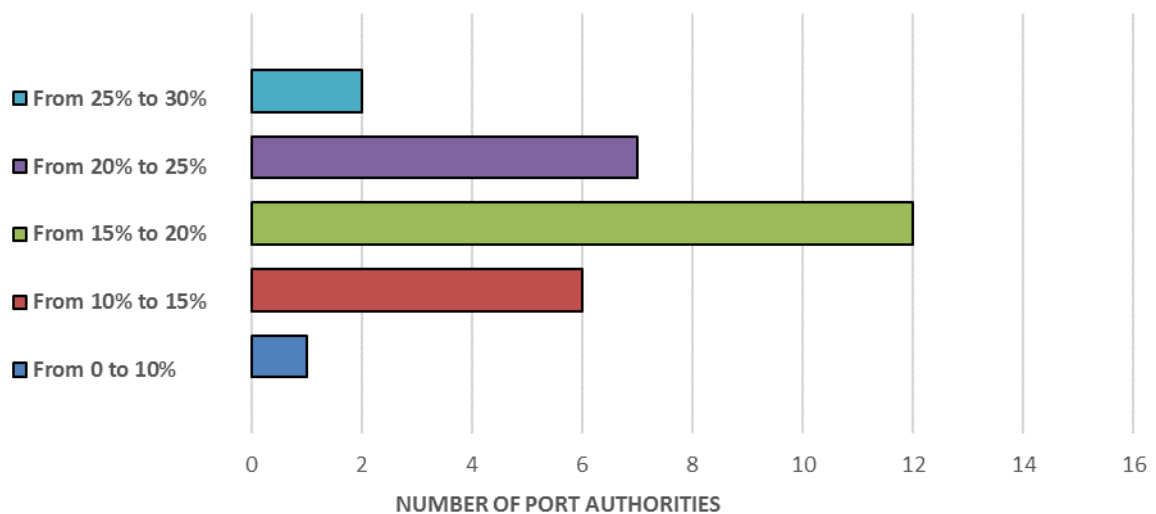
	Percentage of employees that followed a training programme.		Hours of training taken per employee, on average.	
	Within an agreement	Not included in any agreement	Within an agreement	Not included in any agreement
Average value	71%	47%	32	58
Deviation	23%	33%	19	57
Minimum	12%	2%	2,3	7
Maximum	100%	100%	76	273
Percentile 20%	67%	15%	18	23
Median	77%	40%	27	37
Percentile 80%	88%	85%	43	37
Sample	27	27	27	27

Table 3.2

GENDER EQUALITY

The presence of women in Port Authorities remains similar to 2012, with an average value of 19% over the total staff, not exceeding 30% in any of the cases. Regarding STAFF not included in any agreement, the percentage of women increase up to 24%.

Percentage of women over the total number of employees



Graph 3.9

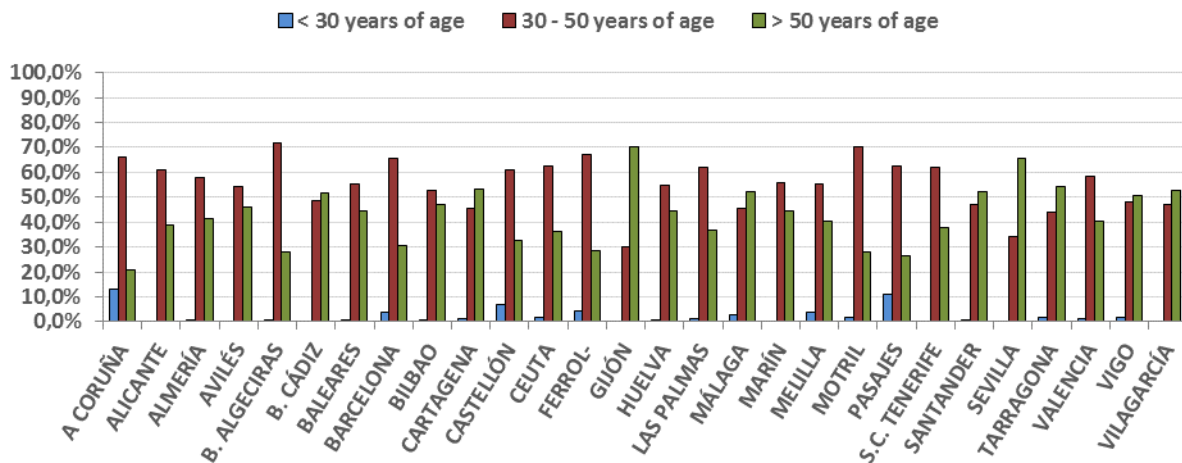
As institutional answer to the little presence of women, Puertos del Estado and Port Authorities signed in 2011 their Equality Plan, framed within the social responsibility policy framework and as a first tool to effectively comply with equality between women and men.

The equality plan shows up in different areas and covers aspects such as employment access, conciliation and co-responsibility, training, promotion, remuneration and sexual harassment prevention. For each of these areas there are goals, actions and follow up indicators.

STAFF STRUCTURE

The average age of staff is relatively high. On average, employee above 50 years of age involve more than 40% of staff, reaching extreme cases in which this group involve almost 70% of the total staff. On the other hand, employees younger involve, on average, 2% of staff.

Distribution of staff according to age



Graph 3.10

Equality and staff structure

	Presence of women at work in %		Structure according to age in %	
	Total of employees	Without an agreement	Younger than 30	Older than 50
Average Value	19%	24%	2,1%	42,7%
Deviation	5%	14%	3,2%	11,8%
Minimum	9%	3%	0,0%	21,0%
Maximum	30%	50%	13,1%	70,2%
Percentile 20%	14%	13%	0,0%	31,3%
Median	19%	22%	1,0%	42,9%
Percentile 80%	22%	36%	3,4%	52,2%
Sample	28	28	28	28

Table 3.3

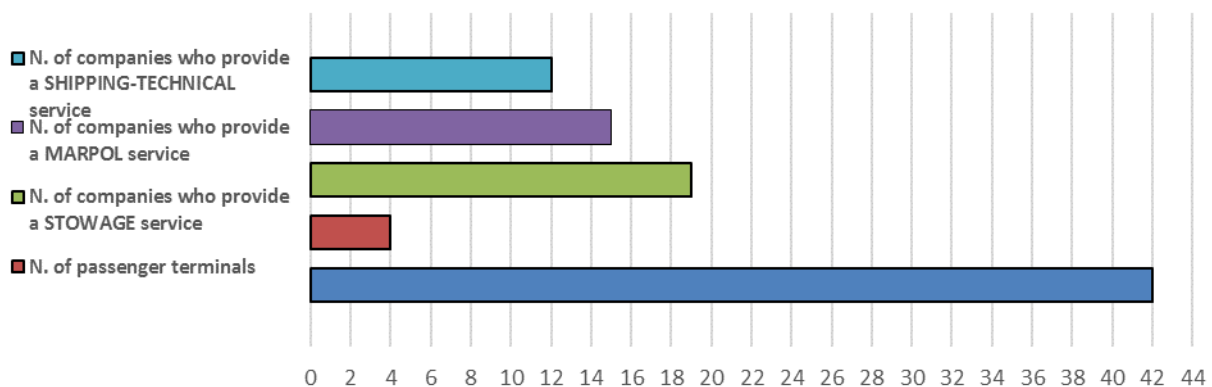
SAFETY AND HEALTH AT WORK

Over the last years, Port Authorities have intensified their efforts in the prevention of occupational risks as answer to a regulatory framework increasingly demanding and a social leading responsibility in the port community.

In order to integrate occupational risks management within the global management it is best that companies provide themselves with systems with which develop, through a voluntary commitment, prevention management procedures that can be assessed and certified by third parties. In most of Port Authorities, it is one of the requirement included in the terms of particular prescriptions of port services, in the granting conditions and licenses of concession or authorisation.

An increasingly number of terminals and port services choose to obtain a certification according to the occupational risks management system OHSAS, by which formalise their legal compliance in this regard, foster a prevention culture and develop organisational protocols that enable to reduce work related accidents and their financial costs, as well as the costs of reputation that they involve.

Implementation of OHSAS system according to type of terminal or service.

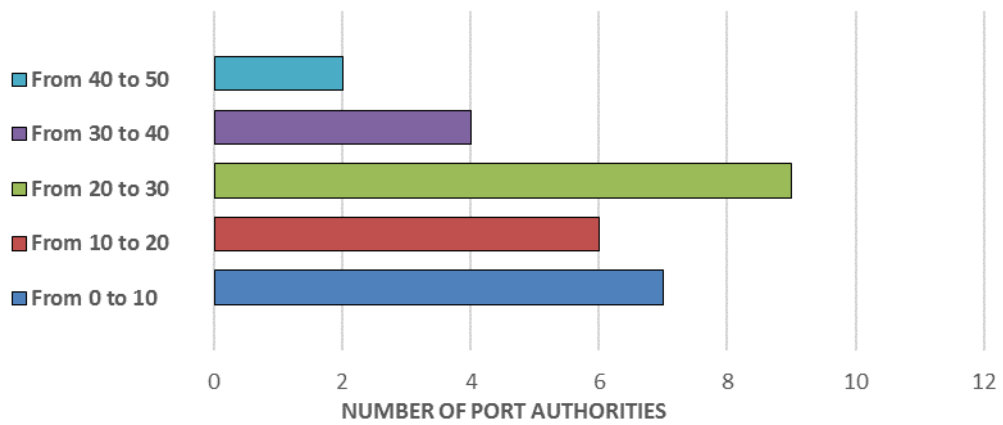


Graph 3.11

In addition, 24 of the 28 Port Authorities are provided with several mechanisms to coordinate business activities regarding occupational risks prevention. Some of these mechanisms are: periodical meetings, information exchange, developing specific computer software and appointing prevention coordinators.

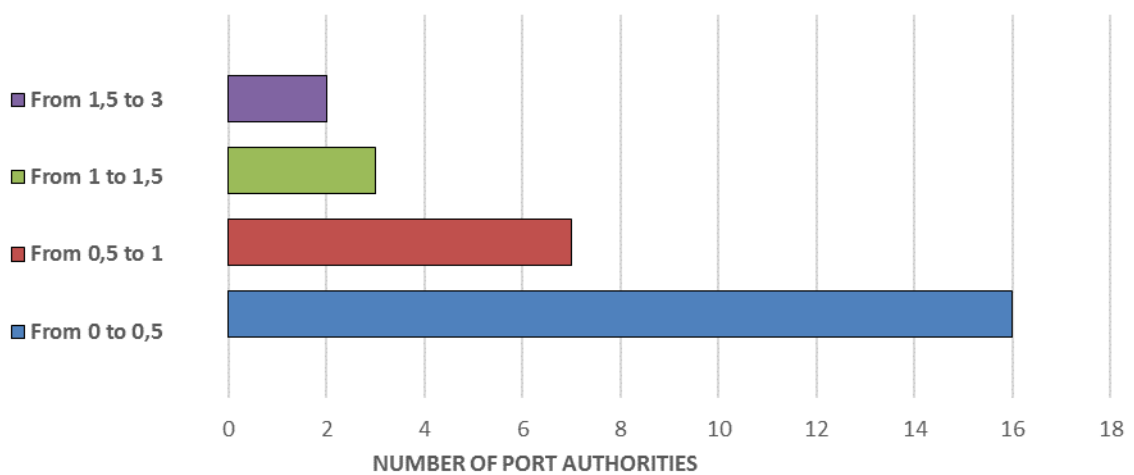
Despite all these implemented measures, the index of frequency as well as severity increased according to 2012.

Distribution of the accident frequency index ⁹



Graph 3.12

Distribution of accident severity ¹⁰

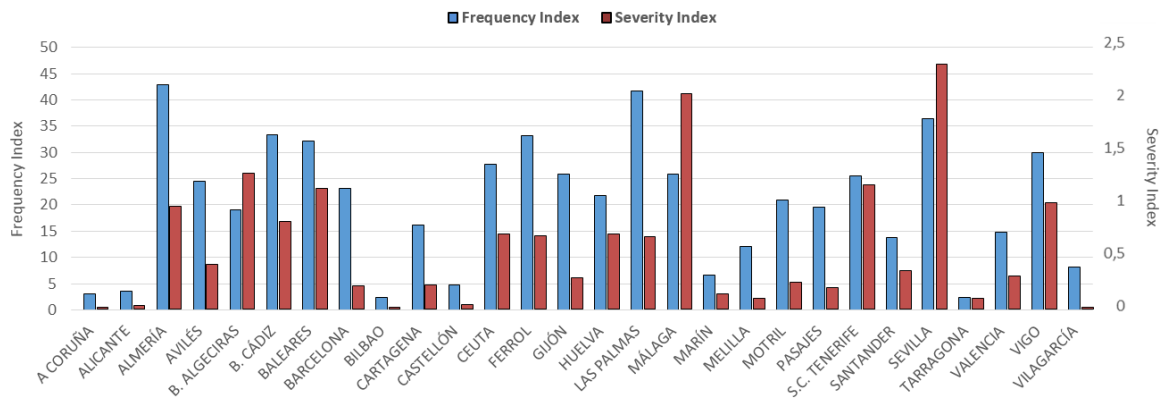


Graph 3.13

⁹ **Annual accident frequency index:** Number of accidents resulting in a leave for every million hours worked
 $FI = (\text{total number of accidents resulting in a leave} / \text{number of hours worked}) \times 1000000$

¹⁰ **Annual accident severity index:** Number of working days lost for every million hours worked.
 $IG = (\text{Number of working days lost due to an accident} / \text{number of hours worked}) \times 1000$

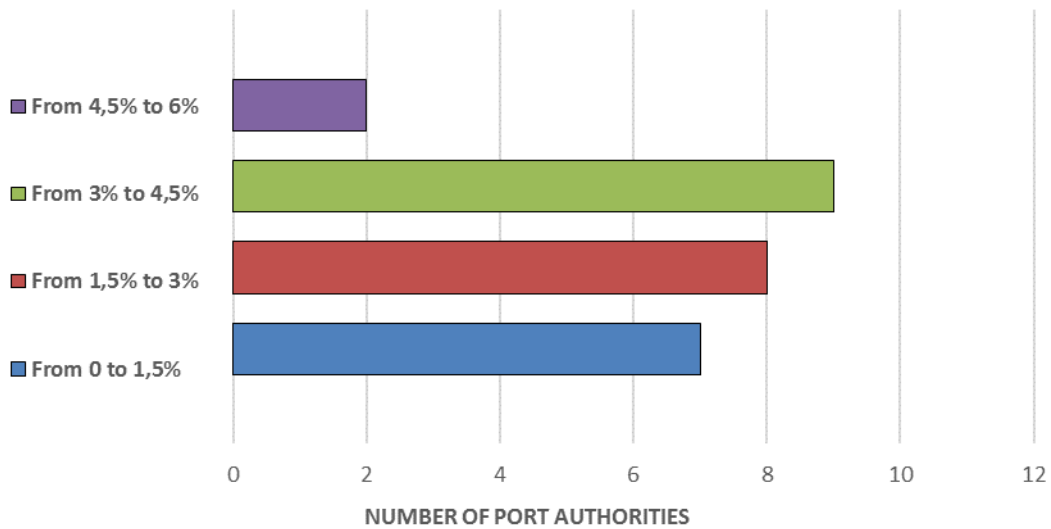
Frequency index and severity index



Graph 3.14

However, the absenteeism index decreased, from 3% in 2012 to 2,4%, in.

