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[Study on services in ports \(II\): cargo handling and passenger service](#)
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Study on services in ports (II): cargo handling and passenger service

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SUMMARY

The port system is of great importance for the transport of cargo and passengers nationally and internationally, with implications for consumers and all productive sectors. This study examines the cargo handling and the passenger port services in Spain in order to identify efficiency and competition issues and make recommendations for improvement. It is recommended, first, to promote a transparent, efficient and pro-competitive institutional and regulatory framework, to strengthen the calculation of maximum charges and transparency, to establish incentives for efficiency, to update the Specific Terms and Conditions and to consider creating an independent supervisor. Second, for the cargo handling, it is recommended to facilitate access to the profession, to promote efficiency in the provision of workers through a regime based on direct hiring or temporary employment of workers, to promote automation, to strengthen the efficiency of the PIFs and to promote more competition in concessions. Finally, it is recommended to propose guidelines on the different models of operation of the passenger service.

KEY WORDS: cargo; passengers; competition; efficiency; stowage; concession; terminal.

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CONTENT

EXECUTIVE SUMMARY.....	8
1. INTRODUCTION	11
2. BACKGROUND ON COMPETITION ADVOCACY AND ENFORCEMENT ACTIVITIES.....	13
2.1. The port cargo handling service.....	13
2.2. The port service to passengers	20
3. LEGAL FRAMEWORK.....	22
3.1. The port cargo handling service.....	22
3.1.1. General regulation.....	22
3.1.1.1. Regulation (EU) 2017/352.....	22
3.1.1.2. The TRLPEMM.....	23
3.1.1.3. Principles of freedom of establishment and the freedom to provide services of the TFEU 28	
3.1.2. Specific regulation of the cargo handling service: concessions and specific Terms and Conditions	29
3.1.3. Stevedoring labor regime	30
3.1.3.1. Background: labor regulations for stevedoring until 2017	30
3.1.3.2. The current stevedoring labor regime	35
3.2. The port service to passengers	41
4. ECONOMIC CHARACTERIZATION	43
4.1. The port cargo handling service.....	43
4.1.1. Characterization of the service on the demand side.....	48
4.1.1.1. The customer's profile	48
4.1.1.2. Features with an impact on demand	52
4.1.2. Supply-side service characterization.....	60
4.1.2.1. Goods stowed and relative weight according to type.....	60
4.1.2.2. Specialization of each port by types of cargo	62
4.1.2.3. Stevedoring companies.....	68
4.1.2.4. The port workers	77
4.1.2.5. Port Employment Centres (CPE) and Temporary Employment Agencies (ETT)	79
4.1.2.6. Cargo handling and technological changes	88
4.2. The port service for passengers.....	90

4.2.1. Characterization of the service on the demand side.....	91
4.2.1.1. Key demand from shipping companies	93
4.2.1.2. Profile of shipping companies according to the type of service	94
4.2.2. Supply-side service characterization.....	97
4.2.2.1. Maritime passenger terminals	97
4.2.2.2. Terminal operating models in passenger service	98
4.2.2.3. The companies providing passenger services	99
4.2.2.4. Fees for the provision of the passenger service	101
5. BARRIERS TO COMPETITION	102
5.1. Transversal barriers to the cargo handling and the passenger service	102
5.1.1. Lack of transparency.....	102
5.1.2. Lack of a comprehensive and up-to-date performance monitoring system and a robust incentive system based on the results obtained from monitoring	104
5.1.3. Lack of information on the adjustment of maximum charges to costs and lack of uniform guidance for the determination of maximum charges ...	108
5.1.4. Existence of potentially competition-limiting elements in the design of the Specific Terms and Conditions.....	109
5.1.5. Information asymmetry in the setting of maximum charges	112
5.2. The port cargo handling service.....	112
5.2.1. Restrictive system of access to the profession	112
5.2.2. Unnecessary and unjustified obstacles to the free choice of stevedoring companies between stowage work models.....	116
5.2.3. Existence of rigidities in the organization of work.....	118
5.2.4. Limitations to the automation process	120
5.2.5. Potential inefficiencies in the operation of Border Inspection Points (PIFs)	122
5.2.6. Competitive limitations in public concessions	122
5.3. The port service for passengers.....	124
5.3.1. Absence of references and analysis on the different models of terminal operation.....	124
6. CONCLUSIONS	125

7. RECOMMENDATIONS 127

First. Promote a transparent, efficient and pro-competitive institutional and regulatory framework..... 127

- I. Strengthen and develop guidance on the methodology for calculating maximum charges 127
- II. Establish a robust, results-oriented incentive system 128
- III. Increase transparency and establish performance indicators 129
- IV. Update the Specific Terms and Conditions and design them in a more homogeneous and pro-competitive way 131
- V. Consider introducing an independent port regulator and supervisor 133

Second. Promote more efficiency and competition in the cargo handling 134

- VI. Facilitate the access and exercise of the stevedore profession 134
- VII. Strengthen efficiency and competitive neutrality in port workers delivery models .. 138
- VIII. Increase flexibility in the organization of stevedoring work and eliminate the preference of workers from CPEs 139
- IX. Promote innovation and investment in automation through an efficient and pro-competitive regulatory framework 141
- X. Strengthen efficiency in the operation of Border Inspection Points (PIFs) 141
- XI. Revise the system of concessions to increase competition and promote investment 141

Third. Examine the efficiency of the different models of operation of passenger service terminals 144

- XII. Propose guidelines on the different models of operation of passenger service terminals 144

8. BIBLIOGRAPHY 146

ANNEX 1 – Evolution of the stevedoring labor regime..... 154

ANNEX 2 – Port efficiency measurement 160

- 1. Approaches to Port Efficiency Measurement..... 160
- 2. Spanish port system..... 163
- 3. The Spanish port performance monitoring system 166

ANEXO 3 – Detail of the main port indicators by concept..... 168

GLOSSARY

Framework Agreement: type of special collective agreement for the development of negotiation rules, with which to establish the forms and requirements for the negotiation and approval of collective agreements.

Automation: introduction of processes in which manual work is replaced by that of autonomous machines.

Port Authority: public body that administers, manages and operates one or more ports under the jurisdiction of the General State Administration.

Port Employment Centre (CPE): specific *pool* for the provision of port workers to stevedoring companies and their training.

Certificate of professionalism: instrument of official accreditation of professional qualifications. To work as a stevedore there is one of a mandatory nature.

Intermodal competition: competition that occurs between different modes of transport.

Inter-port competition: competition between different ports, whether they are in the same country or not.

Intra-port competition: competition that takes place within the same port, both between and within different terminals.

Containers: special boxes for transporting cargo, reinforced, stackable, durable and reusable. For transport by sea, container ships stand out, whose capacity is usually measured in TEUs (see definition), i.e. how many containers equivalent to twenty-foot containers can carry.

Stevedoring company: a company holding a license for the provision of the port cargo handling service. Usually holder of an administrative concession to use an area of the dock exclusively.

Shipping company: company that, using its own or third-party merchant ships, is dedicated to the exploitation of them.

Stopover: temporary docking of a ship during a voyage.

Stevedore: A worker who is responsible for the loading and unloading of a ship or other means of transport.

Freight: price stipulated for the rental of a ship or part of it.

Bulk: cargo transported without individual packaging and in large quantities, which can be solid or liquid.

Port license: title necessary for the provision of a port service, granted by the Port Authorities for each of the port services.

Conventional general merchandise: merchandise that is transported in independent units, so it is packaged or by units.

Cabotage navigation: that which is not inland (i.e. does not take place within a specific port or other Spanish maritime inland waters), but is carried out between points in which Spain exercises sovereignty.

Specific Terms and Conditions (Pliego de Prescripciones Particulares, PPP): document approved by the Port Authorities in each of the port services which includes the object of the service, the requirements for access to the service, its conditions, the charge structures, the duration of the license, etc.

State Ports: public body attached to the Ministry of Transport and Sustainable Mobility responsible for the coordination and control of the efficiency of the state-owned port system.

Passenger service: port service that includes the embarkation and disembarkation of passengers, the loading and unloading of baggage, and the loading and unloading of vehicles on a passenger basis.

Cargo handling service: port service that includes the activities of loading, stowage, unloading and transshipment of goods, object of maritime traffic, which allows their transfer between ships, or between them and land or other means of transport.

Subrogation: act by which one person replaces another in the rights and obligations of a certain legal relationship.

Maritime cargo terminal: a facility where goods are transferred between maritime and land modes, or maritime transit and transshipment. It may include other areas for the storage of goods and transport elements, as well as for their organization and control.

Maritime passenger terminal: a facility designed to facilitate access for passengers and their luggage, and passenger vehicles, from land to ships and vice versa. It may include areas for the storage of passenger vehicles, and buildings for the control and management of passengers, vehicles and baggage and the provision of auxiliary services

TEU: A unit of measurement for containers that reflects the capacity of a standard twenty-foot-long container.

Transit: maritime operation in which cargo are transferred from one ship to the dock, and then reloaded on another vessel, or on the same vessel on a different scale, without having left the service area of the port.

EXECUTIVE SUMMARY

The efficient operation of the port system is of great importance for the transport of goods and passengers nationally and internationally, with relevant implications for all productive sectors. A greater degree of competition and efficiency in ports would reduce transport costs, improve the quality of services, increase the flows of goods and passengers by sea, attract new industries and encourage innovation and investment in the port sector, among other benefits. All of this would result, in a more efficient and productive economy and in better conditions in terms of prices, qualities, variety, etc. to the benefit of consumers.

From an economic and strategic point of view, within the services provided in ports, the cargo handling and the passenger service are of special importance. The cargo handling service is one of the most important components of the cost of transporting goods, which ultimately affects the prices of the end consumer's products. Therefore, price, speed, reliability and security in the provision of the service play a key role for trade. And the passenger service is necessary for transporting people by sea, affecting connectivity between Spanish territories and tourism.

By virtue of this importance, the CNMC has prepared this study, which includes an analysis of the regulations and economic characteristics of these two services in Spain, with the aim of identifying obstacles to competition and efficiency, and proposing improvements in the functioning of the sector.

In the case of the **cargo handling service**, the regulation has historically presented certain particularities, especially in relation to the provision of stevedoring labor, such as: (i) the attribution of the management of stevedoring workers to specific entities, created with the aim of making these stevedore workers available to stevedoring companies, and (ii) a progressive opening of the stevedoring regulatory regime, as the legal monopoly of these companies in the provision of port workers has been eliminated. **Despite the reforms, the analysis carried out shows that in practice the status quo seems stable,** given that almost all the employment of stevedoring labor is still concentrated in these entities, the Port Employment Centers, without this seeming to be due exclusively to efficiency reasons.

The study has also analyzed other key elements for the provision of the cargo handling service and the passenger service, such as transparency, performance monitoring and incentive system, maximum charges, concessions and the specific terms and conditions (PPPs) of the service.

A number of barriers have been identified that could hinder competition and efficiency. First, there is a lack of transparency in relevant aspects such as the situation of port terminals, licenses and concessions, the performance of services, etc. Second, deficiencies in the performance monitoring system and the incentives for efficiency. Third, in terms of maximum charges, there are limitations in their

common criteria, transparency and the analysis to determine them. Fourth, the PPPs are outdated and do not generally maintain a pro-competitive orientation.

In the cargo handling service, the system of access to the profession is restrictive and creates risks of conflicts of interest. In addition, there are obstacles to the free choice of stevedoring companies between the models of making workers available in favor of CPEs. There are also rigidities in the organization of work and obstacles that can hinder automation processes. As for the concessions of public administrations, there is a lack of transparency, very long terms (more than 30 years) without sufficient justification on efficiency grounds, and processes for awarding concessions and extensions with some elements that lack a pro-competitive orientation. Finally, Border Inspection Points (PIFs) can result in significant bottlenecks if they do not operate efficiently.

In passenger services, a lack of analysis has been identified on the efficiency of the different terminal operating models. This could lead to fragmentation in their operation without being justified for reasons of efficiency.

To address these barriers, **the following recommendations are made:**

FIRST. PROMOTE A TRANSPARENT, EFFICIENT AND PRO-COMPETITIVE INSTITUTIONAL AND REGULATORY FRAMEWORK

First, it is recommended to strengthen and harmonize the methodology for calculating maximum charges. Second, to establish a robust incentive system focused on results through the introduction of a yardstick competition system and the establishment of a '*comply or explain*' mechanism related to annual recommendations. Third, to increase transparency and to set performance indicators, establishing a homogeneous and frequently updated data catalog to reinforce the availability and quality of data, a complete and coherent system of indicators, and maintaining an updated record of the status of terminals, concessions and licenses. Fourth, it is recommended to update the PPPs and design them in a more homogeneous and pro-competitive way. Fifth, it is proposed to consider the introduction of an independent port regulator and supervisor to establish common standards and criteria, supervise compliance with regulations and resolve any conflicts that may arise.

SECOND. PROMOTE MORE EFFICIENCY AND COMPETITION IN THE CARGO HANDLING

It is recommended to facilitate the access and exercise of the profession of stevedore. To this end, it is proposed to review the duration of training, facilitate the homologation of stevedoring workers from other EU countries, increase the number of approved training centers, strengthen the independence and objectivity of the evaluations of internships to prevent conflicts of interest, promote objectivity in recruitment by CPEs and limit the participation of stevedores in their hiring process, again to prevent conflicts of interest.

Likewise, it is proposed to strengthen efficiency and competitive neutrality in the models for making available stevedoring workers. It is recommended to eliminate the specific regulation of CPEs so that companies can have stevedoring workers by hiring them directly or by resorting to temporary employment agencies. Secondly, it is proposed to eliminate unnecessary and unjustified obstacles that may prevent companies from freely opting for the model of making workers available to them that they consider most efficient. Finally, it is proposed to increase flexibility in the organization of stevedoring work and eliminate the preference of workers from the CPEs.

It is proposed to promote innovation and investment in automation, through an efficient and pro-competitive regulatory framework.

It is recommended to strengthen efficiency in the performance of the Border Inspection Points (PIFs), providing them with enough resources and promoting coordination and efficiency in their actions.

It is proposed to review the system of concessions to increase competition and promote investment. Creating a register of public concessions, carrying out an analysis of the suitability of the terms of the concessions and to adjust the terms to the minimum necessary, reinforcing the exceptional nature of the extensions of public port concessions, introducing mechanisms for the expression of interest by third parties in the procedure for authorizing the extensions of the permits of occupation of the port public domain, designing the evaluation criteria promoting price competition and including necessary, proportionate and non-discriminatory admission requirements.

THIRD. EXAMINE THE EFFICIENCY OF THE DIFFERENT MODELS OF OPERATION OF PASSENGER SERVICE TERMINALS

It is recommended that the competent authority draw up guidance on the different terminal models to serve as a reference at national level. The aim would be to facilitate the efficient choice of a model for the operation of passenger service terminals, facilitate coherence and coordination between ports, without unnecessarily fragmenting the market.

1. INTRODUCTION

Ports are strategic entry and exit nodes for goods and passengers, structuring trade and mobility. For goods, the sea is the main route of international transport. In addition, the position of the Iberian Peninsula, as a link between continents, the peninsular and insular nature of the Spanish territory and the great length of its coastline make maritime transport of special relevance for the integration of the Spanish economy into global value chains.

The operation of the port system has an impact on the economy as a whole because of its implications on trade, prices, export competitiveness, the attraction of industries, connectivity and territorial cohesion. Ports contribute to about 20% of the GDP of the transport sector, which represents 1.1% of Spanish GDP, and direct and indirect employment of more than 275,000 jobs. Three of our container ports are among the top ten in terms of traffic on the European continent. In addition, the costs of maritime transport (including those associated with visiting a port) ultimately affect the prices of the final consumer's products. (Puertos del Estado, 2023b).

Therefore, improvements in port performance can have a great impact on the economy, being competition the key to boost it. More competition in ports would help speed up times and reduce transport costs, improve the quality of port services, increase maritime flows, attract new industries and encourage innovation and investment in the port sector, among other benefits.

This is the second volume of the study on competition in port services¹. It focuses on two key port services: cargo handling and passenger services. The objective is to analyze these sectors in order to identify obstacles to competition and efficiency and propose improvements in the functioning of the sector, to promote a more prosperous, efficient and productive economy, as well as better conditions of prices, qualities and variety for consumers.

The cargo handling service is one of the components of the cost of transporting heavier goods, as it can account for even more than two thirds of the cost of a visit to a port. In addition, the speed, reliability and security of a port can become even more important factors than the monetary cost, due to the high costs derived from delays for the parties involved in the trade of goods.

For its part, the passenger service contributes to the proper functioning of maritime passenger traffic, which connects different territories of the country, (especially the islands and Spanish territories of North Africa) and promotes cruise tourism. For this service, the regulations and the economic characteristics of the service in Spain have also been analyzed and different points for improvement have been identified in relation to the operating models of the terminals, the PPPs of the service and the maximum charges.

¹ The first volume is E/CNMC/004/24.

In order to analyze these two services, the Study is structured as follows.

First, the background that exists on these activities in terms of defense and promotion of competition is reviewed. Second, the legal framework of both services is reviewed. Third, its characteristics at the economic level are examined. Fourthly, a series of barriers that limit efficiency and competition in these sectors are identified. Finally, the conclusions and a series of recommendations are set out in order to promote a higher level of efficiency and competition in these activities that facilitate improvements in their operation, for the benefit of consumers.

2. BACKGROUND ON COMPETITION ADVOCACY AND ENFORCEMENT ACTIVITIES

2.1. The port cargo handling service

In terms of the defense of competition and at the national level, the four stevedoring sanctioning proceedings examine possible anti-competitive agreements articulated through collective agreements or agreements in port associations.

The first ([2480/03: Estibadores Cádiz](#)) analyzed a modification of the statutes in the stevedoring association of Cádiz to demand greater guarantees from incoming companies. It was filed because there was not enough evidence to establish that it was a cartel and because it was considered that demanding different guarantees from the incoming companies may be justified.

The following files have analyzed labor agreements:

- In 2007, ANESCO and the unions CIG, CETM and LAB signed the IV Framework Agreement on Stevedoring, which was declared in part contrary to competition regulations by the CNC and entailed fines of 1.1 million euros ([2805/07 Stevedoring Companies](#)) in a resolution confirmed by the Supreme Court (STS 1069/2016). The Fourth Agreement was revised to eliminate the problematic content, and in 2013 the Fourth Framework Agreement² for the regulation of labor relations in the port stevedoring sector signed by the ANESCO employers' association and by CETM, UGT, CCOO and CIG came into force.
- The Fourth Framework Agreement was amended in 2017 to adapt it to the new legal framework that was introduced in the same year. The amendment to the text included the obligation for a company that separated from a *Sociedad Anónima de Gestión de Trabajadores Portuarios* (SAGEP) in the first six months of the established transitional period to be forcibly subrogated from SAGEP employees, and to do so in a certain way (among other requirements, the percentage of the SAGEP workforce proportional to its shareholding had to be subrogated, with a procedure that included a prior report from the State Joint Commission, in which competing companies of the one that aspired to leave the SAGEP were represented). The legal framework in force at the time ([Royal Decree-Law 8/2017](#)) did not provide for the introduction of mechanisms for the subrogation of workers, although [Royal Decree-Law 9/2019](#) subsequently introduced the possibility (not the obligation) of establishing the compulsory subrogation of part of the SAGEP staff if the companies separated from the SAGEP during the transitional period established in Royal Decree-Law 8/2017 (ending on 23 August 2020). However, [Royal](#)

² Published in the BOE nº26 of 30 January 2014, by Resolution of 17 January 2014, of the Dirección General de Empleo.

[Decree-Law 9/2019](#) did not determine either the procedure or the type of subrogation.

- In 2017, the CNMC initiated disciplinary proceedings in [S/DC/0619/17 Framework Agreement on Stevedoring](#), against the association of stevedoring companies and the unions that signed the Agreement. **In the 2020 resolution, the CNMC declared the existence of a very serious infringement of competition regulations.** Specifically, the CNMC considered that the content of the Agreement exceeded the issues inherent in collective bargaining and that the conduct had had the effect of preventing effective competition in the affected market. This was because it imposed an unjustified limitation on the freedom of organization of a stevedoring company that chose to separate from a SAGEP, through conditions of compulsory subrogation of SAGEP workers who did not meet the requirements of transparency, objectivity and fairness, ultimately generating a disincentive for all other SAGEP shareholder companies. Forced subrogation under the terms imposed by the Fourth Framework Agreement was also not considered to be covered by [Royal Decree-Law 9/2019](#) and was contrary to the liberalizing purpose and protection of free competition of this regulation.
- The conduct was sanctioned with fines to the signatory parties, although the CNMC positively valued the willingness of the parties to reach an agreement that, while complying with the legitimate objective of protecting workers, respected the regulatory requirements of liberalization of the sector and maintenance of effective competition³. Subsequently, in May 2021, the labor Chamber of the National High Court declared several provisions of the IV Framework Agreement null and void, including the forced subrogation system, on which it stated the following:

"This obligation of subrogation imposed by the Fourth Framework Agreement on all stevedoring companies currently operating in the market therefore has a double effect: on the one hand, it acts as a disincentive to the exercise of their right to separate from the SAGEP – which was, precisely, the purpose of the CJEU Judgment and the subsequent reform carried out by the Spanish legislator for the purpose of liberalizing the stevedoring sector, and, on the other hand, it places the companies included in their personal and functional scope in an unequal and disadvantaged position compared to new operators that do not take on a pre-existing stevedoring activity, insofar as they are not obliged to subrogate the workers of the SAGEP, operating, once freed from the illegal provisions of the Fourth Framework Agreement denounced in previous paragraphs, in conditions of freedom of contract that are impossible to access to companies that are members of the SAGEP (...)"

³ This sanction has been appealed and is pending a judicial resolution.

- In July 2018, 6 companies and 5 unions were fined 3.4 million euros ([S/DC/0596/16: Estibadores Vigo](#)) for the signing on 1 March 1996 of an agreement between unions and stevedoring companies in the Port of Vigo, renewed in two other agreements of 2010 and 2013. which forced the hiring of workers from the SAGEP of Vigo for the embarkation and disembarkation of unregistered motor vehicles, and the reception and delivery of goods (the latter by the only company that carried it out, only with SAGEP personnel and not its own staff, allegedly due to pressure from the stevedores). Thus, the working conditions of stevedoring were transferred to parallel markets in which they were not applicable according to current legislation, which expressly excluded these services from the field of stevedoring (although later in 2017 the [Consolidated Text of the State Ports and Merchant Marine Law \(TRLPEMM\)](#) was amended to accommodate the embarkation and disembarkation of unregistered motor vehicles). In its 2018 resolution, the CNMC declared a very serious infringement accredited for the adoption of agreements in order to harmonize the contracting conditions of stevedoring companies in order to reserve exclusively or unjustifiably limit in favor of the staff of the SAGEP of Vigo the provision of the services of (i) embarkation and disembarkation of unregistered motor vehicles and (ii) the receipt and delivery of goods, from the entry into force of Law 33/2010 until 2016.

The sanctioned parties filed appeals in the National High Court, which in several judgments in March 2023: (i) upheld the appeals filed by the trade union organizations, annulling the sanctions against them, considering that the alleged acts were attributable to the works council, without there being any evidence that the trade union organizations intervened in the signing of the Agreements, (ii) annulled the sanction against the SAGEP of Vigo for lack of reasoning, and (iii) dismissed the appeals filed by several stevedoring companies (Bergé Marítima, Pérez Torres Marítima, TERMAVI and Líneas Marítimas Españolas), confirming the sanction imposed by the CNMC.

The CNMC has also prepared three advisory reports related to the cargo handling service. These reports are associated with the latest and currently in force state collective agreement for stevedoring, the [V Agreement for the regulation of labor relations in the port stevedoring sector](#). This new agreement was intended to reflect the important regulatory changes that had been taking place since 2017, including the approval of [Royal Decree-Law 9/2019](#). In the course of the negotiations, the Ministry of Transport, Mobility and Urban Agenda (MITMA) made three consultations with the CNMC on drafts of the Agreement, on which the CNMC issued three advisory reports: (i) the first, on 8 May 2020 ([INF/CNMC/035/20](#)), (ii) the second, on 28 July 2020 ([INF/CNMC/059/20](#)) and (iii) the third, on 10 November 2020 ([INF/CNMC/094/20](#)). They analyzed in a preliminary manner the potential distortions of competition that could arise from the text of the Fifth Agreement and, given the advisory nature of the reports, it

was clarified in all of them that their content did not condition or bind the actions of the CNMC that could be carried out from a sanctioning perspective⁴.

The CNMC made several observations on the latest draft of the Fifth Framework Agreement on Stevedoring submitted for consultation, which were reflected in the third and final report. They refer to the following aspects of the Fifth Agreement:

- 1. Intervention of the State Sectoral Joint Commission (CPSE) in the hiring of new workers.** The draft of the Fifth Agreement provided for the CPSE's access to information relating to the recruitment of personnel by the Port Employment Centers (CPE) and stevedoring companies. As the CPSE is made up of representatives from the entire business sector (in addition to the trade unions), the CNMC emphasized the importance of limiting the risks to competition arising from the dissemination of commercially sensitive information. To this end, it recommended that the duty of secrecy contemplated in the draft of the Fifth Agreement should be accompanied by a verification and compliance guarantee measure.
- 2. Limitations on the temporary hiring of workers.** It was advised that the requirement of a minimum number of permanent staff should not affect competition between companies.
- 3. Systems of organization and distribution of work.** The CNMC considered that the prioritization of CPE staff among the criteria for making staff appointments distorted competition by entailing an advantage over the staff of Temporary Employment Agencies (ETT) or other service provision models. Therefore, it recommended reviewing the appointment criteria to eliminate such prioritization.
- 4. Training and professional promotion.** The latest version of the draft sent to the CNMC for a report contained the obligation to collaborate with the CPEs of which the companies are members, making available to them new means or work systems for the provision of necessary and simultaneous training for the personnel hired by the companies and those made

⁴ The CNMC previously made other recommendations in the field of advocacy related to the stowage regime prior to the one initially conceived by the TRLPEMM and its subsequent amendments:

The [IPN 006/09 Ports of General Interest](#), relating to the Preliminary Draft amendment to Law 48/2003, identifies restrictions arising from the control by the pool of port workers that companies may have outside their workforce (as opposed to a model of temporary employment agency in freedom of establishment), because they had a special labor regime at that time. The document assesses as insufficient the changes introduced by the legislative modification that tried to open this sector to competition.

In "[Competition in Spain: balance and new proposals](#)" (1995), the fundamental characteristics of the Spanish port system and the different levels at which port competition takes place are described. Regarding the stevedoring regime, it is proposed, among other things, to gradually convert stevedoring companies into temporary employment agencies or to authorize those vessels that have adequate means to carry out certain operations themselves.

available by the CPE. The CNMC considered that if the obligation was made only in favor of the CPEs, there would be a risk to competition. In addition, it considered that the provision of information also involved a risk of dissemination of commercially sensitive information.

- 5. Conventional measures for the guarantee and stability of employment.** Regarding the system for the relocation of CPE staff (in the event of the dissolution of the CPE or separation from a company that continues to provide the service) of conventional subrogation, the CNMC considered that the proposed system implied restrictions on the freedom to hire stevedoring workers that could imply restrictions on competition, and it could only be considered in accordance with the law if its efficiencies were accredited and justified on a case-by-case basis from the point of view of Articles 1.3 of Law 15/2007, of 3 July, on the Defense of Competition (LDC), 101.3 of the Treaty on the Functioning of the European Union (TFEU) and the case-law that interprets them. In addition, the other three conditions had to be met in order for the restrictive agreement to be permissible⁵.

The CNMC also assessed unfavorably the procedure for choosing the independent third party that was to carry out a report on the efficiencies of the relocation and subrogation of personnel in the event of a discrepancy between the outgoing company and the affected CPE. It considered that the procedure did not specify or limit the appointment of the third party, nor did it establish a system for determining the indicated person, since the absence of a designation was only against the interests of the outgoing company. It also pointed out that precautions should be established to ensure the independence of the third party with respect to the interests of the parties and the introduction of considerations of competition in the resolution of the possible conflict and the possibility that the independent third party could extend the period of materialization of the effective exit of the company.

- 6. Training and non-work placements.** With regard to the functions of the State Sectoral Training Commission (broad and related to certificates of professionalism, use of training resources, training plans, etc.), the CNMC recommended that the text of the Fifth Agreement should expressly state that the exercise of these functions should respect competition regulations and introduce systems to avoid the appearance of risks. It also considered that any function involving support to enterprises or the provision of funds should ensure equal treatment among enterprises. With regard to the appointment of tutors for non-work placements, the CNMC recommended

⁵ As mentioned in the Report, "*the other three conditions are that users of the services must be reserved an equitable share of the resulting benefit; that restrictions must be indispensable to achieving the objectives, and that the agreement must not offer undertakings the possibility of eliminating competition in respect of a substantial part of the products concerned*".

that a specific and time-limited procedure should be provided to ensure that situations of non-appointment do not occur in practice.

In addition to these actions at the national level, at the community level other judgments of the Court of Justice of the European Union (CJEU) related to competition challenges in the stevedoring labor regime in other European countries stand out. In the case of Belgium⁶, two cases were brought before the CJEU: (i) one related to the request for annulment by two companies that carried out port operations in Belgium and abroad of a Royal Decree of 2016 that reformed the *pool regime* in the country, and (ii) another arising from a fine imposed on a company after the police had detected a dock work infringement committed by an unrecognized port worker. As summarized by the Supreme Court in its Judgment on the Fifth Framework Agreement on stevedoring (STS 2773/2025), *'in this case the CJEU adopted a nuanced position: it recognized that reserving port work to previously recognized stevedores is a restriction on Community freedoms (establishment, services and workers), as it makes it difficult for foreign companies to freely employ their staff in Belgian ports, but at the same time it considered that this restriction may be justified for reasons of general interest - namely safety in port areas and the prevention of accidents at work - given the dangerous nature of this work, provided that the recognition system is objective, proportionate and non-discriminatory. Even so, the CJEU detected several elements of the system that were neither necessary nor adequate for safety and therefore did not pass the test of necessity or proportionality for the safety objective, in breach of Articles 45, 49 and 56 TFEU'*⁷.

Competition in ports has also been studied by several international organizations: The **OECD** has produced two reports to highlight:

- *"Competition in ports and port services"* (OECD, 2011), which sought to determine the competitive constraints faced by ports, their substitutability with other modes of transport and between ports, and the factors that may affect situations of market power in the port area, as well as their possible remedies.

⁶ Judgment of the CJEU of 11 February 2021 in joined cases C-407/19 and C-471/19.

⁷ The Supreme Court Judgment details the elements that the CJEU considered did not pass the test of necessity and proportionality: *'that the one who has to recognize the qualification and health of port workers is an administrative commission constituted on an equal basis by members appointed by employers' organizations and workers' organizations; that this committee should also decide, on the basis of the need for labor, whether or not recognized workers should be integrated into a quota of dock workers, it being understood that the duration of the recognition of dockworkers not included in this quota is limited to the duration of their employment contract, so that a new recognition procedure should be initiated for each new contract they conclude; and that no period is foreseen within which such a commission must pronounce.'*

- *"Port competition and hinterland connections"* (OECD 2009), which summarizes roundtable discussions on supply chain changes, their impact on ports and the response of authorities.

The **European Commission** commissioned a study from Portius, where port employment is analyzed from a legal perspective. It concludes that in a considerable number of Member States the specific labor rules governing port employment include restrictions on employment and doubts about the compatibility of certain regimes with European Union law. It also points out the diversity in terms of qualifications of dock workers and the growing need for training due to technological development. In the case of Spain, the study, in addition to the legal challenges associated with the former SAGEP, already pointed to other problems such as the very broad definition of stowage, the mandatory size of the hands or problems of partiality in access to the profession. Overall, according to the study, the inadequacy of the labor regime of port workers had a very detrimental effect on the competitive position of Spanish terminals. The cost of labor could amount to 60% (Portius, 2014).

At the international level, several competition authorities have addressed the cargo handling service in different port-related reports, among which the following can be highlighted.

The *Autoridade da Concorrência (AdC)* of Portugal, in collaboration with the OECD, published in 2018 a study on competition in the port sector. The study concludes that: (i) a significant part of the concessions were not awarded through a competitive process, (ii) no significant relationship was found between the duration of the concessions and the cumulative investment made, (iii) the weight of variable remuneration for Port Authorities creates incentives for them to increase their fees, and a high level of fees limits the ability of ports to attract more traffic, and (iv) the governance model, which brings together the functions of regulation, management and provision of services in Port Authorities, gives rise to conflicts of interest. It recommends, among other aspects, limiting the duration of terminal concessions to the recovery of investments, including a system of incentives to be taken into account in their extension. In them, the criterion of minimizing costs for users must prevail. In addition, it proposes to open the provision of port labor to temporary work agencies.

In **Australia**, the *Australian Competition and Consumer Commission (ACCC)* annually presents a monitoring report on financial performance and stevedoring productivity. Furthermore, a report by the Australian *Productivity Commission* was published in January 2023 at the request of the Australian Government in response to the relatively low position of the efficiency of Australian ports in a 2021 World Bank report. Among the conclusions and recommendations, the following should be highlighted:

1. Labor agreements reduce the productivity of Australian ports. Trade unions have significant bargaining power, and there are restrictions on the recruitment and promotion of workers based on merit (e.g., recruitment is

limited to entry-level and promotion is based on experience). In addition, the need to reach an agreement with workers for significant changes to work, such as those related to automation, can limit investment and improvements in terminal safety and reliability. In response, the report recommends reducing harmful industrial action (facilitating the suspension of strikes in certain cases or limiting the content of agreements relating to, for example, recruitment and promotion or innovation and changes in work).

2. There is no clear correlation between automation and increased productivity in container movement. However, the potential of technology to improve the safety and reliability of terminal operations and to generate reductions in labor costs is highlighted.

Other studies by European competition authorities are also worth mentioning. In this regard, some less recent ones stand out, such as that of Italy, which deals specifically with port services and alludes to the challenges for competition of the system of making available workers in the cargo handling service. Also that of Ireland, which analyzes competition between ports and intra-port there, and that among its conclusions mentions the excessive term of some terminal concessions or the lack of information and performance measures in the Irish port system. For its part, the Dutch Competition Authority conducted two studies on ports in 2020 and 2004.

2.2. The port service to passengers

Among the **CNMC's antitrust files** dealing with maritime passenger transport, the following should be highlighted:

- Those relating to sanctions for prohibited agreements, on the lines of Ceuta Algeciras ([S/0080/08](#) and [S/0241/10](#)) and the Balearic Islands ([S/0244/10](#)). It was considered that there were no indications of an infringement for sale at a loss of the transport service in the regular maritime service on the Alcudia-Ciudadela route ([S/0310/10](#)).
- Those of concentration control, particularly that of Balearia and Umafisa ([C84/04](#)), that of Armas and Transmediterránea⁸ ([C/0922/18](#)) and more recently that of Sercomisa and Pitiusa ([C/1248/21](#)), among others.
- Focused specifically on passenger service, two merger control files of the Grimaldi group stand out, which in 2021 was authorised to acquire 5 ships and a terminal in the port of Valencia from the Armas group

This operation was authorized subject to the fulfillment of commitments. BAHÍA DE LAS ISLETAS, S.L., parent company of GRUPO NAVIERA ARMAS, was sanctioned with a fine of €450,000 for the infringement of the LDC derived from the breach of these commitments ([C/0922/18](#)).

([C/1203/21](#)). Later, in 2022, it again notified an acquisition, this time of a company (TFB) managing a ro-ro and passenger terminal in the port of Barcelona ([C/1305/22](#)). The concentration was authorised in May 2023 in the second phase, on the condition that Grimaldi complies with the following approved commitments: (i) to renounce and return to the Port Authority of Barcelona (APB) a part of its current concession in that port, (ii) to facilitate direct boarding from the gangway and finger of its current terminal to any third party occupying the disinvested area, (iii) to provide maritime station services in the event that a new maritime station is not built on the disinvested area, (iv) not to participate in the tender that the APB may call to concession the disinvested area in the future and (v) to maintain the commercial conditions for the third-party shipping companies to which TFB provided port services at that time, until the effective entry of a third party into the area to be divested or until the fifth anniversary of the Resolution without such entry having taken place.

In terms of **advocacy**, the [INF/CNC/2010](#) report analyzed a proposal to establish maximum fares on the Algeciras-Ceuta line. It concluded that the setting of maximum charges in all rotations would not respect the principles of necessity and proportionality. No market failures were identified that would make this public intervention evident, nor was the existence of a clearly defined public interest objective found, and it was considered that other less restrictive alternative instruments existed.

On the other hand, in the report [PRO/CNMC/002/18](#) the CNMC considered the proposal of the Ceuta authorities to repeal the current system of Public Service Obligations (OSP) plus Public Service Contracts (CSP) to replace it with an OSP that would include a maximum charge mechanism. The report noted that the operators' service offerings far exceeded those required in the OSP and cast some doubt on the need for CSP, which should lead to a reassessment of existing OSP and CSP measures. Relevant gaps in the requirements and conditions of the CSP were also identified.