Distribution of absenteeism index ¹¹



Graph 3.15

Table 4.4 shows that the absence from work index in Port Authorities is 2,4% on average value, lower than the Spanish average which is 4,3% and also than Service Sector, which is 3,8%.

¹¹ **Annual absenteeism index:** Number of calendar days lost due to a leave, in relation with number of employees.
 $IA = (x \ 100) / (\text{Number of working days lost due to a leave} / \text{number of employees} \times 365)$

Safety and health at work. Statistical data.

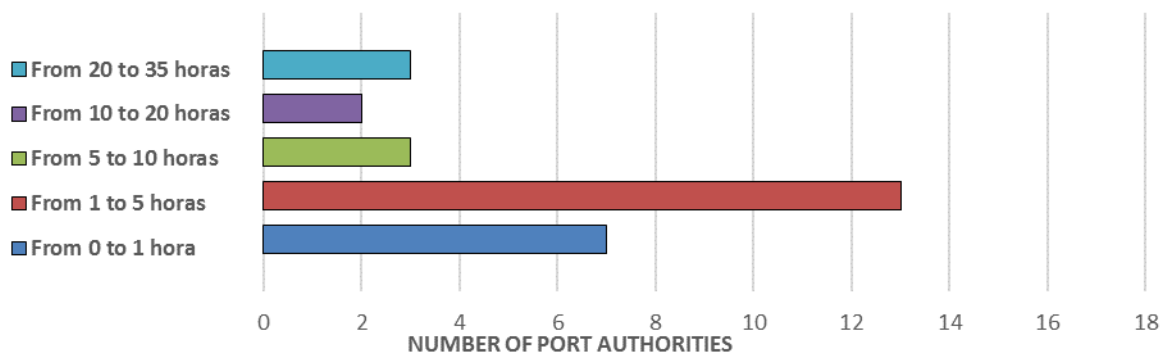
	Frequency index	Severity index	Absenteeism index
Average Value	20,4	0,6	2,4%
Deviation	12,0	0,6	1,57%
Minimum	2,3	0,0	0,1%
Maximum	42,8	1,2	5,2%
Percentile 20%	7,3	0,1	0,01%
Median	21,4	0,3	2,7%
Percentile 80%	31,3	0,6	0,04%
Sample	28	28	26

Table 3.4

**Data from the ports of Cadiz and Alicante was not reported*

Information regarding occupational risks includes several initiatives, being in 2013 the average amount of training per employee 4.63 hours, decreasing slightly from 5.15 hours in 2012.

Distribution of prevention training efforts (Number of hours/employee)



Graph 3.16

SAFETY AND PROTECTION

Port Authorities take part in developing several plans and initiatives for the prevention of fortuitous accidents caused by operations (safety), as well as possible voluntary antisocial acts (protection). The following table shows a scheme of such general actions.

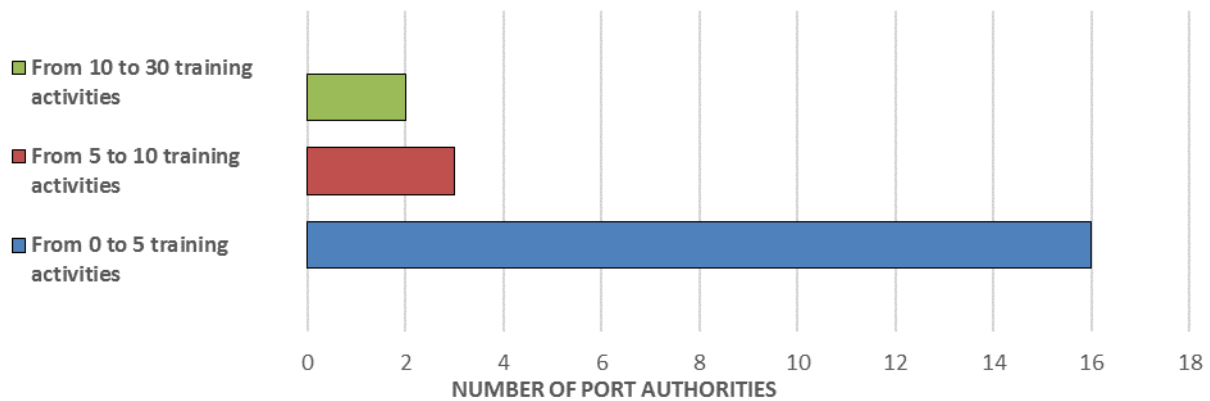
Safety and Protection in normal and contingent conditions

	<p>SAFETY</p> <p>Prevention and answer against tortuous accidents caused by operations</p>	<p>PROTECTION</p> <p>Prevention and answer against voluntary antisocial actions</p>
<p>Working normal conditions</p> <p>Risk assessment, prevention and control.</p>	<ul style="list-style-type: none"> • Maintenance of self-protection plans <ul style="list-style-type: none"> • Review • Drills, simulations • Coordination with different entities and administrations • Implementation of measures, maintenance programmes, inspections • Hazardous cargo <ul style="list-style-type: none"> • Application of “Regulation of admission, handling and storage of hazardous cargo at Port” • Continuous improvement (physical and / or processing measures) <ul style="list-style-type: none"> • Traffic safety improvements • Navigation support systems improvements • Railroad operations improvements • Business and port services improvements 	<ul style="list-style-type: none"> • Maintenance of port facilities protection plans and protection at port plans. <ul style="list-style-type: none"> • Threat identification • Risks assessment • Review • Drills, simulations • Coordination with different entities and administrations • Implementation of measures, maintenance programmes, inspections
<p>Contingent conditions</p> <p>Coordination Protocols in case of emergency.</p>	<ul style="list-style-type: none"> • Self-protection Plan <ul style="list-style-type: none"> • Internal Emergency Plan • Contingency Internal Plan • Accidental Sea Pollution. • Railroad Contingencies Plan • Superior level plans <ul style="list-style-type: none"> • Civil Protection Plans (territorial, special) • National Safety and Shipping Rescue Plans • Accidental Sea Pollution National Contingencies • Others that current law determine 	<ul style="list-style-type: none"> • National level plans that involve the coordination with other administrations.

Table 3.5

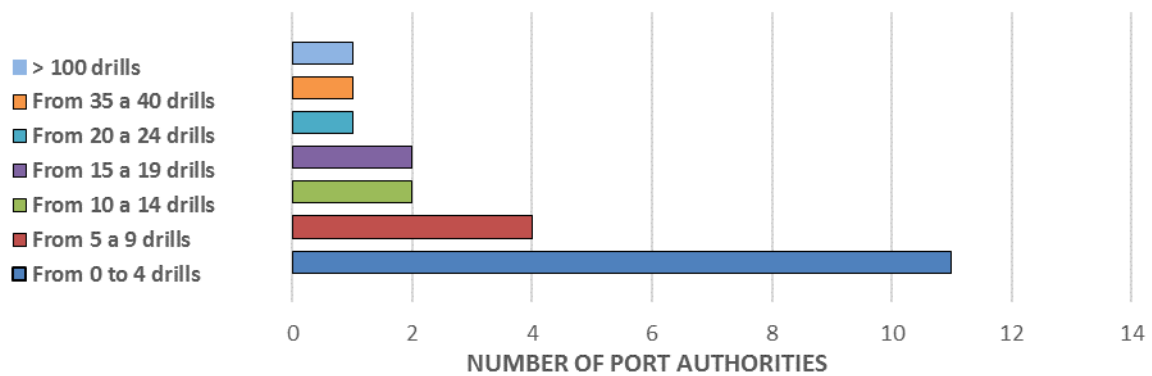
Royal Decree 393/2007, March the 23rd, by which passed the Basic Regulation of Self-Protection of centres, establishments and facilities dedicated to activities that may cause emergency situations, recommends the following: “To assess self-protection plans and guarantee the efficiency and operability of the emergency action plans there will be emergency drills, with a minimum frequency marked by such plan, and in any case, at least once a year assessing its results”.

Number of technical training actions related to safety and protection



Graph 3.17

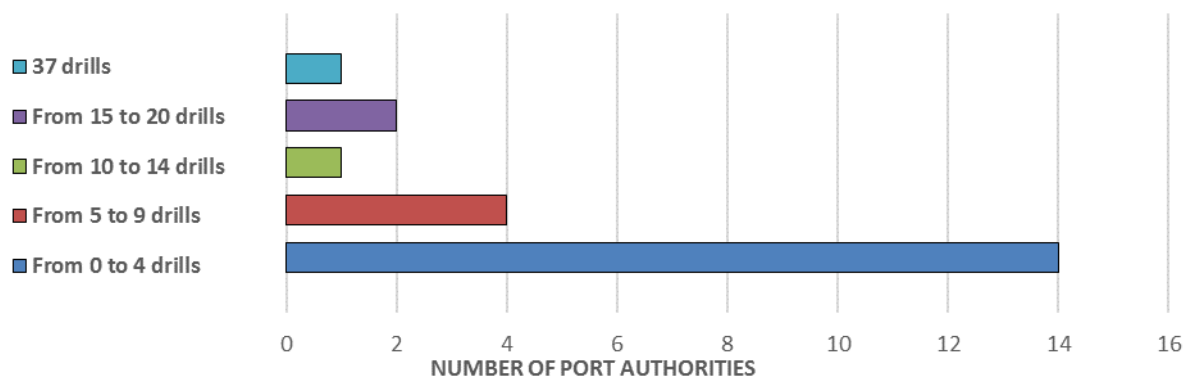
Distribution of the number of exercise and drills regarding safety.



Graph 3.18

In this same way, the port protection regulation, REGULATION (CE) 725/2004 and Royal Decree 1617/2007, foresee the development of exercise and practice that guarantee the efficient implementation of the according plans.

Distribution of the number of exercise and drills regarding protection.



Graph 3.19

CONCLUSIONS, ACHIVEMENTS AND CHALLENGES

In 2013, **the decline in the staff volume of Port Authorities strengthened**, which began in 2010 as a result of the halt suffered by the public employment offer.

Regarding the staff structure, there is a **relatively aged personnel where the number of employees younger than 30 involve only 2% of the total staff**, situation that will eventually worsen due to the absence of hiring. This circumstance suggest that the system should develop mechanisms that enable a progressive generation renewal. In addition, although an equality plan was signed in 2011, **the presence of women remains having very little significance**.

Training wise, **the average number of hours per employee remained similar to 2012, between 20-40 hours, despite the expenditure contention policies**. This shows how important the development of employees is in the port system under a scheme of competency-based management, through which to improve employees' productivity, making the most of their skills and knowledge.

In regards to occupational risks prevention, as answer to an increasingly demanding regulatory framework and a social leading responsibility, **efforts from the Port Authorities have kept intensifying**, being available for instance in most Port Authorities industrial safety and ORP training programmes . **However, the frequency index and severity index have increased** opposite to 2012, for which room for improvement still exists.

Regarding the rest of the port community, most of the Port Authorities establish as requirement in their terms of particular prescriptions to port services, in their granting conditions or in concession or authorisation licenses, to be provided with a prevention and health management system. Therefore, **an increasing number of terminals or port services choose to obtain certifications according to the occupational risks management system OHSAS**, in 2013 three new ports have joined to this initiative, which makes 18 the number of Port Authorities that include this requirement.

Environmental dimension

ENVIRONMENTAL MANAGEMENT

The environmental management is clearly constrained by the exploitation scheme public-private. **The port's environmental efficiency does not exclusively rely on the Port Authority**, but also on how rigorous the concessions, service providers and port users are regarding environmental management.

It is important to keep in mind that the Port Authority does not have environmental competencies, neither does it have the ultimate responsibility to enforce the environmental legislation in the port. In general, this competency relies on the Autonomous Communities, who are provided with a sanctioning regimen that allows them to act against possible violations.

However, Port Authorities develop a key role in the adequate environmental management of the port due to the fact that they act as administrators of infrastructures, regulators, coordinators of services provided and, specially, as leaders of the port community.

Improving Initiatives

Within the context previously depicted, environmental efficiency improving initiatives are conditioned to the capacity of control and influence the Port Authority possesses over the different port operators and users. *Table 4.1* shows some of the initiatives adopted or promoted by Port Authorities, according to the mentioned levels of control and influence.

Initiatives developed by Port Authorities according to their level of influence

Port Authority Control	Activities	Possible initiatives
Direct control	General Service delivering.	<ul style="list-style-type: none"> • Environmental management systems implementation.
	Creating and maintaining the land and sea water layer in the port service area.	<ul style="list-style-type: none"> • Inclusion of environmental factors in projects and Guiding plans.
	Organising the Port space.	<ul style="list-style-type: none"> • Equipment on environmental infrastructure, such as watering systems, cleaning points, green points, etc. • Inclusion of operational conditions in usage organisation.

<p>Significant influence</p>	<p>In the performance of concessions and port service providers.</p>	<ul style="list-style-type: none"> • Environmental requirements in service prescriptions and concession conditions. • Regulations of the operations from an environmental perspective regarding rules and guiding instructions. • Financial incentives through fees and concession terms. • Supervision of the operational rigour by port police service.
<p>Limited influence</p>	<p>In the performance of transport companies, vessels or companies that provide services to concessions or operators.</p>	<ul style="list-style-type: none"> • Collaboration agreements with local administrations provided with environmental competencies. • Environmental monitoring Systems. • Inventory and assessment of environmental threat sources. • Promotion of waste collection programmes. • Good Practice recommendations. • Financial incentives to vessel's fees. • Awareness and training programmes.

Table 4.1

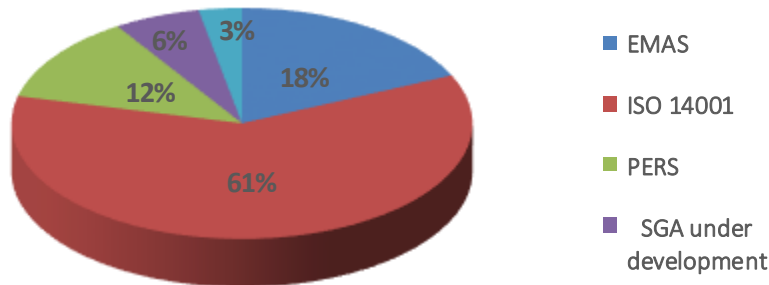
Environmental Management Systems

One of the global goals of the port system regarding environmental management is the **implementation of environmental management systems (EMS)** that enable the task of making objectify and standardise the environmental policies developed.

Graph 4.1 shows that 6 Port Authorities were registered in the rigorous environmental registry EMAS (1 of which is in its implementation process), 20 possessed ISO 14001 certification (3 of which were in its implementation process) and 4 were certified of PERS standard (Port Environmental Review

System). Only 2 Port Authorities were in their Environmental Management System development stage and one did not possess a development project.

Environmental management system degree of implementation



Graph 4.1

This data shows the commitment with an environmental improvement of the port system, especially when taken into account that in 2010 only 9 Port Authorities had implemented an Environmental Management System.

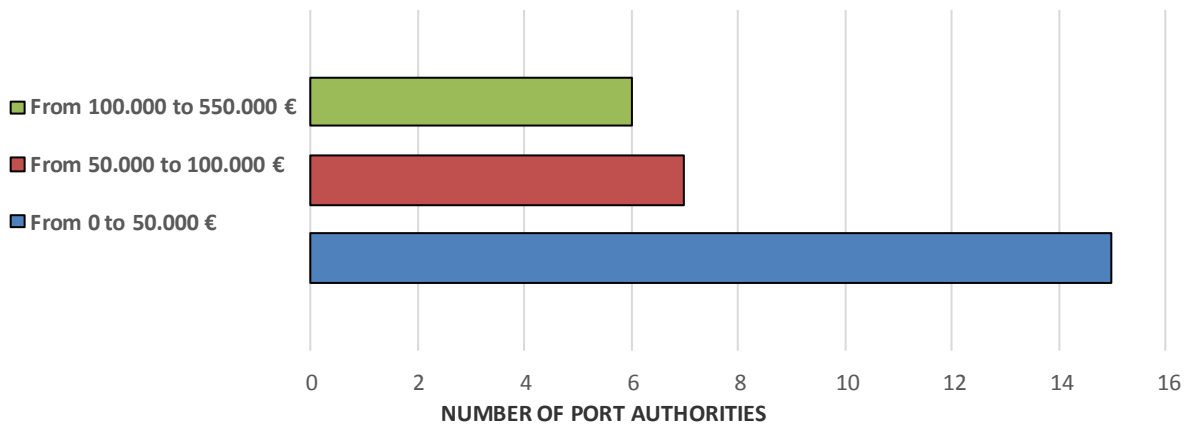
In 2013, environmental expenditure caused by the implementation and maintenance of Environmental Management Systems in the port system increased up to 1.4 million Euros.

6 Port Authorities are provided with EMAS, 20 with ISO 14001 and 4 with PERS

In addition to implementing and maintaining Environmental Management Systems, Port Authorities lead in regards to improving the port environmental management through programmes of an environmental nature that allow them to know the way in which port activity affects the air and water quality, or noise quality.

Graph 4.2 shows the expenditure structure of the port system allocated to maintaining measuring equipment and characterisation campaigns. Such graph shows that 5 Port Authorities are provided with rigorous environmental characterisation schemes, having spent more than 150.00 Euros. These activities can include measuring campaigns, data extraction with measuring networks, environmental issue characterisation, etc.

Environmental characterisation expenses

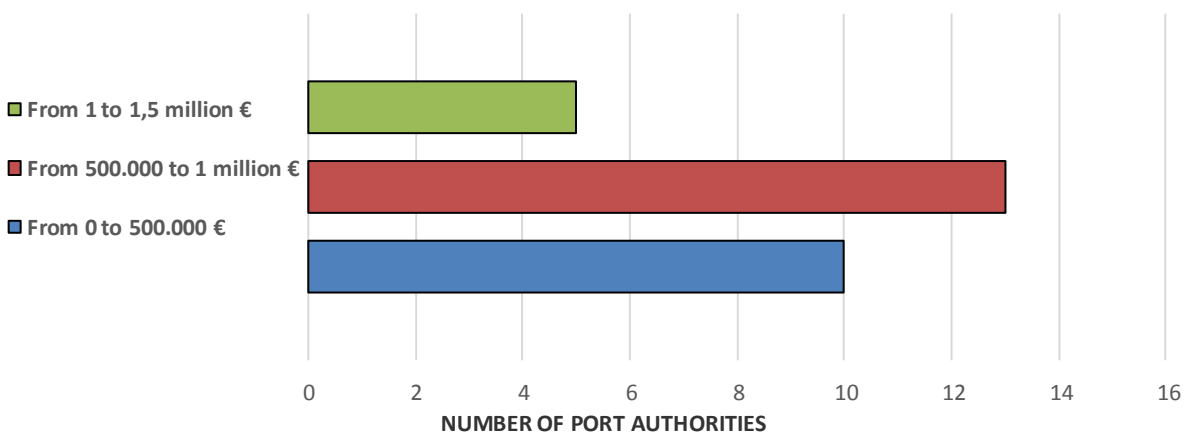


Graph 4. 2

On the other hand, Port Authorities has among others a commitment to maintain cleaned the activity work surface, which is an essential task for the control of the effects generated by the port. Graph 4.3 and 4.4 shows the expenditure corresponding to cleaning activities in land and sea common areas, indicating the number of Port Authorities to each range.

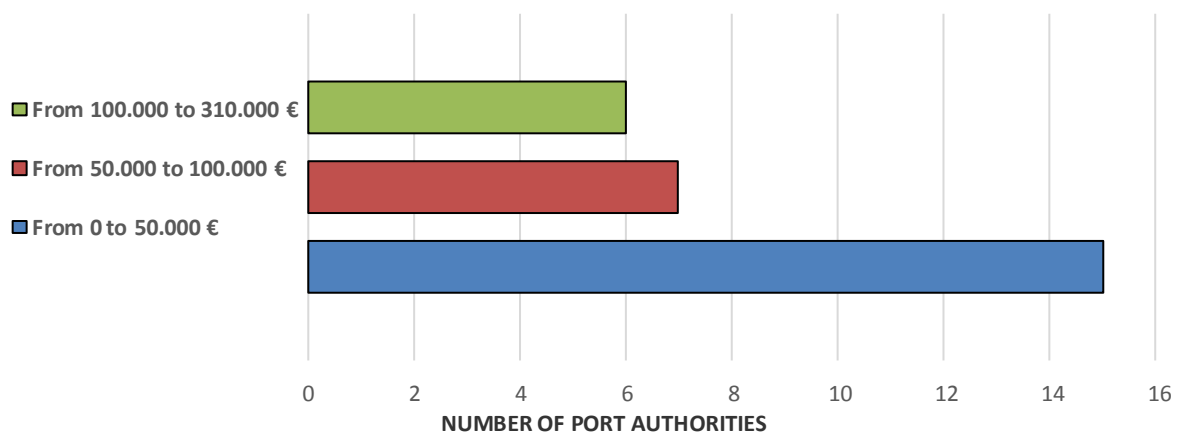
The costs are high in most of the cases and the Port Authorities are working towards guaranteeing the adequate cleaning of the facilities by the operators of these and avoid unregulated abandonment of waste within the port, which is aimed to improve the environmental performance and reduce the cleaning costs.

Land surface cleaning expenses



Graph 4. 3

Sea water layer cleaning expenses



Graph 4. 4

ENVIRONMENTAL TRAINING

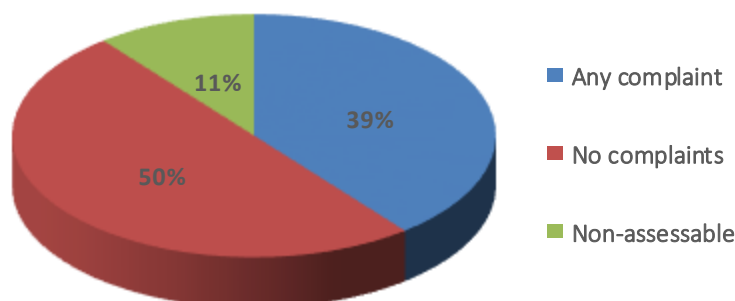
In 2013 there were different ongoing environmental training courses. The average number of employees who took such training over the annual average number of staff of each Port Authority, is 35%

AIR QUALITY

The main source of emissions at port can be punctual or diffused. 79% of the Port Authorities consider **dust and particle emissions the main cause of air quality deterioration**. Similarly, 61% of the Port Authorities consider combustion gases (CO₂, NO_x y SO_x) to be also the cause of such deterioration.

In 2013, there were registered 29 complaints linked to emissions caused by port activities in a total of 11 Port Authorities (39% of the total, as indicated in *Graph 4.5*). Such complaints have been motivated, in their majority, by solid bulk handling and cargo unloading.

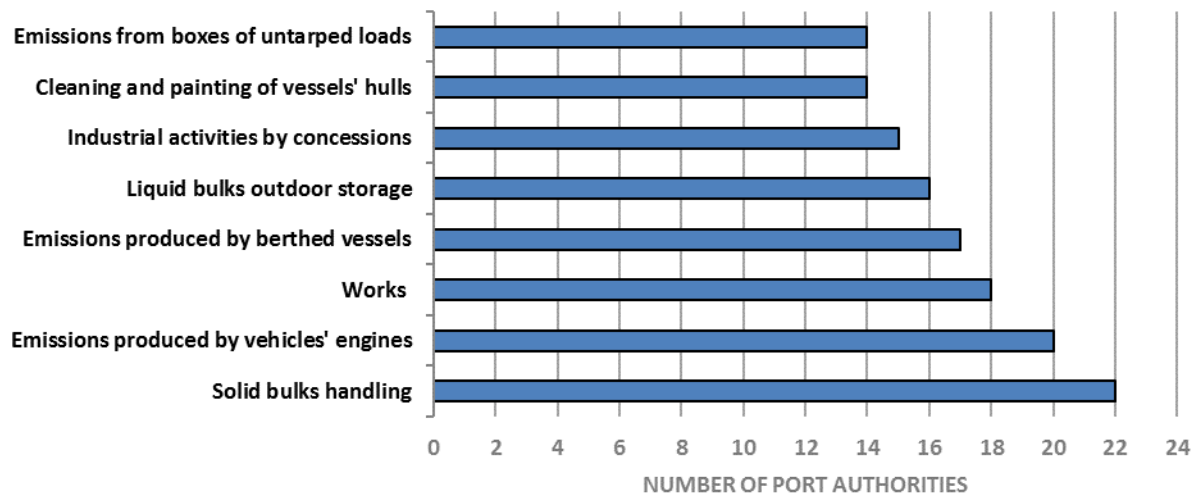
Percentage of Port Authorities that have registered complaints due to release of emissions



Graph 4. 5

Graph 4.6 shows that the emissions caused by solid bulk handling through conventional means, followed by those caused by vehicles' engines and those associated to worksites make up for the main sources of relevant emissions to most Port Authorities.

Main sources of emissions

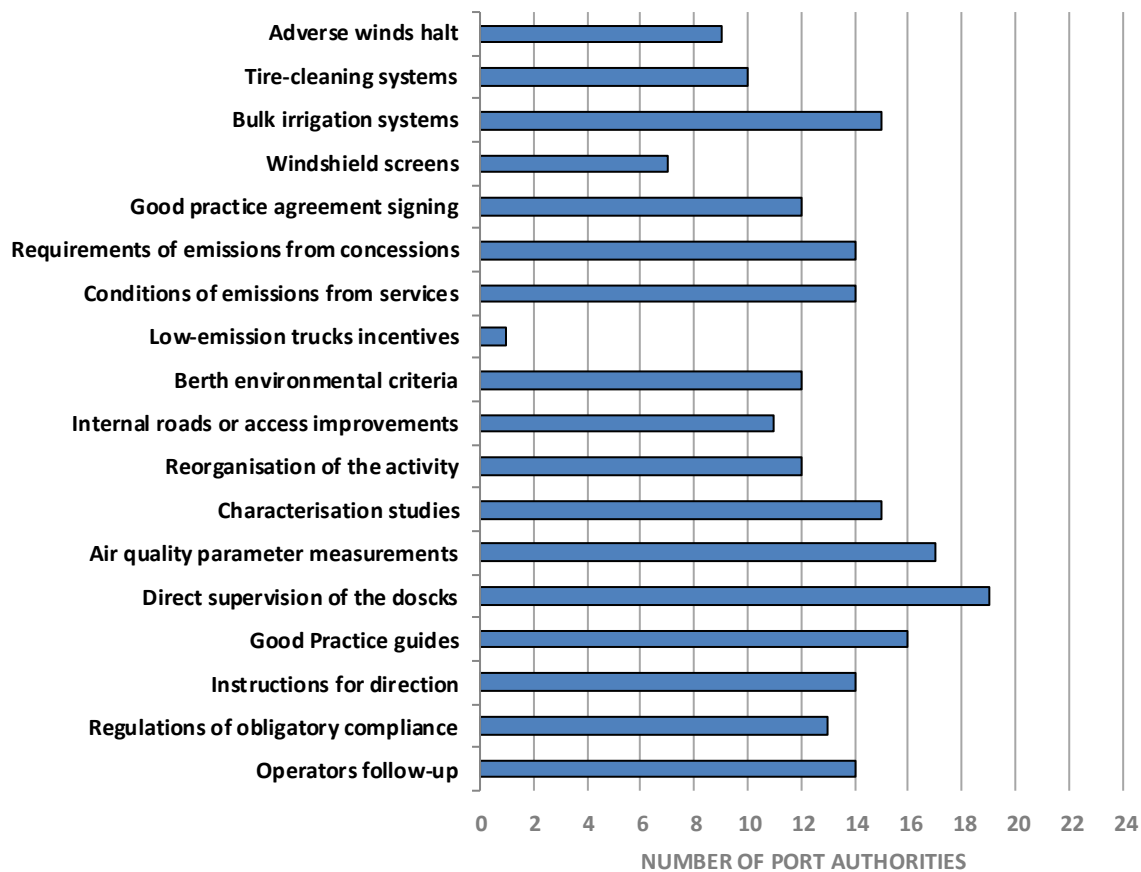


Graph 4.6

Air quality control and demanding operators and port users the measures to achieve the regulatory quality goals are, ultimately, responsibility and competency of the Autonomous Communities. However, Port Authorities, within their policy framework, actively contribute to improve air quality applying measures like those enumerated in *Graph 4.7*.

The graph shows some of the most frequent measures currently implemented, as well as the number of Port Authorities that have applied these in 2013. In addition to directly supervising docks, air quality measuring through established parameters, developing Good Practice Guides, carrying out characterisation studies, and establishing bulk threat systems have been many of the measures taken in more than half of the Port Authorities to minimise the release of emissions.

Steps taken to minimise the release of emissions



Gr

Graph 4.7

18 Port Authorities are provided with fixed measuring stations and 8 with some sort of agreement with the local Council or Autonomous Community to watch such quality. In 2013, 12 have carried out measuring campaigns from whose results it is worth highlighting the following:

- PM_{2,5} : Only 1 Port Authority has exceeded at some point the daily threshold value, being its annual average emissions value 83,62 µg/m³.
- PM₁₀: 5 Port Authorities among those who have produced data have exceeded at some point the daily threshold value, although 4 of them have exceeded it an irrelevant number of times. The annual average emissions value of the only Port Authority that has exceeded the daily threshold value a more relevant number of times is 45 µg/m³.
- SO₂: None of the Port Authorities has exceeded the daily threshold value.
- NO₂: Only 1 Port Authority has exceeded at some point the daily threshold value, and it is worth mentioning that its annual average emissions value is 42 µg/m³.