And the report ([IPN/CNMC/033/18](#)) on the **Draft Decree developing the special regime for the provision of maritime transport in the Balearic Islands**. It concluded that the draft decree submitted does not contain sufficient information on the aspects taken into account to propose the measures included about the regularity, frequency or capacity of the operators. Therefore, it indicated that it was impossible to assess whether the specific regulatory intervention measures contemplated were adequately reasonable based on the principles of necessity, proportionality and non-discrimination. However, despite the foregoing, it pointed out that the regulatory approach proposed by the draft decree was substantially correct, since it was based on the principle of freedom to provide the service and only in certain circumstances and with a limited objective and subjective scope, did it contemplate intervention measures.

3. LEGAL FRAMEWORK

3.1. The port cargo handling service

The regulation on the cargo handling service can be divided into two large blocks:

- The general regulation of the service: establishes, among other aspects, the definitions and provisions on concessions and authorizations for the occupation of the public domain and on the granting of licenses for the provision of the activity.
- Labor regulations and collective agreements.

3.1.1. General regulation

The general regulation can be found in [Regulation \(EU\) 2017/352](#) and in [Royal Legislative Decree 2/2011, of 5 September, which approves the Consolidated Text of the State Ports and Merchant Marine Law](#) (TRLPEMM). The principles of freedom of establishment and the provision of services contained in the TFEU are also relevant.

3.1.1.1. Regulation (EU) 2017/352

Regulation (EU) 2017/352 establishes a framework for the provision of port services and introduces common rules on the financial transparency of ports.

- **For cargo handling and passenger services, the regulation establishes a voluntary exemption in relation to the provisions on the provision of port services** (minimum requirements for the provision of services, procedure to ensure compliance with minimum requirements, limitations on the number of providers, public service obligations, etc.). It establishes that, when access to the market for these two services is granted through a public contract, the competent authorities are bound by the principles of transparency and non-discrimination in the conclusion of such contracts, in accordance with the case-law of the CJEU. Although the stated on the provision of port services do not apply to cargo handling and passenger services, the regulation recognizes that Member States are free to decide whether to apply the rules of this chapter to these two services or to maintain the existing national market access rules.
- **The provisions on financial transparency and autonomy do apply to these services**. It stresses the obligation of Member States to ensure that a port infrastructure charge is charged, which may be integrated into other payments, but which must remain easily identifiable to the user of the port infrastructure, and the port managing body must ensure that port users are informed of the nature and level of port infrastructure charges. Charges for

port services may also be integrated with charges for port infrastructures, but they must also be easy for the user to identify.

3.1.1.2. The TRLPEMM

At the national level, the TRLPEMM regulates the fundamental elements of the provision of port services and the management, composition and use of the state port public domain. The following can be highlighted:

- **Definition and scope of the cargo handling service** (art. 130). The TRLPEMM defines the cargo handling as the *'loading, stowage, unloading and transshipment of goods, object of maritime traffic, which allow their transfer between ships, or between them and land or other means of transport. To be considered as activities included in this service, they must be carried out entirely within the service area of the port and have a direct and immediate connection with a specific loading, unloading or transshipment operation of a given vessel.'*
- **The text also defines the concepts of loading, stowage and unloading, and establishes a series of exceptions** (art. 130.2 TRLPEMM), which are not considered as a port service for handling goods but as a commercial service, being excluded from the application of the stevedoring regime. Including:
 - (i) the embarkation and disembarkation of lorries, cars and motor vehicles when carried out by their owners, users or habitual drivers,
 - (ii) loading, unloading and transshipment operations if they are carried out by pipeline,
 - (iii) the securing and release of cargo on board the ship, when carried out by the crew,
 - (iv) the driving of vehicles transporting goods to the foot of the crane or loading facility,
 - (v) loading, unloading and transshipment for provisioning,
 - (vi) operations carried out in port facilities under a concession or authorization regime, when such facilities are directly related to processing plants, industrial processing facilities or packaging of own goods, unless they are carried out by a company that owns the cargo handling service, etc.
- **Use of the port public domain:** the provision of the cargo handling service requires in most cases the use of physical space in the port public domain where the terminal is located⁹. According to the TRLPEMM, the

⁹ The percentage of goods handled through licensees who do not hold a public domain concession is relatively small. In the case of container transport, licensees hold public

occupation of the port public domain requires, depending on the case, authorization or concession from the Port Authority. The main elements of **authorizations and concessions** included in the TRLPEMM are summarized below.

Authorization

The following are subject to authorization:

- (i) the use of fixed port facilities by ships, passengers and goods, and
- (ii) the occupation of the public domain with movable property or removable installations or without them for a maximum period of three years, including extensions.

Term: not exceeding three years.

Procedure for granting authorizations for the occupation of the port public domain with or without movable property or removable installations¹⁰: at the request of the interested party or by competition called by the Port Authority. In the latter case:

- (i) The body competent¹¹ for the resolution of the tender will approve the **terms and conditions that must govern the competition** (requirements to participate, criteria for award and weighting).
- (ii) **Also the specifications** which will regulate the development of the authorization, which must in turn be in accordance with the **general specifications for authorizations for the occupation of the public port domain** approved by the Ministry of Transport and Sustainable Mobility.

Concession

The occupation of the port public domain with non-removable works and installations is subject to a public concession.

Term: it is set in the corresponding title. It must be more than 3 years old and a maximum of 50 years old. Various criteria are taken into account for setting the term (investment volume, useful life of the investment, etc.). The term of the concession must coincide with that of the license to provide the service.

domain concessions in all cases. On the other hand, the spaces that occupy the port public domain are usually referred to as "terminals" (container terminal, bulk terminal, etc.).

¹⁰ The other case subject to authorization by the Port Authority (the use of fixed port facilities by ships, passengers and goods) is governed by the Operating and Police Regulations and the corresponding Port Ordinances.

¹¹ The President of the Port Authority, if the duration of the authorization does not exceed 1 year, or the Board of Directors, if it exceeds the annual duration (art. 78.3 of the TRLPEMM).

Extensions: the concession will not be extendable except in certain exceptions. In some of these exceptions (that the granting title has provided for one or more extensions, relevant investments not initially foreseen) the total calculation of the concession including extensions may not exceed 50 years, while in other cases the possibility of exceeding 50 years to 75 years is provided for (concessions of strategic interest or that involve the maintenance of competition in the port, when the concessionaire undertakes to make a new additional investment or an economic contribution).

There are **three ways for granting** the concession:

- (i) at the request of the interested subject,
- (ii) by public tender resolved by the Board of Directors of the Port Authority (general case), and
- (iii) direct in certain exceptional cases, among others, when a tender is declared void or failed due to non-compliance by the successful bidder, or when the area to be occupied is less than 2,500 m² (arts. 81-95 [TRLPEMM](#)). The TRLPEMM establishes that in any case tenders must be called in the cases of concessions for the provision of port services open to general use and concessions for passenger terminals or for the handling and transport of goods for private use when there are several applications¹².

In the case of a competitive bidding process, the Board of Directors of the Port Authority shall approve: (i) **the tender terms and conditions** (which shall contain, at least, the purpose and requirements for participating in the tender, the criteria for their award and weighting, and the provisional guarantee) and (ii) **the specifications for the development of the concession**, which must comply with the **general specifications of public** concessions approved by the Ministry of Transport and Sustainable Mobility and **the particular conditions** established by the Port Authority. The call for tenders will be published in the Boletín Oficial del Estado (BOE), as well as in the OJEU in those cases where the value of the works to be carried out by the concessionaire is equal to or greater than the limit established in [Royal Decree-Law 3/2020](#), opening a period of no less than 30 days to submit bids. After receiving the bids, a procedure

¹² Section 17 of Annex II of the TRLPEMM establishes that maritime stations for private use are considered to be those in which, not being open to general commercial traffic, goods owned by the holder of the concession or authorization are handled, or vessels operated exclusively by the holder's shipping companies are operated. They are also those in which, not being open to general commercial traffic, goods are handled directly and exclusively linked to a processing plant or industrial facility of the same ownership as the public domain concession or authorization.

takes place¹³ to evaluate them, which ends with a resolution of the Board of Directors published in the BOE.

The concession title must include, at least: the object of the concession, term of validity, area of public domain whose occupation is granted, occupation fee and activity fee, etc.

- **License for the provision of port services:** the provision of port services is carried out by private initiative, governed by the principle of free competition, with the exceptions established in this law (art. 109 of the TRLPEMM). In fact, one of the most outstanding aspects of the evolution of the regulations governing the provision of port services has been the introduction of the principle of competition.
- However, it requires obtaining a license granted by the Port Authorities. The number of providers of this service is not limited, so stevedoring companies are governed by the principle of free competition. Licenses may be granted for one or more of the types of freight traffic (article 109.2 of the TRLPEMM).
 - **Relationship between concession titles and licenses for the provision of cargo handling services:** the TRLPEMM establishes that the holder of a license to provide a port service does not necessarily have to be the holder of the authorization or concession of a cargo terminal dedicated to private use, although the granting of the license will be linked to the existence of a contract between the applicant for the license and the holder of the authorization or concession.
 - **Term of the licenses for the provision of the cargo handling service:** there are two cases:
 - **No significant investment:** 6 years.
 - With significant investment: maximum term of between 10 and 50 years, depending on the type of investment (mobile or fixed) and other elements.

¹³ Bids will be opened in a public act and the Board of Directors will be responsible for the resolution of the tender. Subsequently, a public information procedure will be opened and, where appropriate, reports will be obtained from other Administrations and public bodies. After this, the Director of the Port Authority will issue a report. If the latter is unfavorable to the granting of the concession, the President shall submit it to the Board of Directors of the Port Authority so that, after hearing the applicant, it may decide what it deems appropriate. If the report of the Director of the Port Authority is favorable, the conditions under which the concession is to be granted shall be established. These conditions must be expressly accepted by the applicant. Once the conditions have been accepted within the period granted for this purpose, it will be the Board of Directors of the Port Authority that will issue the corresponding resolution, which must be published in the BOE.

In 2023, the average term of enabling titles in state-owned ports was 12.5 years.¹⁴ and 13.6 years according to information from the [General Register of Port Service Provider Companies](#) available in July 2025.

- **Granting procedure:**

- (i) The Port Authorities approve the **Specific Terms and Conditions (PPP) of the service**, after hearing the Port Services Committee, and after hearing the most representative trade union organizations of the corresponding service and the most representative associations of operators and users whose purposes are directly related to the object of the PPPs (art. 113 TRLPEMM). Puertos del Estado will issue a binding report prior to final approval.

The Specific Terms and Conditions (PPPs) of the service include: the object of the service, the requirements for access to the service (non-discriminatory, objective, adequate and proportionate), the conditions of economic-financial, technical or professional solvency, the minimum human and material resources, the charge structures and maximum charges, the duration of the license, etc. The TRLPEMM establishes (art. 113) that *'the specifications of particular requirements shall not contain technical requirements for the provision of services that unjustifiably alter the conditions of competition or any other type of clause that supposes, in practice, the impossibility for a sufficient number of operators to compete in the market'*.

- (ii) **If the number of providers is not limited, all interested parties** who meet the requirements established in the Specific Terms and Conditions (PPPs) may opt for the provision of the service.
- (iii) **If the number of providers is limited¹⁵, the license will be granted by competition.** The Port Authorities will draw up and approve, following a report from Puertos del Estado, **the terms and conditions for each tender**, which will contain, at least, the determination of the number of providers, the requirements to participate, the maximum term of the license, the information to be provided by the applicant and the award criteria, which must be objective and non-discriminatory. The PPPs may not require

¹⁴ Document analyzing the evolution of the liberalization of the stevedoring sector in Spain for 2023, page 16.

¹⁵ The Port Authority may limit the maximum number of service providers in each port for reasons of availability of spaces, capacity of the facilities, security, etc. In goods handling and passenger services, the limitations may be applied by type of traffic, or operation or port security. For reasons of maritime safety, the Harbour Master's Office may declare these services compulsory.

additional conditions or means for the provision of the service to those established in the Specific Terms and Conditions (PPPs).

- (iv) **The license must include, among other elements:** the holder, the type of license granted, the conditions for providing the service, including minimum levels of performance and quality of service, minimum human and material resources, charge structure, port fees, term of validity, etc.

3.1.1.3. Principles of freedom of establishment and the freedom to provide services of the TFEU

Freedom of establishment and freedom to provide services are principles enshrined in the TFEU that guarantee the mobility of companies and professionals in the EU. Both have been particularly relevant in the configuration of the legal framework of the cargo handling service. Specifically:

- **Freedom of establishment is enshrined in Articles 49-55 TFEU.** Under Article 49, *'restrictions on the freedom of establishment of nationals of one Member State in the territory of another Member State shall be prohibited'*. This freedom includes the right to undertake and pursue professional activities as self-employed and to set up and manage undertakings under the same conditions laid down by the law of the Member State of establishment for its own nationals.
- **The freedom to provide services is enshrined in Articles 56 to 62 TFEU.** Under Article 56, *'restrictions on the freedom to provide services within the Union shall be prohibited for nationals of Member States established in a Member State other than that of the recipient of the service'*. This is a principle which has the same implications as freedom of establishment but in respect of specific and occasional activities (unlike establishment, which presupposes a stable activity in the other Member State or a certain frequency and regularity).

The TFEU itself specifies the limitations allowed to the exercise of these freedoms, which are of restrictive interpretation (public order and security, public health or activities involving the exercise of public power) and linked to the concept of overriding reason in the public interest. Among these reasons, as case law has repeatedly established, none can be alleged related to economic purposes or protection of certain business models.

On the other hand, the case-law of the CJEU specifies both the concept of restrictions that are prohibited by the TFEU, and certain exceptions that may be justified. Thus, the CJEU rejects any measure that, even when applied without any discrimination on grounds of nationality, may hinder or make less attractive the exercise by European Union nationals of the freedom of establishment. However, according to the case-law, restrictions on freedom of establishment which are applicable without discrimination on grounds of

nationality may be justified on grounds of public interest provided that they are appropriate for attaining the objective pursued. In other words, the restrictions must meet three conditions: necessity, proportionality and non-discrimination.

3.1.2. Specific regulation of the cargo handling service: concessions and Specific Terms and Conditions

Within the specific regulation of the cargo handling service, the authorizations and concessions of public domain (the general regulation that governs them has been described above in the section on general regulation) and the Specific Terms and Conditions stand out.

1. **Concessions and authorizations are the titles that govern the occupation of the public port domain** and play a central role in the cargo handling by replacing competition *in* the market with competition *for* the market.
2. **Specific Terms and Conditions (PPPs)** are the main regulatory element of port services. They regulate the requirements for access to the license for the provision of the cargo handling service and the particular conditions under which the provision of the same must be carried out. They are approved by the Port Authorities, which must send the draft together with the complete file to Puertos del Estado so that it can issue a binding report before its final approval. Article 113 TRLPEMM establishes which matters must be regulated by the Specific Terms and Conditions (PPPs). These include:
 - (i) the requirements to access the provision of the service (non-discriminatory, objective, appropriate and proportionate),
 - (ii) the economic-financial, technical or professional solvency conditions to meet the obligations resulting from the service,
 - (iii) public service obligations,
 - (iv) minimum human and material resources,
 - (v) the charge structure and maximum charges, as well as the criteria for their updating, revision and, where appropriate, setting,
 - (vi) the causes for terminating the license, and
 - (vii) the duration of the license. It is also established that the Specific Terms and Conditions (PPPs) shall not contain technical requirements for the provision of services that unjustifiably alter the conditions of competition or any other type of clause that supposes, in practice, the impossibility of a sufficient number of operators competing in the market.

3.1.3. Stevedoring labor regime

Another of the particularities of the cargo handling service is that it requires the hiring of specialized workers, the stevedores, whose labor regime has a series of specificities and has traditionally been a source of limitations to competition in the sector.

Next, an analysis is made of both the most relevant elements of the evolution of the stevedoring labor regime and its current situation.

3.1.3.1. Background: labor regulations for stevedoring until 2017

The stevedoring labor regime has evolved since its inception, but until 2017 it was broadly characterized by a triangular relationship: stevedoring companies, stevedoring workers and intermediary companies that hired stevedores, trained them and assigned them to stevedoring companies.

Worker management regime for the provision of the cargo handling service until 2017

Spain has been a party to Convention 137 of the International Labor Organization since 1975. This Convention sought to guarantee the permanent and regular employment of port workers. It thus establishes the need to guarantee workers minimum periods of employment or income (art. 2.2) and the possibility for them to enjoy maximum social benefits due to the new methods of handling goods, for which collaboration between employers and workers' organizations must be encouraged (art. 5) (Canedo Arrillaga, 2022).

From Royal Decree-Law 2/1986 until 2017, the stevedoring regime in our legal system was characterized by the exclusive reservation of this activity in favor of stevedoring workers assigned to management companies who, although they were given different names with successive legal reforms, carried out this intermediation work. The background to this framework can be found in the regime introduced in 1986¹⁶. In the legal framework in force until **the CJEU Judgment of 2014**, the management companies were called Sociedades Anónimas de Gestión de Trabajadores Portuarios (SAGEP). These were private commercial corporations:

¹⁶ This regime laid the foundations for the SAGEP. By virtue of it, the State Stevedoring and Unloading Companies (SEED) were created in each port, with the participation of the public sector (51%) and the private sector (49%), with the participation in these companies being mandatory for all companies that provided the service of handling goods in the port. In addition, the activities of stowage and unloading of ships in ports of general interest were defined as an essential public service owned by the State and the existing employment relationship between the SEED and the stevedores was classified as a special employment relationship.

- **With a triple corporate purpose**, specifically, the hiring of stevedoring workers, the management of the provision of workers to stevedoring companies and the continuous training of workers¹⁷.
- **The shareholding was made up of all the companies that wished to provide the port service of handling cargo**, which were obliged to participate in the capital of the SAGEPs, except for those companies with a license for self-provision. The shares were to be distributed among the stevedoring companies as follows: (i) 50% of the capital would be distributed proportionally among the number of companies, and (ii) the remaining 50% according to the degree of temporary use of the workforce, measured in the turnover of each company. The distribution would be automatically reviewed when a shareholder entered or separated, and the adjustments in the shareholder composition entailed the right to liquidation and the obligation to acquire the corresponding shares according to the adjustment.
- **With the ability to set the unit price of the services made available to workers**, which was determined by the governing body of the SAGEP in such a way as to meet the objective of annual budgetary balance.

Labor regime for the goods handling service until 2017

Workers in the cargo handling service could have a double employment relationship: (i) with the SAGEPs, in a special employment relationship according to the Workers' Statute, and (ii) directly with the stevedoring companies, under a common employment regime. Thus, in order to hire personnel to carry out the activity of handling cargo, a stevedoring company could have qualified personnel in two ways:

- **Through the temporary assignment of workers by SAGEP.** In these cases, the employment relationship was considered special. The hiring of workers by the SAGEP under a special employment regime could only be arranged for an indefinite period and the assignment of workers under a special employment regime demanded by the shareholder companies was carried out through the rotation system. The SAGEP was responsible for complying with the salary and Social Security obligations of the workers hired who were in a special employment relationship and the stevedoring company was responsible for the prevention of occupational risks.
- **If the company wished to incorporate stevedoring workers into its workforce indefinitely, it had to hire them directly, for which there was not full freedom:** companies had to hire SAGEP workers as a

¹⁷ SAGEPs were legally obliged to allocate at least 1% of its wage bill each year to the continuous training of its workers to guarantee their professionalism.

priority, through nominative or unnamed offers.¹⁸ Stevedoring companies could only hire freely if there were no adequate or sufficient staff in SAGEP or if the offers received were rejected.

The Law established the obligation to hire a minimum number of stevedoring workers under the common regime, which would be specified in the license to provide the service and whose non-compliance would constitute a cause for termination of the license. This minimum number had to cover at least 25 percent of the company's activity, in year-on-year calculation.

When a worker from SAGEP established a contract with a stevedoring company in a common employment relationship, the (special) employment relationship with SAGEP was suspended. The worker had the option of resuming this special relationship of origin if the common employment relationship was terminated, unless the termination of the common relationship had been due to the resignation of the worker, fair disciplinary dismissal or by mutual agreement. On the other hand, if the contract was part-time, the special employment relationship was maintained, which would be renewed in the form of a part-time contract.

Finally, a stevedoring company could also resort to the free hiring of stevedores in cases where, having opted for the temporary assignment of workers through the SAGEP, the latter had not been able to provide said workers. In these cases, the direct hiring of workers could not exceed one work shift.

Collective agreements

Collective bargaining has played a particularly influential role in the stevedoring sector, with a bargaining structure that has guaranteed a full coverage rate for all workers and companies in ports of general interest, and with collective agreements with an intense capacity to set working conditions (remuneration system, regulation of working time, professional classification regime - including the system of minimum jobs per "hand" - and the hiring systems in the sector).

The structure of collective bargaining was made up of collective agreements of different scopes. It thus consisted of a collective agreement at the state level (which was applicable to labor relations, common or special, between companies and workers providing cargo handling services in Spanish commercial ports) and sectoral collective agreements of a lower territorial scope (including the port agreement), which had to respect the provisions of the state-wide agreement.

In the stage prior to 2017, four state collective agreements were signed, of which the most relevant is the IV Agreement for the regulation of labor relations in the stevedoring sector, signed in 2007 and amended in 2013. This reform was due to the fact that the 2007 Agreement was declared in part contrary to both national

¹⁸ As it has to resort to SAGEP workers as a priority, it could be considered that this is a second modality of assignment or delivery of SAGEP workers that applies for an indefinite period. This is how Canedo (2022) and Ballester (2022) consider it.

and European competition law by the CNC in a resolution confirmed by the Supreme Court¹⁹, since it gave power to the signatories to affect the internal organization, contracting and business decisions of companies that were not represented in said Agreement. creating barriers to entry in activities that were not even considered basic port services. With the 2013 reform, the provisions sanctioned by the CNC were eliminated.

Requirements for access to the profession

Prior to 2017, access to the stevedore profession required:

- The possession of any of the intermediate or higher level vocational training qualifications that are determined by order of the Ministry of Transport and Sustainable Mobility (art. 153.1 TRLPEMM, currently repealed, as well as the Order of the Ministry of Public Works that established the qualifications).
- The passing of the psychophysical aptitude tests, the minimum content of which was approved by Puertos del Estado (art. 153.2 TRLEPMM, currently repealed).
- In addition, the Fourth Framework Agreement established additional requirements to those established in the law. It thus specified that:
 - (i) The selection and hiring of personnel was carried out solely by the SAGEP of each port, and in turn the personnel selection process (which corresponded to the SAGEP according to the Agreement) would be entrusted to an external company specialized in personnel selection, which delivered the results of the process to the SAGEP for hiring.
 - (ii) The entrance tests or examinations would be established by mutual agreement by the legal representation of the workers and the companies of each port, and
 - (iii) passing these tests would be essential for the selection and hiring of the worker in the SAGEP, being not sufficient for admission to obtain the corresponding professional qualification from the competent authority.

Despite the liberalization of recruitment in 2017, the additional requirements of the IV Framework Agreement were maintained until they were declared null and void in the 2021 judgment of the National Court on the grounds that this system limited the hiring of stevedore staff by the SAGEPs (without providing for recruitment through the stevedoring companies themselves or through CPEs or temporary employment agencies). In particular, this was contrary to: (i) the

¹⁹ 2805/07: Asociación Nacional de Empresas Estibadoras y Consignatarias / Coordinadora Estatal de Trabajadores del Mar.

freedom of contracting, (ii) the powers of organization and management of stevedoring companies, and (iii) the freedom of establishment of stevedoring companies from other Member States, *'by restricting the access of some companies to recruitment, imposing exorbitant access requirements, beyond the legal authorization required by law, so that access to the profession, with serious restriction of competition and access by third party operators, must be carried out with the intervention of the Joint Commission, which implies the necessary acceptance by the social representation, which clearly curtails the freedom of contract (...) and in practice, they amount to trade union control of access, since access is not possible without the necessary consent of the workers' representatives.'*

The 2014 Judgment of the European Court of Justice

The legal regime described above was the subject of an appeal to the CJEU. In its judgment of 11 December 2014 (Case [C-576/13](#)), it held that the Kingdom of Spain was in breach of the obligations of Article 49 TFEU (freedom of establishment) by imposing on undertakings from other Member States wishing to carry out the activity of handling cargo in ports of general interest: (i) the obligation to register in a SAGEP for the Management of Port Stevedores and, where applicable, to participate in the capital of the latter, and (ii) the obligation to hire workers made available by the SAGEP as a matter of priority, and a minimum of such workers on a permanent basis. Although these obligations applied identically to both national operators and those of other Member States, the CJEU considered that they obliged foreign stevedoring companies to carry out an adaptation that could dissuade them from establishing themselves in Spanish ports of general interest.

Although the obligations pursued legitimate general interest objectives (protection of workers and safety in ports), they were not justified, as there were less restrictive measures that could be applied to achieve a similar result. The CJEU mentioned two examples in the Judgment of less restrictive measures, suggested by the European Commission itself:

- (i) The stevedoring companies themselves, being free to hire permanent or temporary workers, manage the employment offices that are to supply them with their labor and organize the training of these workers, or
- (ii) the creation of a reserve of workers managed by private companies, which function as temporary employment agencies and make workers available to stevedoring companies.

The CJEU Judgment was followed by an infringement procedure (Article 260 TFEU) started in 2016 against Spain by the European Commission. The CJEU finally declared in July 2016 that the Kingdom of Spain failed to fulfil its obligations by failing to adopt by 20 September 2015 the measures entailed in the execution

of the judgment of 11 December 2014, and ordered the Kingdom of Spain to pay the European Commission a lump sum of 3 million euros.

3.1.3.2. The current stevedoring labor regime

The current labor regime for stevedoring is the result of various modifications made to adapt it to the requirements of the 2014 CJEU Judgment. It is determined by five main elements:

- (i) [Royal Decree-Law 8/2017, of 12 May](#), amending the workers' regime for the provision of the port service of cargo handling, in compliance with the Judgment of the CJEU of 11 December 2014, in Case C-576/13 (infringement procedure 2009/4052),
- (ii) [Royal Decree-Law 9/2019, of 29 March](#), amending Law 14/1994, of 1 June, regulating temporary employment agencies, for their adaptation to the activity of port stevedoring and concluding the legal adaptation of the workers' regime for the provision of the port service of cargo handling,
- (iii) [Royal Decree 257/2019, of 12 April](#), which establishes the rules for the granting of special aid for the adaptation of the port stevedoring sector,
- (iv) [Law 4/2022, of 25 February](#), on the protection of consumers and users against situations of social and economic vulnerability,
- (v) [Law 14/1994, of 1 June](#), which regulates temporary employment agencies, and
- (vi) the [V Framework Agreement for the regulation of labor relations in the port stevedoring sector](#) (2022).

The table in Annex 1 summarizes the main regulatory milestones in the process of liberalization of the cargo handling from the 2014 Judgment of the CJEU to the present.

Following the end on 14 May 2020 of the transitional regime provided for in Royal Decree-Law 8/2017, the stevedoring management and labor regime is based on the following elements:

- 1. Freedom of employment of workers.**
- 2. It is not mandatory for stevedoring companies to participate in any company for the provision of stevedores.**
- 3. Possibility of managing the provision of stevedoring workers through three types of companies**, all of which operate as temporary employment agencies. Specifically, these are:
 - a) **Port Employment Centers (Centros Portuarios de Empleo, CPEs).**
New figure introduced by Royal Decree-Law 8/2017, designed to operate as temporary employment agencies specific to the cargo

handling sector. They may result from a new creation or from the transformation of SAGEP. Its current legal regime is determined by the first final provision of Law 4/2022 and Royal Decree-Law 9/2019.

- i. They are jointly owned companies on a mutual basis, constituted voluntarily, in accordance with the corporate forms provided for in the laws.
- ii. Companies holding the license for the cargo handling service may be members.
- iii. Its corporate purpose is: (i) the employment of stevedoring workers for their temporary availability to companies holding a license to provide the port service of handling cargo or authorization of port commercial services, and (ii) the training of workers. There is no obligation to contract stevedoring services with the CPE itself:
 - They may contract the provision of their staff with non-member companies, provided that they are holders of the license to provide the cargo handling service.
 - They may contract the training of workers with other operators.
- iv. Its geographical scope of action may extend to the national territory and more than one CPE may coexist per port.
- v. Their creation requires obtaining the authorization of a temporary employment agency (art. 2 of Law 14/1994) and the rest of the regulations applicable to these companies are applicable to them.
- vi. If they result from the transformation of a SAGEP, they subrogate the position of employer of the SAGEP workers once the succession of the activity was consummated.
- vii. In order for the CPE to comply with the requirement of having the organizational structure that allows it to fulfil the obligations it assumes as an employer in relation to the corporate purpose (necessary to obtain the authorization of a temporary work agency), it is necessary that it has the minimum number of structural staff and in any case at least two people, which must be maintained throughout the CPE's activity time.
- viii. The employment contracts entered into by the CPEs with port workers to be made available to the stevedoring companies may be indefinite or temporary.
- ix. Obligations of the member companies for the achievement of the corporate purpose: (i) to contribute to the maintenance of employment and guarantee the effective employment of the staff of the Port Employment Centre by requesting the temporary assignment of workers to carry out stevedoring activities not carried

out by the partner company's own staff, (ii) to collaborate in the training and professional promotion of the CPE staff, making available to the CPEs the means and work systems for the provision of training, and (iii) participating in the implementation of measures aimed at avoiding or reducing collective dismissals and accompanying social measures.

- x. Separation of members of the CPE: the partners may transfer their participation in the share capital to another company holding a license for the cargo handling service or exercise the right of separation in the cases, forms and conditions established in the law regulating the corporate form under which the CPE has been constituted and, where applicable, in the statutes.

b) **Previously existing SAGEPs (they cannot be newly created) that have decided to maintain their activity** (that have not been extinguished or transformed into CPEs). They maintain their purpose consisting of the employment of port stevedoring workers for their temporary availability. However, in the current context they operate in free competition and in order to continue with their activity they must obtain the authorization of a temporary employment agency (art. 2 of Law 14/1994) and must comply with the requirements established in general for temporary employment agencies.

c) **Temporary employment agencies that operate in the sector.** They are subject to the particularities of the regulation of the CPE in terms of the minimum number of structural people hired and the obligation to submit to the labor authority the list of contracts for the provision of services entered into.

4. Stevedoring companies, as employers, exercise the powers of management, organization and control of stevedoring workers. Among them is the designation of the personnel necessary to carry out each of the activities, although by virtue of the Fifth Framework Agreement the modification of the 'hands' or work equipment will be processed in accordance with the provisions of the Fifth Framework Agreement itself and article 41 of the Workers' Statute Law. The latter refers to substantial modifications of working conditions and, in the case of collective modifications, establishes a specific procedure with consultations with the workers' legal representatives. The legal framework currently in force establishes that the powers of management, organization and control are the same both in the event that the contracting has been carried out through the CPE or through temporary employment agencies.

5. Access to the stevedoring profession could be divided into two levels:

- **Professional certificate:** the duration of the total training to obtain it is 850 hours, divided in turn into the completion of training modules (450

hours) and also a non-work professional internship module (400 hours) in an accredited training centre²⁰. There are currently 20 training centers accredited to issue these certificates. A training contract may be signed in alternation with personnel who seek the certificate of professionalism of port operations, which allows accrediting with the hours of work under the contract the hours corresponding to the Non-Work Professional Internship Module necessary to obtain the certificate.

- **There are additional requirements in the case of hiring by CPE or stevedoring companies:** in the case of stevedores who are going to access the exercise of the profession through a CPE or directly as contract staff of the stevedoring companies (but not via a temporary employment agency), the newly hired personnel must meet the professional training requirements provided for in the applicable legislation and also pass the minimum entrance tests established in the V Framework Agreement and, where applicable, by means of a collective bargaining agreement of a lower scope. The Fifth Framework Agreement (art. 32) establishes that:
 - i. For admission to the selection process: the age of majority, the legally provided professional training or meeting the requirements for the signing of a qualifying training contract, and the possession of a C1 driving license must be accredited.
 - ii. Selective tests prepared by the convening stevedoring company or CPE must be passed, which must include, at least: (i) physical tests, (ii) psychotechnical tests, and (iii) medical tests. Once the process is concluded, the order of candidates with the score will be published, and the stevedoring company or CPE must hire in order from highest to lowest score, unless the company proves justified and non-discriminatory cause to alter the order.
 - iii. Trade unions participate throughout the selection process. According to art. 33 of the Fifth Framework Agreement: *'the legal representation of the workers (RLT) of the contractor may appoint one representative and the unions with a presence in the State Sectoral Joint Commission may appoint a maximum of two, who will participate in the entire selection process, including the preparation of the tests'*.

In addition, recruitment is subject to a series of principles and obligations detailed in Chapter VII of the Fifth Framework Agreement (among them, the minimum effective employment of 85% of the staff

²⁰ According to art. 3 of Royal Decree-Law 8/2017, as amended by Royal Decree-Law 9/2019, it is required to have the certificate of professionalism "Port operations of loading, stowage, unloading and transshipment". The certificate is regulated in Annex VIII of the [Royal Decree 988/2013, 13 of december](#), and in the first final provision of the [Royal Decree 257/2019, 12 april](#).

hired by company or by CPE, or the exhaustion of the possibilities of professional promotion of all workers so that new income can be produced).

6. Conventional measures for the maintenance and stability of employment: relocation and conventional subrogation. One of the most controversial issues following the elimination in 2017 of the obligation for stevedoring companies to be part of a SAGEP has been the introduction of mechanisms to mitigate the reduction in the level of employment resulting from the separation of companies from the SAGEP²¹.

Currently, the establishment of measures for the maintenance and stability of employment in cases of separation of stevedoring companies from CPEs is provided for in Law 4/2022 and in the V Framework Agreement on Stevedoring²². The starting point of the legal provision of the current mechanisms of stability in employment is the prevention of opportunistic behavior on the part of the members of the CPE who decide to separate, since the separation may generate a reduction in the activity of the CPE that requires adjustments in the workforce that the CPE itself must pay for²³.

²¹ The subrogation of SAGEP staff is an issue with a history of infringements of competition law. Indeed, following the approval of Royal Decree-Law 8/2017, the Fourth Framework Agreement was amended to include the obligation for a company that separated from a SAGEP to be forcibly subrogated to employees of the SAGEP in a certain way (among other requirements, the percentage of SAGEP's workforce proportional to its shareholding had to be subrogated, with a procedure that included a prior report from the State Joint Commission, in which competing companies of the one that aspired to leave the SAGEP were represented). The introduction of surrogacy mechanisms was not provided for by Royal Decree-Law 8/2017. Subsequently, on 3 November 2017, the CNMC initiated the sanctioning proceedings in [S/DC/0619/17](#) and resolved declaring a very serious infringement of competition regulations that was sanctioned with fines. Subsequently, on 31 May 2021, the National High Court declared null and void the additional provision of the IV Framework Agreement in which forced subrogation was included.

²² Prior to the current scheme, in 2019 the Decree-Law 9/2019 introduced the possibility of establishing the mandatory subrogation of part of the SAGEP staff if the companies separated from the SAGEP during the transitional period established in Royal Decree-Law 8/2017 (ending on 26 February 2020, but extended until 23 August 2020). However, this Royal Decree did not determine either the procedure or the type of subrogation.

²³ The preamble to the Fifth Framework Agreement reads as follows: *'Implicit legal obligations that arise when the stevedoring company freely decides to satisfy its needs for port labor by participating in a CPE, benefiting from the advantages and assuming its costs, which must be taken into account both when "liquidating the interest" of the partner in the CPE when it decides to separate (if there is a legal or statutory cause) or when the partners adopt an agreement for the total dissolution of the CPE. In these circumstances, in order to satisfy the labor objective of stability in port work and to discourage opportunistic or parasitic behavior to the detriment of its competitors, the parties agree that the shareholder who separates but continues in the stevedoring activity that it had been carrying out during its membership of the CPE – benefiting from the savings in labor costs that the mutualization of port stevedoring workers with its competitors entails – acquires the contractual obligation to hire the port stevedores of the CPE that it had been regularly requesting or, where appropriate, to assume the costs that may arise from the termination of the employment contracts in question.'*

Thus, Law 4/2022 establishes the obligation of CPE member companies to *'participate in the implementation of measures aimed at avoiding or reducing collective dismissals and in accompanying social measures, such as those of relocation that may be agreed in the CPE'*. For its part, the Fifth Framework Agreement approved below establishes the cases and conditions under which the subrogation of workers from the CPE staff must take place.

Specifically, it imposes the subrogation of workers in the following cases (Articles 35 and 36): (i) the total dissolution or extinction of the CPE, and continuation of the activity by the partners, (ii) the separation of a stevedoring company from the CPE, which continues to provide the port service of handling cargo on a self-provision basis and for this requires having additional personnel to the one hired in its staff²⁴, and (iii) the succession of companies (transfer of all or part of the activity carried out by a member of the CPE to another company that operates in the same port and that will carry out the activity without requesting the same CPE to make personnel available).

In these cases, the outgoing stevedoring companies that continue or receive the activity must offer the staff of the affected CPE direct recruitment and integration into their workforce with the rights and conditions specified in the Fifth Framework Agreement. The Agreement also specifies the conditions that must be met in order to carry out the relocation in the event of separation of the company from the CPE: (i) the company must require additional personnel to the one it had hired in its workforce, (ii) the self-assessment of the company and the management of the CPE or the report of the independent third party on the efficiencies of the relocation of personnel must prove the efficiency of the relocation or subrogation (otherwise, the outgoing company will not be obliged to relocate the affected personnel), and (iii) the self-assessment reports (both of the outgoing stevedoring company and of the CPE or, where appropriate, of the independent third party) must sufficiently prove compliance with the three cumulative conditions established in Article 1.3 of Law 15/2007, on the Defense of Competition.