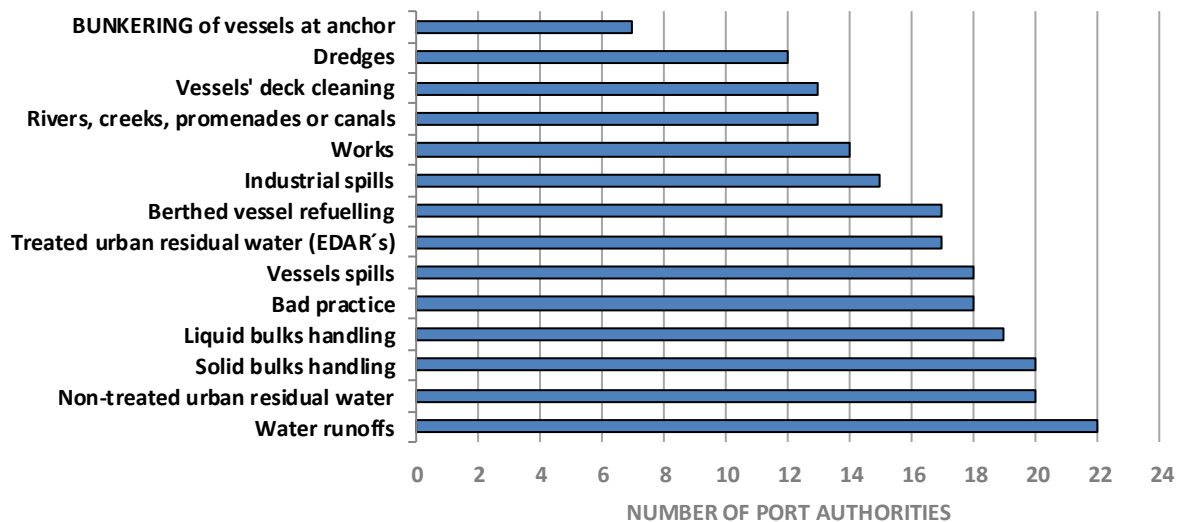
WATER QUALITY

Graph 4.8 shows the main sources of waste within the port waters. The rain and watering runoffs (not channelled or channelled but not treated) are considered as a relevant source by most of the Port Authorities, being also significant not treated urban waste water and spills or leaks caused by solid bulk load/unload operations.

On the other hand, the graph reflects the complexity of the port's water mass quality management, due to the fact that the control of the different types of spills relies on several administrations:

- Urban wasteful polluting charges and industrial waste relies on the Autonomous Communities.
- Runoff treatment relies on the Port Authorities.
- The emergency control of spills into the sea is responsibility of the Merchant Shipping¹².

Main sources of the port's water mass spills



Graph 4. 8

Maintaining a good water quality is not only environmentally important, but also it is financially and socially. The port's water mass harbours shipping, fishing, touristic and recreational activities, for which proper conditions are essential to maintain such activities. In addition, spills into the sea pollute the port's sediments, which make more difficult the task of managing the dredged materials to maintain the port's depth.

A proof of how important it is to adequately manage the port's water mass quality and the System Port's commitment to proactively contribute with improving the coastal water quality, is the publishing, by Puertos del Estado, of the **document ROM 5.1 to improve the quality of the Port's waters**. Through such document, the port system provides itself with a specific sectorial recommendation that enables the orientation and standardisation of the port's water quality management, framing it within the hydrologic plan process.

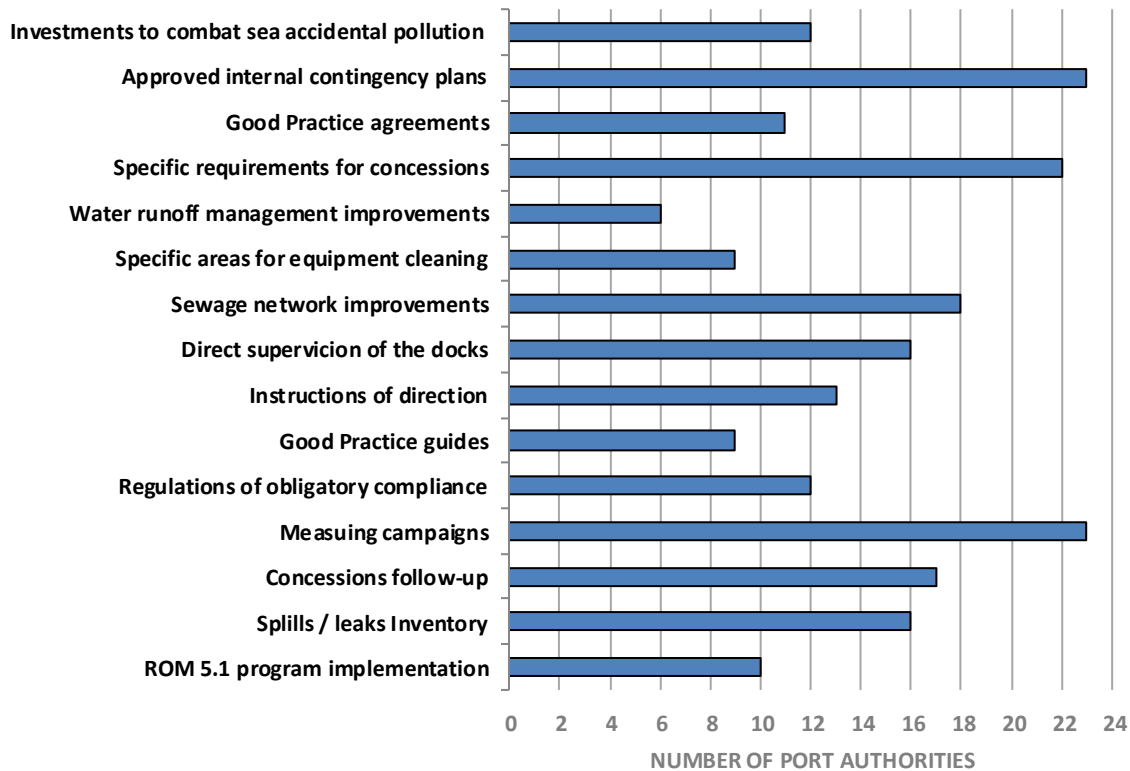
The most frequent measures taken by Port Authorities to contribute with improving the port's water quality, as well as the degree of implementation, are represented in Graph 4.9.

The two most common measure are: Development and approval of internal contingency plans (PICCMA) and the development of periodic campaigns to characterise the quality of the water and

¹² On the publishing date, the responsibility relies on the Port Authority

sediments. It is worth underlining that 19 of the Port Authorities that developed a measuring campaign were not obligated to do so because of the Environmental Impact Reports, but because there voluntarily did so.

Measures implemented to improve the quality of the water

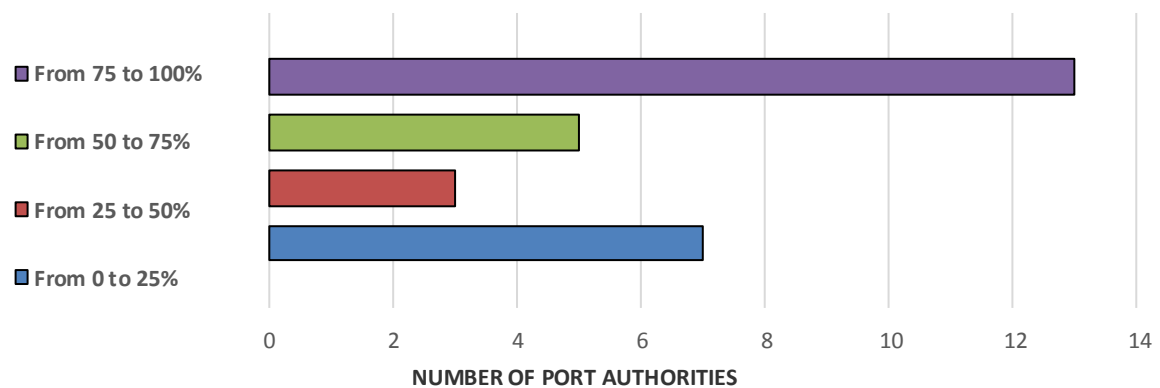


Graph 4.9

Another especially significant measure, for completely corresponding to the port’s infrastructure management, is the modernisation of sewage networks in the ports, aimed to increase the percentage of land that counts with comprehensive networks for spills.

In regards to **waste water**, Graph 4.10 shows that almost half Port Authorities have already more than 75% of their surface linked to comprehensive sewage networks. However, the degree of surface covered in 7 Port Authorities is lower than 25%.

Percentage of service land with a waste water network linked to a municipal collector or EDAR



Graph 4. 10

It is necessary to promote improving policies regarding infrastructures and waste water management. The age of the current infrastructures, technical difficulties caused by lack of gradient and interference with activities make the task of connecting these to comprehensive networks a complex and slow one for most of these cases.

The average total volume of waste water spills is 167.00 annual cubic metres per Port Authority. Most of these are Urban Residual Water (URW), but such volume also includes Industrial Waste Water (IRW) and Mixed Waters.

In regards to **pluvial water collection**, on average, the percentage of surface corresponding to the service area of the different Port Authorities in charge of it (whether or not the water is treated) is 79%. If we take into account whether or the collected pluvial water is channelled into the local council collector or treated before spilt into the sea water, this percentage drops to 23% (taking into account also as treatment the presence of screening chambers or rain overflow chambers).

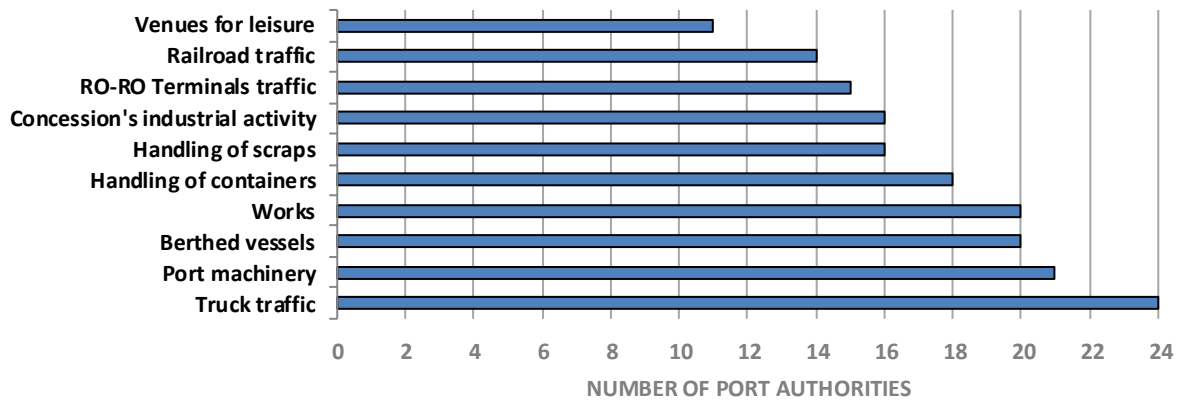
The **sea water layer cleaning service** is due daily or weekly, although some Port Authorities do this task on demand or against contingencies. 68% of Port Authorities have reported in 2013 the weight of floating matter collected on the sea water layer, being on average 63 tons.

11 Port Authorities have activated in 2013 the Sea Accidental Pollution Contingency Internal Plan, being most of them of the lowest level of action (level 0 and 1 or white and green levels)

NOISE QUALITY

Graph 4.11 shows a list of main sources of noise emissions, identifying the number of Port Authorities for whom these sources are significant for their environmental management of the port. The most relevant source is truck traffic, followed by the noise produced by port machinery.

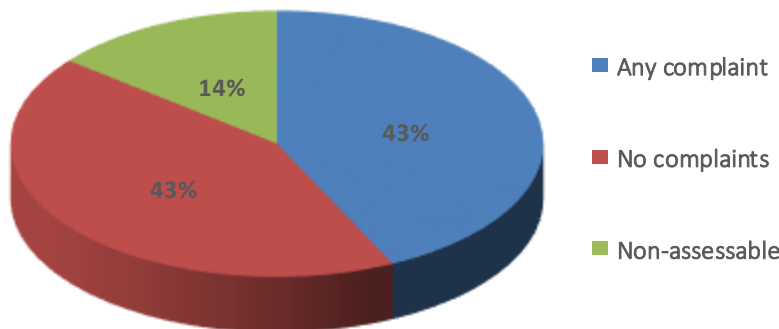
Main sources of noise emissions



Graph 4. 11

In 2013 46 complaints were registered caused by noise emissions in 12 Port Authorities. The following Graph 4.12 shows the percentage of Port Authorities that have received complaints due to noise emissions in 2013.

Percentage of Port Authorities that have received complaints due to noise emissions



Graph 4. 12

The cause of such complaints is very variable, ranging from strictly port activities such as moving scrap or containers, to generic activities such as truck transit or industrial activities developed within the port premises.

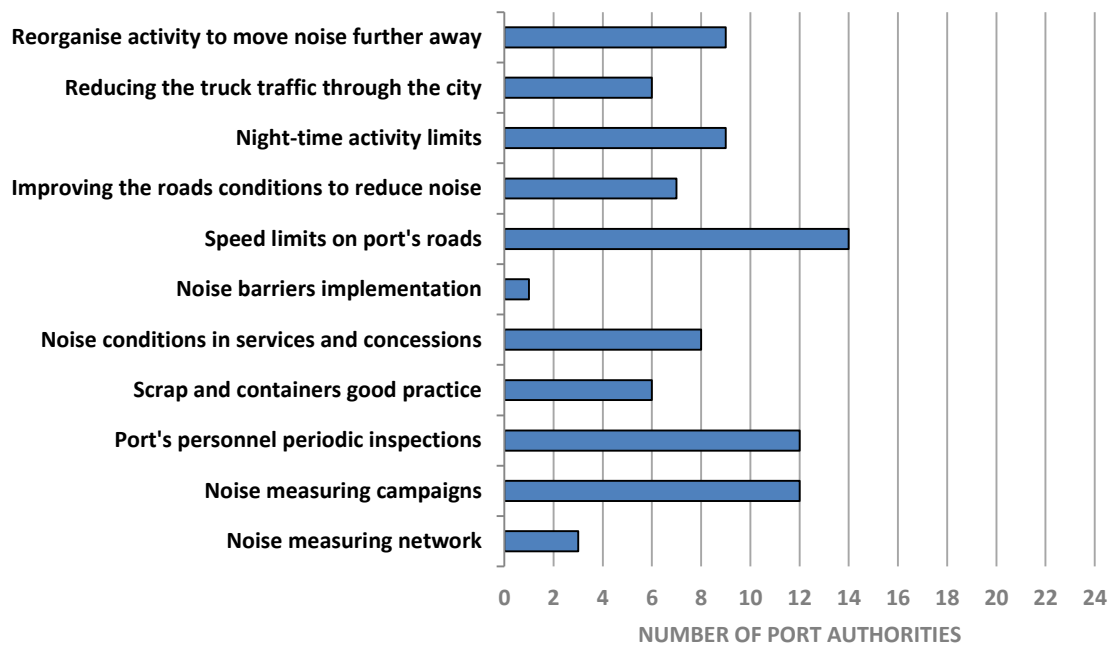
In 2013, 12 Port Authorities have developed **noise maps to improve the environmental management** and 10 have been included in the noise map of their respective municipalities.

Graph 4.13 shows the account of the main measures taken by Port Authorities to limit noise emissions, indicating the degree of implementation of each measures. The most common is **limiting the traffic speed within the port**, followed by **periodical inspections** by port’s personnel and **noise measuring campaigns**.

The application of noise emission preventive and mitigating measures by the Port Authority is, as already mentioned, constrained by its competencies and policy framework. The noise emissions limit due to machinery or industrial activities corresponds to other administrations, whereas Port Authorities develop an active and direct management of emissions through spatial organisation of activities, timetable regulations and definition of the operations conditions.

Port Authorities develop an active and direct management of emissions

Measures implemented to improve acoustic quality

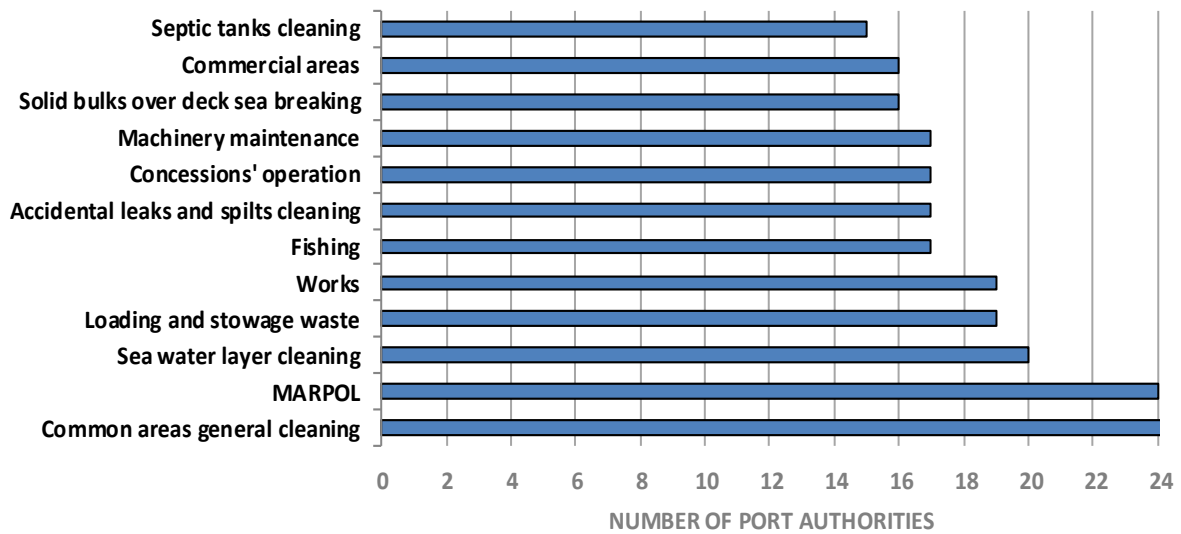


Graph 4. 13

WASTE

There are, surrounding the port activity, different activities that are source of waste. Some are linked to tasks of **port maintenance**, such as cleaning land and sea common areas, other linked to the **concession activity**, while others, and such is the case of waste created by vessels (Marpol residues), have **port users as source**. *Graph 4.14* shows an account of the main source of waste, as well as the number of Port Authorities that consider these relevant to their environmental management.

Main source of waste

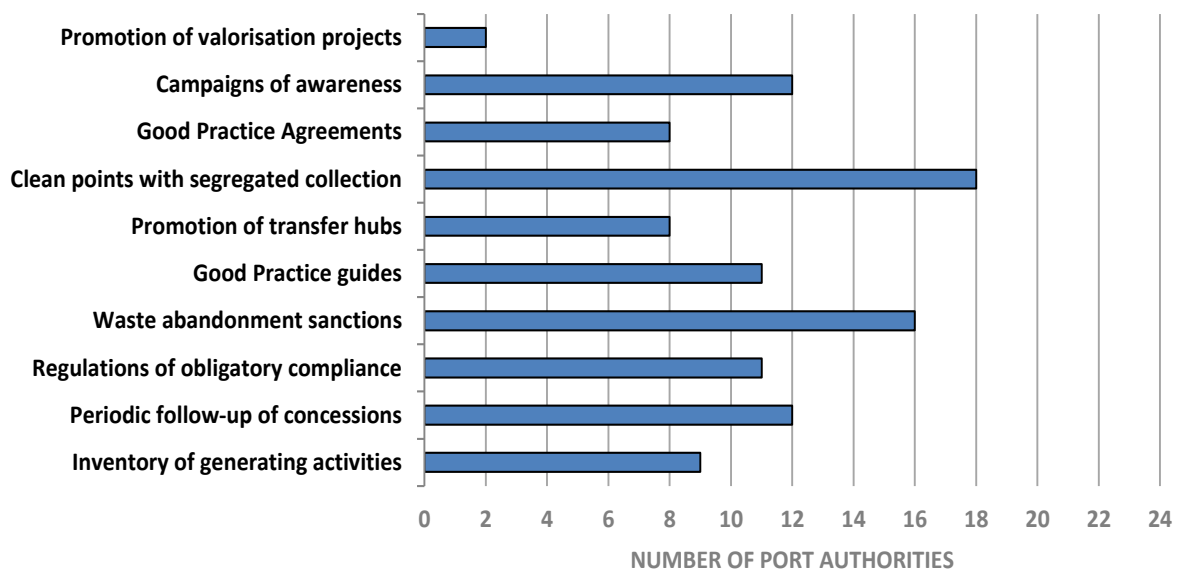


Graph 4. 14

As becomes evident in such graph, most waste generated within the port is not within the direct control of the Port Authorities and are produced by third parties, so that the type of measures taken by the Port Authority to reduce and valorise waste produced by the port, are conditioned by the type of relation the Port Authority maintains with operators.

Graph 4.15 shows a list of the main measures promoted by Port Authorities to guarantee an adequate collection, segregation and valorisation of waste produced by the port. The most common measure is to establish clean point with segregated collection, followed by enforcing sanctions in case of waste abandonment. However, these measures are not enforced in more than 64% of Port Authorities, so that there is plenty of room for improvement regarding the control and valorisation of waste. On the other hand, only 43% of Port Authorities carry out awareness campaigns.

Measures taken to improve the handling of waste



Graph 4. 15

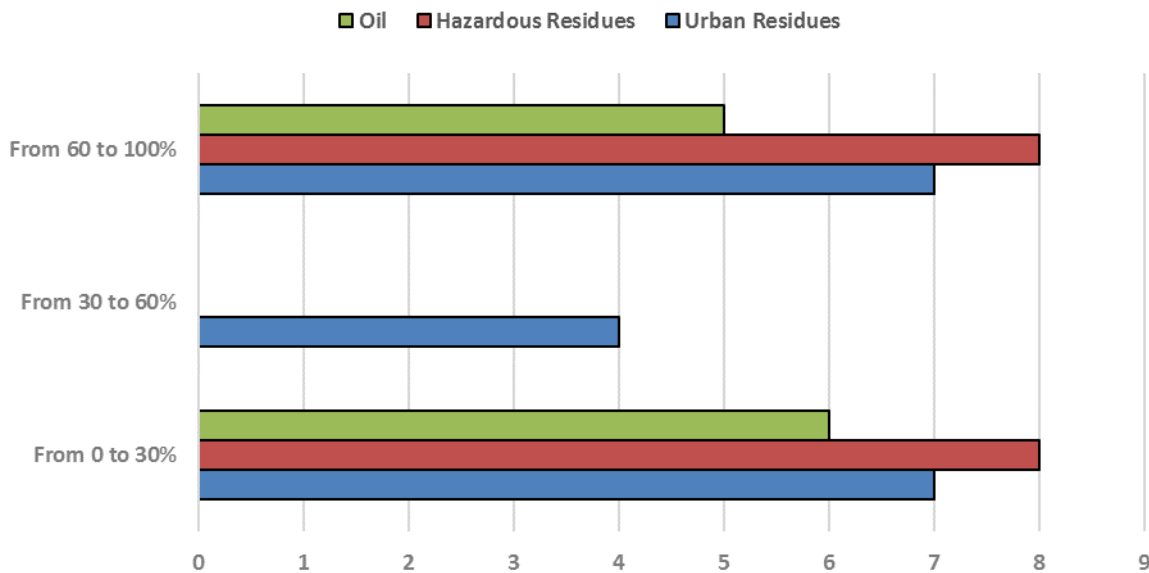
It is important to mention that, ultimately, are the local administrations the entities in which relies the responsibility of verifying the compliance of the current law in regards to waste produced by port operators. Therefore, collaborating with administrations becomes, like other port environmental management aspects, essential in the efforts to improve the environmental performance of the Port.

It is important to emphasise that in 2013, 12 Port Authorities have verified whether the operators of concessions and service providers comply with the administrative requirements enforced by the current law on waste, carrying out inspections and controls or periodic visits.

Waste classification

The following Graph 4.16 shows the number of Port Authorities that have reported the percentage of waste that are segregated and categorised, over the total amount of waste produced.

Segregated and categorised waste

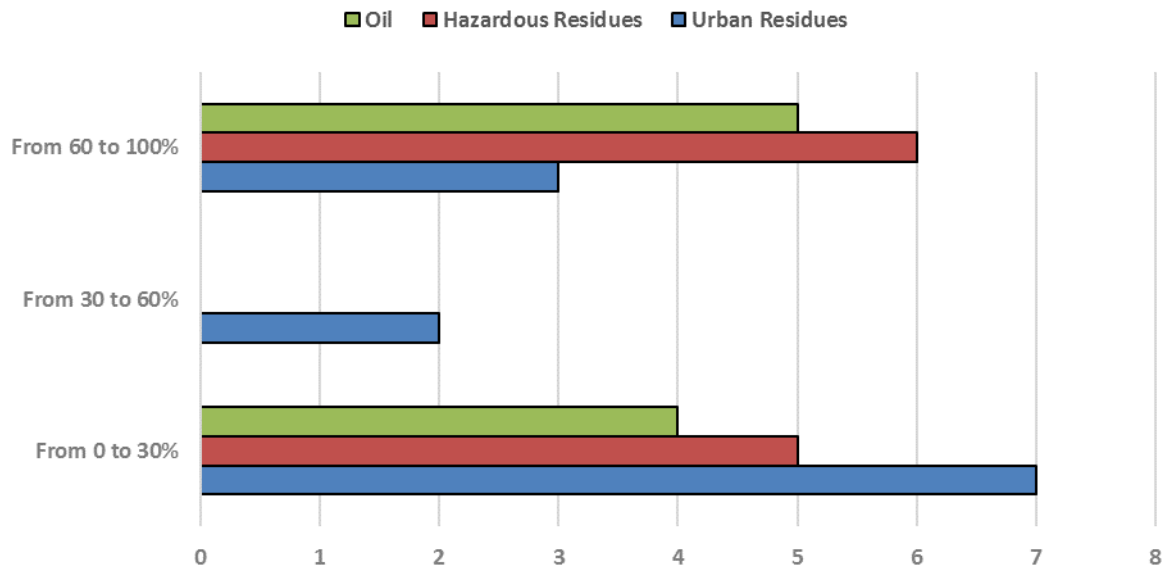


Graph 4. 16

13 of these Port Authorities have reported in addition the percentage of residues that go through a process of valorisation, over the total volume of waste produced. The following Graph 4.17 shows such progress. It is worth mentioning that 11 of them are provided with a plan to minimise and valorise waste produced in own facilities and services they are in charge of (including cleaning).

Finally and in regards to waste collected by the cleaning service of the Port Authorities, in 2013 1.774 tons of non-hazardous waste have been collected, 4.100 of hazardous waste and 4.500 of inert waste.

Valorised waste



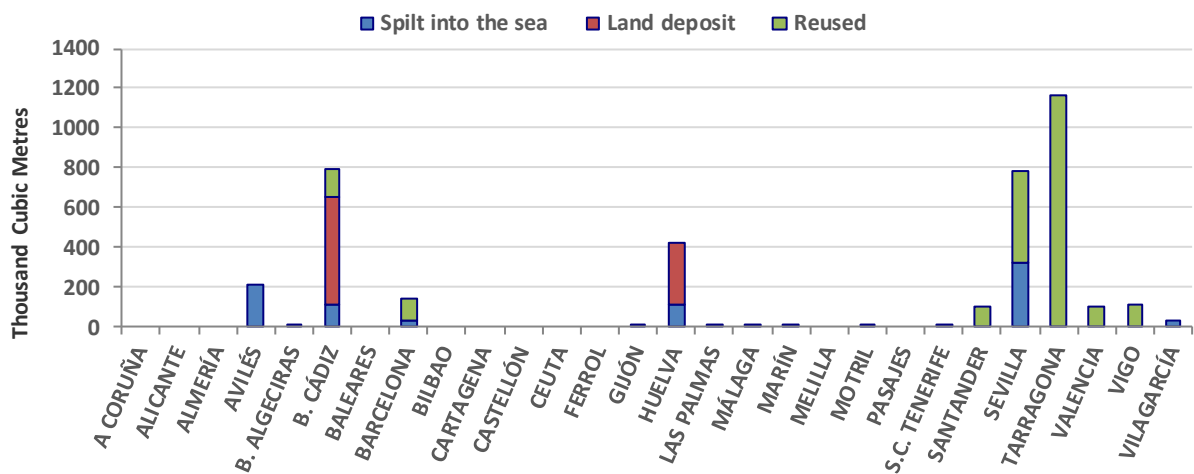
Graph 4. 17

Management of dredged material

The management of materials that are dredged from the seabed has special significance when related to the management of sub-products of the port’s activity. These materials are utilised to maintain drafts so that the current ones can adapt to the needs of new vessels. According the law on waste, are only considered as such those dredged materials that involve certain risk for the sea environment.

Graph 4.18 shows a general idea of the volume of material dredged in 2013, and spots where they were allocated.