In addition, in order to prevent member companies from resorting to the mechanism of separation to circumvent a collective dismissal process and make the CPE assume it, the Fifth Framework Agreement imposes an obligation on the outgoing company to make a contribution to the CPE for

²⁴ Separation is assimilated to the case in which a member of the CPE, on an ongoing basis, makes a demand for employment of CPE workers substantially lower than that which has been making a negative effect on the level of employment of the CPE staff, due to the fact that the provision of the port service of handling goods on a self-provision basis continues through the direct employment of other personnel or as a user of another CPE or another medium.

the amount of compensation. Specifically, the Fifth Framework Agreement establishes that *'when there are economic, technical, organizational or production causes that could justify the termination of employment contracts or have a negative impact on the employment and employment levels of the CPE staff, the outgoing company must make a contribution to the CPE in an amount equivalent to the compensation that would be due in the event of collective dismissal for each affected person not subrogated or relocated.'*

- 7. A report on the evolution of the liberalization of the stevedoring sector, presented by the Ministry of Transport and Sustainable Mobility, must be submitted annually to the Government Delegate Commission for Economic Affairs (CDGAE).** The report must reflect (first additional provision of Royal Decree-Law 9/2019) the evolution of employment and the inflows and outflows of workers to stevedoring, hiring inside and outside the CPEs, working conditions, the basic magnitudes of the stevedore training sector, and the impact of all this on Spanish port competitiveness. By the end of 2024, five editions of the report had been presented (the first in 2020 for 2019, and the last in 2024 for 2023).

3.2. The port service to passengers

The general regulation of the passenger service is set out in Regulation (EU) 2017/352 and in the TRLPEMM.

With respect to **Regulation (EU) 2017/352**, what has already been described for the cargo handling applies. Specifically, it also establishes a voluntary exemption from Chapter II (on the organization of services, the minimum requirements for their provision, limitations on the number of providers, etc.).

The **TRLPEMM** highlights:

The definition and scope of passenger service (art. 129), which shall include:

- a) **"Passenger embarkation and disembarkation service**, which includes the organization, control and, where appropriate, management of the means necessary to make possible the access of passengers from the maritime station or the dock to passenger ships and vice versa."
- b) **"Baggage loading and unloading service**, which includes the organization, control and, where appropriate, handling of the means necessary for the reception of baggage on land, its identification and transfer on board the ship and its placement in the place or places to be established, as well as for the collection of the baggage on board the ship from the place or places to be established, its transfer to land and its delivery to each of the passengers."
- c) **"Loading and unloading service of vehicles under the passenger regime**, which includes the organization, control and, where needed,

handling of the necessary means to make possible the transfer of these vehicles, in both directions, between the dock or parking area and the ship."

In addition, it establishes the following **exception**: *"The handling of walkways, ramps and other mechanical means of the Port Authority will not be included in the port service when it is carried out with the Port Authority's own personnel."*

Regarding the **use of the public port domain**, there **are no differences** in the conditions, deadlines, granting procedure and requirements in relation to the cargo handling in authorizations and concessions. **The same happens with the licenses for the provision of passenger service.**

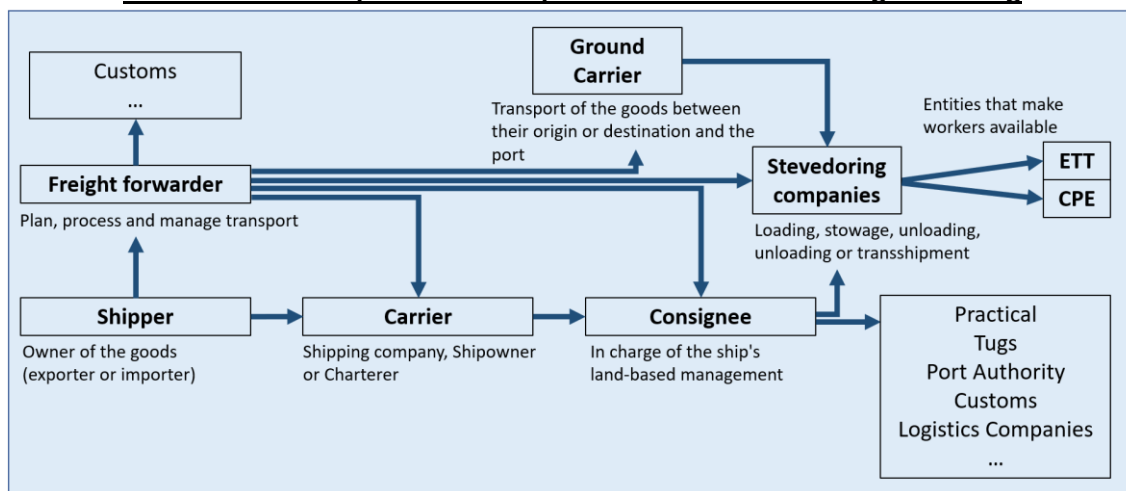
In addition, the service is subject, like the other port services, to the corresponding Specific Terms and Conditions (PPPs) that govern the service in each Port Authority.

4. ECONOMIC CHARACTERIZATION²⁵

4.1. The port cargo handling service

The cargo handling service is vital for the proper flow of logistic activities, the development of trade and the competitiveness of the Spanish economy. The main players involved in the cargo handling are shown in the box below:

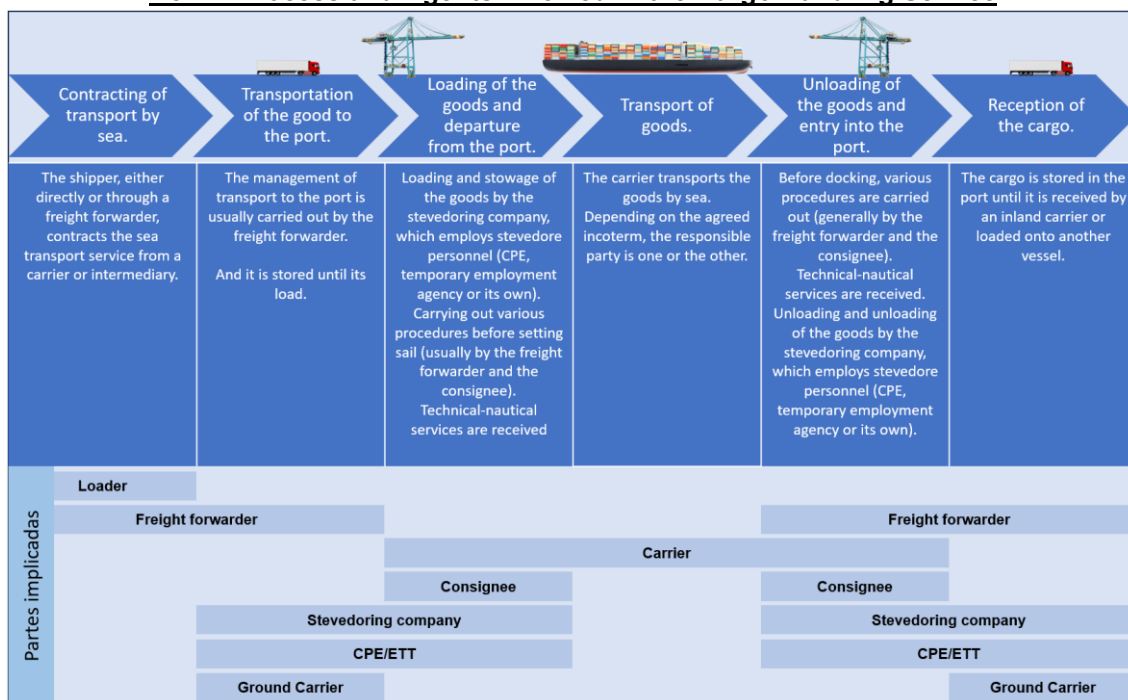
Box 1: Relationship between the parties involved in the cargo handling



Source: Authors.

²⁵ The economic characterization carried out in this section has a purely descriptive approach, without the different divisions carried out being considered in any case as an analysis of the relevant market definition (a task that would require a specific competition investigation that would analyze, for the case in question, the substitutability on the demand and supply side of the affected segments, apart from other considerations such as geographical delimitation).

Box 2: Process and Agents Involved in the Cargo Handling Service



Source: Authors.

- **Shipper:** entity that contracts in its own name the transport of goods, where generally the owner of the cargo is the exporter or the importer according to the agreed commercial modality²⁶. You can contract the transport directly or through an intermediary (that you contract in the name and on behalf of others, with the name of the owner of the cargo appearing in the contract).
- **Freight forwarder:** an intermediary who is responsible for carrying out all the formalities regarding the documentation of the cargo' transport process, insurance, transport costs and customs. They organize the logistics chain in its relationship with foreign trade, warehouses, carriers and customs clearances on behalf of their customers²⁷.
- **Carrier:** the shipping company, shipowner or charterer engaged in a contract of carriage with a shipper. As defined in the [United Nations Convention on the Carriage of Goods by Sea](#), 'means any person who, by himself or through another acting on his behalf, has entered into a contract for the carriage of goods by sea with a shipper.'

²⁶ That is, the different incoterms: CFR (Cost and freight), CIF (Cost, Insurance and freight), FOB (Free on Board), etc.

²⁷ Definition provided by Asociación de Transitarios, Expedidores Internacionales y Asimilados OLT (Ateia-OLT Valencia) in [S/0314/10](#).

- **Shipping company:** the natural or legal person who, using its own or others' merchant vessels, is dedicated to the operation of the same (Article 145 of [Law 14/2014, of 24 July, on Maritime Navigation](#), LNM).
- **Shipowner:** *"whoever, whether or not its owner, has possession of a ship or vessel, directly or through his dependents, and dedicates it to navigation in his own name and under his responsibility"* (Art. 145 LNM). A figure that may or may not coincide with that of the shipping company.
- **Charterer:** the one who charters a ship for a certain time or for one or more trips.
- **Owner:** owner of the ship on which the cargo is transported. It can coincide with the first two figures.
- **Consignee:** person who, on behalf of the shipping company or shipowner, takes care of the material and legal procedures necessary for the clearance and other services to the ship in port, where they carry out the land phases of maritime transport (article 319 LNM). Among its main functions we find: managing the ship's entry permits to the port, providing the necessary documentation to the Port Authority and customs services, organizing and coordinating activities with stevedoring companies, etc.
- **Stevedoring company:** that which holds a license to provide the port service of handling cargo. As explained in a Port Operations and Services Manual²⁸, the stevedoring company is usually also the holder of an administrative concession to exclusively use an area of the dock to carry out its activity, operating a port terminal. However, the stevedoring company may not coincide with the figure of the terminalist or concessionaire, holder of the concession²⁹.
- **Port employment centers (CPE) and temporary employment agencies (ETTs):** entities that make goods handling workers available to stevedoring companies.
- **Land carrier**³⁰: they are responsible for moving the cargo between the port and the origin or destination of the goods. Their customers are the shippers.

²⁸ Manual de Operaciones y Servicios Portuarios (Autoridad Portuaria de Castellón, 2021).

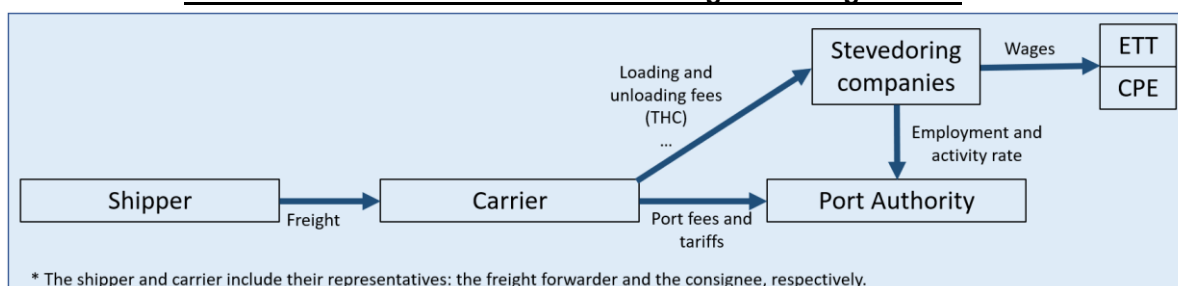
²⁹ As noted above, the percentage of goods handled through licensees who are not concession holders is relatively small.

³⁰ When embarking or disembarking from the port, goods are transferred to the following modes of transport: rail (2%), road (42%), pipeline (24%), sea (29%) and others (3%) (OTLE database).

- **Other agents involved:** port authorities, technical-nautical and MARPOL service providers, maritime captaincy, customs agents, health authorities, container depots, ship chandlers, etc.

In turn, the great extension of the maritime transport value chain and the multitude of agents involved translates into a complex network of monetary flows. Box 3 summarizes the most relevant monetary flows related to the cargo handling service.

Box 3: Relevant Cash Flows from the Cargo Handling Service



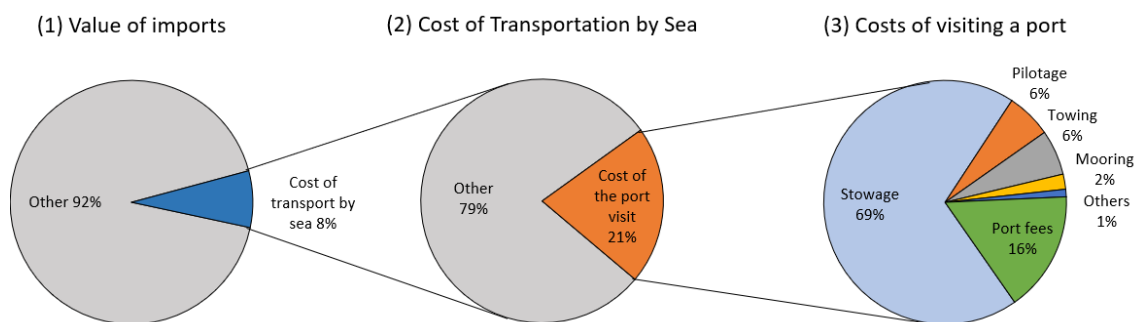
Source: Authors.

The cargo handling service has a relevant cost:

- **Freight rates accounted for 7.5% of the value of world imports in 2018³¹.** This highlights the potential impact of a variation in these on global trade flows, prices and inflation, as well as their possible effect as a trade barrier.
- **A fifth of the cost of maritime transport can be associated with a visit to a port,** as reported in the case of a typical container ship in The Geography of Transport Systems (Rodrigue J. P., 2020).
- **Within the set of costs of the visit to the port, the cargo handling service stands out,** which would usually be the most relevant by far, being able to well exceed half of the cost.

³¹ Shipping Costs and Inflation (IMF, 2022).

Figure 1: Share of costs in sea transport



Sources: (1) Shipping Costs and Inflation (IMF, 2022) (2) Port Economics, Management and Policy 2022 (Notteboom, Pallis, & Rodrigue, 2022) (3) Study aimed at supporting an impact assessment on: "Measures to enhance the efficiency and quality of port services in the EU", page 120 (PwC, 2013).

In short, **the costs associated with the cargo handling and port transport have a direct impact on the prices** of products for the end consumer, and their changes in the inflation rate of an economy.

In addition to the monetary cost of the service itself, the efficient operation of the cargo handling service is essential from a temporal point of view. Stevedoring is a crucial activity that can help reduce the duration of port calls and thus the transaction costs of importers and exporters. Similarly, their paralysis could entail very high costs for the parties affected by trade in goods. This explains the high level of intervention to which it has traditionally been subjected, in order to guarantee the existence of a sufficiently qualified workforce available in each port, regardless of the time of arrival of a ship.

The costs of this activity can also be influenced by the degree of competition in its different aspects, as explained in Box 4 below.

Box 4: Types of competition in ports

1. INTERMODAL COMPETITION

Intermodal competition occurs between different modes of transport. Substitutability between modes of transport is limited by several elements. First, the **availability of infrastructure and geographical conditions**, which will determine which alternative modes of transport may be used. Second, the **characteristics of the transported good**, where it has been found that the average value per ton of goods used by different modes of transport differs significantly. Finally, the **regulatory environment**, which can promote the use of some means of transport or others by altering their competitive conditions.

2. INTER-PORT COMPETITION

Interport competition occurs between different ports, whether they are from the same country or not. Its intensity depends on the following factors:

- a) **Demand-side substitutability:** The degree in which customers can choose between different ports after changes in pricing or the service. The choice will depend fundamentally on the minimization of the transport cost, which is affected by prices and costs, efficiency and time spent in the port, location, infrastructure and distances to the final destination.
- b) **Supply-side substitutability:** The degree to which different ports can receive different types of cargo. It is related to the possibility of a port to expand or vary its offer. It is affected by location, infrastructure and connectivity, idle capacity as well as expansion possibilities. It should be noted that economies of scale, limited land and high costs limit the expansion of existing ports and the creation of new ones.

In the case of Spain, interport competition is limited since the location of ports is the main explanatory variable for the distribution of port activity. It would be more relevant in transshipment traffic, since in this segment large national and foreign ports could be good substitutes (Boscá et al, 2022).

3. INTRA-PORT COMPETITION.

Intra-port competition **takes place within the same port**. It can be categorized into **inter-terminal and intra-terminal competition**, and depends on:

- a) **Demand-side substitutability:** the degree to which port demand can alternate between the port's different suppliers. At this point, one of the most relevant factors is **vertical integration** between terminals and shipping companies.
- b) **Supply-side substitutability:** the degree to which different suppliers can diversify or expand their activity. This is influenced by the infrastructures and spaces available, costs, the possibility and capacity to invest, and personnel and regulatory barriers.

4.1.1. Characterization of the service on the demand side

4.1.1.1. The customer's profile

The cargo handling service is demanded as an intermediate input by companies that transport goods through ports. Although the real customers of this service are the owners of the goods being transported, it is common for them to be negotiated and hired by intermediaries, such as consignees or freight forwarders. Thus, the demand for freight terminal services is mainly made up of shipping companies, cargo shippers, shipowners or agents.

The demand for the cargo handling service by shipping companies is usually not very sensitive to prices³². This conclusion would be explained by the **low weight of the price of the cargo handling service on the value of the**

³² According to Boscá et al. (2022), the ratio between revenues from the handling of goods and the collection of port taxes is 2.62 (0.445% of the average price), which could approximate, as they do for port taxes, the elasticities of imports and exports with respect to the price of the goods handling service. They obtain values respectively of -0.002 and -0.0044 in their base scenario and -0.0047 and -0.0081 in their maximum scenario. In other words, variations in the price of the goods handling service would lead to reduced variations in imports and exports

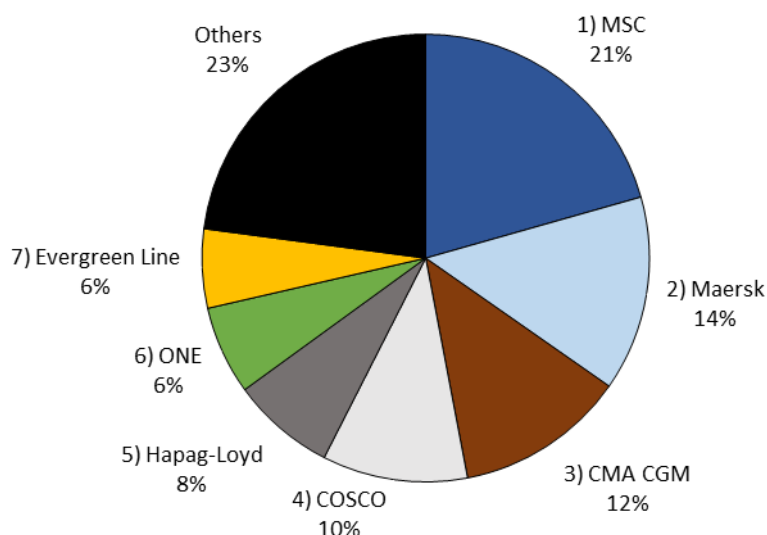
total goods. Shipping companies value other characteristics of the port service beyond the price³³.

a) Profile of shipping companies according to the type of goods

The profile of those demanding the cargo handling service is varied. One way to segment demand is according to the goods they transport, as their characteristics and the facilities required differ.

Containers represent the most significant part. A market that is increasingly concentrated: Between 1996 and 2022, the 20 largest shipping companies increased their share in terms of capacity from 48% to 91%, of which the four largest groups covered more than half. (UNCTAD, 2022a). In addition, there is an intense vertical integration towards terminals, logistics operators, land transport and freight forwarders.

Figure 2: Global shares of container shipping companies



Source: Alphaliner Top 100 (Alphaliner, accessed in July 2025).

One of the peculiarities of shipping companies is that they tend to organize themselves in alliances, which cover the use of ships, their schedules and

³³ Kaliszewski et al. (2020) survey a sample of 120 managers in the maritime sector. The results indicate that on average the most valued variable is the quality of the service (speed, reliability, safety...), followed by harmony with workers and the government (number of strikes or conflicts), and by 'others' (accessibility of the port, land connections and the speed of customs). Fees for handling goods, port taxes and connectivity would be in a fourth set of variables, a short distance from the previous ones. Despite this, there are differences between different business sizes: large shipping companies value land and sea connectivity more, while for medium-sized shipping companies, port service rates are more relevant, which become one of the most valued elements.

itineraries, as well as the use of joint terminals³⁴. The nine main companies have thus been divided into three alliances – 2M³⁵, Ocean Alliance and The Alliance – which control more than 85% of the capacity on the three major transoceanic routes (UNCTAD, 2019)³⁶. In the intra-European market, the four main shipping companies accounted for a 64% share, with the rest belonging mainly to regional and *feeder* traffic (Interempresas, 2022). Similarly, consortia or cooperation agreements are common, where ships on a given line are shared, often acting as a bridge between different alliances³⁷. In fact, shipping companies have benefited from consortia and under certain conditions a block exemption from the prohibition in Article 101 TFEU that expired in April 2024.

The evolution in freight rates in recent years has been marked by different disruptions in global supply chains, such as the pandemic or the outbreak of the war in Ukraine. Indeed, a significant breakdown in the supply network can seriously alter efficiency and logistic costs globally, as shown by studies such as that of Lavassani, Iyengar and Movahedi (in this case, due to China's exit from the medical equipment network) (2022).

Thus, in 2021, after the pandemic, freight rates experienced a significant increase. After a period of decline in 2022 and a subsequent moderation in 2023, in 2024 they rebounded again. In the "Review of Maritime Transport" of the United Nations Conference on Trade and Development, this initial price increase is attributed to supply constraints: port closures, lack of workers, increased congestion, capacity restrictions, lack of containers and limitations on land transport, which began in 2020 but worsened in 2021 with the emergence of pent-up demand and other disruptions, among which the rise in fuel prices (2022a).

³⁴ The Impact of Alliances in Container Shipping (International Transport Forum, OECD, 2018).

³⁵ Composed of MSC and Maersk, dissolved in 2025.

³⁶ Transpacific, Transatlantic and Asia-Europe. Review of maritime transport (UNCTAD, 2019).

³⁷ They are justified by their economies of scale (high fixed costs) and network, better service reliability and avoiding problems associated with overcapacity. Despite this, it has been noted that its impact in general has been negative.

Performance of Maritime Logistics (OECD, 2022b).

Liner shipping: is there a way for more competition? (UNCTAD, 2016).

Graph 3: Word Container Index: Weighted weekly evolution of spot freight rates of eight major east-west routes (US\$/40ft) ³⁸



Source: Drewry Supply Chain Advisors.

Likewise, shipping companies dedicated to solid bulk or ro-ro cargo transport are of great relevance. Regarding bulk carriers, some have their own equipment to move their cargo, although their use is not always allowed.

Tankers can also be included in this analysis, despite the fact that they generally transport liquid bulk and therefore do not usually need cargo handling services. This is a very specialized market that is segmented according to its cargo: oil tankers³⁹, chemical tankers or gas carriers, although it also includes combined ships, which can transport iron and oil, or iron, oil and dry cargo, cases where they would need the stevedoring service.

b) Cost structure of shipping companies

In the main Spanish shipping companies, some estimates suggest that 44% of operating expenses were supplies, 13% personnel costs and 43% other expenses in 2021 (Transporte XXI, 2023b). At the ship level, the operating costs of a container ship will depend on multiple factors, such as its size, design, the type of fuel used and its price, the distance of the route or speed, among others⁴⁰.

³⁸ The World Container Index by Drewry Supply Chain Advisors collects the spot freight rates of the largest global routes. A large part of the merchandise, previously negotiated with contractual agreements, would therefore not be so affected by this volatility.

³⁹ They are usually divided according to their capacity: Coastal, Handy size, Panamax, Aframax, Suezmax, VLCC and ULCC...

⁴⁰ For instance, a cost model by Notteboom-Vernimmen (2009) shows that with the price of bunker fuel at \$450/ton for the specific case of a 4,500 TEU container ship sailing at a speed of 22 knots on a typical route, the cost per TEU will be distributed as follows: 37% fuel costs, 17% goods handling costs, 11% container costs, 4% administrative costs and 31% other costs. Thus, under the assumptions made in this specific simulation, the costs of handling goods account for approximately one sixth of the total freight costs.

Traditionally, economies of scale have been found in container shipping. In recent years, thanks to technical progress, shipping companies have been investing in ships of greater length and cargo capacity, which has contributed to increasing the minimum efficient scale of the route, further expanding these economies of scale.

In addition, shipping companies can register economies of scope, as everything indicates that they can take advantage of their vertical integration with port terminals. This would explain the fact that the four largest shipping companies are among the top ten terminal operators worldwide. These advantages could also be extended to their integration with logistics operators and warehouses, which with the above, has led to intense acquisition operations in the sector (UNCTAD, 2022a).

4.1.1.2. Features with an impact on demand

Next, we shall analyze which aspects are relevant for those seeking cargo handling services.

a) The profile of ports: infrastructures and connections

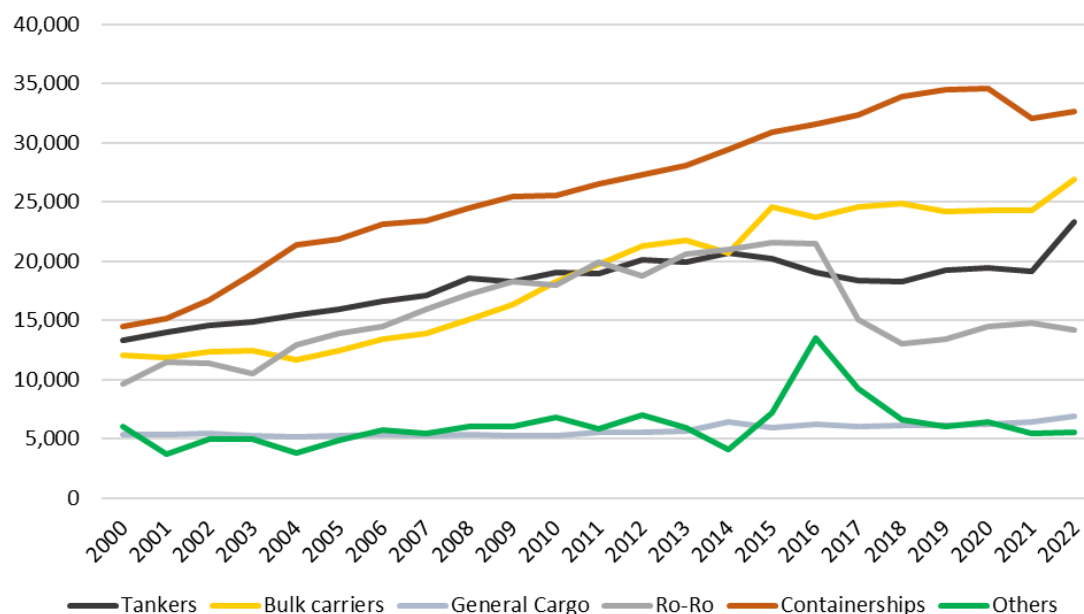
Some determining factors are the port's capacity and facilities. A specific case is that of large tonnage merchant ships, which require high-capacity facilities. The importance of infrastructures is highlighted by the fact that in Spain, in the last 20 years, the number of ship visits has increased by 38% while its capacity has increased by 115% (with an average annual growth of 1.6% and 3.9% respectively) (Observatorio del transporte y la logística en España, accessed on september 2024).⁴¹ This could have implications for competition between terminals, as larger vessels face less freedom to choose their destination. According to data from Spanish ports, the increase in cargo capacity would be gaining momentum, especially among container ships.⁴² and bulk carriers.

The same goes for port connectivity, as the long journey of goods does not always end there, and shippers will drive demand for shipping companies anchoring in well-connected ports. In this respect, intermodality, i.e. the possibility of using other means, such as rail, is particularly important.

⁴¹ [OTLE database.](#)

⁴² [OTLE database.](#) In the 70s, the largest ship had a capacity of about 3,000 TEUs; today the largest exceeds 24,000.

Graph 4: Average gross tonnage (GT) by type of merchant ship in Spanish ports (2000-2022)



Source: Authors' elaboration based on data from the Observatory of Transport and Logistics in Spain (OTLE database, accessed September 2024).

b) Characteristics related to costs and quality of service

The **UNCTAD** estimates that an improvement in the quality of port infrastructure from the 25th percentile country to the 75th percentile country would reduce shipping costs by 4.1 per cent (UNCTAD, 2021)⁴³.

The cost of waiting due to bureaucratic reasons **is also relevant**. If they are high, they would negatively affect port demand due to the high cost that waiting for a port can entail, both for shippers and shipping companies.

Box 5: Empirical evidence on changes in port charges.

A part of the port literature focuses specifically on the costs imposed by the port visit, and especially the effect of port charges⁴⁴:

- **Núñez-Sánchez** (2013) calculates for the different port authorities the elasticity of demand for ship and goods charges in the period between 1986-2005. They conclude

⁴³ Other, older studies reach similar conclusions. Clark et al. (2004) estimate that, in a ranking of countries based on their port efficiency (determined on the basis of the World Economic Forum's competitiveness index), the higher port efficiency of the 75th percentile country results in transport costs 12% lower than those of the 25th percentile country. Likewise, Hummels (2001) calculate that each day that a product is delayed is equivalent to a cost of 0.8% of its value, and Djankov et al. (2010) quantify it in a reduction in trade of at least 1%.

⁴⁴ There is hardly any literature on changes in the rates of the goods handling service, and it is common to estimate the response of traffic to changes in port taxes, the price of freight or the costs of visiting the port.

that, on average, the gross tonnage of visiting ships is reduced by 0.32% in the face of a 1% increase in ship rates and that it falls by 0.45% when the rate of goods increases by 1%.

- **Hidalgo** (2016) considers that the price elasticity of port charges over the quantity of goods moved is unitary, under the assumption that only the fees of one port are modified and those of the other ports in the area remain constant.
- **Boscá et al.** (2022) based on the assumption that all Port Authorities modify their fees at the same time by the same amount, tries to quantify the macro effects of this change. Thus, based on the aggregate price elasticities of imports and exports from a previous study, they calculate:⁴⁵ the implied elasticities of imports and exports with respect to port taxes, which are quantified at -0.0008 and -0.0017 in a baseline scenario and between -0.0018 and -0.0031 in a maximum scenario.

c) Charger preferences

The choice of port by carriers **will be closely linked to the routes demanded by shippers**, and the demand for cargo handling services cannot be understood separately from the shippers' eagerness to choose the transport chain that minimizes their overall cost of moving the goods.

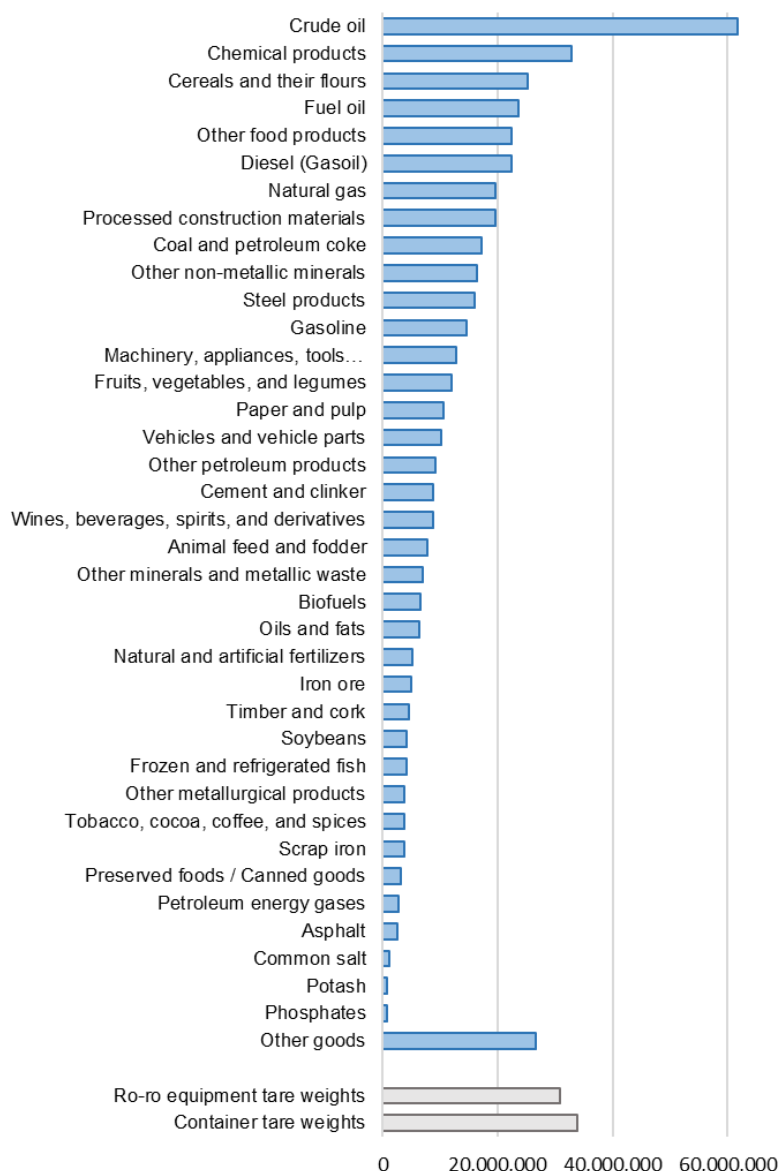
d) Type of goods transported and their added value

Price sensitivity may be higher on the part of some shippers and business sectors. For example, this could be the case of ro-ro cargo, a segment led by road transport agencies and mass consumption distributors, a category with high sensitivity to freight prices.

In this way, the nature of the goods will influence the availability of alternative modes of transport, impacting the price elasticity of demand for the cargo handling service. Thus, it will greatly affect the good in question: the ease of transporting it, the degree of competition in its market, the price sensitivity of its demand, etc. In Spain, the most manipulated goods by tonnage are foodstuffs, construction materials, minerals, steel products, cereals and their flour, machinery, coal and petroleum coke.

⁴⁵ Multiplying by the ratio of the rate to the price, assuming that $P = p + \tau \rightarrow \frac{\partial P}{\partial \tau} = 1$

Graph 5: Goods by nature in tons (2023)



Source: Authors' elaboration based on data from Puertos del Estado (Puertos del Estado, 2024b).
Note: Due to the format of the data, goods not included in the cargo handling service have been included.

e) Traffic Type

In many cases, these are captive traffics⁴⁶ due to the high cost of change or the lack of alternatives, as is the case with ports close to an industrial center, while **in others there is greater freedom** to choose between different ports. Thus, the distinction between **transit traffic, which is that in which goods are unloaded from one ship and reloaded into another without leaving the**

⁴⁶ Especially local traffic, which is known as the hinterland, a part of which can be contested.

service area in port⁴⁷, and inland traffic, is of great relevance for competition. Transit covers 26% of cargo in Spain, a figure partly explained by the strategic location of the Iberian Peninsula that gives it a fundamental role in global logistics networks. There are quite a few differences in their distribution, with their weight being greater in the large ports close to the main global maritime routes or that act as *hubs*, such as Algeciras (60% of the tonnage in transit), Las Palmas (43%), Valencia (39%), Barcelona (32%), Gijón (30%) or Cádiz (26%). In the rest this percentage in a few cases exceeds 10%, being specialized in managing the flows of their vicinity (the *hinterland*)⁴⁸.

Transit traffic would be more sensitive to port fees, since in this modality national and foreign ports could be good substitutes (Boscá et al., 2022). This is due to the fact that the demand for transit is primarily due to logistical and inventory management reasons on the part of the shipper, which has a considerable impact on the determinants of port choice. This has led to a certain specialization of the port authorities, which concentrate transit traffic in the best connected, most efficient places (where economies of scale are essential), with better infrastructure and larger warehouses, which act as a "hub" from where the cargo is distributed to the other ports. Given its logistical nature, it will also be influenced by the existence and proximity of **free zones, free warehouses and customs warehouses**.