Volume of materials dredged according to their allocation

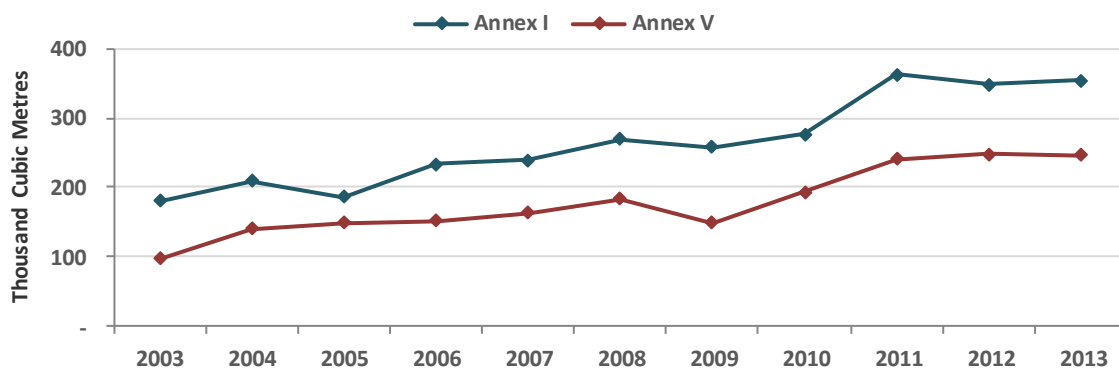


Graph 4. 18

Waste produced by vessels (Residues MARPOL)

In addition to manage the waste produced by themselves, ports act as collecting point of the waste produced by vessels. This waste is also known as MARPOL waste, according to the international agreement that regulates such types of residues produced by vessels and the type of treatment that they must undertake. Graph 4.19 shows the evolution of the volume of waste produced by vessels collected by the port system. The sharp increase is due to the fees policy introduced by law 33/2010 (on ports and the Merchant Shipping), so that the delivery of such waste at port is incentivised.

Evolution of the volume of waste MARPOL collected



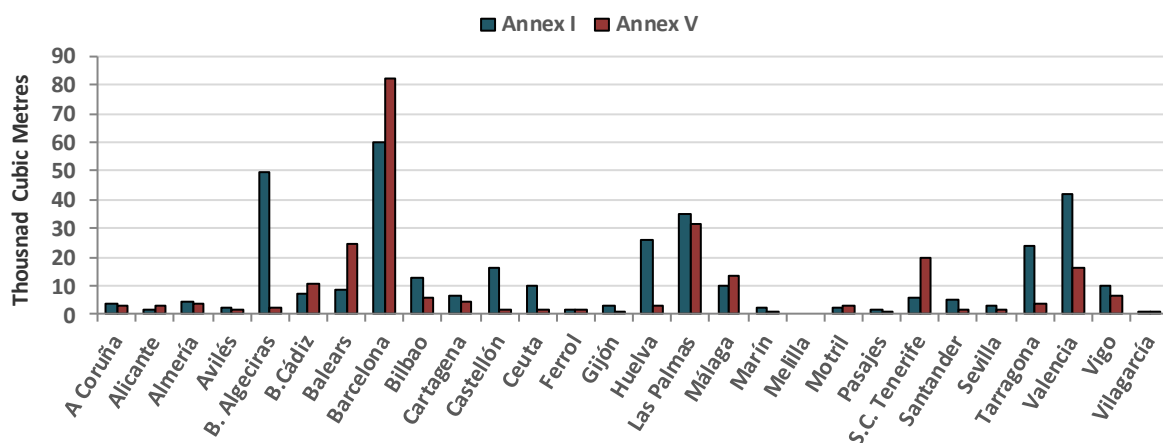
Graph 4. 19

The following Graph 4.20 shows the volume of MARPOL waste collected by each Port Authority in 2013, distinguishing two categories established by Marpol Agreement:

- **Annex I:** oily loading residues (ballast water polluted with petrol, residues produced by hydrocarbons, engine oils...)
- **Annex V:** solid waste (food leftovers, plastic, paper, metals, ashes, glass...)

Those in charge of collecting this waste and residues are companies contracted by Port Authorities, which have a license to provide this service.

Volumes of collected MARPOL waste



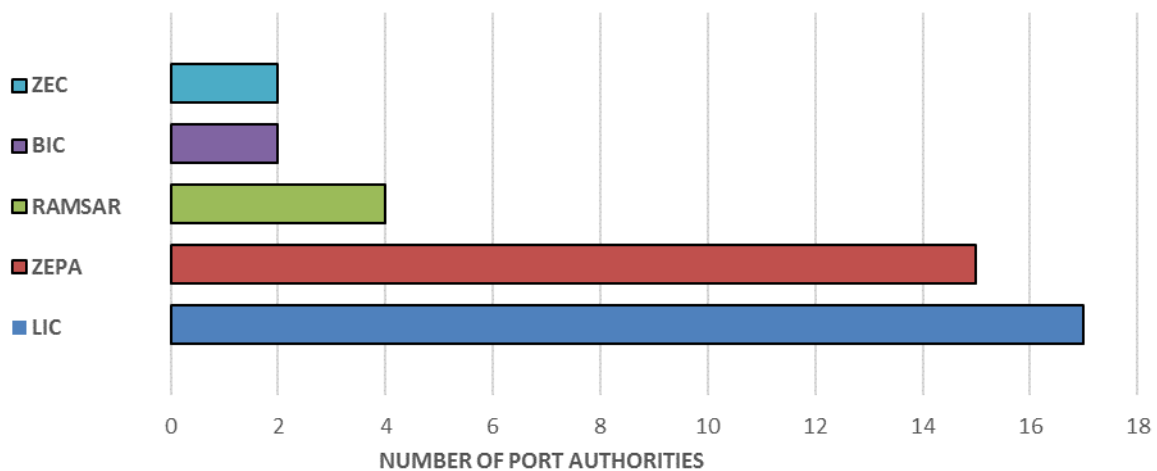
Graph 4. 20

BIODIVERSITY

27 Port Authorities have reported in 2013 the protected areas that can be affected by their activities or extensions, having 5 of them a management plan established for those areas (measures of conservation, recovery and vigilance)

Graph 4.21 shows that the most common areas have been categorised as LIC (Interest Location for the Community), followed by those categorised as ZEPA (Zones of Special Protection for Birds) and by Wetlands included in the Agreement RAMSAR. Some other locations have also being reported as recognised as BIC (General Interest Resource) and as ZEC (Special Zones for Conservation)

Protected areas in the surroundings of Port Authorities



Graph 4. 21

In 2013, 7 studies have been carried out to characterise or make an inventory of the natural surroundings of the Port Authorities. Some of them included in the watching and environment follow-up plan of those ports that apply, while others have been developed to establish preventive, concealing and compensating measures against future works at port that could affect them.

In addition, 7 Port Authorities have developed a submarine bionomic cartography to represent the biological communities in the port sea waters. Through this inventory, there can be developed activities of conservation, follow-up and assessment analysis of their environmental impact. Finally, 8 Port Authorities have developed or finished projects regarding the regeneration or enhancement of the natural environment in 2013 and most of them have assessed the investments and costs of such policies. Some instances of these campaigns are:

- Contributing with sand for the beaches
- Reforestation
- Seagull population control
- Port sea bed cleaning
- Looking after the Canary Islands Loggerhead turtle
- Long-spined Sea Urchin population control in the Canary Islands
- Regeneration of cultivation parks

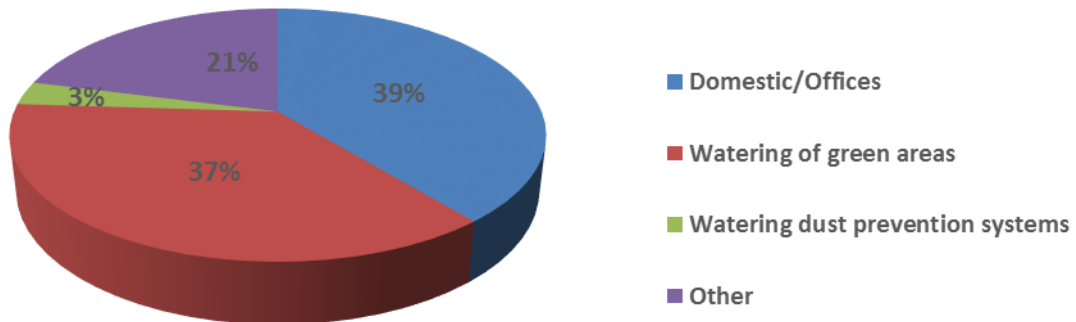
ECO EFFICIENCY

The **management of natural resources**, such as water or energy, is an essential part of being efficient on an environmental level as well as on a financial one. Port Authorities are boosting control measures in different points of consumption and establishing action plans with saving measures.

Water

The following Graph 4.22 shows the average distribution of water consumption of the Port Authorities according to different uses in 2013. Most of the use of water is allocated to offices, followed by watering of green areas (in those cases that these exist). The category “others” includes cleaning activities, construction works or supplying to third parties.

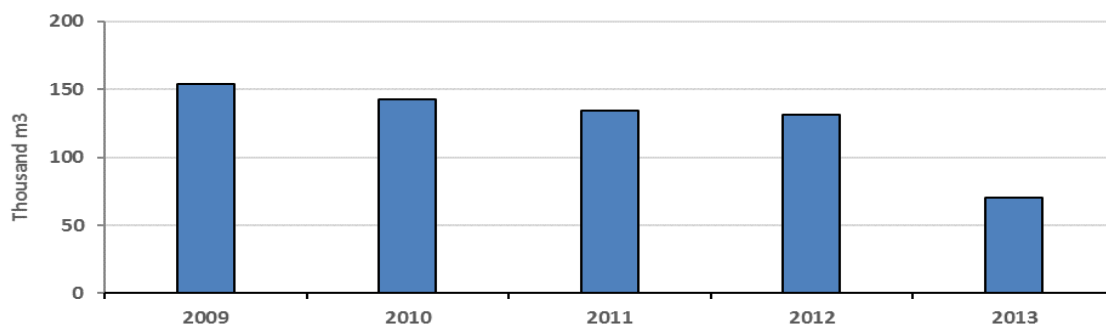
Water consumption according to types of usage.



Graph 4. 22

In regards to water saving, the main efforts are focused on modernising the internal distribution network of the port and on thoroughly controlling the consumption per type of usage. All of which is aimed to increase the global efficiency of the network against any possible leakage. 15 Port Authorities have reported in 2013 the efficiency of their distribution network, being on average 69%. Graph 4.23 shows the evolution of annual average consumption among Port Authorities, which reports a **46% in savings opposite to the previous year**, as a result of the measures that are being taken.

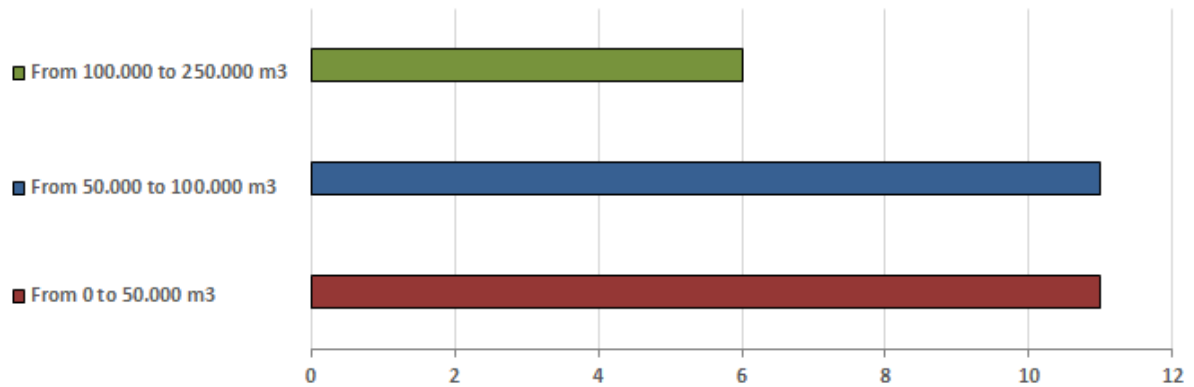
Evolution of the annual water consumption



Graph 4. 23

Graph 4.24 shows the quantity of water consumed by different Port Authorities in 2013, through which the previous average quantity is estimated.

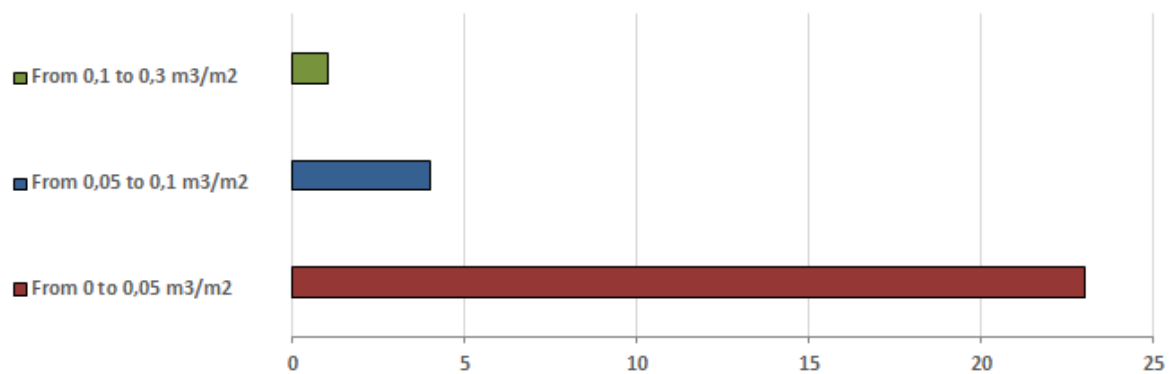
Distribution of the annual water consumption



Graph 4. 24

A ratio to better understand the water consumption is the one Graph 4.25 shows. In it, is noticeable the quantity of water consumed divided by the service surface, for the different Port Authorities in 2013. **82% of them maintain a ratio equal or above 0.04 cubic metres per square metre of surface.**

Distribution of the annual water consumption per service surface unit



Graph 4. 25

The Port Authority has reached 46% savings in average water consumption opposite to the previous year

Finally, the following Table 4.2 shows a summary of statistical values, which refers to the two previous graphs.

Statistical values of the annual water consumption

	Average Value	Median	Deviation	Minimum	Maximum
Thousands of m ³	70,50	61,67	53,30	2,57	212,19
m ³ per m ²	0,04	0,02	0,05	1,60E-04	0,28

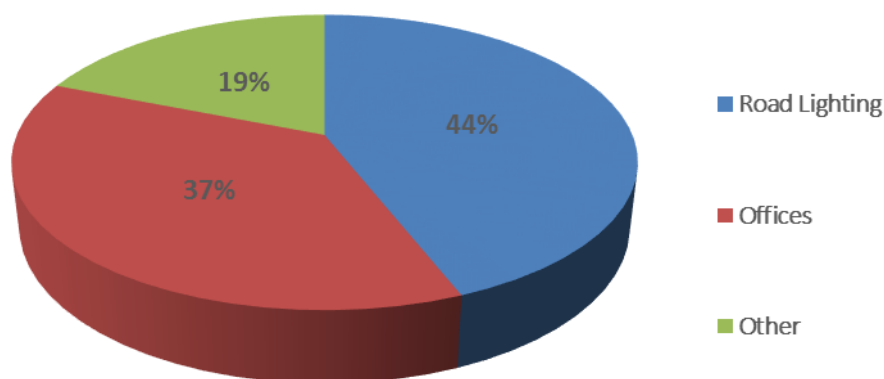
Table 4.2

More than half **Port** Authorities are in charge of managing of their own water distribution network, some of which lean on external companies, while the rest leave the management entirely in hands of external companies.