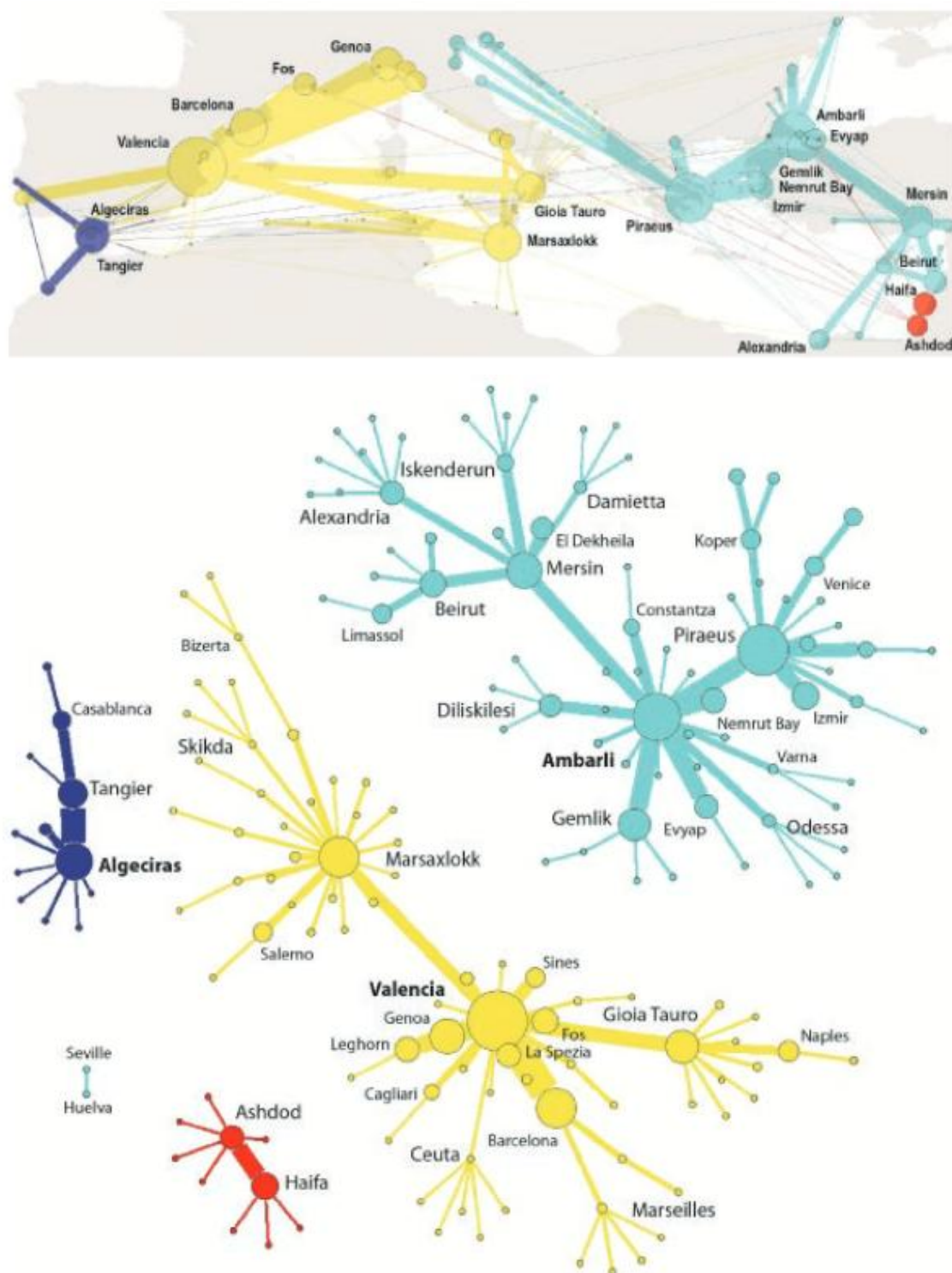
In this sense, the World Bank categorizes ports according to their degree of connectivity based on two dimensions: maritime connections and the depth of the internal market (the "*hinterland*").⁴⁹ In other words, beyond the natural ability to attract traffic due to the immediate geographic market, other ports try to attract specific segments of demand by investing in infrastructures that speed up transit.

⁴⁷ Which generates two movements.

⁴⁸ Data from the December 2022 port traffic summary of Puertos del Estado.

⁴⁹ Ports could be classified according to their maritime connectivity as "Feeder" or coastal, "Deep-sea" and transit, and with respect to their land connectivity into national, regional or local. "*Maritime Networks, Port Efficiency, and Hinterland Connectivity in the Mediterranean*" (World Bank, 2018).

Figure 6: Maritime transport sub-networks in the Mediterranean



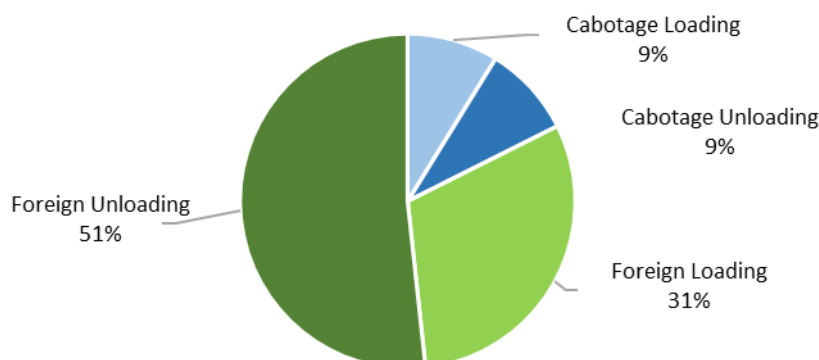
Source: "Maritime Networks, Port Efficiency, and Hinterland Connectivity in the Mediterranean" (World Bank, 2018).

Distance between the origin and destination of the goods

In 2022, more than 80% of the tonnage of Spanish ports was transported in operations abroad and the remaining 17% in cabotage, i.e. between Spanish ports (Observatorio del transporte y la logística en España, accessed in September 2024). Since the 1960s, cabotage has been losing share due to improvements in land transport. On the other hand, the greater weight of landing operations in terms of tonnage shows that imports from our main suppliers, notably the Asian ones, arrive by sea.

However, there are notable differences between the different Spanish ports, some of which are almost entirely dedicated to cabotage, like the Balearic Islands, Melilla or Santa Cruz de Tenerife, where it represents about 90% of their total activity. On the other hand, there are others with a clear international focus, where more than 90% of their activity is dedicated to foreign traffic, such as in Santander, Ferrol, Marín, Pasaia, Bilbao or Gijón. A close figure is observed in the three largest Spanish ports, Algeciras, Valencia and Barcelona, where foreign traffic represents around 85% (Observatorio del transporte y la logística en España, accessed in September 2024).

Graph 7: Freight transport by type of traffic and operation (in 2022)



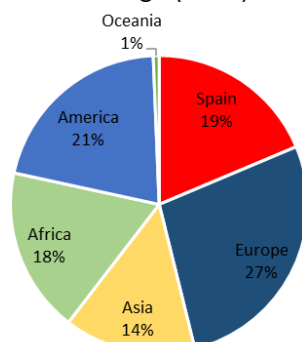
Source: Observatorio del transporte y la logística en España, accessed in September 2024.⁵⁰

The degree of dependence of shippers on maritime transport will be influenced by the remoteness of the exchange, since less modal substitutability is possible the greater the distance between two points. In 2023, the largest maritime trade flows (shipments plus landings) in terms of tons occurred with the other European countries (27% of tonnage), including those of the European Union (18%), followed in fairly balanced terms by those of the rest of the continents, as well as cabotage traffic (19%).

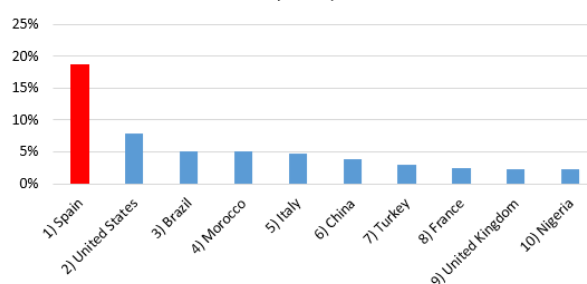
⁵⁰ Fresh fish, *ship supplies*, or that which takes place within the waters of a port (representing 2%), nor transshipment (less than 0.01%) are not included.

Graphs 8 and 9: Geographical distribution of tonnage in Spanish ports

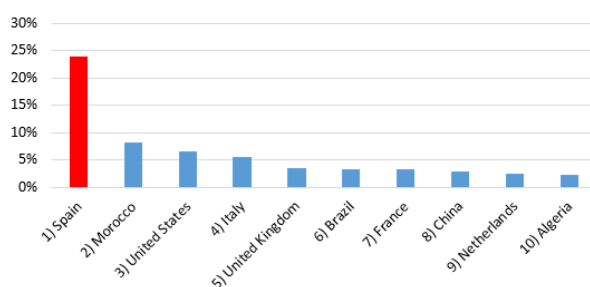
Tonnage of foreign goods according to their continent and in cabotage (2023).



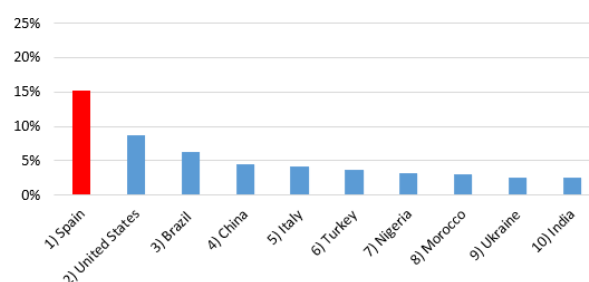
Percentage of freight tonnage in Spanish ports (2023).



Percentage of tonnage of goods shipped in Spanish ports (2023).



Percentage of unloaded tonnage of goods in Spanish ports (2023).



Source: Authors' elaboration based on the "Statistical Yearbook of the State-Owned Port System 2023" (Puertos del Estado, 2024a)⁵¹.

⁵¹ Due to the format of the data, goods not included in the goods handling service have been included, which somewhat distorts the results.

4.1.2. Supply-side service characterization

The supply is made up of stevedoring companies. These companies make investments in cargo handling equipment (cranes, *transtainers*, etc.) and hire workers to provide the service.

- **Cargo handling is highly specialized**, as reflected in the great diversity of equipment and means used for each traffic, closely linked to the availability of surface area.
- **As relevant aspects in terms of competitiveness**, in addition to the price, the quality of this service depends on ensuring that the goods are transported with maximum safety for the ship and its crew, occupying the least possible space, avoiding damage to it and reducing times to a minimum.

4.1.2.1. Goods stowed and relative weight according to type

Freight traffic in the state-owned port system reached 557 million tons in 2024⁵², where 5 major typologies can be found (Puertos del Estado, 2025):

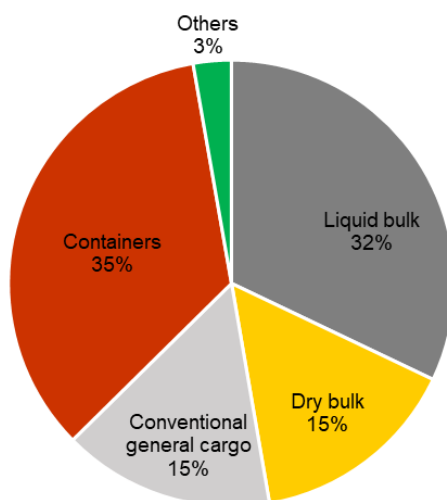
1. **Containers** (35%): defined as special boxes for transporting cargo, reinforced, stackable, durable and reusable.
2. **Bulk** (47%): defined as goods transported without individual packaging and in large quantities.
 - Solid bulk (15%), grouped into industrial and agri-food products.
 - Liquid bulk (32%), mostly petroleum products (about 80%) and natural gas⁵³.
3. **Conventional general goods** (15%): goods transported in independent units, packaged, packaged or by units.
4. **Others** (3%): fresh fish, provisioning⁵⁴ and inland traffic.

⁵² Figures extracted from the [Monthly statistics of Puertos del Estado](#) which includes goods not belonging to the handling service such as liquids, fresh fish or provisions. The definitions have been extracted from the Statistical Yearbook of the State-Owned Port System 2023 (Puertos del Estado, 2024a).

⁵³ Liquid bulk is not considered part of the goods handling service, as it is excluded because it is transported by pipeline: "*Liquid bulk cargo is considered to be that which comes in a liquid state (natural gas is also included here because it is transported liquefied and molten solids transported at high temperatures), without packaging, and which is also handled continuously, that is, through pipes and using pumping systems. Liquid bulk is transported in tanks.*"(Observatorio del transporte y la logística en España, accessed in September 2024).

⁵⁴ Fresh fish and provisioning are exempt from consideration within the goods handling service according to the TRLPEMM.

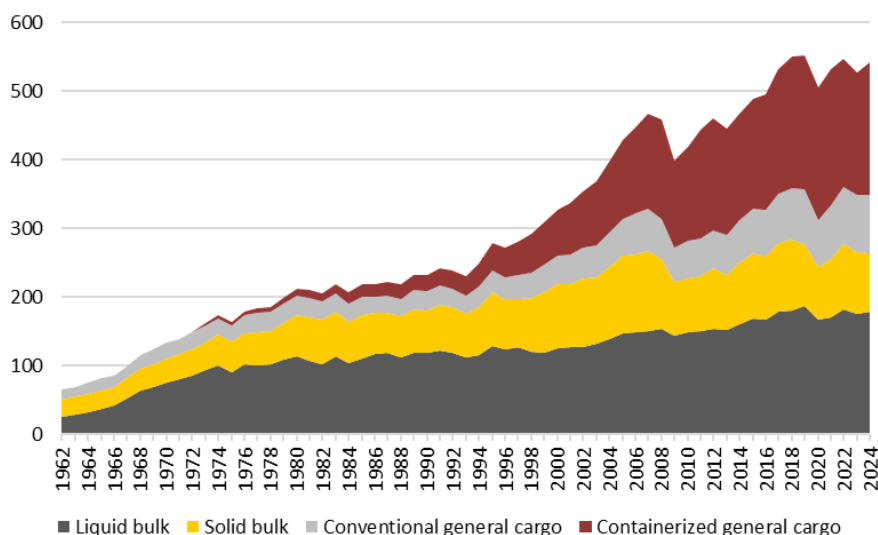
Graph 10: Types of goods in the Spanish port system in 2024



Source: Authors' elaboration based on monthly statistics from Puertos del Estado (2025).

The data from Puertos del Estado includes the evolution of freight traffic since 1962. As the following graph shows, there is clear progress in all categories and, especially, in containers, a technological innovation that began to become popular in the sixties and revolutionized the transport sector.

Figure 11: Goods by presentation (in million tons)

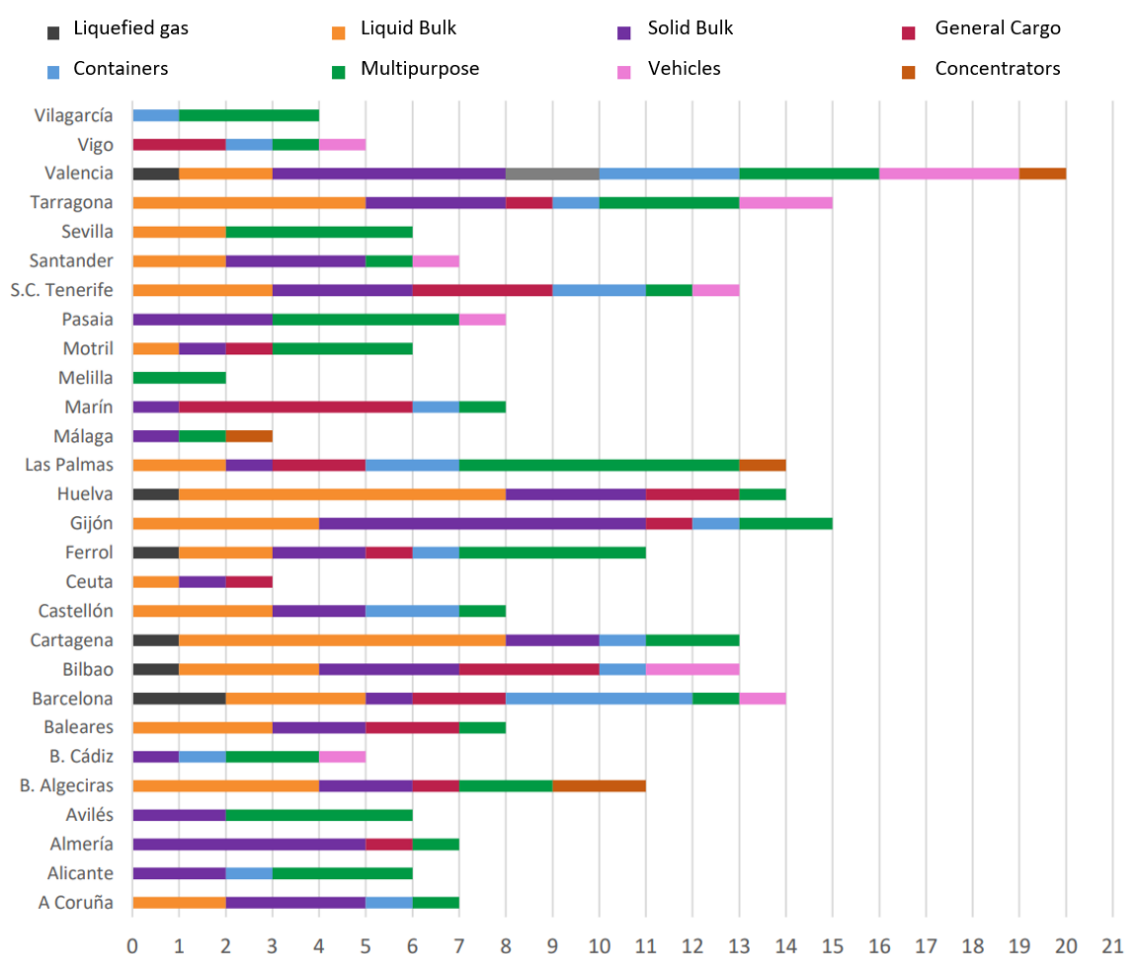


Source: Authors' elaboration based on data from Puertos del Estado (Annual Scorecard). Fresh fish, provisioning and inland traffic are excluded.

4.1.2.2. Specialization of each port by types of goods

The specialization of each port is a relevant factor for intra-port competition. Each of the main types of freight traffic is associated with a specific license and requires different means, which usually involves carrying out the activity in different terminals. In this way, there are great differences in the type of cargo handling services provided in each port, which is linked both to its geographical location and to the economic activities in the area. Specializations determine whether or not different stevedoring companies in the same port compete because they have different specializations.

Graph 12: distribution of terminals by use in each Port Authority, 2019



Source: Port System Sustainability Report 2019 (Puertos del Estado, 2019).

The following box breaks down port traffic. There are differences between ports, in total freight traffic and in the goods' stowage. When subtracting the main exceptions (liquid bulk, fresh fish and provisioning according to art. 130 of the

TRLPEMM) from the total freight traffic, approximately 75% of traffic in 2024 required stevedoring personnel⁵⁵.

⁵⁵ They may not coincide exactly as there is no information available on other exceptions mentioned in the Law (management of means of the Port Authority and the Ministry of Defence, tractor units carrying trailers or semi-trailers without interruption). Road traffic remains unregistered, for a time it was not considered part of the service, but after the reform of the Ports Law in 2017 it has been included again.

Table 1: Total port traffic in 2024 (in tons)

Total port traffic in 2024 (in tonnes).

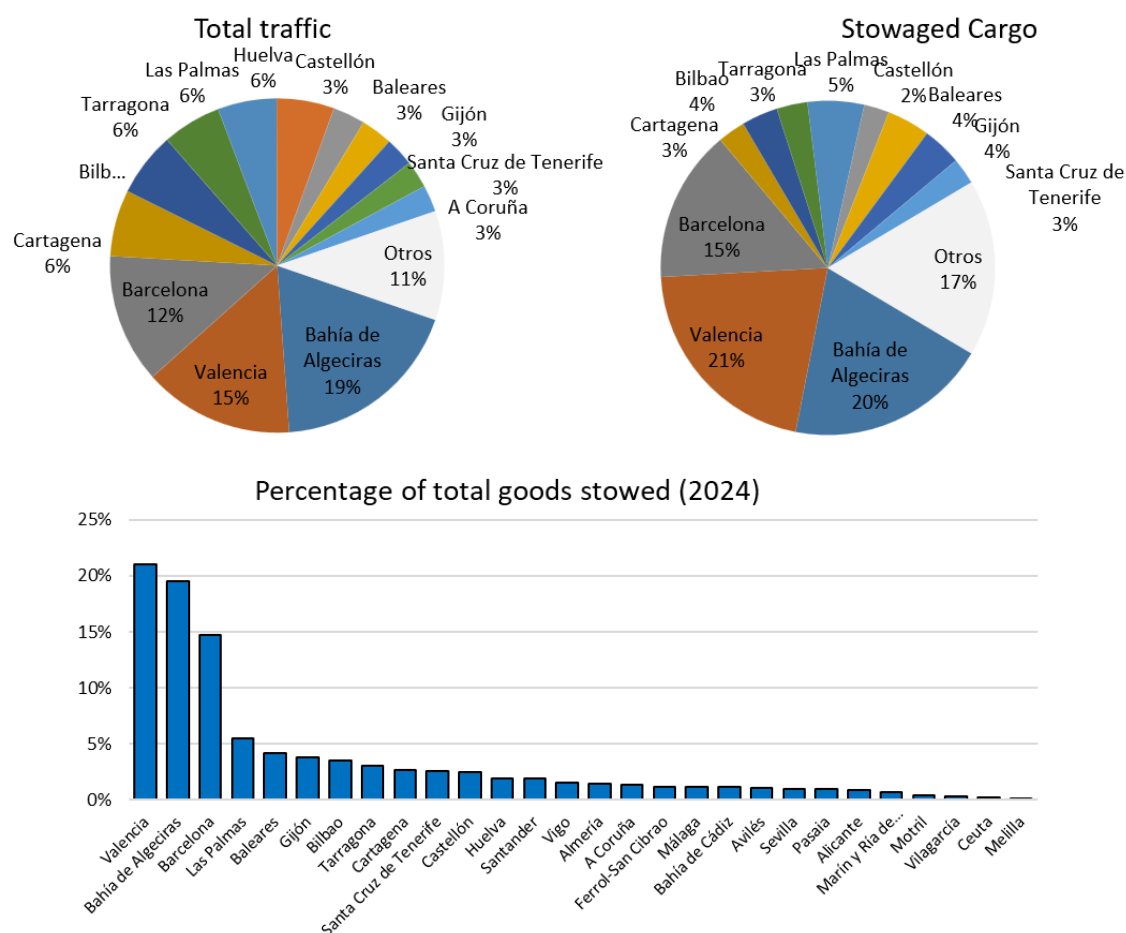
PORT AUTHORITY	LIQUID BULK	SOLID BULK	GENERAL CARGO			Other	TOTAL	% of total traffic	Total Stowed	% Stowage	% of stowed traffic
			Conventional	Containers	Total						
Bahía de Algeciras	28,462,946	236,283	11,919,362	56,157,194	68,076,556	6,879,141	103,654,926	18.58%	71,773,686	69%	19.56%
Valencia	3,442,040	2,762,306	15,645,129	58,816,700	74,461,829	472,419	81,138,594	14.55%	77,224,135	95%	21.04%
Barcelona	13,682,790	4,799,514	11,661,347	37,676,820	49,338,167	1,878,611	69,699,082	12.50%	54,137,681	78%	14.75%
Cartagena	25,936,971	8,781,082	319,726	676,081	995,807	210,405	35,924,265	6.44%	9,776,889	27%	2.66%
Bilbao	21,570,211	4,315,479	3,453,234	5,102,000	8,555,234	151,490	34,592,414	6.20%	12,872,320	37%	3.51%
Tarragona	20,758,432	9,226,855	1,553,278	137,142	1,690,420	182,691	31,858,398	5.71%	10,982,921	34%	2.99%
Las Palmas	8,776,442	413,813	5,044,528	14,606,287	19,650,815	2,902,903	31,743,973	5.69%	20,064,687	63%	5.47%
Huelva	23,834,071	5,282,462	955,375	813,313	1,768,688	211,918	31,097,139	5.58%	7,095,297	23%	1.93%
Castellón	8,498,411	7,678,940	55,122	1,202,233	1,257,355	29,988	17,464,694	3.13%	8,936,295	51%	2.43%
Baleares	1,552,391	358,505	14,638,984	303,833	14,942,817	160,497	17,014,210	3.05%	15,302,332	90%	4.17%
Gijón	1,735,926	12,080,520	790,240	1,011,370	1,801,610	21,602	15,639,658	2.80%	13,882,130	89%	3.78%
A Coruña	9,846,669	4,217,323	541,343	313	541,656	80,807	14,686,455	2.63%	4,758,979	32%	1.30%
Santa Cruz de Tenerife	4,147,144	336,443	4,857,650	4,192,267	9,049,917	919,341	14,452,845	2.59%	9,388,203	65%	2.56%
Santander	165,764	3,336,188	2,291,671	1,359,206	3,650,877	58,986	7,211,815	1.29%	6,987,065	97%	1.90%
Ferrol-San Cibrao	2,285,344	3,695,341	537,571	135,632	673,203	13,507	6,667,395	1.20%	4,368,605	66%	1.19%
Vigo	38,634	260,261	1,963,552	3,274,322	5,237,874	144,303	5,681,072	1.02%	5,498,135	97%	1.50%
Almería	122,835	3,877,544	1,222,477	260,798	1,483,275	95,898	5,579,552	1.00%	5,360,819	96%	1.46%
Bahía de Cádiz	533,276	1,656,241	779,193	1,629,630	2,408,823	130,247	4,728,587	0.85%	4,065,064	86%	1.11%
Avilés	584,685	2,837,882	1,161,262	0	1,161,262	65,444	4,649,273	0.83%	4,009,144	86%	1.09%
Málaga	112,859	1,259,617	485,665	2,569,560	3,055,225	85,703	4,513,404	0.81%	4,314,842	96%	1.18%
Sevilla	554,911	2,020,000	560,541	1,102,855	1,663,396	34,601	4,272,908	0.77%	3,683,396	86%	1.00%
Pasaia	0	938,380	2,436,014	0	2,436,014	43,041	3,417,435	0.61%	3,374,394	99%	0.92%
Alicante	64,074	1,796,621	84,717	1,155,887	1,240,604	22,549	3,123,848	0.56%	3,037,225	97%	0.83%
Marín y Ría de Pontevedra	0	1,425,321	656,220	518,055	1,174,275	28,775	2,628,371	0.47%	2,599,596	99%	0.71%
Motril	1,272,236	752,994	571,803	2,914	574,717	25,130	2,625,077	0.47%	1,327,711	51%	0.36%
Ceuta	597,163	3,926	526,151	64,469	590,620	574,484	1,766,193	0.32%	594,546	34%	0.16%
Vilagarcía	286,260	412,377	441,090	270,096	711,186	8,360	1,418,183	0.25%	1,123,563	79%	0.31%
Melilla	64,303	16,689	413,649	39,701	453,350	142	534,484	0.10%	470,039	88%	0.13%
Total	178,926,788	84,778,907	85,566,894	193,078,678	278,645,572	15,432,986	557,784,253	100%	367,009,699	66%	100%

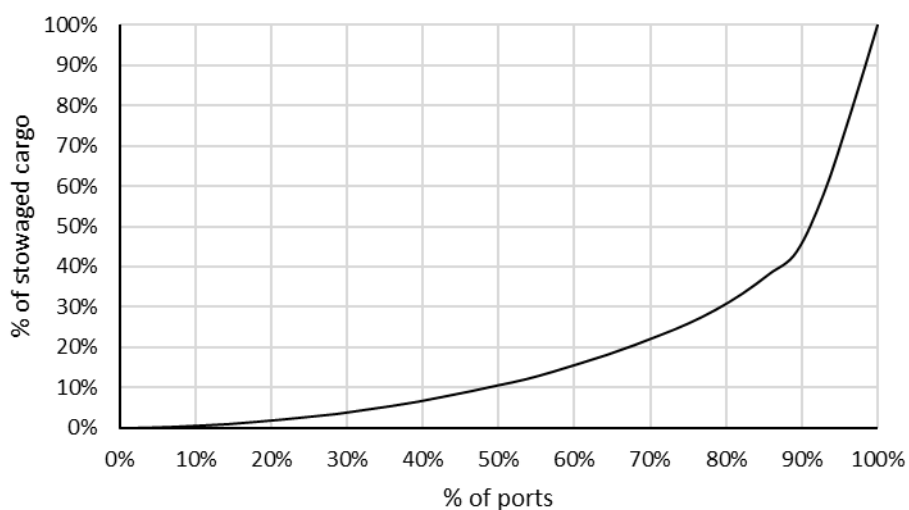
It includes loading, unloading, transits and transshipments. Stowage goods estimated as the difference between total traffic minus liquid bulk, fishing and ship supplies.

Source: Authors' elaboration based on the monthly statistics of Puertos del Estado (2025). It includes loading, unloading, transits and transshipments. Stowage goods estimated as the difference between total traffic minus liquid bulk, fishing and ship supplies. Liquid bulk has been excluded as an approximation because it is handled by pipelines.

The cargo handled are especially concentrated in the three largest Spanish ports: Algeciras (22%), Valencia (24%) and Barcelona (16%), which together account for more than 60% of the total. This implies that 90% of the ports handle half of the cargo and that, among these ports, only Las Palmas handles a percentage of goods greater than 5% of the total.

Graphs 13, 14 and 15: Goods: total and stowed by Port Authority (2024)





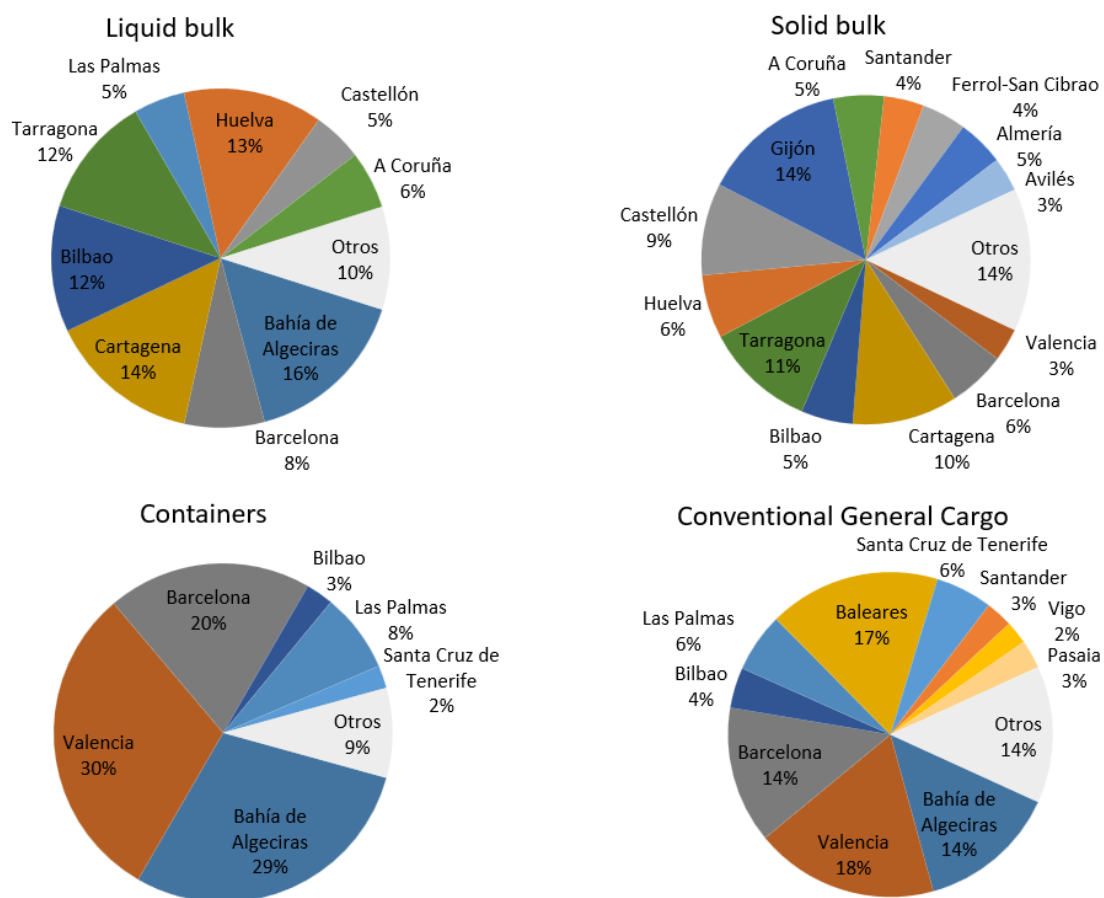
Source: Authors' elaboration from mensual statistics of Puertos del Estado (Puertos del Estado, 2025).

In the traffic of:

- (i) liquid bulk Algeciras, Cartagena and Huelva are the most relevant,
- (ii) solid bulk Gijón, Castellón and Tarragona stand out,
- (iii) containers Valencia, Algeciras and Barcelona stand out.
- (iv) conventional general cargo Valencia, Algeciras and the Balearic Islands stand out.

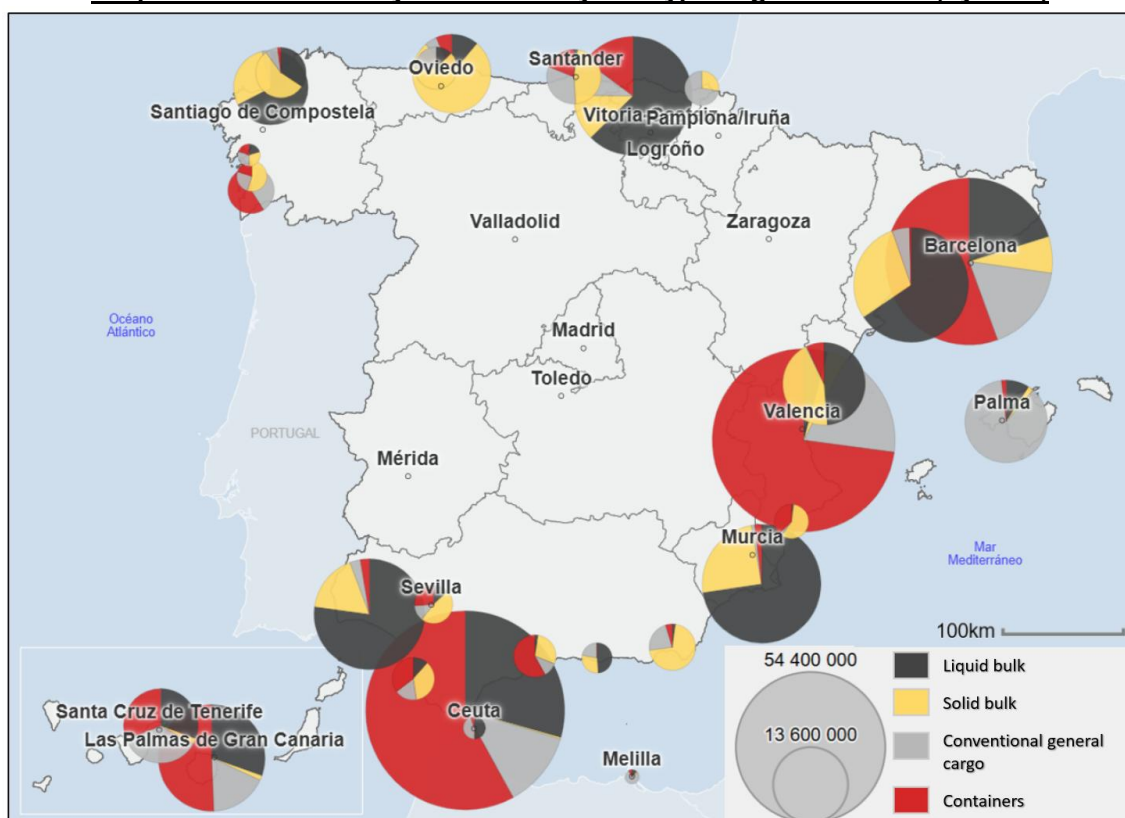
The concentration is particularly relevant in containers, where about 80% is handled by the ports of Valencia, Algeciras and Barcelona.

Figure 16: Distribution of traffic of the different types of goods between ports (2024)



Source: Authors' elaboration based on monthly statistics from Puertos del Estado (Puertos del Estado, 2025).

Graph 17: Total traffic by Port Authority and type of goods in 2024 (by tons)



Source: Authors' elaboration based on monthly statistics from Puertos del Estado (Puertos del Estado, 2025).

From the above, it can be deduced that the actions that improve the efficiency of the cargo handling service in the ports with the highest traffic (Algeciras, Valencia and Barcelona) will be especially relevant. These ports are also where container traffic is concentrated (the type of activity with the highest proportion of labor costs), so the factors that affect the cost of labor will be particularly important.

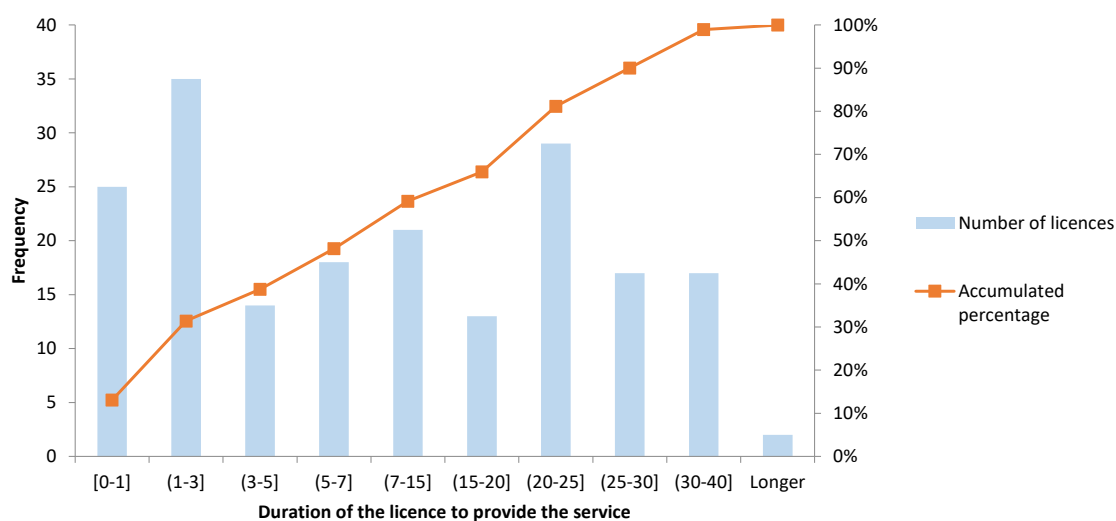
4.1.2.3. Stevedoring companies

a) Number and distribution of licenses

Stevedoring companies are private operators that act under the regime of a license granted by the corresponding Port Authority, according to the conditions set out in port legislation and in the Specific Terms and Conditions (PPPs) that regulate the service. According to the General Registry of Port Service Provider Companies, in July 2025 there were **184 licenses** for the cargo handling in the Spanish port system, a figure that does not necessarily match with the actual number of terminals. Such licenses have a maximum term of 6 years (art. 114 [TRLPEMM](#)), unless there is a significant investment, in which case it

can be extended to 10, 15, 20, 30 or 50 years, depending on the type of investment and the concession. **In 2023, the average term of the enabling titles was 12.5 years⁵⁶, close to the 13.6 years average term that appears in July 2025 in the General Registry of Port Service Provider Companies** (Puertos del Estado, accessed on July 2025). The longest duration license has been granted for 42 years in the Port of Castellón, although there is quite a disparity between terms, with one-year licenses being frequent (14.6% of the total).

Figure 18: Distribution of the duration of cargo handling licenses

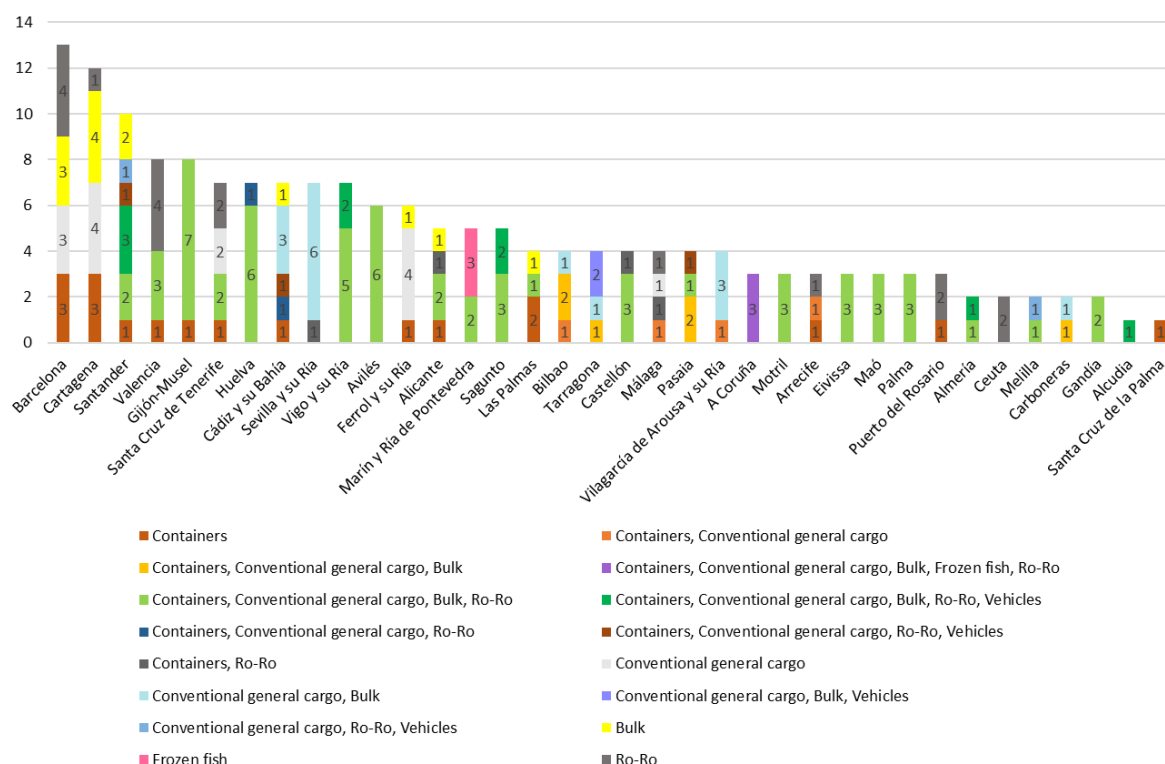


Source: Authors' elaboration, based on the General Register of Port Service Provider Companies (Puertos del Estado, accessed on July 2025).

The number of licensed companies varies substantially between ports, with a maximum of 13 in Barcelona or 12 in Cartagena, and a minimum in Alcudia, Almeria, Carboneras, Ceuta, Gandía, Melilla and Santa Cruz de la Palma, with one or two licenses in each case. This is what can be deduced from the following graph, which shows the distribution of licenses by Port Authority in July 2025, specifying the type of traffic assigned in the General Register of Port Service Provider Companies.

⁵⁶ Source: Document of Analysis on the Evolution of the Liberalization of the Stevedoring Sector, 2023 (Observatorio de los Servicios Portuarios, 2024).

Figure 19: Distribution of cargo handling licenses by port in 2025



Source: Authors' elaboration, based on the General Register of Port Service Provider Companies (Puertos del Estado, accessed on July 2025).

Figure 20: Distribution of licenses by type of freight traffic

Number of licenses for each cargo	
Open to general use	
Containers	106
Conventional general cargo	123
Bulk	111
Ro-Ro	106
Vehicles	16
Frozen fish	6
For one trade	
Multipurpose	39
Restricted/ Terminal for private use	
Containers	10
Conventional general cargo	4
Bulk	4
Ro-Ro	3

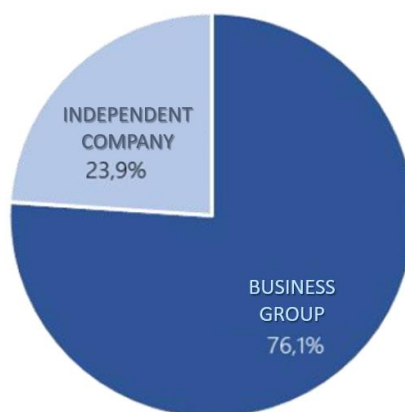
Source: Authors' elaboration based on data from the General Registry of Service Provider Companies (Puertos del Estado, accessed on July 2025).

Port terminals specialize in different segments of activity. Most licenses are related to the handling of general non-containerized cargo, followed by bulk and containers. In addition, most licenses are multi-purpose, although a significant percentage are for the exclusive handling of certain types of goods. Specialization influences competition, which does not only depend on the number of service providers in each port.

Regarding stevedoring companies, it should be noted, based on the Register of Licenses of Puertos del Estado, the following:

- **Historically, the stability of operators has been very high**, with few inflows and outflows of providers.
- **A large part of the licenses are granted to companies or business groups with activity in several ports**⁵⁷. According to 2021 data, the Bergé, Ership, Noatum and Transmediterránea Groups had the biggest share of registered licenses⁵⁸. Several of these groups are shipping companies, which are vertically integrated (Observatorio de los Servicios Portuarios, 2023a).

Figure 21: Licensees and the percentage of licenses over the total

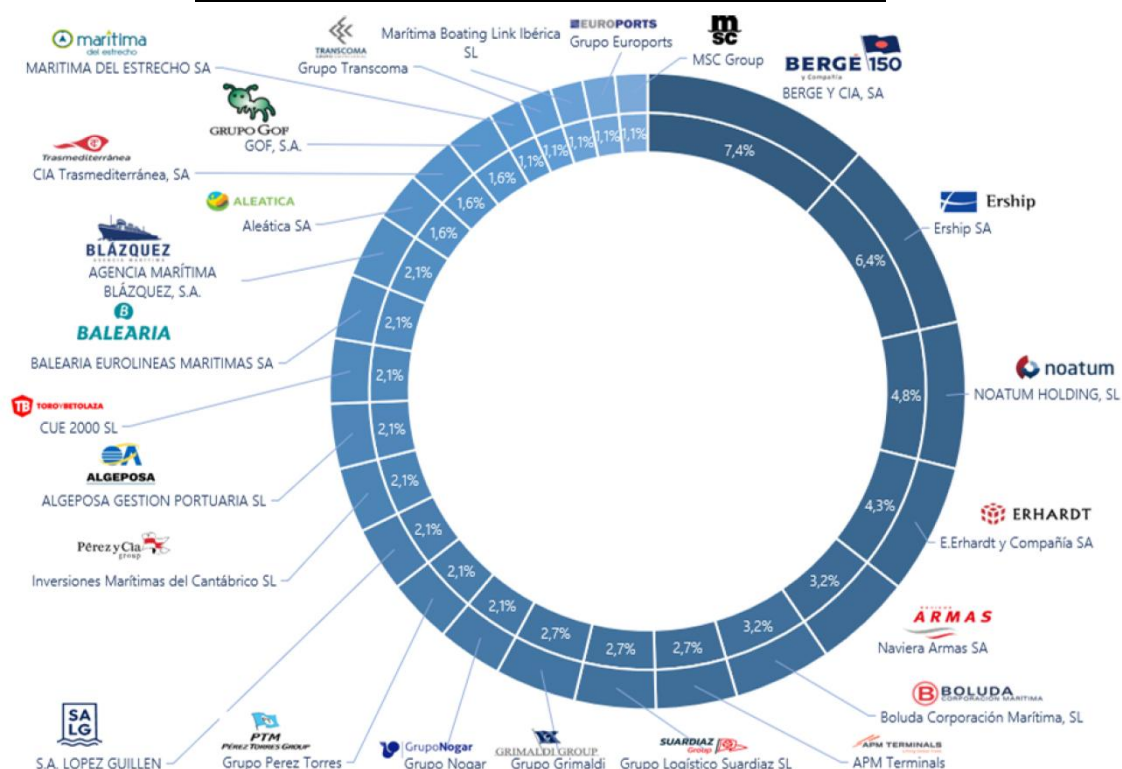


Source: Analysis and conclusions of the state of the port services market. More recent information can be found in the Port Services License Register (Observatorio de los Servicios Portuarios, 2023a).

⁵⁷ According to the data of the license registry.

⁵⁸ Nowadays part of the Armas Group.

Graph 21 (cont.): licensees and percentage of licenses



Source: Analysis and conclusions of the state of the port services market. More recent information can be found in the Port Services License Register (Observatorio de los Servicios Portuarios, 2023a).

b) Charges

Among the functions of Port Authorities is to set maximum charges for public terminals, when the number of service providers is limited or insufficient to guarantee competition (art. 125.2.d [TRLPEMM](#))⁵⁹. The Law does not establish a systematized regulation of the assumptions and requirements for its introduction, but its imposition will depend on the criteria of each Port Authority.

As for their setting, the TRLPEMM establishes that they will be regulated by the Specific Terms and Conditions (PPPs) of the service (art. 113.h). Specifically, they regulate *'the criteria for their updating, revision and, where appropriate, fixing. The charge structure must include the criteria for updating and revision according to the overall volume of demand, cost structure and other*

⁵⁹ Article 125.2 TRLPEMM establishes: *'in order to supervise and promote the conditions of effective competition in the provision of port services, in their own territorial and functional scope, the Port Authorities shall exercise the following specific functions: (...) d) To approve the maximum rates in port services, except in maritime terminals for passengers and goods dedicated to private use, when the number of service providers is limited or insufficient to guarantee competition. Likewise, to control the transparency of the rates and the concepts that are invoiced.'*

circumstances related to the characteristics of the service, where appropriate. Extra costs or differentiated costs for users depending on the day or time on which the service takes place will not be admissible.'

From the analysis of the public information of all the Port Authorities, it can be deduced that a large majority have established maximum charges. These have been defined either specifically for port cargo terminals under concession, or in general for port services provided in all the terminals that make up the port.

In addition, the analysis reveals great heterogeneity in aspects such as:

- (i) the availability of information on maximum charges (in some cases the information is found in the Specific Terms and Conditions (PPPs), easily accessible from the websites of the Port Authorities, in others the information is separate from the PPPs and is not easily accessible), or
- (ii) the definition and amount of the maximum charges (only in the case of containers there seems to be greater homogeneity). The lack of information on the methodology used makes it impossible to assess whether this heterogeneity is due to an adaptation to the specific circumstances of the provision of the service in each port or to methodological disparities in the base of the calculations.

By way of example, in the case of three of the main ports:

- In **Algeciras** there are no maximum charges.
- In **Valencia**, maximum charges are set for each of the operators, which detail the limits of the possible concepts for which they can charge charges.
- Maximum charges are also set in the port of **Barcelona**, but in this case they have the same amounts for different operators.

c) Top Companies: in traffic and revenue

Evidence suggests an inverse relationship between traffic volume and revenue per TEU⁶⁰. According to the most up-to-date public information available on revenues reflected in Tables 2 and 3, the market for cargo handling services is fragmented and specialized, although a few operators clearly stand out. As detailed in the magazine information [Ports of Spain, 2024 edition](#) (Transporte XXI, 2024b), obtained from the Mercantile Registry, the four terminals with the highest turnover are APM Terminals Algeciras, CSP Iberian Valencia Terminal, Terminal Catalunya and MSC Terminal Valencia, all of them oriented to the container segment. With the exception of Terminal Catalunya (owned by

⁶⁰ As can be seen in the MAPEPORT study (2013, p. 51), there is a negative relationship between the unit revenues of a container terminal and the total traffic measured in TEUs. This may be an signal of economies of scale.

Hutchinson), the other three are part of shipping companies (Maersk, COSCO, CMA and MSC), which again reflects the vertical integration of the large maritime groups. It should also be noted that in the stevedoring market there is also both horizontal integration between terminals (several of the same group), and vertical integration towards logistics warehouses, consignees or shippers.

As for the main business groups based on the sales figures of the terminalists⁶¹, the most relevant would be Maersk, CSP⁶², Hutchinson, MSC and Noatum. All of them are foreign-owned and focused mainly on container traffic.

Table 2: Evolution of sales of the main terminal companies in Spain

Sales in millions of euros

Company	Group	2022	2021	2020	2019	2018
1 APM Terminals Algeciras SA	Maersk	248.81	230.24	235.63	232.61	222.36
2 CSP Iberian Valencia Terminal SA	CSP	229.34	210.78	187.37	187.29	188.12
3 Terminal Catalunya SA	Hutchison	s.d.	s.d.	143.79	152.57	143.46
4 M. S. C. Terminal Valencia SA	MSC	119.20	123.00	122.15	108.15	90.32
5 Pérez Torres Marítima SL	Pérez Torres Marítima	97.09	73.19	58.81	72.78	83.77
6 APM Terminals Valencia SA	Maersk	96.68	81.23	83.42	81.60	76.23
7 APM Terminals Barcelona SL	Maersk	85.44	75.42	75.28	80.53	91.66
8 Total Terminal International Algeciras SA	TTIA	s.d.	75.14	77.73	74.11	70.84
9 Terminales Portuarias SL	TEPSA	65.18	58.62	55.36	51.91	46.06
10 CSP Iberian Bilbao Terminal SL	CSP	47.23	47.83	44.75	57.99	58.02
11 Operaciones Portuarias Canarias SA	MSC	s.d.	44.28	37.98	32.35	40.67
12 Galigrain SA	Portsur	34.40	28.39	25.23	31.62	40.75
13 Euroports Ibérica TPS SL	Euroports	s.d.	31.84	21.54	27.73	30.78
14 Terminales Químicos SA	Vopak Terquimisa	31.07	34.07	31.36	28.94	27.73
15 E.B.H.I. SA	EBHI	29.96	23.26	18.58	26.71	31.21
16 Bergé Marítima Bilbao SL	Bergé	28.08	24.31	24.17	32.71	33.93
17 Portsur Castellón SA	Portsur	27.15	26.86	20.73	17.06	17.45
18 Evos Algeciras SA	Evos	26.81	23.53	24.32	21.13	19.23
19 Estibadora Algeposa SA	Noatum	26.72	26.37	20.02	19.77	20.62
20 Noatum Terminal Sagunto SL	Noatum	23.19	17.72	14.86	17.41	20.21
21 Tradabe Port Services SL	Tradebe	21.52	19.68	18.63	15.15	13.67
22 Noatum Terminal Málaga SA	Noatum	20.97	25.69	17.75	22.28	17.01
23 Terminales Marítimas de Vigo SL	Grupo Dávila	20.92	19.31	17.04	15.52	16.52
24 Terminales Marítimas del Sureste SA	TMS	20.06	14.69	14.33	17.32	15.66
25 Autoterminal SA	Noatum	s.d.	17.35	20.66	27.51	28.64
TOTAL		2398	2194	2062	2126	2131

Source: Authors' elaboration based on [Ports of Spain, 2024 edition](#) (Transporte XXI, 2024b), with information from the Mercantile Registry. Totals extracted from the sample of 163 companies carried out in: [Who's in charge? Transport and logistics in Spain, 2024 edition](#) (Transporte XXI, 2024a).

⁶¹ Defined in the source used as companies whose main function is stevedoring, container depots or port warehouses. A term that does not therefore only encompass the goods handling service, as legally defined

⁶² Its shareholding is divided practically equally between COSCO and CMA CGM.

Table 3: Revenue distribution in 2023 by business size

Company Size	Nº	Sales (millions)	Share
Large	12	1,329	55%
SME	152	1,108	45%
Medium	50	791	32%
Small	85	313	13%
Micro	17	5	0%
TOTAL	164	2438	

Source: [Who's in charge? Transport and logistics in Spain, 2025 edition](#) (Transporte XXI, 2025).

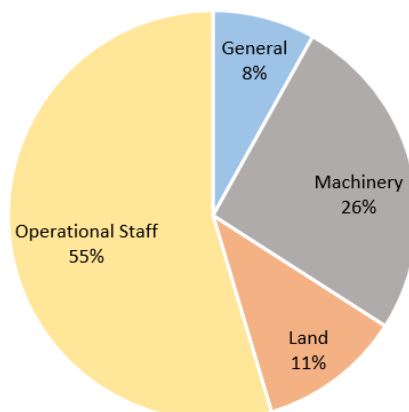
d) Costs

The main determinants of terminal operator costs can be differentiated manner according to the type of cargo handled. To promote comparability, the cost chain studies prepared by the State Ports Observatory (Observatorio de Puertos) for the different types of traffic are used, not very recent studies, that can in any case be broadly illustrative of the relative relevance of each production factor.

- **Containers:** the Port Services Observatory's cost chain report (2016, based on 2014 data) indicates that the cargo handling service accounted for **73.11% of the total average cost of a container passing through Spanish terminals**. It also provides the following breakdown of the cost associated with the cargo handling service (containers):
 - Operating personnel costs: (i) stevedoring personnel, (ii) non-stevedoring operational labor.
 - Machinery costs: (i) annual depreciation, (ii) maintenance, (iii) consumption, etc.
 - Land costs: (i) occupation and activity fees, (ii) depreciation of works and facilities, (iii) IBI, etc.
 - General costs: (i) administrative staff, (ii) financial costs, (iii) taxes, (iv) computer systems.

According to the analysis (illustrated in Graph 22), the most important element is operating personnel (55%), followed by machinery (26%), land (11%) and general expenses (8%). The Report, however, found significant differences between terminals. For example, the cost of handling cargo per TEU on the north façade was at that moment higher than the national average and on the Mediterranean façade, which was largely explained by economies of scale (Observatorio de los Servicios Portuarios, 2016).

Figure 22: Breakdown of costs associated with the cargo handling service (containers)



Source: Authors' elaboration based on the Study of the cost chain for container traffic in Spanish terminals (Observatorio de los Servicios Portuarios, 2016b).

- **Solid bulk:** The study on costs of industrial solid bulk estimates that the percentage of the port costs associated with the terminal operator represents around 50-75%, although with certain differences depending on the type of bulk and whether the dock is public or not (Observatorio de los Servicios Portuarios, 2019)⁶³. Within the cost associated with the terminal operator, the amount allocated to port workers differs between terminals: it moves in the range of 33-50% for public docks but with differences between goods and operations. However, if dedicated terminals and public docks are also included, in some cases the departure of port workers does not exceed 10% (in coal, cement and ash, and minerals), and in others represents values close to 20-35% such as in petroleum coke, clinker or scrap metal. The rest of the cost associated with the terminal is broken down into equipment, cranes and facilities (10-70%), their own operating personnel (3-15%), profit and general expenses (5-15%).
- **Ro-ro:** in ro-ro cargo vehicles as cargo or "Car-Carrier" regime, according to the study of the Port Services Observatory, the costs of the terminal over those of the visit to the port represent around 68% on average (Observatorio de los Servicios Portuarios, 2016a). Where, within the percentage of the operator's cost, labor (stowage and on the esplanade) amounts to 38%, storage 27%, land 3% and general costs 12%.

In short, the following conclusions can be drawn:

- **Labor is one of the main cost components, especially in container handling.**

⁶³ A peculiar case is the five operators of public docks for the loading of cement and ashes, where the cost associated with the terminal operator only represents 20-24%.

- **There are significant economies of scale** in the activity of cargo handling terminals, both for containers and bulk. This is due to the high weight of fixed costs in the cost structure, where there are differences between terminals (some are more machinery-intensive than others), as well as the better use of assets as a result of the reduction in waiting times. The presence of economies of scale has different implications:
 - (i) **In intra-port competition**, since depending on the minimum efficient scale (the one that allows production with a minimum average to long-term cost) the size of the market may not be sufficient to facilitate the existence of more than one terminal⁶⁴.
 - (ii) **The degree of terminal utilization is a relevant factor in costs, as it is a reflection of the degree to which the use of facilities and equipment is optimized.** A study by Fedea estimates that the capacity utilization of all terminals in the port system was around 55% in 2018 for all goods, with no significant differences by type of goods. However, there may be differences between terminals: in the case of Spanish container terminals from 2011 to 2014, the degree of use would have been much higher on the Mediterranean façade (75%), than on the Canary Islands and north (35%) (Boscá, Pedro Cantos, & Ángel de la Fuente, 2022).
 - (iii) The lack of capacity in the terminal can have a negative impact on costs by entailing added costs due to waiting.

4.1.2.4. The port workers

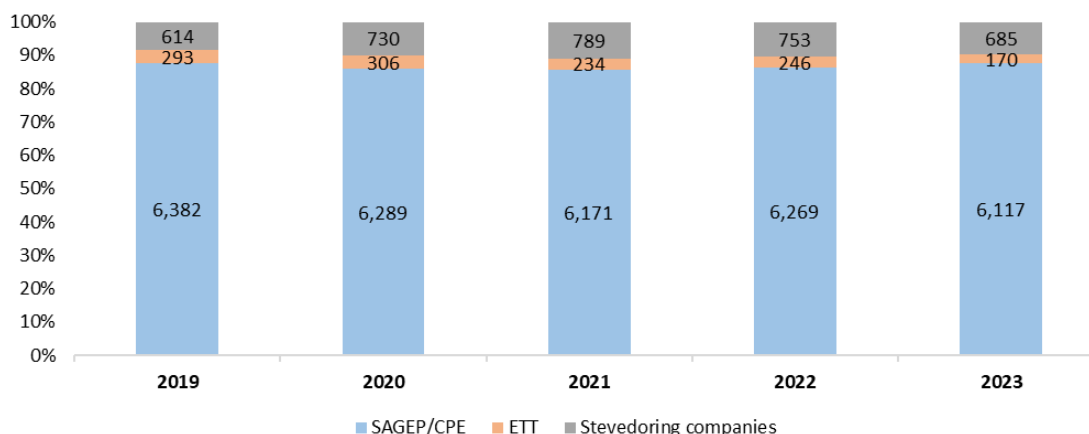
Access to the docking profession can be divided into 2 levels: obtaining a certificate of professionalism and subsequent hiring by a company or CPE. The requirements of the certificate of professionalism will not be required when approval is obtained from Puertos del Estado for having carried out more than 100 working days in the cargo handling service in a State of the European Union. The cumulative number of these approvals at the end of 2023 was of 2,719 of which 19 were issued that same year. Regarding the incorporation of new stevedores by obtaining the certificate of professionalism, it has gone from 173 in 2021, to 81 in 2022 and 31 in 2023. (Observatorio de los Servicios Portuarios, 2024)

As for the number of stevedoring workers, the available information suggests that there have been no significant changes in recent years. Historical data on the total number of stevedores is incomplete and scattered, but based on data

⁶⁴ The Port Economics handbook (Notteboom, Pallis, & Rodrigue, 2022) indicates that empirical evidence shows that a single minimum efficient scale may not exist, based on the diversity of the scale of terminals in the world. There would therefore be several efficient minimum scales and not a single one for the port terminal industry.

provided by Puertos del Estado⁶⁵, the number of workers belonging to a *pool* stood at around 7,200 workers between 2019-2022, but has decreased below 7,000 workers in 2023, according to the Port Services Observatory⁶⁶.

Figure 23: Number of stevedores according to their contractor



Source: Prepared by the authors based on the successive "Analysis of the liberalization of the stevedoring sector in Spain" (Observatorio de los Servicios Portuarios).

The flexibility of the stevedoring workforce mainly encompasses their schedules (start times, work shifts, overtime, minimum working hours...), but also other factors such as functional mobility between professional groups or fixed 'hand' sizes (work teams). For example, the existence of fixed six-hour shifts can act as an element of rigidity, since if the loading or unloading of a ship ends earlier, the payment of the entire shift is made, but if a few more hours are required, another additional full shift must be paid. The study of the cost chain for container traffic in Spanish terminals pointed out that the flexibility of stevedoring workers was highly variable between terminals and that in those ports where negotiations with the SAGEP (then in force) had led to more flexible processes, a certain competitive advantage was detected (Observatorio de los Servicios Portuarios, 2016b). This same study stated that *"The great weight of this cost (of operational personnel) is not only due to the salaries of the workers, but also exerts a great influence on the rigidity of the current stowage system"*.

⁶⁵ Based on data provided by Puertos del Estado contained in Port labor in the EU, Vol.II - The Member State Perspective Annexes (Portius, 2013).

⁶⁶ In relation to the data of stevedoring workers reflected in this section of the study, the following clarifications should be made: (i) the Observatory acknowledges in the report that the data is not entirely complete and only cover three years, (ii) there is a difference in the accounting of workers in 2019 and the years 2020 and 2021, which can make it difficult to compare the data. Specifically, it is observed that in 2019 the report includes the data of stevedoring workers in the fourth quarter, while the others present the average of this variable for the four quarters of the year.

4.1.2.5. Port Employment Centers (CPE) and Temporary Employment Agencies (ETT)

Port Employment Centers (CPE)

The CPEs are jointly owned companies on a mutual basis, whose purpose is to employ port workers and make them available to companies holding the license to provide the cargo handling service, as well as the training of these workers. Holders of the license for the port cargo handling service may be members of a CPE. On the other hand, the CPEs must obtain the same administrative authorization as that required of the temporary employment agencies, the regulations of which are fully applicable to them. Unlike the old SAGEPs, stevedoring companies are not obliged to participate in the CPEs or to hire the workers made available by them on a priority basis. In addition, the geographical scope of action of the CPEs may extend to the entire national territory, and more than one port center may coexist per port, a possibility that is not observed in practice.

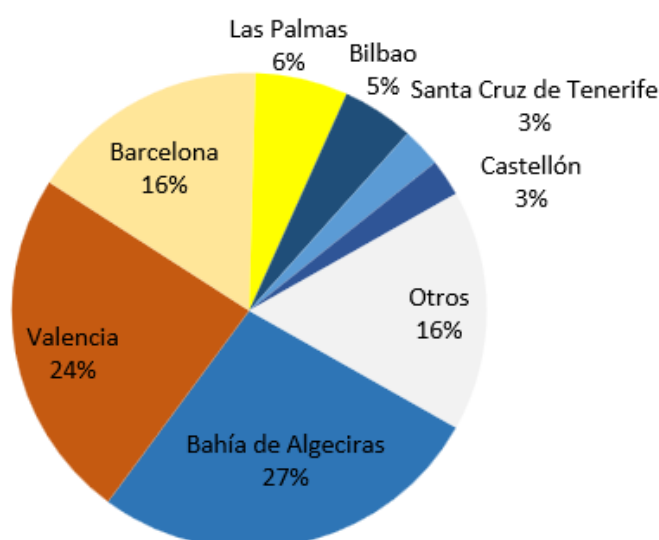
- **Process of transformation of SAGEP into CPE or extinction of SAGEP.** The following conclusions can be drawn from it:
 - **According to the latest 'Document analyzing the evolution of the liberalization of the stevedoring sector in Spain', of the initial 36 SAGEPs, all have been transformed into CPE or have initiated procedures for their dissolution,** (Observatorio de los Servicios Portuarios, 2024), except for that of Ceuta, which for now maintains the form of SAGEP⁶⁷. In terms of chronology, the attempts to dissolve CPEs are quite concentrated in the interval from August to December 2022, during which the period established in the Fifth Framework Agreement for the total or partial dissolution of the CPE was extended without the provisions on conventional relocation being applicable.
 - **The extinctions of CPEs have taken place in ports with a relatively small total weight of total freight traffic and so far no CPE/SAGEP has been extinguished in the largest ports in Spain,** since among those that have become extinct only those of Coruña and Ferrol exceed 2% of the merchandise added, and in

⁶⁷ Specifically, five have been extinguished, the SAGEPs of Marín and Ría de Pontevedra (September 2019), Ferrol (December 2019), A Coruña (December 2019), Vilagarcía (May 2020), Gandía (May 2021) and Cartagena (May 2022); more recently, in May 2024, the CPE of Seville was extinguished to be reconstituted. The remaining 30 initial SAGEPs have been transformed into CPEs, which would have been joined by two other newly created ones, one in Ferrol (Estigal Centro Portuario de Empleo ETT S.L.) and another in Barcelona (Centro Portuario de Empleo BCN S.L.). However, of these 30, several announced their dissolution, which, as has been seen in some cases, does not mean that they will finally become extinct.

the latter another has been reconstituted. A separate case is that of Cartagena, where it was not constituted. Thus, ports without CPE would account for around 9.8% of the total cargo handled by Spanish ports in 2024, but only 5% of those handled, a very small percentage of the total. In the traffic of the largest ports with CPE in dissolution or extinguished, bulk cargo predominate, which in the ports of Cartagena and Coruña account for more than 90% of freight traffic (Puertos del Estado, 2025).

- **If the extinction of CPEs in which there have been attempts to dissolve them takes place, it would affect a small percentage of the stevedore staff hired by the CPEs,** According to the 2023 data from the Stevedoring Liberalization Report, it would affect around 345 port workers, 5.61% of them (Observatorio de los Servicios Portuarios, 2024).

Graph 24: Stevedores by CPE/SAGEP in 2023



Source: Authors' elaboration based on the Report on the Liberalization of Stevedoring in Spain (Observatorio de los Servicios Portuarios, 2022b).

Table 4: Number of stevedores by Port Employment Centre in 2019 - 2023

Port	State of the EPC in 2024	2019	2020	2021	2022	2023
A Coruña	-	-	-	-	-	-
Alicante	Alicante SA Port Employment Centre	55	61	72	60	58
Almería	Port Employment Center Almeria SA	22	22	21	21	21
Avilés	Port Employment Centre of the Port of Avilés SA	33	39	41	41	41
Bay of Algeciras	Sociedad De Estiba Del Puerto Bahía De Algeciras Cpe SA	1746	1726	1697	1671	1655
Bay of Cádiz	Port Employment Centre of the Port of the Bay of Cadiz SA	47	44	44	45	45
Palma de Mallorca	Sociedad Anónima De Gestión De Estibadores Portuarios Del Puerto De Palma Cpe	61	47	59	71	60
Alcudia	Sociedad Anónima De Gestión De Estibadores Portuarios Del Puerto De Alcudia Cpe	8	8	8	8	8
Ibiza	Sociedad Anónima De Gestión De Estibadores Portuarios Del Puerto De Eivissa Cpe	20	18	18	21	21
Mahón	Sociedad Anónima De Gestión De Estibadores Portuarios Del Puerto De Mao Cpe SA	11	9	9	9	9
Barcelona	Estibarna Port Employment Centre In The Port Of Barcelona SA	998	989	987	1086	1004
	Centro Portuario de Empleo BCN SL (created in 2019)					
Bilbao	Sociedad De Estiba Y Desestiba Del Puerto De Bilbao Centro Portuario De Empleo SA	322	313	306	301	300
Cartagena	-	-	-	-	-	-
Castellón	Sociedad De Estiba Y Desestiba De Castellón, Centro Portuario De Empleo SA	164	162	158	156	155
Ceuta	Stevedoring and Unloading Company of the Port of Ceuta, Sagep	3	3	3	3	3
Ferrol-San Cibrao	Estigal Centro Portuario De Empleo Ett SL (created in 2019 as a temporary employment agency)	-	9	8	9	6
Gijón	Port Employment Centre of the Port of Gijón SA	41	41	41	41	40

Huelva	Estihuelva Centro Portuario De Empleo SA	34	36	39	39	39
Las Palmas	PORT EMPLOYMENT CENTRE OF LAS PALMAS SA	388	331	318	419	387
Lanzarote	Lanzarote SA Port Employment Centre	16	15	16	20	19
Puerto del Rosario	Fuerteventura SA Employment Port Centre	10	10	10	10	10
Malaga	Estimalaga Centro Portuario De Empleo SA	108	98	97	97	97
Marín and Ría de Pontevedra	-	-	3	2	-	-
Melilla	Sestimesa Centro Portuario De Empleo Del Puerto De Melilla SA	17	17	17	16	15
Motril	Centro Portuario De Empleo Motril SA	19	17	15	15	15
Pasaia	Estiverio Pasaia Centro Portuario de Empleo SA	61	73	82	79	80
Santa Cruz de Tenerife	Sestife Sociedad Anónima Port Centre for the Employment of Port Stevedores of the Ports of Santa Cruz de Tenerife	178	171	171	166	164
Santa Cruz de la Palma	Estipalma Sociedad Anónima Port Employment Centre for Port Stevedores of the Port of Santa Cruz de La Palma	11	11	11	-	11
Santander	Sociedad De Estiba Y Desestiba Del Puerto De Santander Centro Portuario De Empleo SA	50	50	50	50	59
Sevilla	Company CPE del Puerto de Sevilla SA	54	51	47	43	43
Tarragona	Estarraco Port Employment Centre of the Port of Tarragona SA	144	130	126	125	122
Valencia	Centro Portuario De Empleo De Valencia SA	1561	1523	1488	1474	1470
Sagunto	Port Employment Centre of the Port of Sagunto SA	84	80	80	81	80
Gandía	-	12	-	-	-	-
Vigo	Serviport Noroeste Cpe SA	102	97	104	103	102
Vilagarcía	-	2	-	-	-	-

Source: Authors' elaboration based on the successive Reports on the Liberalization of Stevedoring in Spain. The data offered are from the fourth quarter for all years. (Observatorio de los Servicios Portuarios)

- **Despite the fact that the Law establishes that the geographical scope of action of the CPEs can be extended to the entire national territory, the structure of one CPE per port has been maintained.** The vast majority of the cargo would thus continue to be handled in ports where there would continue to be a single person in charge of providing most of the labor. There would only be more than one CPE per port in Barcelona (where a new CPE has been created). If the number of CPE per Port Authority (and not by port) is taken into account, in Valencia there are two (including the port of Valencia and the port of Sagunto). There are also more than one in the islands' Port Authorities.

Figure 25: Map of the CPEs in force, with an attempt to dissolve them and extinguished in 2023



Source: Authors' elaboration with a map of Puertos del Estado. Note: CPEs listed with attempted dissolution may not be extinguished. The employment center in Ceuta continues to be a SAGEP.

Separation of SAGEPs. According to the 2021 report on the liberalization of stowage, except for specific cases⁶⁸, there have been no major changes in the capital of the SAGEPs transformed into CPEs (Observatorio de los Servicios Portuarios, 2022b). As for the right of separation of the SAGEP, until the end of 2021 only one company, Intersagunto, would have exercised it on its own.⁶⁹

⁶⁸ Valencia, Alicante y Lanzarote.

⁶⁹ According to the company's own complaints contained in the CNMC's resolution of the IV Framework Agreement on stevedoring ([S/DC/0619/17](#)) or in [the National High Court's own ruling](#), it resulted in serious economic repercussions for the Alonso group of which it is a part,

Temporary employment agencies

Temporary employment agencies (ETTs) are those "*whose fundamental activity consists of making workers hired by it available to another company, on a temporary basis*" ([Law 14/1994, of 1 June](#)). In the framework of stevedoring, to achieve their equivalence with the CPEs, singularities of the regulation of the latter are applied, such as in the minimum number of structural people hired.