Electrical power

The following Graph 4.26 shows the average distribution of the electrical power consumption of the Port Authorities according to different uses in 2013.

Electrical power consumption according to types of usage



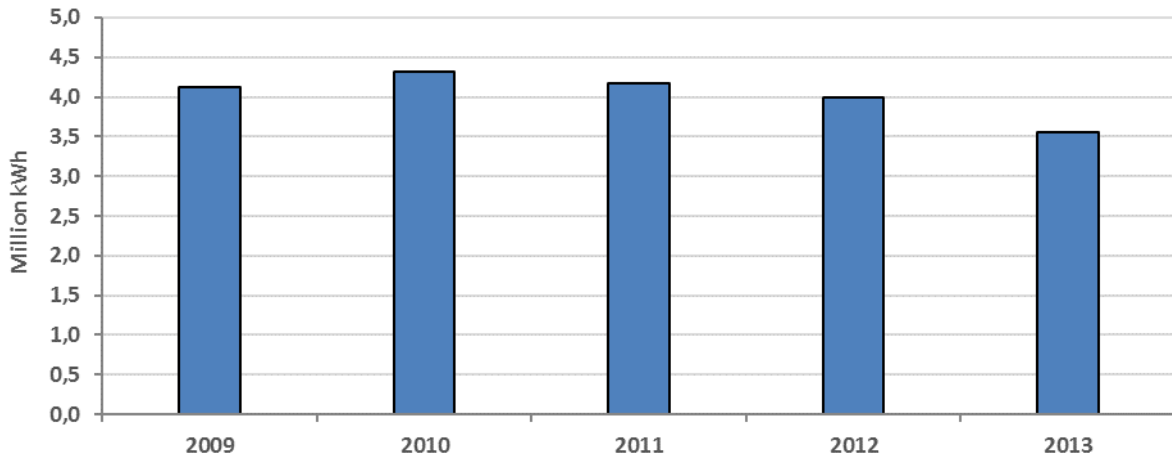
Graph 4. 26

Most of the usage is allocated to lighting of roads, followed by office lighting and acclimatisation. The category “Others” corresponds to water pump stations, Information and communication technologies, vigilance video cameras or meteorology stations.

Regarding power saving measures, stand out the implementation of lighting systems adaptable to levels of activity, very low consumption lighting systems on roads and implementation of more efficient acclimatisation systems. Along with these saving measures the Port Authorities are working on implementing control and measuring systems according to types of usage, that enable a better knowledge of the structure of consumption and future action priorities.

Graph 4.27 shows the annual average consumption among Port Authorities, which confirms a progressive decrease in consumption and **savings of 11% in relation to the previous year.**

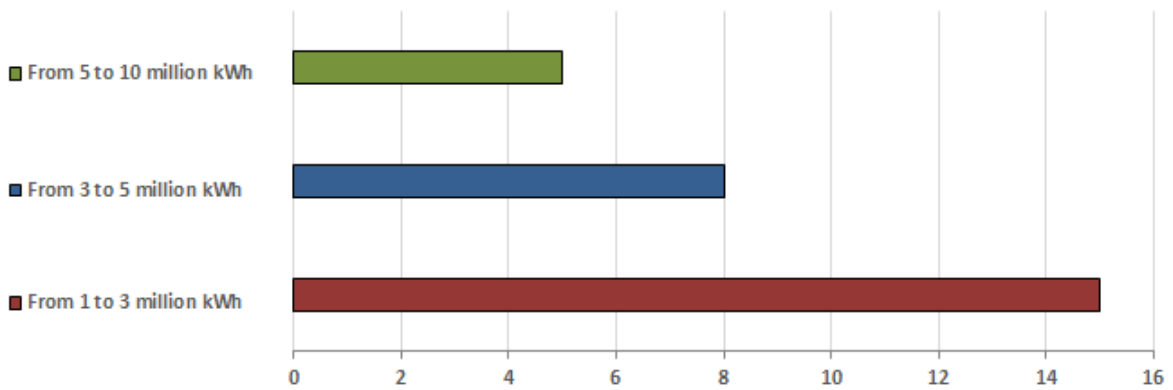
Evolution of annual power consumption



Graph 4. 27

Graph 4.28 shows the distribution of power consumption in the different Port Authorities in 2013, from which the previous average data is extracted. 5 ports exceed 5 annual million kWh.

Distribution of annual power consumption

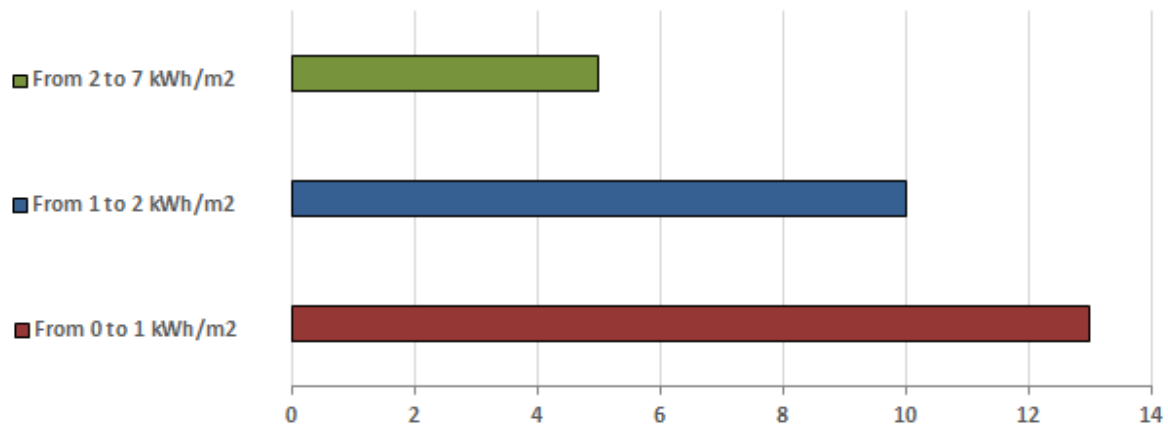


Graph 4. 28

The average power consumption of the Port Authority has reached savings of 11% in relation to the previous year.

A ratio to better understand the electrical power consumption is the one the following Graph 4.29 shows: kWh consumed divided by the service surface of the different Port Authorities along 2013. 93% of them maintain a ratio below 4 kWh per square metre of surface.

Distribution of the annual power consumption per service surface unit



Graph 4. 29

Finally, the following Table 4.3 shows a summary of statistical values, which refer to the two previous graphs.

Statistical values of annual power consumption

	Average Value	Median	Deviation	Minimum	Maximum
Millions of kWh	3,56	2,89	2,42	1,30E-03	9,13
kWh per m ²	1,65	1,44	1,39	0,25	6,42

Table 4.3

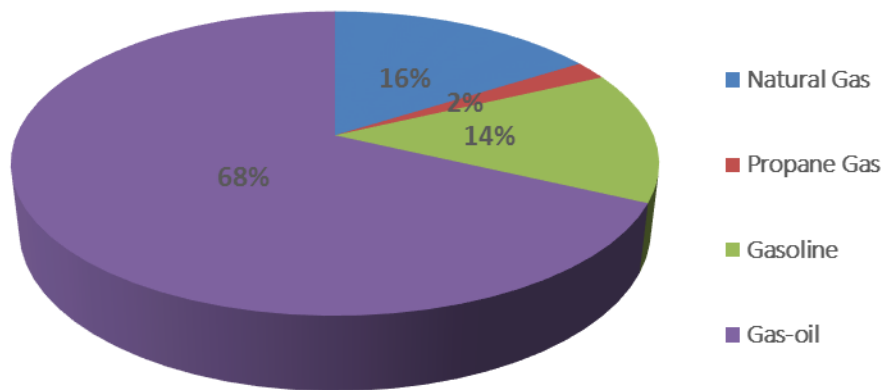
More than half the Port Authorities are responsible for managing their power network, some do so leaning on external companies, while the rest leave the entire management in hands of other companies.

In regards to the drop in waster as well as power consumption, it is necessary to take into account that consumption do not depend solely on how efficient the use of resources is, but also on the level of activity in ports, increasing the consumption as their activity increase. Therefore, the fact that between 2009 and 2013 the decrease in consumption was accompanied by an increase in traffic, allow us to conclude that **the decrease in the consumption is indeed linked to efficiency policies.**

Fuels

As the following Graph 4.30 shows, Port Authorities' most utilised fuel was gas oil and diesel gas. However, natural gas and gasoline were also consumed in lesser proportion.

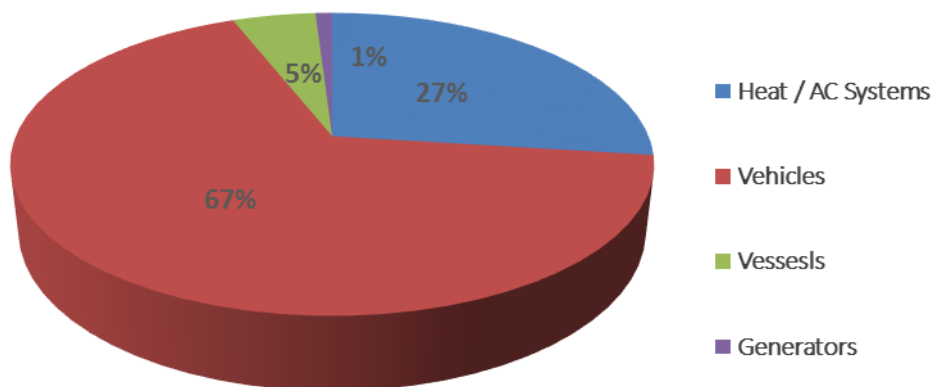
Types of fuel used



Graph 4. 30

The following Graph 4.31 shows the distribution of average consumption of fuels of the Port Authorities according to different uses in 2013. Most of the usage is allocated to the vehicle fleet, followed by heating and sanitary hot water.

Consumption of fuels according to types of usage



Graph 4. 31

Regarding fuel saving measures, some Authorities have carried out the following activities in 2013:

- Periodic maintenance of the vehicle fleet to keep them in good conditions
- Diminishing or renewing the vehicle fleet, replacing them with more efficient alternatives
- Hybrid vehicle rental
- Introducing electrical vehicles to experiment
- Signing agreements with companies responsible for maintaining the acclimatisation facilities to foster power saving and eco efficiency in facilities.
- Replacing boilers / burners with more efficient equipment.
- Heating sanitary water through solar collectors.
- Optimising the insulation of facilities
- Extending and improving the power network to avoid the use of generators.

ENVIRONMENTAL MANAGEMENT IN THE PORT COMMUNITY

As previously mentioned when the environmental dimension was introduced in this document, the port's environmental efficiency is strongly conditioned by the environmental performance of the private companies that operate in the port or its users. In this regard, Port Authorities, making use of its role as regulating body, introduce conditions aimed to improve the environmental performance of the operators in the documents that regulate the granting of concessions and licenses to operate.

The conditions of environmental nature introduced in the regulation of concessions are diverse and depend on the activity to which the concession is aimed. Graph 4.32 shows an account of the conditions used by Port Authorities and the number of Port Authorities that include them in the regulation of concession.

Conditions demanded in regulating tools



Graph 4. 32

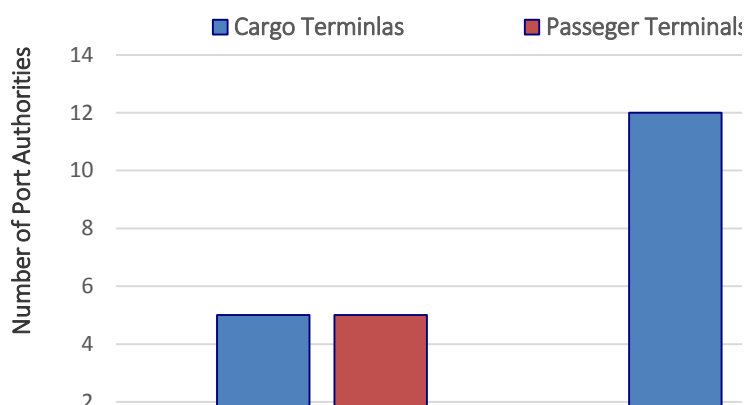
Being in possession of a contingency plan and the means to develop it is the most used condition, followed by demanding a management system of waste produced by operating. Another frequent condition demanded by Port Authorities to stowage companies and shipping terminals is being in possession of a certification ISO 14001 on all the activities subject of such license or concession. This requirement helps operators to standardise their environmental management, submitting to

periodical certifying processes that help detect relevant flaws, which allows them to keep the environmental risks associated to their operations under control.

Port Authorities frequently demand stowage companies and shipping terminals to be in possession of a certification ISO 14001

Graph 4.33 shows the volume of environmental management systems **ISO 14001 y EMAS** implemented in Cargo and passenger terminals. 6 of them with more than 50% of passenger terminals certified.

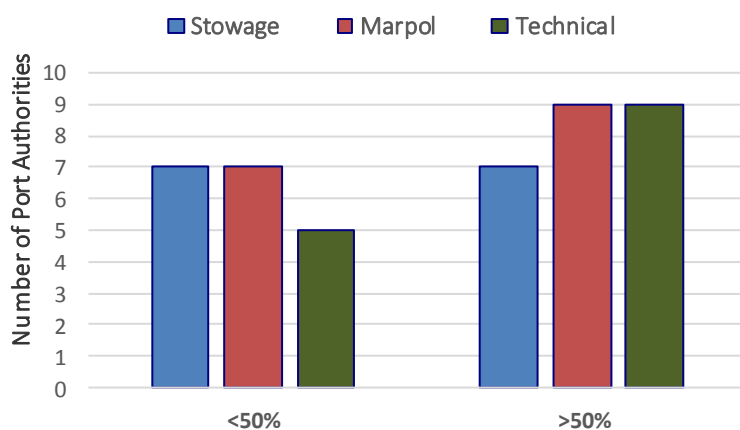
Degree of implementation of Environmental Management Systems



Graph 4. 33

Graph 4.33 shows the volume of environmental management systems **ISO 14001 y EMAS** implemented in stowage service delivery companies, MARPOL and technical shipping.

Degree of implementation of Environmental Management Systems in companies



Graph 4. 34

9 Port Authorities count with more than 50% of their companies certified regarding Marpol service and Technical. 7 of them with more than 50% of stowage service companies certified.

It is necessary to emphasise that the data of the two previous graphs do not include the entire port system. Data is only available from a sample of 13 Port Authorities. However, it allows us to assess the effects made by Port Authorities to introduce objectivity, rigour and commitment to the environmental management of the entire port community.

CONCLUSIONS, ACHIVEMENTS AND CHALLENGES LOGROS Y RETOS

It is worth mentioning that in the last three years **the number of Port Authorities which have an environmental management system (EMS) implemented has evolved from 9 to 25**. However, the environmental efficiency of the port is strongly conditioned by the private companies that operates in it. Despite great efforts made by Port Authorities by demanding these enterprises to be in possession of a certification, most of the Marpol, stowage or technical service delivery companies do not count yet with an EMS. Another challenge is extending the training regarding environmental matters, due to the fact that only 35 % of the personnel took it.