The degree of introduction of temporary employment agencies in the hiring of stevedoring workers is still very low, having remained relatively stable in recent years. According to data from the liberalization reports, between 2019 and 2023 temporary employment agencies hired between 4% and 2% of workers only. In 2023, they hired only 2.44% of stevedores, a figure 30.89% lower than the previous year. Additional developments in recent years include: (i) the reduction in the total number of temporary employment agencies (from a maximum of 10 in 2022 to a total of 8 in 2023) and (ii) the reduction in the activity of existing temporary employment agencies to fewer port authorities (for example, from 2022 to 2023 Adecco and Randstad stopped being domiciled in half of the initial ports).

Graph 26: Temporary employment agencies made available to port workers in Spain

Name of the ETT	City
ADECCO T.T., S.A. ETT	BARCELONA
	CÁDIZ
	DONOSTIA/SAN SEBASTIÁN
	HUELVA
	SAGUNTO
	VIGO
EUROFIRMS ETT, S.L.U.	CORUÑA
FLEXIPLAN, S.A. EMPRESA DE TRABAJO TEMPORAL	SEVILLA
GALVA 7 EMPLEO E.T.T., S.L.	VALENCIA
IMAN TEMPORING ETT, S.L.	SEVILLA
NEXIAN SPAIN ETT, SL	GIJÓN
NORTEMPO EMPRESA DE TRABAJO TEMPORAL, S.L	CORUÑA
	VILAGARCÍA DE AROUSA
	AVILÉS
	CÁDIZ
	MÁLAGA
RANDSTAD EMPLEO, S.A. E.T.T.	VALENCIA

Source: Report on the Liberalization of Stevedoring in Spain (Observatorio de los Servicios Portuarios, 2024).

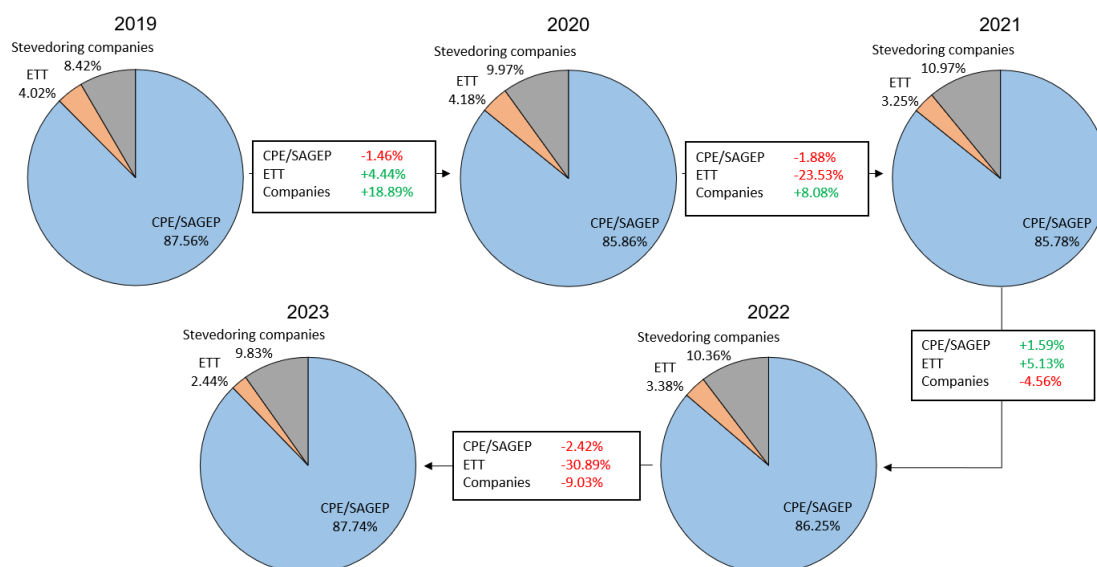
based on the reduction in the performance of the workers of the SAGEP of Sagunto employed by Intersagunto, the boycott of a shipping company of the conglomerate, as well as the obligation to subrogate an oversized number of workers.

Evolution of the distribution of employment between CPE, temporary employment agencies and stevedoring companies

The following conclusions can be drawn from the analysis:

1. **Traditionally, CPEs/SAGEPs have had a greater weight in the provision of stevedoring labor, although in absolute terms their use has been reduced in recent years.**
2. **However, if the distribution of stevedoring workers among the different types of employers is taken into account, in relative terms the CPEs continue to concentrate a very high percentage of the total employment of stevedores.** According to the latest available data for 2023, its share of the total number of port workers was 88%, a share that has not undergone major fluctuations in the last available years (2019-2023). Therefore, CPE/SAGEP continue to be the pillar on which stevedoring in Spain is based despite its liberalization (Observatorio de los Servicios Portuarios, 2024).

Figure 27: Changes in the distribution of the provision of port workers



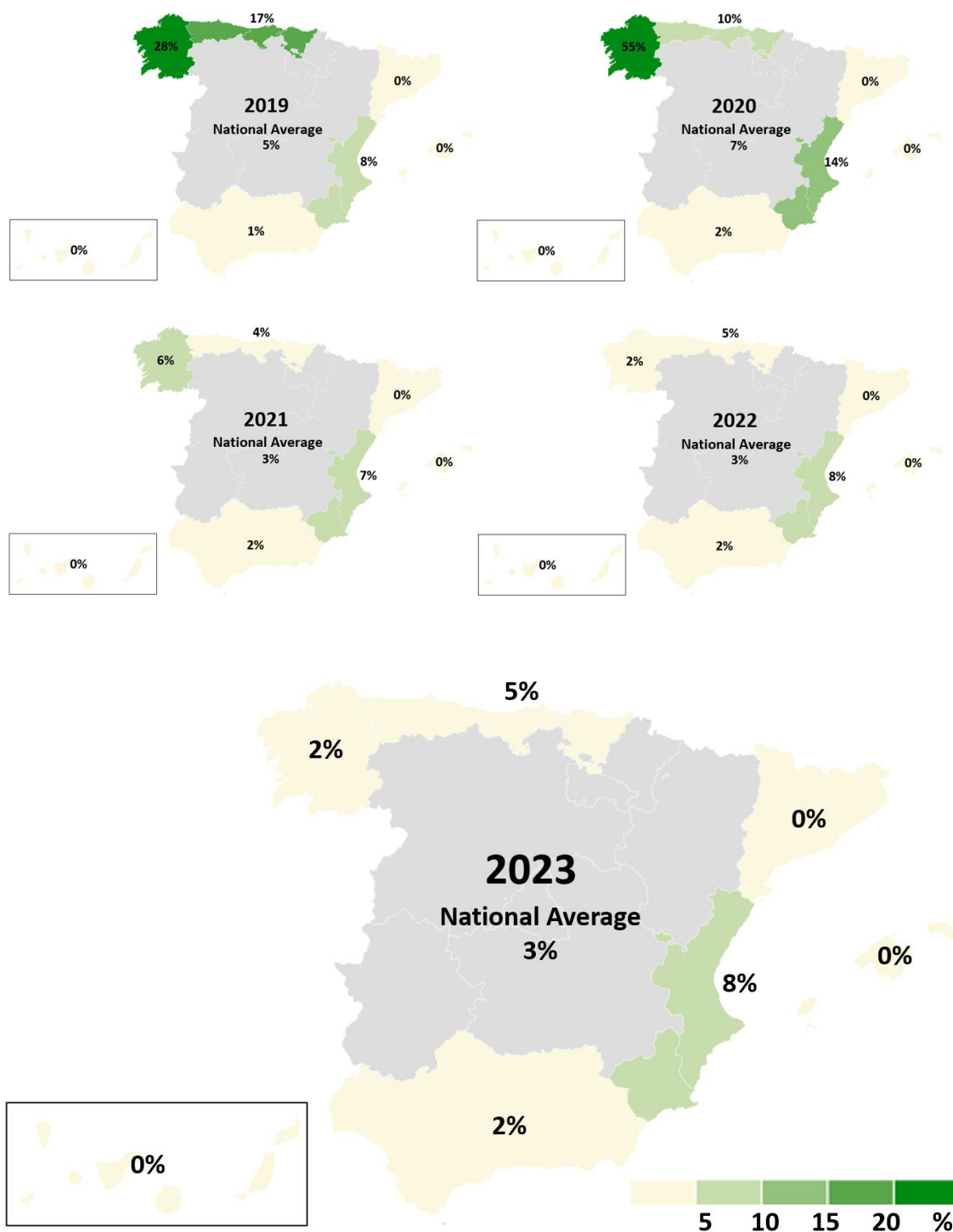
Source: Authors' elaboration based on the "Analysis of the liberalization of the stevedoring sector in Spain" (Observatorio de los Servicios Portuarios, 2024).

3. **In the period 2019-2023 there does not seem to have been any change in the distribution of workers in the different types of contractors (CPE, temporary employment agency and stevedoring companies).** Thus, six years after the liberalization of stevedoring, in 2023 of the total of 6,972 stevedores, 88% were part of a CPE, 10% of stevedoring companies and the remaining 2% of temporary employment agencies. Compared to 2019, this means an increase in the weight of CPEs and hiring by stevedoring

companies, and a reduction in the weight of temporary employment agencies (Observatorio de los Servicios Portuarios, 2024).

4. **Thus, the weight of temporary employment agencies continues to be small (the smallest of the three possible employers), without any signs of change in this trend, given that in the last year their weight was even lower.** After compiling the information on the average annual number of stevedores in temporary employment agencies and CPE/SAGEP provided by the various reports on the liberalization of stevedoring, a considerable reduction in the ratio of stevedores in temporary employment agencies to SAGEP/CPE can be observed.
5. **In addition, this loss of influence of temporary employment agencies seems to be occurring on all seafronts, although it is true that everything indicates that in some their acceptance has been very low from the beginning.** The ratio of stevedores in temporary employment agencies to SAGEP/CPE has been calculated, differentiating according to the registered office of temporary employment agencies, which have been grouped by region to mitigate the possibility of a stevedore from a temporary employment agency providing their services in an area other than the location of their company. There are possible limitations in the data, for instance that it does not include all operational temporary employment agencies. But in either case, there is a great regional diversity of the indicator of stevedores in temporary employment agencies over SAGEP/CPE.
 - This ratio has been particularly high in Galicia, with temporary employment agencies accounting for more than half of the employment of stevedoring workers in 2020 (although in 2021 it has contracted to a large extent and as of 2023 they seem residual).
 - The rest of the north façade also has above-average values. Likewise, they seem to be relevant in the southern east, both in the ports of Valencia and in the port of Cartagena.
 - On the opposite side would be the regions of Catalonia, the Balearic Islands, Andalusia and the Canary Islands, where residual activity of temporary employment agencies has been recorded with respect to the stevedores of the CPEs. In this way, everything points to the fact that the stevedores assigned to ETT are being used to cover very specific needs of stevedoring companies.

Graph 28: Ratio of temporary employment agencies to CPE between different façades



Source: Authors' elaboration based on the successive reports on the Liberalization of Stevedoring in Spain. Note: temporary employment agency stevedores have been assigned based on their registered office, which may not coincide with the place of provision of stevedoring services. To minimize this impact, they have been grouped by geographical areas: Galicia, North (Asturias, Cantabria and Basque Country), Catalonia, Balearic Islands, Levante (Valencia and Murcia), Andalusia and the Canary Islands. The maps include the figures for the last quarter of each year, but the existence of additional temporary employment agencies is not ruled out. A temporary

employment agency had its headquarters in Madrid and its stevedores have not been included in any region of the map, although they have been included in the national total.

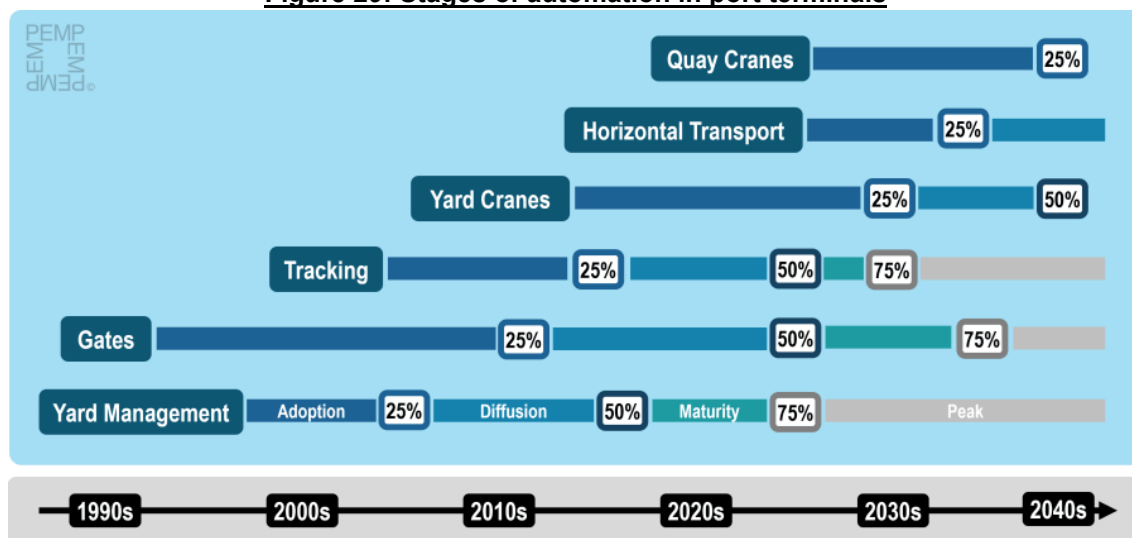
6. **The opposite is true of the staff directly assigned to stevedoring companies, whose weight has increased in recent years, although since 2021 it has contracted in absolute and relative terms.** The number of personnel hired directly by stevedoring companies increased by 11.5% from 2019 to 2023. This could be due to the process of extinction of CPE in recent years.

4.1.2.6. Cargo handling and technological changes

One of the major trends in the port sector is the growing automation of terminals, defined as the introduction of processes in which manual work is replaced by that of autonomous machines. This trend is likely to change the profile of the demanded port workers. The Fifth Framework Agreement includes provisions related to this type of investment⁷⁰.

⁷⁰ The Fifth Framework Agreement states that: "Aware that the sector is immersed in transformation and automation processes, the signatory parties consider it necessary to make all the necessary efforts to avoid, minimize or solidarize the negative effects on the quality and guarantee of employment. In this sense, the stevedoring companies will communicate to their legal and union representatives the investment projects that may have an impact on employment stability and employment levels (...) On the basis of the information provided, a process of dialogue will be initiated between the affected company and the aforementioned legal and trade union representation aimed at analyzing the consequences on employment of the business project and the measures they deem necessary to achieve the objectives of avoiding, minimizing or showing solidarity to the consequences on the employment and working conditions of the affected staff (...). Thus, prior to any measure that may affect the employment of dockers, both by an unjustified increase in it and by its reduction, it is agreed to exhaust, firstly, all possible measures of flexibility of working hours, functional mobility, suppression of professional intrusion to guarantee the optimal level of effective employment of the same and, where appropriate, temporary suspension of contracts (...). Any discrepancies that occur after the mandatory consultation period in these collective procedures will be resolved by the State Sectoral Joint Commission of this Agreement, subject to the procedure provided for therein. In any case, the parties undertake not to submit redundancy plans or job write-offs during the term of this Agreement, excepting the cases provided for in Article 31.1 of the Agreement."

Figure 29: Stages of automation in port terminals



Source: Port Economics, Management and Policy: Terminal Automation (Notteboom, Pallis, & Rodrigue, 2022).

A distinction can be made between automated and semi-automated terminals. In the first case, movements are automated in the container yard and its connections to the dock, while in the second case, only the movement in the courtyard are important. On the other hand, despite the 53 terminals in the world with a certain degree of automation (4% of global capacity), none of them is fully automated, with changes having occurred mainly related to the management of container storage and their horizontal movement (International Transport Forum, OCDE, 2021).

In Spain, according to the ITF, (International Transport Forum, OCDE, 2021) **warehouse operations are automated at the Total Terminal International Algeciras terminal (in 2010) and at the BEST in Barcelona (in 2012).** This implies a low level of automation. To these will be added the new northern terminal of Valencia (Autoridad Portuaria de Valencia, 2023).

By reducing costs and increasing efficiency, automation can improve the safety and health of workers. Also, according to the "Productivity Commission" (2023), it has advantages derived from the greater safety and reliability of operations, as it can operate uninterruptedly. It also has advantages in terms of contribution to the **Environmental sustainability**, since automation is expected to reduce the overall energy consumption of the terminal as a result of the optimization of operations and electrification.⁷¹ the minimization of machine travel, empty travel, removals, etc. would also contribute to this.

⁷¹ In case the electricity generated to power it comes from renewable sources.

Finally, when assessing the effects of automation, the dynamics of the innovative process and the timing of the regulator must be taken into account. The technologies available to operators are constantly changing and improving, so the standardization, integration and optimization of processes could be long overdue, and therefore also the impacts on costs and productivity. In the same way, there is a need to adapt several regulatory provisions on security, data protection, liability regime in case of damage, among others, to the challenge of automation, as stated in an article of Ports of Spain (Transporte XXI, 2023a).

4.2. The port service for passengers

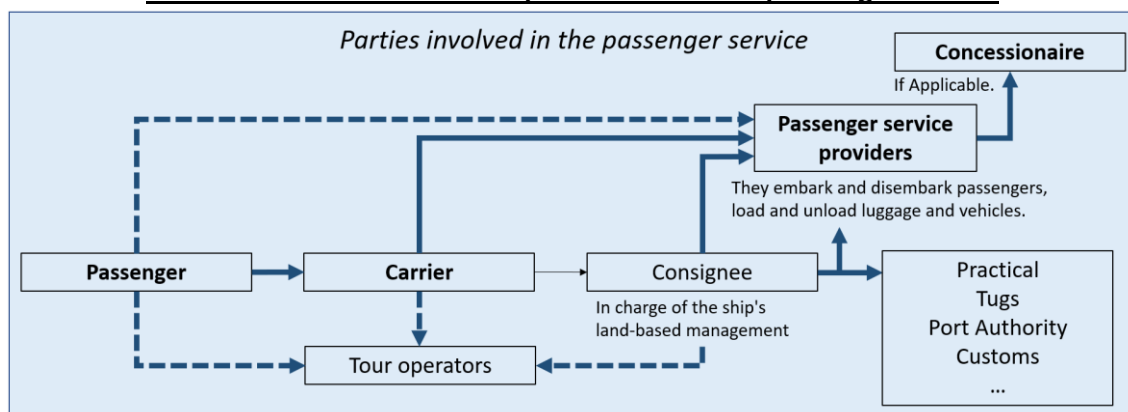
According to article 129 of the TRLPEMM, passenger service includes: (i) **boarding and disembarking passengers**; (ii) **loading and unloading baggage** and (iii) **loading and unloading passenger vehicles**. It would therefore encompass elements such as:

- The handling of walkways and ramps, except for that carried out by Port Authority personnel.
- The order, cleanliness and management of terminal spaces, as well as the opening and closing of its access doors.
- The reception and preparation of passengers, the control of their identity and boarding pass.
- The management, control and labelling of baggage.
- The preparation and arrangement of vehicles.

A number of parties are involved in the maritime transport of passengers, including:

- **Carrier, shipping company, shipowner, charterer and consignee:** all can act as customers of the passenger service.
- **Passengers:** they are the ultimate customers of the service.
- **Company providing passenger service:** is the holder of the license to provide the port passenger service (licensee). Their figure may not coincide with that of the concessionaire, holder of the concession.

Box 6: Relations between the parties involved in passenger service



Source: Authors.

4.2.1. Characterization of the service on the demand side

The direct customers of the passenger service are the shipping companies, although the recipients of the service and ultimate customers are the passengers. There may be intermediaries between them. In addition, sometimes these same shipping companies are the ones that provide the service to the passenger or part of it, which is known as self-provision. They usually manage berths well in advance, giving them the ability to switch service providers relatively easily.

In 2024, the number of passengers in Spanish ports stood at around 40.85 million (Puertos del Estado, 2025). Depending on the purpose of the trip, **The demand for passenger service by shipping companies may be segmented in two main types**⁷²:

- **Regular line:** 28 million passengers and 7.2 million passenger vehicles. Of a regular nature, they are subject to previously established itineraries, frequencies, fares and conditions.
- **Cruise ships:** 12.8 million passengers. Relatively irregular in nature, they have a higher use of services in the base port than in stopovers.

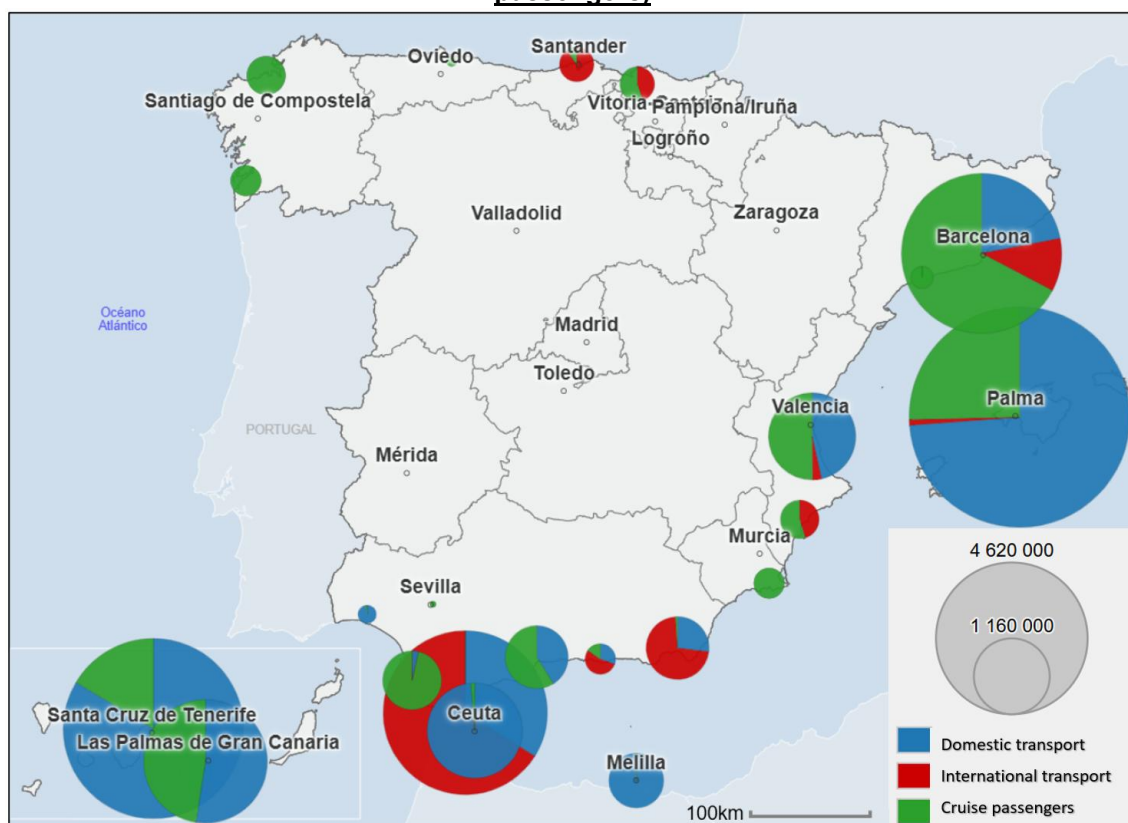
These categories meet the need of passengers to **move from one point to another**, so for some passengers without a vehicle this service could be a substitute for other modes of transport. Other times the **tourist purpose** prevails, as in the case of cruise ships. This affects the passenger's willingness to pay and, consequently, the derived demand for the passenger service.

⁷² It is possible to consider a third type of demand of little relevance for the object of this study, which refers to short-sea traffic. A modality that would include inland passengers and other passengers (such as hikers).

In general, **the demand for scheduled maritime transport by individual travellers is less price-sensitive than that of the segment made up of tour operators**, due to the non-professional nature of the former and their relatively lower negotiating power. This does not prevent discounts from being applied according to the number of tickets purchased, the purchase of return tickets compared to the one-way ticket, the anticipation of the purchase, the inclusion or not of the vehicle, etc.

Passenger service demand is seasonally and geographically concentrated in a number of ports. In 2024, the island ports registered half of the passengers, while among the mainland ports, stand out Algeciras with 5.9 million passengers (14% of the total), largely linked to the operation of crossing the strait, and Barcelona with about 5.4 million, mostly by cruise ships (13% of the total) (Puertos del Estado, 2025).

Graph 30: Total traffic by Port Authority and type of passenger in 2023 (in number of passengers)

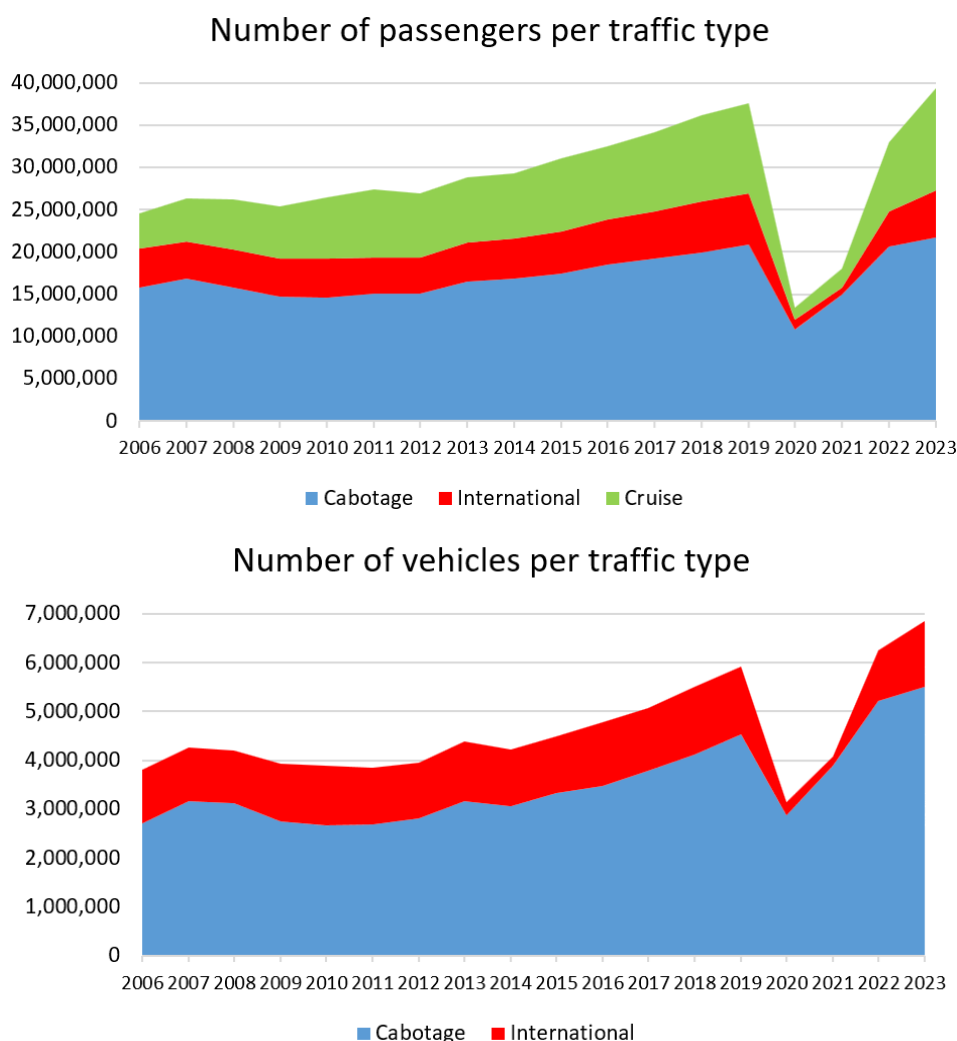


Source: Authors' elaboration based on the Annual Scorecard of Puertos del Estado (2024a).

Since 2007, passenger and vehicle traffic has followed an increasing trend, only stopped during the pandemic. In 2024, both scheduled and cruise traffic

exceeded that of 2019. Of note is the strong growth in cruise passengers, which have tripled in the last twenty years (Puertos del Estado, 2025).

Graphs 31 and 32: Evolution of the main elements of the passenger service (2006-2023)



Source: Authors' elaboration based on data from the Observatory of Transport and Logistics in Spain (OTLE database, accessed in september 2024) and the Statistical Yearbook of Puertos del Estado (Puertos del Estado, 2024a).

4.2.1.1. Key demand from shipping companies

The choice of a port in which to transport passengers will depend fundamentally on the type of demand. If it is a transport demand, such as regular traffic, the most relevant factors will be the size of the population of the areas to be connected, the alternatives and the existence of a certain route (for example, the crossing of the Strait operation).

For **Cruises**, demand depends on five elements: location, attractiveness of the region, accessibility, port infrastructures and port fees. The **Determinants of**

Choice of a Base Port⁷³ would be port efficiency, service costs, regulation, destination, geography and, to a lesser extent, infrastructure (Papachristou et al. 2022). It is also relevant the port's proximity to an international airport, security, passenger and vessel fees, time spent in the port, etc.

4.2.1.2. Profile of shipping companies according to the type of service

As for the **characteristics of the shipping companies** dedicated to passenger transport, and therefore demanding passenger service, it is worth noting:

- **The concentration in a few companies.** On the part of **cruises**, the four largest companies hold 83% of the global market (Notteboom, Pallis, & Rodrigue, Port Economics, Management and Policy, 2022)⁷⁴. In the case of the **Regular traffic** There are usually oligopolistic market structures in each line. For example, in 2021 three companies operated regular passenger transport on routes from the Peninsula to the Balearic Islands⁷⁵.
- **Fleet adjustment costs** (speed and the possibility of capacity adjustment by shipping companies) is a factor that could limit passenger service activity in the short term.
- **The average capacity of passenger ships has been increasing in recent years**, some large vessels coexisting with other smaller vessels⁷⁶. This trend has resulted in the barrier of 5,000 passengers on a cruise ship having already been exceeded⁷⁷, which can be explained by the existence of economies of scale mainly due to savings in fuel costs per passenger, the sharing of costs of greater entertainment options and the optimization of waste treatment. On the other hand, the resulting profit would be

⁷³ The one in which the route of a cruise ship begins and/or ends. These obtain more economic benefits than a scale.

⁷⁴ Port Economics, Management and Policy: Ports and Cruise Shipping (Notteboom, Pallis & Rodrigue, 2022).

⁷⁵ Case [C/1305/22](#). On occasions, anticompetitive conduct examined by the CNMC has also been detected (see [S/0080/08](#), [S/0241/10](#) y [S/0244/10](#)).

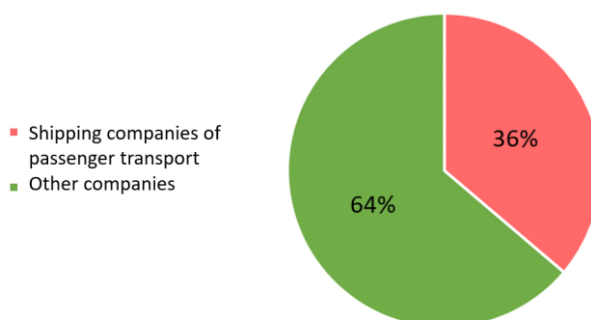
⁷⁶ According to the CLIA, in 2021 the capacity of the association's 323 cruise ships was 581,200 passengers, i.e. on average they carry 1,800 passengers (without counting the crew). New orders from 2023 to 2028 will have an average capacity of 2,749 passengers, with a maximum of 6,000 and a minimum of 100, according to the State of the Cruise Industry Report (CLIA, 2023).

⁷⁷ The largest cruise ship, the "Wonder of the Seas", with 236,000 GT can carry 6,988 passengers and 2,300 crew members. Top 20 Largest Cruise Ships In 2023 (Marine Insight).

reduced by the relatively higher fixed costs of building a passenger ship, which would increase rapidly with tonnage (Ros, 2020)⁷⁸.

- Vertical **integration** between shipping companies and passenger terminals is common, as it is in freight transport. This responds to the possibility of creating synergies, mainly due to a greater predictability and control over the service. Also, in the case of cruises, it is relevant to improve coordination with shore excursions. According to data available from the register of licenses for port service providers, in September 2024 at least a third of licenses belonged to maritime passenger transport companies, including business groups such as Grimaldi, Balearia or Armas, among others.

Graph 33: Percentage of passenger service licenses granted to shipping companies (2024)



Source: Authors' elaboration based on the Register of Port Services Licenses (accessed in September 2024).

With regard to **regular lines**, there is an ability on the part of the customers (shipping companies) to provide and stop providing regular line maritime transport services. In this way, there would be a potential source of competition driven by the possibility of adjusting the fleet size to each route and the absence of relevant adjustment costs, which would prevent incumbents from acting independently of the decisions of other competitors. This would be limited by the availability of infrastructure and space in ports.

It should be remembered that there are **public service obligations** for regular line traffic (PSO) on several of the lines, allowed by European regulations⁷⁹ and the TRLPEMM (art. 260) that contemplate the possibility for the Government to

⁷⁸ The cost of building a cruise ship would range between 350 and 1,300 million euros, much more than a container ship (between 53 and 200 million). *Economies of scale in the cruise industry. Bigger means better?* (Ros, 2020).

⁷⁹ [Council Regulation \(EEC\) No. 3577/92 of 7 December 1992](#), applying the principle of free provision of services to maritime transport within Member States (maritime cabotage).

establish it in regular services *"in cases where the operating companies would not provide them if they took into account exclusively their own commercial interest, and that are necessary to ensure the transport service between different localities or to guarantee its provision under reasonably acceptable conditions of frequency, price, quality or universality"*.

Finally, **residents of the Canary Islands, the Balearic Islands, Ceuta and Melilla benefit from 75% discounts on regular maritime transport**, which can be combined with other existing ones.

Cruises, on the other hand, have certain peculiarities:

- It is an activity that can present **higher barriers to entry and exit**, derived from its start-up and operation costs.
- Its market is **highly segmented** by social groups, ages, and types of demand.
- **They have a relevant economic impact**: the Mediterranean is the second largest cruise destination in the world and Spain its second busiest country⁸⁰. In 2021, its activity in Europe was estimated at more than 20,000 million dollars (CLIA, 2023)⁸¹. However, the activity can also cause problems of congestion in cities and of environmental impact. For this reason, cruise ship activity is frequently taxed at the municipal or regional level, such as the tourist taxes established in Barcelona, the Balearic Islands or the Valencian Community.
- Cruise ship activity is quite **seasonal**. Therefore, there are variations in prices depending on the season of the year and, in addition, between tourist seasons ships are moved from one destination to another, such as from the Mediterranean to the Caribbean.

The revenues of shipping companies do not come exclusively from ticket sales, but also the expenses on the passengers' journey, which account for about 30% of the total. As for their expenses, commissions to agents (especially advertising), operating costs, salaries and fuel stand out (Cruise Market Watch, 2023).

⁸⁰ With about a quarter of the Mediterranean's traffic in terms of passengers; second, behind Italy and first in number of stopovers (CLIA, 2018).

⁸¹ For the case of Mallorca see *Economic Impact Study in Palma de Mallorca* (CLIA, 2019).

Box 7: Composition of typical cruise ship revenues and expenses per passenger per day.

	Revenues	Expenses	
Ticket	\$1,217	\$249	Other operating costs
Travel expenses	\$497	\$223	Agent commissions
-Casino & Bar	\$273	\$185	Fuel
-Excursions	\$99	\$199	Company operating costs
-Spa	\$50	\$189	Wages
-Other	\$75	\$165	Depreciation/Amortization
		\$103	Provisioning (food)
		\$75	Aboard
		\$57	Transport
		\$53	Interests
		\$218	Profit before tax
Revenues	\$1,714		
Expenses	\$1,564		
Profit before tax	\$218	12.70%	

Source: Financial Breakdown of Typical Cruiser (Cruise Market Watch, 2023).

4.2.2. Supply-side service characterization

There is a great heterogeneity in the provision of this service. Each Port Authority has been defining its own model without following a common pattern.

4.2.2.1. Maritime passenger terminals

In most Spanish ports there is a single public ro-ro and passenger terminal, with some exceptions. Among them, Barcelona, which has two, and the ports of Ibiza and Palma, with two and three multipurpose public terminals, respectively.

It is relevant to consider the different requirements of port facilities and infrastructures required by each type of traffic and the type of vessel (ferries, *fast ferries*, catamarans, cruise ships and ro-ro) and their size:

- In **regular traffic**, the main differences in terms of equipment of the terminal lies in the possibility of receiving cars. In that case, in addition to the passenger facilities, it would require a parking area and facilities for vehicle processing.
- In **cruise traffic**, it is relevant to distinguish between base and call ports, as they have different requirements⁸². In base ports, the quality of

⁸² In Spain, Barcelona would be a base port, Seville, Valencia, Palma and Gran Canaria or Malaga hybrids, and the rest would be stopover ports (Notteboom & Vernimmen, 2009).

infrastructure is more important and more sophisticated maritime facilities are required.

- Inland **traffic** has fewer requirements, with minimal facilities adapted to the size of the boats, generally small and medium-sized, and good land connections.

4.2.2.2. Terminal operating models in passenger service

Four models can be distinguished:(Villares Vilella & Díez i Besora, 2022)

- **Provision by the Port Authority:** when due to the absence or insufficiency of private initiative it is necessary to guarantee an adequate coverage of the needs of the service (Art. 109.3 TRLPEMM). In these cases, the Port Authority owns and operates the passenger station or terminal, open to general use, and in turn provides the service to passengers. In this case, there is no title of occupation of the public domain, nor a license or authorization to provide the port service to passengers.
- **Provision through private initiative:**
 - **Concessioned maritime station and a single operator who owns the terminal (self-provision):** the operator - the shipping company itself that provides the passenger service - is the owner of the passenger station or terminal dedicated to private use under a concession regime.
 - **Concessioned maritime stations and one or more operators in the same terminal:** where an operator is the owner of the passenger station or terminal, open to general use under a concession regime, providing passenger service in its own terminal, where there may be other operators within the terminal that also provide passenger service using said terminal.
 - **No concessioned maritime terminals, but licensed providers:** the Port Authority is the owner of the passenger station or terminal open to general use, and there are various operators that provide the service to passengers.

Although it would have increased considerably, the private management of passenger service terminals would still be a minority in Spain. Specifically, Cano-Leiva et al. (2023) estimate that in 2018, of the 202 passenger port terminals in Spain, 23.4% were privately managed.

Different models have different advantages and disadvantages:

- **In relation to the direct provision by the Port Authority itself,** this model can result in cost inefficiencies and a lack of innovation, ending up harming

consumers with higher prices and poorer quality. For this reason, the OECD has recommended restricting it to cases in which there is no manifest interest from the private sector due to lack of economic viability and reassessing this interest regularly to prevent direct provision from being a barrier to entry. (OECD, 2018)

- **Private terminal management (concession-based models) can impact efficiency.** Cano-Leiva et al. conclude that private management of terminals improves the technical efficiency of Spanish ports. Likewise, if a distinction is made between the type of traffic, the positive effect of private management in the case of passenger terminals is lower compared to the different types of freight traffic (2023).
- **The coincidence of a concessionaire and a single licensee implies less competition but can generate positive incentives for investment in infrastructure,** since the concessionaire may be more willing to invest if it is going to benefit exclusively from it when providing the service. This model can also reduce the possibility of duplication in the material means necessary to carry out the passenger activity that may occur if they have to be provided by different service providers.

4.2.2.3. The companies providing passenger services

Passenger service licenses are divided into the sub-services that operators can provide to passengers, passenger vehicles and baggage. The following conclusions can be drawn from the data from the Puertos del Estado license register.

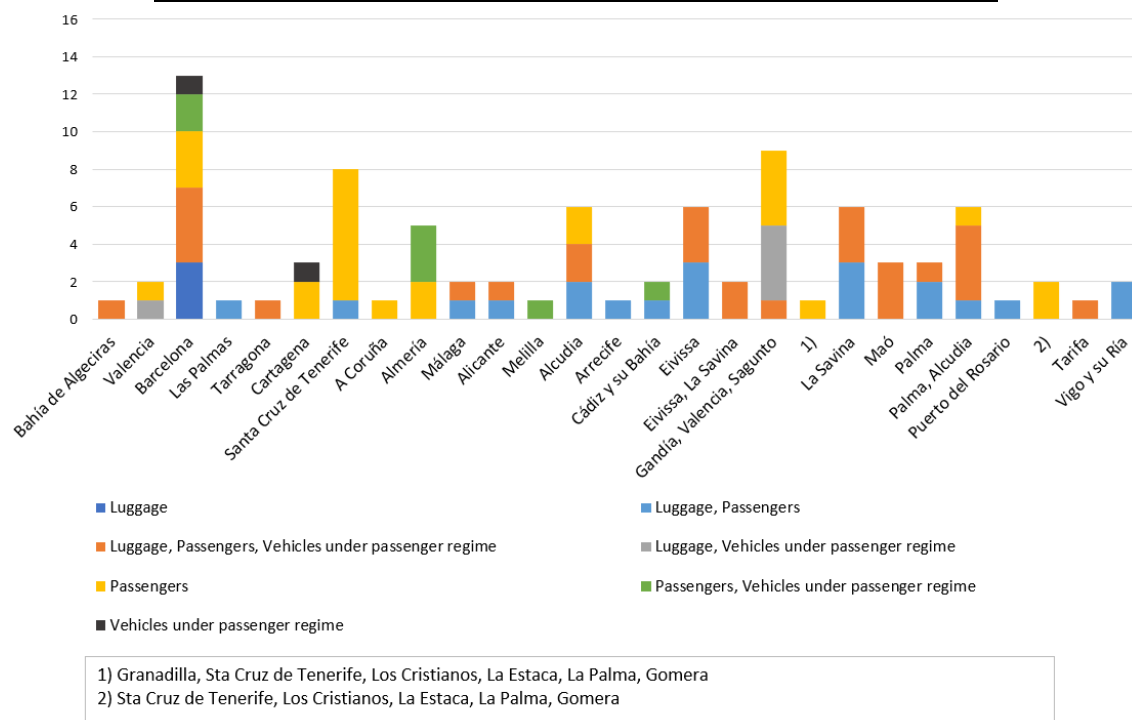
The number of licenses varies between ports. The average number of licenses per port in July 2025 was close to 3, with a maximum of 13 licenses in Barcelona and with some ports having a single license.

There have been **numerous recent entries, and a dozen departures of providers in the last decade** for all the Ports of General Interest. However, it should be borne in mind that this activity has been in the last decade, and continues to be in the process of transformation, in which it has gone from being covered by the Port Authorities to moving towards being provided by the private sector, which could explain the high number of entrants.

On the other hand, article 114 TRPEMM establishes license terms of 6 to 50 years, depending on the investment made; **The average term of the license is slightly more than 8 years in 2025** (Puertos del Estado, accessed in July 2025). The ports that present licenses that significantly exceed the average term are Barcelona (with several licenses close to 30 years), Malaga (20 years), Cádiz (20 years) and Valencia (19 years).

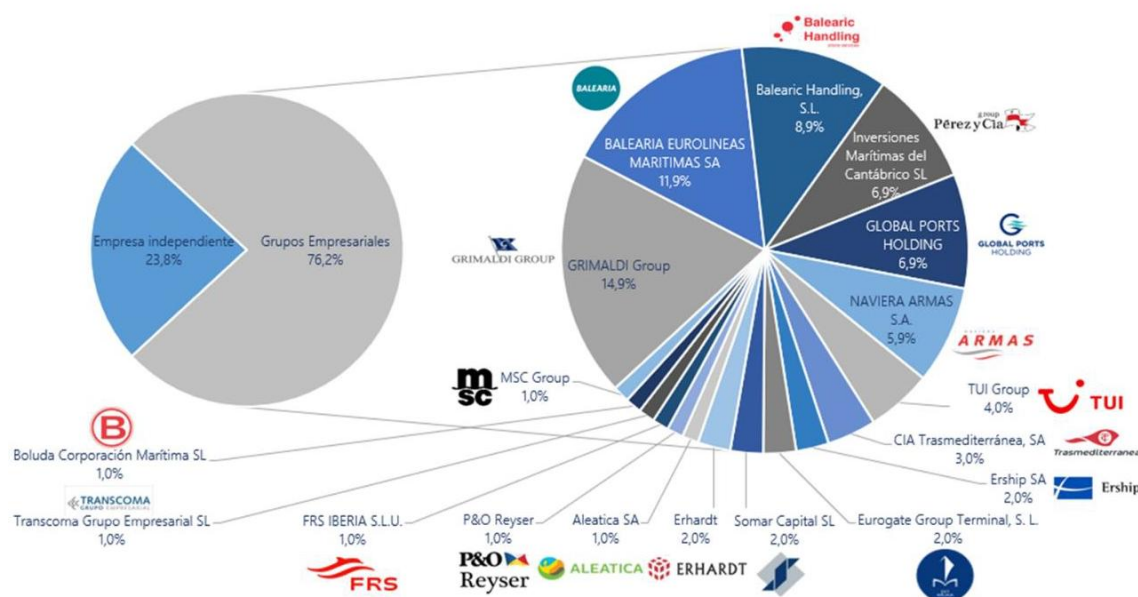
By business groups, according to 2022 data, the Grimaldi Group (15%), Balearia Eurolíneas Marítimas (12%) and Balearic Handling (9%) stand out, while 24% are managed by independent companies (Port Services Observatory, 2023a).

Graph 34: Number of licenses for passenger service by port (2025)



Source: Register of port services licenses of Puertos del Estado (Puertos del Estado, accessed in July 2025).

Graph 35: Distribution of passenger service licenses by company in 2022



Source: Analysis and conclusions of the state of the port services market (Observatorio de los Servicios Portuarios, 2023a).

4.2.2.4. Fees for the provision of the passenger service

The passenger service provider charges the shipping company fees for the different categories of passenger services it provides (boarding and disembarking passengers, passenger vehicles, baggage, etc.).

The Port Authorities may approve maximum charges for passenger services (except in terminals dedicated to private use), when the number of service providers is limited or insufficient to guarantee competition.

From the comparison of the maximum charges, the following can be seen:

- Several Port Authorities impose maximum charges on the provision of passenger services (Barcelona, Balearic Islands, Algeciras, Alicante, Cartagena, A Coruña, Malaga, Melilla, Tenerife, Valencia and Vigo).
- The charge structure does not seem to follow a fixed pattern. For example, in Valencia they are set by provider (where all have the same amounts except one), in Vigo in one way and in Melilla for regular traffic they are set in one way but according to the number of passengers embarked/disembarked in the previous year.

5. BARRIERS TO COMPETITION

5.1. Transversal barriers to the cargo handling and the passenger service

5.1.1. Lack of transparency

The availability and accessibility of accurate, complete and up-to-date public information is an essential aspect to promote competition. It facilitates the entry of new operators into the market, the evaluation of the competitive situation and the effects of possible reforms, and improves allocation efficiency in the system. In addition, greater transparency reduces problems of asymmetric and incomplete information, which can, for example, lead to less investment.

Puertos del Estado and the Permanent Observatory of the Port Services Market (hereinafter, the Observatory) have made a significant effort to improve transparency. They publish statistics and different reports on the sector periodically (annual reports, statistical yearbooks, the Document of analysis and conclusions of the state of the port services market, etc.) and have the General Register of Port Service Provider Companies. Broadly speaking, the analysis of the public information provided by the port management entities of other countries in our vicinity (France, Germany, the Netherlands, Italy) reveals a degree of transparency similar to that of Spain. Progress is also expected in this area in the future: Strategic Line 5 of the 2022 [Strategic Framework of the port system of general interest](#) (hereinafter, the Strategic Framework) (Monitoring and facilitation of port activity) reflects different initiatives whose effect is expected to be to increase transparency and improve the monitoring of services such as the cargo handling.

However, in the analysis carried out, aspects have been detected in which the available information is outdated or incomplete, or does not allow data to be obtained on key variables. The Observatory itself has thus pointed out that: *"In passenger and cargo handling services, the scarce information available in the different databases consulted, as well as the great dispersion in the available data, make it impossible to obtain reliable economic and activity indicators. It would be convenient for Port Authorities and providers to work to obtain this type of information"* (Observatorio de los Servicios Portuarios, 2022a).

Various aspects in which the lack of transparency has a particular impact on competition are mentioned below:

a) Information on port terminals, licenses and concessions.

- It is difficult to obtain information on the specific terminals existing in each Port Authority. Only part of them show this information on the web and there is no unified database that compiles updated information on current concessions, their duration and status. Nor has updated public information

been found on traffic and cargo stowed in each terminal. The lack of information on terminals and the status of existing concessions can make it difficult for operators to enter, and the lack of information on updated traffic by terminals also complicates assessing the competitive situation within and between ports.

- The register of licenses of the operating companies of Puertos del Estado is incomplete, as mentioned in the most recent Document of Analysis and Conclusions of the state of the port services market (*'data from all the companies providing services currently existing have not been incorporated in this register'*). The registry data also does not specify aspects that could be useful from the point of view of transparency, such as the coincidence of the service provider with the ownership of the concession over a terminal or possible changes in the company name.

b) Information on the performance of the cargo handling service, on stevedoring workers and on their availability.

- **Transparency about the performance of the cargo handling service creates incentives for improvement.** The results of the Port Authorities and of the Spanish port system as a whole can be used as a reference to compare with those of previous periods, to compare with each other and with respect to other countries. At the moment, although the data published in the Statistical Yearbook of State Ports include variables with which to calculate some relevant productivity measures, no public information is offered on productivity measures per se that would allow comparisons to be made and encourage performance improvement (2024a).
- **In addition, a significant effort has been made in recent years to collect data on the evolution of the liberalization of the stevedoring sector. However, public information on the sector remains scarce.** For example, there is no regularly updated public list of temporary employment agencies that make staff available to the stevedoring companies in each port. Nor has any important information been published recently regarding stevedore staff: the Observatory's 2016 Port Services Market Statement and Conclusions Paper included, for example, a summary of the study of the profit and loss accounts of SAGEPs in Spanish ports containing relevant information on SAGEPs in Spanish ports, such as the unit cost of personnel in Spanish ports, the average cost of personnel per ton handled in Spanish ports and the performance of stevedores per port. Since then, no similar updated information has been published that would provide more transparency on the competitive situation of the sector. This makes it difficult, for example, to assess the effect of reforms aimed at introducing more competition into the market such as the one in 2017 and subsequent legislative amendments, as well

as to assess the evolution of the sector's competitiveness in Spain and in the different Port Authorities.

- **In addition, some of the available information is usually significantly delayed, making it difficult to assess the sector on the basis of up-to-date data.** For example, the data on the evolution of the stevedoring sector in the report submitted to CDGAE, apart from not being public, may be delayed by one year as updated statistics are not published more frequently. Although the degree of update of the data is similar to neighboring countries, the availability of updated information plays an important role in making investment or management decisions, which can facilitate both aspects in the Spanish port system.

5.1.2. Lack of a comprehensive and up-to-date performance monitoring system and a robust incentive system based on the results obtained from monitoring

The promotion of a competitive environment and the improvement of efficiency and quality in the provision of cargo handling services and passenger services requires the existence of an adequate monitoring system: what is not properly measured, can hardly be managed properly. Hence, the lack of a system for exhaustive monitoring of the main economic, efficiency, quality and competition variables can be considered in itself a limitation to the promotion of efficiency and competition in a sector. In addition, in the case of the cargo handling service, the need for this monitoring system from the point of view of promoting competition is particularly important in a context in which, as reflected in the Strategic Framework, in practice, the hypothetical scenario of several port service providers in simultaneous competition over the same space does not usually occur.

In the case of port services, and specifically for the services analyzed in this volume of the study, there is room for improvement in different aspects related to the current monitoring system. In fact, in recent years Puertos del Estado has made efforts to implement the SIGEIN monitoring system and its improvement through the introduction of port service quality indicators. In addition, the Strategic Framework includes a particular focus on the criterion of efficiency to meet the general management objectives and includes two management objectives that are particularly relevant in this regard: the general management objective 4.1. (competitive services and at the service of the general interest) and the general management objective 4.2. (efficient operations and at the service of general interest). Thus, for example, objective 4.1. alludes that Port Authorities *'would have to resort to the use of performance indicators and then set a catalogue of goals aimed at improving them. These indicators shall refer, at least, to the performance and productivity of the different areas of operation of the port (seaside, landside and its interface) and of the subsystems of the*

terminals.' In addition, general management objective 5.2. refers specifically to the establishment of a Mechanism for monitoring the activity of port operators.

Despite the significant progress made with the introduction of SIGEIN and the objectives of the Strategic Framework, it is worth highlighting several points where, from the point of view of competition and efficient regulation, the improvement of the monitoring system is of particular importance. The following should be noted in this regard:

- a) **The lack of homogeneous time-related indicators.** This is a key variable to measure the good performance of ports. Currently, for all Port Authorities,⁸³ a breakdown between services of the total transit time of goods through a port is not carried out, which prevents assessing the evolution and the possible need for improvements. In addition, also related to the time spent in the traffic of goods, there is a significant impact of the Border Inspection Points (PIF) on transit time, being a determining factor in the competitiveness of the Spanish port system at an international level, without this being reflected in the current monitoring system.
- b) **The lack of more developed quality indicators.** Quality is a key aspect to evaluate the performance of the cargo handling service and has been reflected as part of general management objective 5.1. of the Strategic Framework. The 2022 Analysis Document of the Port Services Market Observatory points out that the compilation of quality indicators is still a pending task. In the study of the Specific Terms and Conditions (PPPs) of the cargo handling service, it has also been detected that there are significant disparities between Port Authorities in the establishment of quality standards of the service provided and in the indicators used for this purpose.
- c) **The lack of information on indicators related to the liberalization of the stevedoring sector.** One of the aspects in which the greatest deficiencies in the available information have been detected is related to the entities that make available stevedoring workers. The collection of this information is necessary to carry out a correct analysis of the recent reforms introduced in the regulation of the port sector and of great relevance to achieve better efficiency measures.

In this regard, highlights the significant progress made by the annual preparation of the report on the evolution of the liberalization of stevedoring required by Royal Decree 9/2019 and which is submitted annually to the CDGAE. Since its introduction, there have been great improvements with the definition, among others, of new indicators on

⁸³ In this sense, we find the 'Stopover Times' tool used by the [Autoridad Portuaria de Valencia](#).

the evolution of companies and their workforce and on training and training.

However, as it is a recent document, information is not yet collected on all defined indicators, which limits the scope of analysis that can be carried out on the basis of them. Among these indicators, personnel costs stand out, which have not been detailed so far in any of the editions of the report. Nor has the percentage of participation of the different entities (SAGEP/CPE/ETT, unions, etc.) in the training centers registered and accredited to teach the certificate of professionalism been reflected. In addition, the activity and turnover indicators do not include information on a significant percentage of CPE or on any temporary employment agency.

On the other hand, and despite the significant progress that has been made in the preparation of this report, it lacks some relevant aspects. For example, detailed performance benchmarks are not among the indicators collected. Nor are recommendations included that mark possible suggestions for improvement objectives in the sector.

d) **The lack of a transparent and mandatory incentive system that promotes the provision of timely information that feeds the monitoring system and promotes efficiency and quality.** The implementation of SIGEIN has indeed been a great advance and its data is used for the preparation of different reports. However, a transparent and mandatory incentive system has not yet been established in all ports based after the results of monitoring the defined indicators. Specifically, the current incentive system has the following limitations:

- **Problems in the timely reception of information.** In order to develop an adequate incentive system, it is necessary to have complete information on all the agents involved. As stated in the 2022 Observatory Analysis Document, not all providers and Port Authorities seem to report data on passenger services and cargo handling through SIGEIN in a timely manner.
- **The lack of definition of a complete system of objectives** that breaks down the general objectives for the port system into specific objectives for improvement for the goods handling service and for each Port Authority. The inclusion of general improvement objectives in the Strategic Framework is an important first step: it has set objectives such as raising the average quality/price ratio of the system for each port service by 20% compared to 2019 in 2030, raising the average efficiency of the system for each type of terminal and subsystem by 25% compared to 2019 in 2030, or the monitoring of indicators such as the number of ports in which there

is internal competition, the evolution of average prices per port service and port and quantitative indicators of quality and good practices of each service. However, in order to incentivize the agents involved, it is necessary to define specific metrics, break them down to a lower level and serve as the basis for the incentive system. Although the SIGEIN system currently includes some indicators of performance, productivity and degree of competition, they do not seem to reflect a sufficient degree of detail and coherence with the overall objectives defined. In addition, SIGEIN's performance and productivity indicators do not seem to be consistent with those defined in the Specific Terms and Conditions (PPPs) of the service, which in turn present important differences between Port Authorities.

- **The lack of concrete incentives to encourage agents involved to provide timely information to the SIGEIN system and improve quality and efficiency.** Currently, there are discounts in port taxes to increase the quality in the provision of services (article 245.2 TRPLEMM⁸⁴) but they refer to increases in productivity above the minimum levels in the Specific Terms and Conditions (PPPs) or in the concession titles. There is no link to more detailed quality indicators and no consistency with the overall targets for improving quality/price or average efficiency set for 2030 in the Strategic Framework. Nor is there any type of incentive for compliance with the adequate provision of information.
- **The lack of an accountability system that explains the progress made and possible deviations from the objectives set.** It has been detected that the recommendations of the latest edition published as of July 2025 (year 2022) of the Observatory's Analysis Document practically coincide with recommendations that have been appearing in all editions of this Document since at least 2018. Despite the repetition of the same recommendations, detailed explanations of the degree of progress are not always provided and no possible reasons are detailed that justify why they

⁸⁴ Specifically, the article establishes the following: "c) *When the holder of a license for the goods handling service, or the concessionaire or authorized person whose concession is a maritime goods terminal in which such service is provided, exceeds more than 30 per cent the minimum levels of productivity established in the Specific Terms and Conditions of the service or in the enabling title for the exclusive occupation of the public domain, A bonus of equal value to the percentage of increase in productivity with respect to the aforementioned value will be applied to the activity rate, with a maximum value of 50 per cent. The settlement of this bonus will be made at the end of the year, when the activity tax is settled in accordance with the provisions of Article 191, considering for its calculation the average values of productivity for the year.*"

could not be met from one year to the next and should continue to be maintained.

5.1.3. Lack of information on the adjustment of maximum charges to costs and lack of uniform guidance for the determination of maximum charges

Both economic theory and practical experience seriously warns about the distorting effects of maximum prices. Indeed, the establishment of maximum prices suffers from serious technical difficulties in its design, similar to any other type of price regulation. The most relevant difficulties are the existence of asymmetric information between the regulator and the regulated company that prevents the former from identifying and setting appropriate price levels, as well as the different distortions of incentives on the regulated company depending on the type of price regulation implemented⁸⁵. Added to this is the particular problem of price ceilings, for which the theoretical and empirical literature has identified allocative costs, in the event that these maximum prices are below the free market price (for a summary of these costs see Davis and Kilian), as well as the risk that these maximum price levels end up acting as a "focal point" to which the prices of regulated companies converge regardless of market circumstances, even generating situations of tacit collusion when there are several regulated companies that are competitors (as a summary of this theoretical and empirical literature on this effect see Engelmann and Müller) (2011).

However, in specific situations, without competition and with market power, and where there are no better alternatives, its introduction may be a remedy of last resort in order to help increase the market and favor, in particular, smaller consumers. The starting point is that of a market in which efficient transactions are not carried out because companies prefer to maintain high prices rather than increase sales. In the case of the cargo handling service, this could have detrimental consequences on trade flows and the competitiveness of the Spanish port system. In passenger services, it would have equally detrimental consequences on passenger transport and tourism.

However, in the establishment of maximum charges both in the cargo handling and in the passenger services, certain aspects are important to reduce their

⁸⁵ In general, following the reference analysis of Schmalensee (1989), they can be classified into two major strategies or categories of price regulation. On the one hand, they can be aimed at recovering past costs (cost of service) in order to ensure the viability of companies, which is fundamentally a disincentive to future cost reduction. On the other hand, such future cost reductions can be incentivized through a system of price caps, but this requires estimates of the expected evolution of costs and demand. This in turn generates greater uncertainty for the regulated company, potentially distorting its future investment and innovation decisions that pursue future cost reduction and, with it, undermining the objective initially pursued.

distorting effect, preventing them from being counterproductive and limit as much as possible that they constitute a barrier that dissuades the entry of new service providers.

In order to limit distortions, from the point of view of efficient regulation, the following aspects should be considered:

- a) Lack of information on the adjustment of maximum charges to costs (a key element in market conditions):** the Analysis Documents published by the Observatory have been collecting every year at least since 2014-2015 the practically identical recommendation to keep *“determining, updating, or revising maximum charges for port services so that they are adjusted and proportional to the costs and circumstances of each port service in each port”*. The annual nature of this recommendation can be explained by the dynamic nature of the process of determining and revising charges. However, the progress that has been made with respect to this recommendation from one year to the next is not detailed annually. On the other hand, there are no recent public studies either for the cargo handling or for passenger service that assess the adjustment of maximum charges to costs, which makes it impossible to assess the current state of affairs. The last study dates from 2016 (Study of the cost chain for ro-ro cargo traffic in Spanish terminals, of vehicles in the cargo regime on *“car carrier”* ships).
- b) Lack of uniform guidance for the determination of maximum charges:** Puertos del Estado has a database that is used to calculate maximum charges, but there are no common guidelines for the calculation of maximum charges that, respecting the particularities of each Port Authority, can serve as a basis for calculations. Without these common guidelines, unjustified disparities in the determination of maximum charges are more likely.

5.1.4. Existence of potentially competition-limiting elements in the design of the Specific Terms and Conditions (PPPs)

The proper design of the Specific Terms and Conditions (PPPs) for the services has a decisive influence on the competitive conditions in the provision of services. The PPPs determine the requirements of access to the license for the provision of the services, and the particular conditions under which the provision must be carried out. An inadequate design can lead to the introduction of unnecessary restrictions on the entry of companies into the market and, therefore, on competition.

Based on the analysis of the Specific Terms and Conditions (PPPs) for the cargo handling available on the websites of the Port Authorities in January 2024, the following elements have been detected **that may act as unnecessary restrictions on competition:**

- a) Failure to update the Specific Terms and Conditions (PPPs).** In the case of the cargo handling, this lack of updating is widespread: since the approval of the TRLPEMM in September 2011, less than 10% of the Port Authorities have updated their Specific Terms and Conditions for the provision of this service. This is a very small percentage of the total number of Port Authorities, which has led to provisional licenses being granted in recent years in several Port Authorities. In practice, this means that, in the vast majority of ports, operators are unaware *ex ante* of the requirements to obtain a license and therefore to enter the market, or they are subject to requirements and conditions that are not up to date with the current regulatory framework. There may also be matters specific to the PPPs of the service that are being regulated through the concessions in the absence of updating of these. The pace of updating is indeed limited: and at least since 2017, the Analysis Documents of the Port Services Observatory has been warning of the need to update the PPPs without detailing in recent years either the progress made or explanations that justify the little progress recorded so far. In the case of the passenger service, the degree of updating of the PPPs is greater than in the cargo handling, but still more than half of the Port Authorities have not published PPPs for passenger services. The Strategic Framework includes the objective that all Port Authorities update their PPPs for the year 2025, so significant progress must be made to achieve this goal.
- b) Limited duration of licenses to provide these services in cases where the number of providers is not limited.** Licenses for the provision of cargo handling and passenger handling services have a duration ranging from 6 to 50 years, depending on the case. After that period, the licenses must be renewed. Given that most Port Authorities do not have updated Specific Terms and Conditions (PPPs) for cargo handling, renewals are being carried out with deadlines that, if not done before, end as soon as the new PPPs are approved. Excepting the cases where the number of providers is limited and given where Port Authorities can monitor compliance with the conditions of provision, the need for renewal may entail an unjustified administrative burden. In addition, the periodic renewal requirements derived from the defined duration could discourage the entry of new operators in the event of a high degree of discretion in their future renewal by the Port Authority.
- c) Lack of homogeneity or common criteria.** Although it is necessary to preserve a certain margin of flexibility in order to adapt the Specific Terms and Conditions (PPPs) to the different conditions between Port Authorities, significant disparities have been detected in their content. The Observatory has already made observations in this regard in past

reports⁸⁶. Disparities not due to reasons of necessity and proportionality may act as a barrier to competition, as it may hinder the expansion to more than one port of cargo handling service providers, Due to that they would have to study and adapt to very different licensing requirements.

In this sense, in the case of the cargo handling, significant disparities have been detected in aspects such as:

- The duration of the licenses: for example, in some Port Authorities a maximum of five years is set, in others a minimum of 3 and a maximum to be determined depending on the significant investment.
- The inclusion of performance and quality standards and the specific measures chosen, differ from one specification to another.

In addition to the previous two, other aspects have been identified in which there are not only significant disparities between the Specific Terms and Conditions of different Port Authorities, **but their design can have a particularly restrictive impact on competition by reducing the number of companies that can apply for licenses**. Specifically these are the following:

- **Accreditation of technical or professional solvency:** it is necessary to carefully assess whether, given the technical complexity of the service, it is necessary for companies to have previous experience in the provision of the service, or if this could be accredited by other means.
- **Accreditation of economic and financial solvency:** economic solvency requirements can also act as a barrier to entry for new operators, so they must be justified in terms of necessity and proportionality. In this sense, the inclusion in some cases of provisions that allow accreditation by any means that may be considered sufficient by the Port Authority is positively valued, as it allows a variety of alternative forms of accreditation. However, in general, a certain disparity has been identified in the thresholds and requirements required, which could indicate that they do not always meet the need and proportionality.
- **Minimum human and material resources:** excessively high minimum human and material requirements can act as a barrier to competition by increasing fixed costs and reducing the ability of several operators to compete in the market. Although in a situation of a general lack of update of the Specific Terms and Conditions (PPPs) of the cargo handling service, from the currently accessible PPPs a

⁸⁶ See, for example, the recommendations of the 2017 port services market analysis and conclusions paper.

disparity has been identified in the definition of the minimum human and material resources between Port Authorities that could indicate that the introduction of these requirements would not comply with the essential minimum, as would be desirable.

In the case of the passenger service, a certain disparity has also been detected in the content of common aspects in the Specific Terms and Conditions, although it is clearly lower than that detected in the case of the cargo handling service. As explained in the case of this service, any disparity that is not due to reasons of necessity and proportionality can act as a barrier to competition. Specifically, some disparities have been identified in:

- **The accreditation of economic and financial solvency**, with differences in the thresholds and requirements required, which could indicate that they do not always meet the need and proportionality.
- **Minimum human and material resources**: these are usually included in detail, both in terms of number, training and descriptive elements. It has been observed that in some cases it is detailed in the PPPs whether the licensee or the concessionaire is responsible for the material resources.

5.1.5. Information asymmetry in the setting of maximum charges

The TRLPEMM establishes that Port Authorities will approve the maximum charges *'when the number of service providers is limited or insufficient to guarantee competition'* and that *'the charge structure must include the criteria for update and revision based on the overall volume of demand, cost structure and other circumstances related to the characteristics of the service, when appropriate'*. In these cases, cargo handling and passenger service companies (regulated companies or agents) know better than Port Authorities (the regulator or principal) their costs, margins and cost-cutting technology and may have no incentive to provide accurate information to Port Authorities.

This asymmetry and the limitations of the Port Authorities in the collection of information may complicate the setting of maximum charges in the most appropriate way to the detriment of the user of the service.

5.2. The port cargo handling service

5.2.1. Restrictive system of access to the profession

The existence of an access system that guarantees an adequate training of the workforce is essential to promote quality and efficiency in the provision of the cargo handling service. At the same time, it is essential to define access requirements that are not excessive and to set up an adequate and reasonable

system, which promotes job creation and equal opportunities of access to the profession.

From the point of view of promoting competition, the current system of access to the profession has room for improvement in the following aspects:

- a) Comparatively high requirements for obtaining the certificate of professionalism:** obtaining the certificate of professionalism involves the completion of a total of 850 hours of training (400 hours of theoretical training and 450 hours of practical training).

These requirements are higher than those required in neighboring countries for access to the same profession. Thus, the total number of hours required in other countries is usually around 100-200, compared to 400 in Spain. For example, in Belgium the course lasts approximately 14 days and in France the course lasts slightly more than 40 hours, divided into 6 training days. In Italy, the courses range from 60 to 120 hours to which must be added an internship (in the case of crane port workers the maximum duration of the internship is 120 hours). Regarding Portugal, the basic training to access the simplest tasks of stowage would require a 16-hour course, although to access more advanced tasks 40 hours would have to be added. And in the United Kingdom there is a basic certificate for carrying out port operations after a 120-hour course.

It is also worth noting that obtaining the certificate of professionalism of stevedoring is one of the most time-consuming compared to other certificates of professionalism of the same level. Specifically, of the 256 level 2 certificates of professionalism (category to which the stevedoring certificate of professionalism belongs) of the [National Directory of Certificates of Professionalism](#), there are only five others with a dedication of more than 800 hours (in administration and management and in electricity and electronics) and none of a similar dedication within the category of the maritime fishing professional family. The vast majority of Level 2 Certificates of Professionalism require a full dedication in the range of 400-650 hours. The certificate of stevedoring professionalism before the 2019 modification belonged precisely to this range, which went from requiring 530 hours to 850 hours, without being set out in [Royal Decree 257/2019, of 12 April, which establishes the rules for granting of special aid for the adaptation of the port stevedoring sector](#) the reasons behind the increase in practice hours, which were multiplied by five. As an additional point of comparison, the duration of the theoretical-practical training required to obtain the self-propelled mobile

crane operator's license.⁸⁷ is 300-450 hours (with 225-300 hours of practice, less than those required for stowage).

- b) Lack of clarity that complicates homologating stevedoring workers from other EU countries.** In accordance with Royal Decree-Law 8/2017, the requirements of the certificate of professionalism will not be required for EU workers who manage to prove that they have completed more than 100 days of work in the port cargo handling service before its publication. This accreditation must be approved by Puertos del Estado, which published a document to this effect. Alternatively, for those who do not meet this requirement, port workers could homologate part of their training obtained in their country of origin through the SEPE. Based on the information obtained, companies interested in hiring workers from other EU countries would not have clarity on the requirements and process of this approval.
- c) Lack of public training centers for stevedoring workers.** As far as it has been possible to verify, there are currently only two approved public centers (Gijón and Cartagena) that provide the training of the stevedoring certificate of professionalism, while the rest (except for one associated with the company Intersagunto) would be associated with the *specific pools*. This allows the latter to exercise control over training and access to the profession, without there currently being any significant alternatives for training outside this pool system.
- d) High margin of discretion for the assessment of the internship module by incumbent tutors.** Passing the internship module necessary to obtain the certificate of professionalism requires a positive evaluation. Incumbent workers have an important role in the passing of the internship module by applicants as they act as tutors and, as established in the Fifth Framework Agreement, *'the evaluation of the monitor-tutor will be weighted in the score of the qualification that corresponds to the company'* (article 55 of the Fifth Framework Agreement). In order for this evaluation by incumbent workers not to incur the risk of potential conflicts of interest arising and not to act as a barrier to the entry of new workers into the profession, it must be carried out on the basis of objective criteria and be impartial.

In this sense, the evaluation by the tutor-monitor is relevant in access to the profession in accordance with the file prepared by the State Sectoral Joint Commission. It is positive that the current legislation provides that the evaluation of internships is carried out in accordance with the training

⁸⁷ According to the single transitional provision of Royal Decree 837/2003, of 27 June, which approves the new amended and recast text of the Complementary Technical Instruction "MIE-AEM-4" of the Regulation on lifting and handling equipment, referring to self-propelled mobile cranes, the experience in handling this type of crane accredited by the corresponding SAGEP could be approved so as not to have to carry out the practical training required to obtain the license.

programs established by the tutors of the practical training module in workplaces (external to the company) and that they must include objective and measurable criteria. However, the V Framework Agreement establishes that the evaluation of the company's tutor-monitor will be carried out *'in accordance with the file that will be prepared by the State Sectoral Joint Commission (CPSE)'*. There are no references in the Fifth Framework Agreement to the criteria used for the evaluation in the file (if they actually correspond to the training programs and are objective and measurable). On the other hand, the preparation of the file by the CPSE implies the participation of the incumbent workers in it, which could cause risks of conflicts of interest arising.

The lack of requirements to justify the qualification of 'unfit' is also relevant. The need to justify this classification in detail is not currently contemplated, so there are no mechanisms to limit the discretion that could be used to limit potential conflicts of interest that, in an unfavorable scenario, would result in unjustified limitations to the entry of new workers into the sector.

- e) High margin of discretion in the selection process and important role of incumbent workers in access to the profession.** The starting point for this sector is particular, as competition in making workers available is scarce and companies claim difficulties in recruiting enough workers through alternative channels to CPEs. Without prejudice to the legality of the current system of access to the profession, a very wide discretion in the selection process and a significant role of incumbent workers in access to the profession may cause risks of conflicts of interest and limit the possibility of recruitment of workers and equal opportunities.

In addition to the internships required to obtain the certificate of professionalism, another area where risks of conflicts of interest may arise are **the additional tests to the certificate of professionalism included in the Fifth Framework Agreement**. Its content is specified in the Fifth Framework Agreement but there its scope is broad. Specifically, the V Framework requires the inclusion of at least physical, psychotechnical and medical tests. However, the content may be expanded and potentially not uniform between companies and CPE, since the Fifth Framework Agreement establishes that *'the CPE or the Stevedoring Company may establish additional requirements or tests to the above for the selection of candidates'* (Article 32 of the Fifth Framework Agreement). There are no references to the requirement of objective, transparent and non-discriminatory scoring or grading criteria. In addition, Article 33 of the Fifth Framework Agreement plans the participation of trade union representatives and staff in the preparation of the tests and the selection process.

5.2.2. Unnecessary and unjustified obstacles to the free choice of stevedoring companies between stowage work models

The existence of a system for making workers available based on specific *pools* has been a historical feature of the stevedoring sector, not only in Spain but also internationally. This has been due to the efficiencies that were traditionally associated with this model of making workers available in a sector marked by irregular working hours, due, in turn, to the irregular arrival times of ships. However, there have been changes such as containerization or the development of technology-based planning processes that have reduced traffic irregularity and improved planning. Thus, in a different context, the maintenance of specific or specialized *pools* for the cargo handling can be reevaluated: such maintenance must answer to efficiency criteria and not to historical inertia or barriers that prevent the growth of alternative systems.