In regards to air and water quality, Port Authorities actively contribute launching different initiatives to reduce dust and particle emissions and improve the quality of water and the acoustic quality. However and regarding waste, there is a strong possibility to improve as regards to control and valorisation.

Regarding biodiversity, new section in relation with previous sustainability reports, it is worth underlining that 17 Port Authorities report LIC areas that could be affected by their activities of extensions. Some of them have carried out studies to characterise their environment and developed **projects of regeneration or enhancement** in 2013

Finally, it is worth emphasising the good result that the port system has achieved in 2013 regarding eco-efficiency, **reducing in 46% the consumption of water and power in 11% opposite to the previous year**.

ANNEX I. INDEX OF INDICATORS

INSTITUTIONAL DIMENSION

Indicator	Description	Page
Tasks and legal denomination		
I_01	General description of the legal denomination of the Port Authority	4-7
Government and management quality.		
I_02	Tasks and way in which governmental bodies of the Port Authority are appointed	7-11
I_03	Structure of the Management Board of the Port Authority	11-12
I_04	Description of the management systems and decision making support used by the Port Authority	13
I_05	Existence of a direction committee and its structure	Not available. Qualitative information that cannot be structured
I_06	Description of the sectorial technical committees that support the Management Board, in addition to the Navigation Board, Port Service Committee and Safety Advisory Committee..	12
Infrastructures and Capacity		
I_07	Description of the role of the Port Authority as provider of infrastructures and regards to the "land lord" model. Enumeration of the general technical characteristics of the port.	13-17
I_08	Infrastructures under execution or project and means they serve to.	17
I_09	Initiative of industrial or logistics promotion	18
Markets covered		
I_10	Evolution, during at least the two last years, of traffic.	24-27
I_11	Hinterland and foreland. Main origins and destinations of cargo, understood as those that involve 70% of the port's traffic.	28-31
I_12	Business turnover invoiced to the main five clients, expressed as a percentage of the total invoiced.	37-38
I_13	Description of the main relevant sectors or activities in the local financial development that contribute to the port's development.	31
Services		
I_14	Description of the role of the private initiative in the service delivery and operations of the port. Description of the role of the Port Activity in the regulation and control of activities.	31-34
I_15	Number of companies that operate in the port under a regimen of concession or authorisation, or under a licence regimen.	35
I_16	Percentage of real land surface, characterised as of business use, under concession.	36-37

I_17	Percentage of the total tons move in the port that correspond to cargo shipping terminals under concession or authorisation, over the total cargo traffic.	37
Service quality		
I_18	Information mechanisms of the Port Authority that allows it to guarantee that every operator who wishes to provide services in the port or opt for a concession can know with transparency the conditions to operate in the port and the administrative mechanisms that regulate such process.	38-39
I_19	Initiatives promoted by the Port Authority aimed to improve the efficiency, service quality and performance of services provided to cargo.	39-41
I_20	Number of companies under concession or authorisation and port service providers who are granted incentives to promote improving the service quality.	41
I_21	Initiatives launched by the Port Authority to receive and manage complaints or suggestions made by final clients, as well as assess their level of satisfaction with the services provided by the port.	42
Integration in the transport system. Sustainable mobility.		
I_22	Current road and railroad access, and actions planned to improve these, as well as the description of the strategies taken by the Port Authority to promote inter-modality.	18-24
I_23	Description of strategies taken by the Port Authority to promote traffic that is carried out by roll-on roll-off load and unload operations (Ro-Ro).	18-24
I_24	Evolution in the last three years of the percentage of cargo that enters and leaves the port by railroad and Ro-Ro.	22-24
Institutional Communication		
I_25	List of stakeholders identified by the Port Authority.	42-43
I_26	Scheme of communication with stakeholders and participation model of these.	42-43
I_27	Main concerns or preoccupations of stakeholders.	42-43
I_28	Coordination projects and collaboration with other administrations.	43
I_29	Technical or business associations to which Port Authority belongs or in which it actively participates.	43
Business promotion		
I_30	Description of initiatives promoted by the Port Authority to promote business in the port.	44
I_31	Amount of expenditure allocated to promote business in the port.	44
Institutional commitment		
I_32	Description of communication projects and services provided online or electronically, aimed to optimise port's management, facilitate information to stakeholders, or enhance the administrative management of clients or providers.	45-46

I_33	R+D+i Projects promoted by the Port Authority or in which it takes active part in, goals and achievements, and institutions with which it collaborates in those projects. Total financial resources allocated for this concept.	46-47
I_34	Foundations, cultural initiatives, training, seminars, teaching programmes or other social programmes or supported by the Port Authority and total financial resources invested.	47
I_35	Description of programmers and projects developed to improve the interface port-city, and total financial resources invested in this concept.	48
I_36	Total financial resources: expenditure and investments, allocated for protection and safety.	48-49
I_37	Total financial resources: expenditure and investments, allocated for environmental matters.	49

DIMENSIÓN ECONÓMICA

Indicator	Description	Page
Financial situation		
E_01	Return on Assets, expressed as percentage of the current Fiscal Turnover over the total average assets	52
E_02	Evolution, in at least the last three years, of the EBIDTA expressed in Euros, from the total of tons moved, of the ratio of EBIDTA opposite to moved ton and the percentage of variation of EBIDTA	53
E_03	Debt service	54-55
E_04	None-active assets, defined as land and natural assets with no activity in the last five years which can be put into financial social or environmental value, expressed as percentage of net book value over the total of net average assets.	Not Available. Under implementation in the system.
E_05	Evolution, in at least the last three years, of the operational expenses in relation to operational revenue.	55-57
Level and structure of investments		
E_06	Evolution, in at least the last three years, of the Port Authority's public investment in relation to cash-flow.	57-58
E_07	Evolution, in at least the last three years, of the external investments opposite to the Port Authority's public investment.	58-60
E_08	Evolution, in at least the last three years, of the renewal of assets, expressed as the relation of the annual volume of investment according to average net assets.	60-61
Business and services		
E_09	Evolution, in at least the last three years, of the revenue from occupancy and activity fees, as well as percentage of each one according to the Net Turnover.	61-63
E_10	Evolution, in at least the last three years, of the tons moved per square metre of land service area characterize as business use.	64-65
E_11	Evolution, in at least the last three years, of the tons moved per linear square metre of active dock	65-66

Generated value and productivity

E_12 Evolution, in at least the last three years, of the net figure of the turnover per employee (annual average staff). 66-67

E_13 Evolution, in at least the last three years, of EBIDTA per employee (annual average staff). 67-68

Financial and social impact

E_14 Estimated number of direct and indirect employment, as well as those induced by the port community, mentioning as well the study and methodology taken to calculate such estimation. Not available. Heterogeneous estimation methodology. Non-consolidating data.

E_15 Estimated gross added value of the port community, mentioning the study and methodology taken to calculate such estimation. Not available. Heterogeneous estimation methodology. Non-consolidating data.

SOCIAL DIMENSION

Indicator	Description	Page
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Employment in the Port Authority

S_01	Total number of employees of the Port Authority	71
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S_02	Percentage of temporary employees over the total permanent.	72
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S_03	Distribution of staff according to activity areas	72
------	---	----

S_04	Percentage of employees affiliated to a collective agreements	73
------	---	----

Internal communication and participation

S_05	Mechanisms of employee representation and its communication with Direction.	73
------	---	----

S_06	Mechanisms for the technical participation of employees in improving the productive processes of the Port Authority	74
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Training

S_07	Percentage of employees that undertake training programmes, differentiating between employees affiliated and not affiliated to a collective agreement.	75-76
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S_08	Evolution of the average number of hours of training per employee, differentiating between employees affiliated and not affiliated to a collective agreement.	76
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S_09	Number of ongoing training programmes in relation with the competency-based management system.	75
------	--	----

Staff structure and equity

S_10	Percentage of women over the total amount of employees.	77-78
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S_11	Percentage of women not affiliated with a collective agreement over the total amount of employees and over the total amount of employees not affiliated to any collective agreement.	Not available. Statistically Non-consolidating
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S_12	Percentage of employees older than 50 years of age.	78
S_13	Percentage of temporary employees younger than 30 years of age.	78
Safety and health at work		
S_14	Evolution of the annual accident frequency index (IF), expressed as the relation between the number of accidents that resulted in a leave, according to the total number of hours worked in that same year	80-82
S_15	Evolution of the annual accident severity index (IG), expressed as the relation between the number of working days lost per accident in a year, according to the total number of hours worked in the same year	80-82
S_16	Evolution of the annual absenteeism index, expressed as the relation between the number of natural days lost as a result of a leave, according to the number of employees.	81-82
S_17	Training efforts related to occupational risks prevention, expressed as the total number of training hours divided by the number of employees	82
S_18	Number of drills and simulacrum regarding safety and number of simulacrum regarding protection.	84-85
Employment and work safety in the port community		
S_19	Total estimated number of direct employment created per cargo shipping terminals, passenger maritime stations and companies that provide port services	Not available. In 2013 insufficient coverage. Non-relevant sample
S_20	Synthetic description of the conditions and demands established, on aspects such as safety and training, in the terms of particular prescriptions of the port services, in the conditions of granting and titles of authorisation or concession	79
S_21	Description of the mechanisms of current business activity coordination in the port community regarding occupational risks prevention within the port	79
S_22	Total number and percentage of cargo shipping terminals and passenger maritime terminals on a concession or authorisation regimen, as well as companies with a license or authorisation to provide port or business services and are provided with an OHSAS system	79
S_23	Number of training actions of a technical nature, related to safety and protection, coordinated by the Port Authority, aimed to the port community	82, 84-85
Relations with the environment		
S_24	Port Authority's actions to look after the accessing needs for the handicap (among others: conditions in the passenger service licences, and in the concessions and authorisations associated to maritime stations; concrete actions in common areas)	Not available. Non-consolidating heterogeneous qualitative data.

ENVIRONMENTAL DIMENSION

Indicator	Description	Page
Environmental management		

A_01	Total financial resources: expenses, as well as investments, associated with implementation, certification, maintenance of a Port Authority's environmental system according to EMAS regulation, to standard ISO14001:2004 or to PERS certification	89-90
A_02	Total financial resources: expenses and investments, in monitoring and environmental characterisation, expressed as the total amount in Euros and as respective percentages to the total of expenses and investments of the Port Authority.	90-91
A_03	Cleaning expenses corresponding to cleaning common land and sea areas, expressed as thousands of Euros per service area square metre	91-92
A_04	Environmental training, expressed as percentage of the staff of the Port Authority, who has received environmental training, accredited by the Port Authority, according to the tasks they develop in the port.	92
Air Quality		
A_05	Main source of emission (punctual or diffused) of the port, which release relevant emissions.	92-93
A_06	Evolution, in at least the three last years, of the number of complaints or claims registered by the Port Authority, whose source are port stakeholders, involving dust emissions and air quality in general. Availability of a standardised complaint management system	92
A_07	Implemented measures taken by the Port Authority to control emissions linked to the entire port activity	93-94
A_08	Synthetic description of initiatives launched by the Port Authority to assess the effects of the port operations on the air quality, and the total number of studies or campaigns carried out. Synthetic description of the air quality follow-up operational equipment the Port Authority is provided with	94
A_09	Value of parameters of air quality in the port, such as annual average values or number of times the daily threshold value is exceeded, to pollutants that are relevant according to the port activity: particles PM, sedimentable particles, nitrogen oxides and sulfuret oxides	94
Water Quality		
A_10	Description of the main source of spills and leaks (punctual or diffused) located within the port, that have a relevant impact in the quality of the water and sediments of the port docks	94-95
A_11	Synthetic description of the implemented measures taken by the Port Authority to control spills and leaks linked to the entire port activity.	95
A_12	Number and synthetic description of the campaigns regarding the characterisation of the port's water quality, that are not a result of the obligations included in the environmental impact reports	96
A_13	Percentage of the service area surface that is provided with a service of collection and treatment of waste water.	96-97
A_14	Percentage of the service area surface that is provided with a service of collection and treatment of waste water	97
A_15	Synthetic description of the technical means utilised to clean the sea water layer and weight of floating matter collected in the year	97

A_16	Number of times in which the Internal Contingency Plan for the Sea Accidental Pollution (PICCMA) is activated	97
A_17	Volume of waste water spills produced by the Port Authority, or spilt by collectors of which the Port Authority is the administrator, broken down into types	97
Noise		
A_18	Synthetic description of the main source of emission (punctual or diffused) of the port, the represent relevant noise emissions.	97-98
A_19	Number of complaints or claims registered by the Port Authority in the year, made by port stakeholders, in regards to noise emissions produced by the port activity. Availability of a complaint standardised management system	98
A_20	Description of the port situation regarding the development of the noise map and acoustic plan of action	98
A_21	Number of actions and characteristics of such actions, carried out in the current year on source of noised identified as a result of complaints or non-compliance registered by the Port Authority	98-99
Waste Management		
A_22	Percentage of waste produced by the Port Authority, that are segregated and valorised, broken down into types of waste	101-102
A_23	Synthetic description of the main activities or source of waste in the port	99-100
A_24	Initiatives promoted by the Port Authority to improve the waste management of the port community. Current cleaning points, programmes of waste collection, valorisation programmes, etc.	100-101
A_25	Percentage of polluted dredges, according to the international agreements subscribed by Spain (materials of categories II and III)	102-103
A_26	Description of areas or species with some sort of protection figure, adjacent to the port or within the port public domain: LIC, ZEPA, BIC, Ramsar	104
A_27	Characterisation works and environmental inventory of the port and in adjacent areas: Particularly, the availability of a submarine bionomic cartography of the port waters	104
A_28	Schematic description of projects regarding environmental regeneration developed by the Port Authority, and valuation in Euros of the costs of such actions.	104
Eco efficiency		
A_29	Efficiency in the use of land, expressed as percentage of the land service area that is occupied by active facilities, regardless they are own facilities or under a regimen of concession or authorisation	Not available. Heterogeneous estimation methodology. Not comparable data.
A_30	Evolution, in at least the last three years, of the annual water consumption of the Port Authority, indicating if the management of the network is responsibility of the Port Authority o of an external agent	105-107

A_31	Evolution, in at least the last three years, of the efficiency of the water distribution network, expressed in a percentage, for those Authorities that do the direct management of such distribution network	105
A_32	Evolution, in at least the last three years, of the total annual electrical power consumption in the facilities of the Port Authority and lighting of the common service areas	107-109
A_33	Evolution, in at least the last three years, of the total annual fuel consumption (gasoil, gasoline, natural gas, etc.) used by the Port Authority (vehicles, heat, etc.)	109-110

Port Community

A_34	Synthetic description of the type of conditions, or established requirement, on environmental aspects included in the terms of particular prescriptions of the port services, granting conditions and titles of concession or authorisation	111
A_35	Level of implementation of environmental management systems in port facilities	112

The current report has been developed by the public Entity Puertos del Estado with the participation and support of the professional services firm KPMG in Spain, in aspects such as collection, analysis and consolidation of the information.

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