In a non-exhaustive manner, the analysis carried out has identified three main barriers:

- 1. Excessive complexity and rigidity of the system for making stevedoring workers available due to the existence of specific *pools* for these workers.** The specific nature of these *pools*, dedicated exclusively to the training and provision of stevedoring workers, is not considered justified for reasons of necessity and proportionality. Although the advantages of a model that allows the sharing of labor to cover irregular work are still present, it is important to consider that containerization and technological progress have reduced traffic irregularity and, therefore, the need for a specific *pool* for stevedoring workers has also been reduced.

On the other hand, the existence of *specific pools* has led to the configuration of a complex legal framework that introduces rigidities and makes it difficult for alternative models to operate in the sector. For example, the inclusion in the legal definition of CPEs in 2022 of the clause on the achievement of their corporate purpose that establishes that *'they will contribute to the maintenance of employment and guarantee effective employment, requesting the temporary assignment of port workers for activities of the cargo handling service (...) not carried out by the partner company.'* has had important implications. In practice, it provides legal cover for a number of other provisions, such as the priority of CPE staff in the systems of organization and distribution of work, which may have the effect of introducing barriers that hinder the development of alternative systems to the CPEs. In other words, the regulation of the provision of stevedoring labor and of the CPEs in particular has been configured in such a way that, although in theory there is freedom for companies to opt for other alternatives, they encounter different barriers that encourage

them to continue using the *pool system* and discourage them from leaving the CPEs.

2. Obstacles to the exercise of the right of separation of CPEs by individual companies (partial separation). Although from a corporate point of view individual companies wishing to separate from a CPE may choose to transfer their shares in the share capital to a new partner, in practice the possibilities of transfer are slim as this requires finding a company with a cargo handling license that wants to participate in the CPE. Therefore, in these cases, companies end up resorting to the exercise of the right of separation contemplated in Royal Legislative Decree 1/2010, of 2 July, which approves the revised text of the Capital Companies Act. In the context of the sector, it would not be ruled out that not all the members of the CPE want to support the separation of one or more partners who will later continue with the activity. Therefore, in the process of separation of the shareholder, there may be issues in the CPE itself that make the process of separation of the company difficult and prolonged. Ultimately, these potential difficulties may make difficult or impossible the separation for companies that have already requested it and also discourage companies from separating in the future.

3. Mandatory conventional relocation. The V Framework Agreement, after the approval of Law 4/2022, establishes the obligation of conventional relocation for cases of total or partial separation of a CPE in which the company continues with the activity. The CNMC has already made several observations on the system envisaged in the latest draft of the Fifth Framework Agreement in its [report of 10 November 2020](#). In any case, although a self-assessment of the efficiencies of the relocation of personnel must be carried out and compliance with the four cumulative conditions established in Article 1.3 of Law 15/2007, on the Defense of Competition, the introduction of an obligation to relocate and to submit to the processes associated with it (which imply uncertainty in the outcome) may act as a disincentive for companies to abandon a CPE and it can put them in competitive inequality compared to other companies in the sector that were not previously part of a CPE.

In addition, the two-month period established by the Fifth Framework Agreement for stevedoring companies to be able to exit a CPE without the application of the conventional relocation mechanism and in order to ensure the voluntary nature of the same turned out to be of an excessively short duration, given that the separation processes have been much longer.

Finally, in addition to the four barriers pointed out, another main factor that deters companies from separating or dissolving CPEs is the lack of proven alternatives to CPEs for the provision of stevedoring labor. Given the

different existing barriers, companies that would like to abandon a CPE because they consider that non-participation represents a more efficient alternative may find it difficult to obtain sufficient labor through alternative channels, such as hiring staff or through temporary employment agencies.

5.2.3. Existence of rigidities in the organization of work

The literature has repeatedly referred to the fact that deficiencies in the organization of work can negatively affect a port competitiveness (Notteboom & Vitellaro, 2019). The importance of a proper work organization lies in the great share that labor costs still have on total operating costs for terminal operators.

In a sector marked among other aspects by a variable demand, flexibility is a particularly important aspect (Notteboom T. , 2010): Excessive rigidity can generate costs due to surplus workers and contracted hours or, conversely, efficiency problems due to their scarcity. Therefore, flexibility is about striking a balance between operating costs and worker performance.

From the information collected for the analysis, the presence of rigidities in the organization of the stevedoring workforce in Spain can be deduced. These prevent companies from making an optimal allocation of human resources and deteriorate their competitive position. Specifically, from the point of view of efficient regulation and in line with what has already been advanced by previous studies of the sector, the following have been identified as the main sources of rigidities:

- a) **Lack of flexibility in work shifts.** The fixed six-hour shifts generally established in the Fifth Framework Agreement do not necessarily correspond to the loading and unloading hours of ships. Thus, they can incur significant additional costs if that leftover time cannot be allocated to other tasks.
- b) **Lack of flexibility in mobility and functional versatility.** According to the provisions of the Fifth Framework Agreement, stevedoring companies do not have the flexibility to entrust stevedoring workers with tasks other than those specified for professional groups (Article 11). This prevents the use of this workforce in the event that the duration of the fixed work shift exceeds the time of handling the cargo of a ship and encourages hiring through the *pool*. In addition, the Fifth Framework Agreement also establishes that functional mobility between professional groups of the staff of a stevedoring company requires that the CPE of which the company is a partner does not have availability of the personnel of the corresponding group and specialty in the required shift (Article 21), which again limits the flexibility of the company when it comes to employing its own workers and encourages hiring through *pools*.

- c) Lack of flexibility in the appointment of work teams.** One of the traditional complaints of companies in the sector has been the excessive rigidity in the determination of work teams or 'hands', even indicating the presence of redundant positions in work teams. The presence of these rigidities limits the ability of companies to self-organize and the possibilities of optimizing the size and composition of work teams. In addition, under the Fifth Framework Agreement, the assignment of work is carried out on a rotational basis, so that companies do not have total freedom to place workers in the tasks for which they consider them best qualified.

In this sense, the Supreme Court Judgment on the V Framework Agreement has annulled in 2025 a clause in article 11 of the Agreement on the grounds that the direct and general reference to article 41 of the Workers' Statute Law for the processing of any change of 'hands' or work equipment is a limitation on the power of business management.

- d) Lack of flexibility in the way workers are hired.** In its advisory reports on the Fifth Framework Agreement of 2020, the CNMC has already made observations on the inclusion of limitations on temporary contracts in Article 12 of the Fifth Framework Agreement. Specifically, article 12 of the latest draft submitted for a report by the CNMC established that *'75% of the workforce of the CPEs and Stevedoring Companies included in the functional scope of this agreement must be hired under full-time indefinite employment contracts.'* In this regard, the CNMC observed that *'although the establishment of percentages of permanent staff in collective agreements is quite frequent and has the objective of promoting permanent hiring, the requirement of a high percentage of permanent staff in this activity could be a significant limitation to the capacity of stevedoring companies to self-organize, which can reduce their flexibility and hinder commercial growth strategies, which can affect small companies proportionally more'.* The CNMC continued to reiterate in its latest report that the percentage of 75% could be a significant limitation on the self-organization capacity of stevedoring companies, and could affect smaller companies proportionally more. Although in the Fifth Framework Agreement finally published the percentage was reduced to two thirds, it still constitutes a significant percentage against which it is only necessary to reiterate observations already made by the CNMC in the last advisory report.

- e) Systems of organization and distribution of work that give preference to CPE staff over other models of service provision.** As was the case in the drafts submitted to the CNMC for a consultative report in 2020, the final V Framework Agreement states that the work originated as a result of the activity of the stevedoring companies will be distributed daily through rotation of the available personnel by professional groups and the specialties established in Article 17 and related provisions, with the

particularities established in the collective agreements or agreements of a lower scope. Among the criteria according to which the appointments of personnel are made, priority is given to the staff of the CPE (in order of priority, the staff of the stevedoring company and CPE are first, and for the second shift both its own personnel and those of the CPE or of the temporary employment agency can be used).⁸⁸ On this point, it is only necessary to reiterate the observation already made by the CNMC in the 2020 advisory reports, indicating again that the prioritization of CPE staff distorts competition because it entails an advantage over the staff of temporary employment agencies or other service provision models. This in turn can increase the cost of labor for stevedoring companies, reduce the possibilities of growth of temporary employment agencies and workers outside the *pool* of obtaining employment. In short, this clause consolidates the CPEs as incumbents in the provision of stevedoring labor.

5.2.4. Limitations to the automation process

The automation of terminal operations is one of the most prominent trends in ports globally. In Spain, important steps have been taken, but there is still ample room to increase levels of automation and it is expected that progress will continue in this regard in the coming years.

⁸⁸ Specifically, Article 13 of the Fifth Framework Agreement establishes: '*Appointments shall be made by rotation and, unless otherwise agreed in collective bargaining agreements of a lower scope, in accordance with the following criteria:*

a) The stevedoring company must effectively employ its staff. To this end, they must employ the personnel hired directly through their appointment in the first shift of each day in which the company is active. Once the obligation has been fulfilled, the aforementioned personnel may not perform another work shift on the same day.

b) Likewise, the company must effectively employ the staff of the Port Employment Centre of which it is a member in the performance of the activities it needs for which the staff of the stevedoring company has not been appointed. The appointment of the aforementioned staff must be made in such a way as to guarantee – whenever there is activity – the effective employment of the CPE staff in accordance with the availability agreed in articles 39, 44 and concordants.

In any case, when the company chooses to employ the personnel indicated in the previous paragraph in a second shift, the one who worked on the ship requiring re-enlistment will be appointed.

c) In order to cover the needs not met by the personnel indicated and appointed in accordance with the regulations contained in the previous section, the stevedoring company may – at its choice – employ in a second shift the directly hired personnel or, where appropriate, the available personnel of the CPE of which it is a member in the development of the obligation set forth in article 18.4, a) of Law 14/1994, qualified personnel made available by temporary employment agencies or through other models of service provision.'

The existence of barriers to automation affects the efficiency and competitive position of companies. This is because automation influences the mix of production factors used, so that the existence of restrictions on it can lead the company to choose an inappropriate combination.

In this regard, the Australian *Productivity Commission* in its report on Australian ports referred precisely to excessive restrictions on automation in collective agreements in ports as an aspect to be avoided. In Australia, conventions must legally oblige companies to consult employees on fundamental changes in working conditions such as automation. However, the *Productivity Commission* notes that these clauses then bring with them very long and complex consultation processes and may require the approval of employees for any change. It considers that this acts as a brake on investment and means the loss of benefits from the improvement in the safety or reliability of terminal operations, among others.

In Spain, the Fifth Framework Agreement includes a provision on employment guarantees and technological changes (second paragraph of the second additional provision) that provides for a consultation process between the company and the legal and trade union representation of the workers. Specifically, it establishes that a consultation process will be carried out between the company and the legal and trade union representation to analyze the consequences of the project on employment to minimize them or show solidarity with the consequences on employment and working conditions of the affected staff. It also contemplates that, prior to any measure that may affect the employment of stevedores both by an unjustified increase in it and by its reduction, all possible measures of flexibility of working times, functional mobility, etc., must be first exhausted. The legal and trade union representatives will also analyze the consequences of new technologies and/or automation, management methods or organization of work on staff remuneration, especially in variable bonuses for productivity, in order to agree, where appropriate, on the modification of those established under the principle of an equitable distribution of the improvements obtained. Any discrepancies that occur after the consultation period in these collective procedures will be resolved by the State Sectoral Joint Commission.

Although the provision of the Fifth Framework Agreement are broad, the multitude of aspects that must be analyzed in the consultation process and the possibility of going to the Joint Commission in case of disputes can facilitate extensive and complex consultation processes, in line with what has been pointed out by the *Australian Productivity Commission*. Such long and complex processes can act as a brake on automation, reducing the productivity and efficiency of companies.

5.2.5. Potential inefficiencies in the operation of Border Inspection Points (PIFs)

Border procedures are very important to ensure that cargo that cross the border comply with necessary regulations. They include different aspects, including safety, health, etc., which follow different regulations and administrations.

The potential existence of inefficiencies at the Border Inspection Points – whether due to coordination difficulties, delays due to lack of human and material resources, etc. – may have significant effects on the time spent in port. In particular, delays can raise costs and reduce the competitiveness of Spanish ports. Even if only a part of the inspections are delayed, the very existence of uncertainty regarding the timing can discourage the use of the Spanish port system.

5.2.6. Competitive limitations in public concessions

Various studies carried out on competition in the port sector highlight the important role of concessions on competition. This is because they constitute an element that restricts competition *in* the market and replaces it with competition *for* the market. There are two fundamental aspects of the design of public concessions on which greater emphasis has been placed: their duration and the granting process.

Despite the significant difficulties in obtaining information on concessions for cargo handling terminals, an analysis of a set of them has been carried out and different aspects relevant to the conditions of competition have been identified for improvement.

- a) **Lack of transparency about existing concessions.** There is no common database that brings together the data of all the public concessions in force in the Port Authorities. The wide dispersion of information on concessions makes it extremely difficult to carry out any analysis of the system as a whole in such an important dimension for competition in the market⁸⁹.
- b) **Lack of an analysis to support whether the long Deadlines of the concessions (30 years or more) are sufficiently justified by possible higher levels of investment.** Around 40% of the concessions in the set of concessions analyzed (including extensions) have a term equal to or greater

⁸⁹ In order to analyze the general terms of the concessions for terminals dedicated to the handling of goods, it has been necessary to resort to the manual compilation of announcements of the granting of concessions and their substantial modifications in the BOE. Due to the long terms of the concessions, many of these advertisements are old and do not contain the initial term of the concessions. In many other cases, the extension notices contain only the duration of the extension but do not reflect either the date of the end of the term (which could be useful for competitors) or any other data that would allow the total term of the concession to be calculated.

than 30 years. Excessively long times can be a barrier to entry that protects incumbent companies and ultimately result in higher charges for end users. In this regard, the Irish Competition Authority already cited in its study on ports that research seems to indicate that concession terms beyond the range of 20-30 years would have a reduced impact on the return on investment (Theys & Notteboon, 2010). For their part, the Portuguese Competition Authority and the OECD concluded in their study on Portuguese ports that the correlation between the duration of terminal concessions and the investment accumulated by operators was weak, so that the objective of promoting investment with the longest terms would not have been achieved.

c) Possible significant weight of extensions in longer-term concessions.

The analysis carried out indicates that it is possible that there is a significant concentration of extensions in concessions whose initial terms were already long. Of the concessions of more than 30 years extended that have been collected, a significant portion (about half) have been extended for ten or more years, extending the market closure.

d) Lack of pro-competitive orientation in the procedure for authorizing the extensions of the titles of occupation of the public port domain.

Currently, the legislation allows Port Authorities to decide on the authorization of an extension taking into account only the request of the incumbent. By not taking into account information on alternative candidates, even if more efficient, the Port Authorities may authorize extensions even if, in practice, the call for tenders would allow a more efficient result to be achieved.

e) The heterogeneity and lack of pro-competitive orientation in the design of the bid evaluation criteria and in the award criteria. The existence of heterogeneity in the criteria for evaluating bids in the terms and conditions of tenders for public concessions of different Port Authorities has been identified. The Strategic Framework itself recognizes this by pointing out that these are expressed with a certain heterogeneity (duration, activity fees, etc.).

With regard to the assessment criteria, the inclusion and weight given to the criterion relating to the reduction of user charges is particularly relevant. This is because, in contexts where intra-port competition is potentially limited, even if maximum charges are established, the incentives to lower charges to the end-user once the concession has been obtained may be limited. In this regard, it has been noted that the reduction of charges is not always among the evaluation criteria and that, when it is included, its weight in the total score is usually small compared to other criteria such as, for example, the minimum income for the Port Authority.

5.3. The port service for passengers

5.3.1. Absence of references and analysis on the different models of terminal operation

There is currently a significant disparity in the models of operation of terminals in passenger services, with two main categories: provision by Port Authorities and provision through private initiative. The diversity between models may respond to differences in the characteristics of the port that affect the provision of the service and, likewise, can bring with it different advantages and disadvantages.

As far as the CNMC has been able to verify, the private management of passenger service terminals would still be a minority in Spain. The important role of the Port Authorities' operation of passenger service terminals, as opposed to private operation, could risk distorting competition between terminals. This is because potential conflicts of interest could arise for Port Authorities as a regulator and operator of terminals, which, in the worst scenario, would result in a comparative damage for private operators.

In Spain, there is currently no analysis that serves as a reference on these alternatives for the operation of terminals in the passenger service, in order to guide the Port Authorities and, among other aspects, evaluate the efficiency of the different operating models. A guidance that could also help to better coordinate the service delivery framework at an institutional and regulatory level between ports, reducing the difficulties for companies to expand their activity between ports.

6. CONCLUSIONS

The efficient operation of the port system is of great importance for the transport of goods and passengers nationally and internationally, with relevant implications for all productive sectors. More competition and efficiency in ports would reduce transport costs, improve the quality of services, increase the transit flows of goods and passengers by sea, attract new industries and encourage innovation and investment in the port sector, among other benefits.

The analysis carried out allows the following conclusions to be reached:

From an economic and strategic point of view, these two port services are of particular importance. The cargo handling service is one of the most important components of the cost of transporting cargo. Therefore, price, speed, reliability and security in the provision of the service play a key role for trade. On the other hand, passenger services are necessary for passenger traffic by sea, affecting connectivity between territories and tourism.

A number of barriers to competition and efficient regulation have been identified that affect both services. First, there is a lack of transparency in relevant aspects such as the situation of port terminals, licenses and concessions, service performance, etc. Second, there is a lack of a performance monitoring system and incentives for efficiency. Third, in terms of maximum charges, there are limitations in terms of common criteria, their transparency and the analysis to determine them. Fourth, the Specific Terms and Conditions (PPPs) are outdated and do not generally maintain a pro-competitive orientation.

For the specific case of the cargo handling service, the analysis carried out suggests that, despite the reforms of recent times, in practice the *status quo* has been maintained in the provision of stevedoring workers. Stevedoring has traditionally operated through a system of specific pools of workers (the current Port Employment Centers, CPE) which, despite reforms to accommodate other models, remain the dominant system. In 2023, six years after the stevedoring reforms, 88% of workers were part of a CPE while the rest of the recruitment channels continue to have very low weight and, in fact, have decreased since 2019. The structure of a single CPE per port has also been maintained.

Thus, in the cargo handling service, obstacles have been identified that can harm efficiency and competition. The system of access to the profession is restrictive and even creates risks of conflicts of interest. In addition, there are obstacles to the free choice of stevedoring companies between the models for making workers available in favor of CPEs. There are also rigidities in the organization of work and obstacles that can hinder automation processes. Regarding the latter, changes must be adopted with the necessary precautions,

but without obstacles that unnecessarily delay or slow down technological improvements, such as the long and complex consultation processes included in the Fifth Framework Agreement. Difficulties in adopting new technologies can reduce the productivity, efficiency and competitiveness of Spanish ports. Likewise, Border Inspection Points (PIFs) can result in significant bottlenecks if they do not operate efficiently.

With respect to public concessions, since they replace competition *in* the market with competition *for* the market, their design must avoid unjustified restrictions on the ability of operators to compete. In this sense, a lack of transparency, very long duration (more than 30 years) without sufficient justification in terms of efficiency, and processes for awarding concessions and extensions with some elements lacking a pro-competitive orientation have been detected.

In the passenger service, a lack of analysis has been identified on the efficiency of the different terminal operating models. This could lead to fragmentation in their operation without being justified for reasons of efficiency.

In view of the above, and in order to promote competition and efficiency, the following recommendations are proposed.

7. RECOMMENDATIONS

First. Promote a transparent, efficient and pro-competitive institutional and regulatory framework

I. Strengthen and develop guidance on the methodology for calculating maximum charges

Maximum charges can be considered as one of the possible alternatives to protect consumers when there are restrictions that limit competition. However, they must be adopted exceptionally and with a rigorous design, as they have numerous contraindications. In particular, it is difficult to establish and adapt charges so that it offers a reasonable but not excessive profit margin. In addition, there is a risk that the maximum charge will not act as a ceiling, but as a focal point that coordinates all bidders around that price. Given the crucial importance of prices, these constraints mean that capping charges can cause significant distortions and risks of reducing competition, efficiency and investment, among other problems, to the detriment of consumers and the proper functioning of the sector. Poorly designed charges, they can even backfire.

The services analyzed in this Study have numerous restrictions on competition, so the adoption of maximum prices, with a good design, may be reasonable. However, its limitations must be carefully considered and charges must be designed appropriately to take advantage of its advantages and minimize risks.

To this end, **it is recommended to strengthen and develop guidelines on the methodology for calculating maximum charges**, with the aim of making them rigorous, transparent and adjustable. Along these lines, it is proposed to:

- **Develop a solid, independent and homogeneous calculation methodology for the determination of maximum charges.** In order to reduce distortions and promote competitive neutrality, it would be advisable to develop guidance on the methodology to be used for the entire port system. This methodology would be supported by an updated economic-financial study to take into account objective information on the factors behind prices and their evolution, in order to convert the parameters identified in the economic-financial studies into the maximum charges that must appear, where appropriate, in the Specific Terms and Conditions (PPPs). It is recommended that these guidelines serve as a guide for the setting of the maximum charges of the Port Authorities. On this basis, Port Authorities would retain the technical discretion to adapt the maximum charges to the specific circumstances of the port, and decide whether or not to adopt them.
- **Prepare regular economic and financial studies, and of the adjustment of maximum charges to costs.** The reports could be annual and published according to a public and pre-established schedule.

- **Publish common guidelines, calculation methodologies and economic and financial studies to increase transparency.** Greater transparency can reduce uncertainty for market participants and allow stakeholders and experts to identify and raise potential issues to review.

II. Establish a robust, results-oriented incentive system

Competitive constraints in the cargo handling and the passenger service may reduce the incentives for their efficient operation. Therefore, the introduction of homogeneous incentives for good performance throughout the Spanish port system could help to promote an improvement in the functioning of the sector. These incentives could be consistent with the strategic objectives for the system as a whole.

Therefore, **it is recommended to strengthen evaluation systems and accompany them with a system of incentives focused on results** that promotes efficiency. In particular, it is proposed to:

II.A Introduce a referential competition system

The introduction of a *yardstick competition* system can help encourage competition by comparing results between ports, for example through the publication of annual *rankings* for each service. This competition by comparison can generate incentives for the rapid adoption of good practices and innovations and the efficient use of resources.

Thus, **it is recommended to introduce a referential competition system**. The system could be accompanied by discounts on the activity fee of the following year for the achievement of annual objectives defined for each planning period. In addition to the incentives at the port level derived from the reputational effect of the publicity of the results, an annual performance ranking could also be made at a company level. The introduction of additional bonuses for those companies located in the top positions could also be considered.

Comparisons must be well designed so that the indicators that serve as a basis for the *rankings* are comparable. For example, the DEA (data envelopment analysis) methodology, or *Data Envelopment Analysis*), especially the most recent versions, would allow objective comparisons to be made between port authorities or terminals, favoring a more results-based regulation (Krmac & Mansouri, 2022). Given the importance of designing the criteria and the monitoring mechanism well for making comparisons, it would be advisable to provide sufficient means to the system of monitoring for its adequate definition, establishment, collection and processing of information, and application.

II.B Establish a "comply or explain" mechanism for annual recommendations

The formulation of annual recommendations, in line with what has already been done through the *Document of analysis and conclusions of the state of the port services market*, is a good practice. It should also be noted that the Strategic Framework has been an important and appropriate exercise in diagnosis and general planning. As an example of this, many of the barriers to competition and recommendations identified here are aligned or deepen the content of the Strategic Framework

It would be positive if the strategic planning, diagnosis and recommendation exercises continued. Likewise, their monitoring and application can be improved so that these exercises translate into real improvements. In consequence, the diagnosis and planning would be able to benefit from the information from a reinforced proposed system of indicators. In addition, the improved indicator system will provide information on the degree of monitoring of the objectives set.

Moreover, the implementation of the annual recommendations will benefit from enhanced accountability following the principle of '*comply or explain*': if the recommendations are not met, the reasons for non-compliance must be explained.

Therefore, **it is recommended to strengthen the follow-up of the recommendations to improve the cargo handling service, and to establish a '*comply or explain*' mechanism.**

III. Increase transparency and establish performance indicators

Transparency promotes competition and efficiency. It reduces uncertainty and facilitates better decision-making, both in the assessment of entry into the markets and with respect to the exercise of the activity. In addition, it allows authorities and operators to carry out more rigorous diagnoses, in order to identify problems and adopt solutions more accurately and effectively. Among other things, this is an essential aspect to be able to carry out systematic monitoring through referential competition methods, '*comply or explain*' or other alternatives. This transparency should be carried out in a structured way, with common methodologies and specific indicators to know the real situation in ports put it in context, allowing comparisons between ports and over time.

Following the above, **it is recommended to increase transparency and establish performance indicators.** To this end, in particular, the following is proposed:

III.A Establish a homogeneous data catalog and update it frequently to strengthen data availability and quality

Having quality and up-to-date information and data is essential to know the situation and performance of ports. **It is therefore recommended to develop at a national level a catalogue of data** to be collected and published for each port and service, which should follow specific methodologies, and supervised at a national level to ensure that they are comparable.

More frequent data updates are also recommended. Since more frequent reporting of the dataset (e.g., quarterly rather than annually) entails a greater bureaucratic burden, it may be considered to explore modifications in the system design and data collection to reduce the burden associated with providing information.

In order to promote compliance in reporting, **it is recommended that supervision includes mechanisms to encourage the provision of information**, as this is the starting point for having up-to-date performance information. To establish a transparent and mandatory incentive system to obtain the information on performance, efficiency and quality in the provision of cargo handling service and passenger services. To this end, penalties could be introduced for non-compliance in data reporting, for example, after an incomplete or late provision of information.

III.B. Establish a comprehensive and coherent indicator system

Establishing a comprehensive and coherent system of indicators would make it possible to monitor the achievement of the high-level objectives defined in the Strategic Framework. To this end, it would be necessary to define standardized (detailed) lower-level monitoring indicators for the port system as a whole to monitor compliance with the high-level objectives set out in the Strategic Framework. In order to avoid duplication and an excessive bureaucratic burden, it is recommended that the indicators contained in the Specific Terms and Conditions (PPPs) are defined in a manner consistent with the lower-level objectives.

Therefore, it is recommended to define and include homogeneous indicators for the set of ports on different variables for which room for improvement has been detected. Each indicator should be prepared on the basis of a common, public and stable methodology over time, to facilitate the monitoring of evolution and comparisons. In the case of cargo handling, indicators could include, but are not limited to: (i) time, breaking down the different stages of cargo transport, from the ship's arrival at the port to the border inspection post, (ii) quality, and (iii) specific indicators for cargo handling relevant to assess the liberalization of stevedoring, such as the unit cost of stevedoring personnel in

ports, the average cost of personnel per ton handled or the performance of stevedores per port.

It could also be considered to publish information on other key variables in order to know the performance of the cargo handling service, on stevedoring workers and on their availability, including productivity indicators and other relevant information to evaluate the evolution of the stevedoring sector. For example, a regularly updated public list of the CPEs operating in each Port Authority and the temporary employment agencies that make staff available to the port cargo handling service in each port, the unit cost of personnel in Spanish ports, the average cost of personnel per ton handled in Spanish ports or the performance of stevedores per port.

III.C Maintain an up-to-date record of the status of terminals, concessions and licenses

The creation of an updated register showing the port terminals in each Port Authority and the status of the concession (detailing the concessionaire, the date of grant, its term and expiry date) can provide key information for all market participants and reduce the barriers to entry linked to the lack of information. To this end, it would be crucial to frequently update the information in the register of licenses to provide the service. And to have a complete view of the competitive situation in the provision of these services, information matching the concessionaire and licensee may also be useful.

Accordingly, **it is recommended to establish and maintain an up-to-date register on the status of terminals, concessions and licenses for services in ports.**

IV. Update the Specific Terms and Conditions and design them in a more homogeneous and pro-competitive way

The Specific Terms and Conditions (PPPs), when establishing the specific conditions for the operation of services in each port, are an essential element. In order to encourage in these PPPs higher levels of efficiency and competition, the following actions are recommended:

IV.A. Update the Specific Terms and Conditions of these services

In the case of the cargo handling, Specific Terms and Conditions (PPPs) are currently outdated in almost all Port Authorities. These PPPs contain the regulations for the development of each service, establishing the fundamental rules of the game for service providers, both to those already installed and to possible candidates entering the market. Its updating is essential so that

operators can know *ex ante* the requirements to obtain a license and, therefore, in the decision of entering the market. It is important that these requirements are known at all times and that operators are subject to requirements and conditions updated to the current regulatory framework.

It is therefore recommended to update the Specific Terms and Conditions (PPPs). In this regard, it would be desirable to make all possible efforts to achieve the objective defined in the Strategic Framework that all Port Authorities have updated their PPPs by the year 2025.

IV.B. Prepare a detailed standard Specific Terms and Conditions document by Puertos del Estado

The generalized updating process is a good opportunity for the preparation of this standard Specific Terms and Conditions (PPPs) for several reasons. First, it will serve to achieve greater homogenization in all aspects in which it is not necessary to adapt to the particular circumstances of each port, favoring the mobility of operators and the possibility of increasing inter-port competition. Second, standard PPPs can provide the basis for setting performance monitoring indicators in a homogeneous manner. In addition, by serving as a detailed guide on the content of the PPPs of the service, the existence of these PPPs can contribute to significantly accelerate the updating process.

By virtue of the above, **it is recommended that a detailed standard Specific Terms and Conditions (PPPs) document be prepared by Puertos del Estado**, as is the case with other port services. The CNMC, in its advisory role, could assess the PPPs in its function of competition advocacy.

IV.C. Include requirements of applicants and minimum human and material resources that are necessary and proportionate

Applicants' requirements in terms of technical and professional solvency or economic-financial solvency can act as a barrier to entry for new operators. Therefore, it is important that they be necessary (strictly necessary for the achievement of the objective pursued, with a clear justification of general interest) and proportionate (so they do not generate more damage than what is intended to be avoided, opting, among different alternatives, for the most appropriate and least distorting of competition). As for the minimum human and material resources, in a similar way, they can also act as a barrier to competition. A reinforced monitoring system, with ex post quality and efficiency indicators such as the one recommended for introduction, already practically eliminates the need to introduce *ex ante* minimum human and material resource requirements.

Therefore, with the introduction of this reinforced monitoring system, **it is recommended to avoid the inclusion of minimum human and material**

resource requirements whenever possible. If it is maintained, it is recommended to justify its necessity and proportionality. In addition, their setting must be carried out in accordance with transparent and objective criteria, in order to maintain competitive neutrality.

IV.D. Consider allowing the duration of licenses for the provision of cargo-handling and passenger services to be indefinite in cases where the number of service providers is not limited

The Specific Terms and Conditions (PPPs) may establish the cases to terminate licenses and Port Authorities may monitor compliance with the provision conditions. To eliminate the administrative burdens associated with the renewal of licenses, it could be an option for licenses to be indefinite in cases where the number of providers is not limited.

Therefore, **it is recommended to consider allowing the duration of licenses for the provision of cargo-handling and passenger services to be indefinite in cases where the number of service providers is not limited.** For the configuration of this system of indefinite duration licenses, its interaction and fit with the regulation of the occupation of the port public domain (necessarily limited in time) must be assessed.

V. Consider introducing an independent port regulator and supervisor

The establishment of independent regulators has been justified for many sectors with special characteristics and market failures (see, for example, OECD 2016 and OECD 2019). Ports are a sector that can benefit from a regulatory and supervisory body. In particular, it can be useful in establishing and reviewing the necessary regulations and guidance for the various services in ports, including the setting of maximum charges, the approval of deadlines and extensions of port terminal concessions. They may also be involved in mediation and dispute resolution (e.g. in the process of separating companies from CPEs), collecting and publishing information or establishing an incentive system based on referential competition. Given that the central administration, Autonomous Communities and municipalities have a relationship with different aspects of the ownership and management of the port, an independent body could also help to reduce the risk of potential conflicts of interest.

Consequently, it is recommended to consider the introduction of an independent port regulator and supervisor, who establishes common regulations and criteria, supervises compliance with the regulations and resolves any conflicts that may arise. Thus, they could be useful in different ways, among others:

- With regard to the setting of maximum charges, the analysis of an independent regulator can contribute to the establishment of a uniform methodology. If you also have broad information-gathering powers, you can also minimize information asymmetries. On the other hand, although the setting of maximum charges is carried out by the Port Authorities to take into account the specific circumstances of the provision of the service in that port, the independent regulator could recommend modifications to the Port Authorities if it deems it appropriate.
- In terms of conflicts within the ports themselves, an independent regulator could exercise arbitration functions to promote efficient and effective solutions.
- Regarding recommendations on deadlines and the approval of concession extensions, a binding report from an independent regulator could help to promote a pro-competitive perspective in the authorization of extensions. This is especially important in longer-term concessions.
- In the cargo handling, the figure of an independent regulator could also be useful in mediating the process of separating companies from CPEs. In particular, independence can contribute to objective and non-discriminatory decision-making, as it is not subject to political pressures that may tend to favor certain results. Expert knowledge of how the independent regulator sector works is also important.
- The expertise and independence of the regulator could also contribute to the establishment of the system of competition by reference.
- Finally, in passenger service, the expert knowledge and independence of the regulator could contribute positively to the analysis of the efficiency of the different models of operation of passenger terminals and to the preparation of conclusions in this regard that can serve as a basis for the decisions of the Port Authorities.

Second. Promote more efficiency and competition in the cargo handling

VI. Facilitate the access and exercise of the stevedore profession

The system of access to the stevedoring profession must ensure adequate training of the workforce and, at the same time, provide for requirements that do not unnecessarily restrict access to the stevedoring profession. The current model includes limitations that are detrimental to workers as they make it difficult for those interested to train and work as stevedores. It also implies the existence of unjustified restrictions on the freedom of movement of workers in the European Union, contrary to what the regulations provide. And discourages companies from hiring and effectively organizing their work.

It is therefore recommended that access to and exercise of the profession of stevedore be facilitated for the benefit of the workers interested in this profession as well as those seeking stevedoring services. To this end, the following modifications are proposed:

V.A Review the duration of training to obtain the stevedoring professionalism certificate

The current duration (850 hours) is one of the longest of all the level 2 certificates of professionalism and much higher than that necessary to access the stevedoring profession in other countries around us. This suggests that there is scope to reduce training hours without compromising training quality.

A duration close to or less than 500 hours would still be higher than that required in other neighboring countries, but it would be more in line with that of most level 2 professional certificates (with a total dedication in the range of 400-650 hours) and the theoretical-practical training necessary to obtain the self-propelled mobile crane operator's license. Precisely, the approximate duration of the duration of the theoretical-practical training of the stevedoring certificate before the 2019 modification was placed in this range, without any justification for the increase being provided.

Therefore, **it is recommended to review the duration of professional training in stevedoring**. This review must be carried out objectively, to guarantee training without incurring an excess of duration and costs that would be detrimental to workers interested in training to practice this profession. Likewise, it would be advisable to take as reference the format and duration prior to 2019, that of other countries of the European Union and that of related professions, since there is no indication that these training systems have failed to adequately prepare individuals for the practice of the profession.

V.B Facilitate the approval of port workers from other EU countries

The current system unjustifiably limits EU stevedores with sufficient and demonstrable experience to practice in Spain. This could contravene the freedom of movement of workers, which has been one of the fundamental principles of the EU since its creation, enshrined in Article 3.2 of the Treaty on European Union (TEU); and in Articles 4.2, 20, 26 and 45 to 48 of the TFEU. For this freedom to be effective, it must be ensured that professional qualifications from other EU countries are widely recognized (Articles 26 and 53 TFEU).

Consequently, **it is recommended to facilitate the recognition of port worker professionals from other EU countries**, in compliance with the principle of freedom of movement of workers. In particular, it is recommended to review the system and facilitate approval through greater regulatory clarity on the

requirements and on the process to be followed by the SEPE (public employment agency) and other competent authorities.

V.C Increase the number of approved schools

In Spain, there is a limited number of approved stevedore training centers, which makes it difficult to access the profession. In addition, given the challenges in making labor available, the separation of CPE vocational access training can be an important factor in favoring the development of real alternatives to specific pools.

For this reason, **it is recommended to promote the existence of a greater number of approved public schools to train stevedoring professionals.**

V.D Strengthen the independence and objectivity of evaluations to prevent conflicts of interest

Passing the internship module is necessary to obtain the certificate of professionalism and requires a positive evaluation. Incumbent workers have an important role as tutors and as established in the Fifth Framework Agreement, *'the evaluation of the monitor-tutor will be weighted in the score of the qualification that corresponds to the company'* (art. 55 of the Fifth Framework Agreement).

Given the particularities of the stevedoring sector, including low competition, restrictions on the organization of enterprises and the difficulties alleged by companies in recruiting workers outside the CPEs, it is important to limit the elements of discretion in the evaluation of practices and in the selection tests of workers. Thus, neutrality must be ensured in the evaluation of candidates and avoid the risk of conflicts of interest or other barriers that constitute additional and unjustified limitations for workers who want to opt to work as stevedores.

As a result of the above, **it is recommended to strengthen the objective evaluation of the internship module to promote neutrality and avoid unjustified restrictions on access to the profession.** To this end, in relation to the internships, it is recommended to:

- **Evaluate them in accordance with the training programs established by the tutors of the practical training module in the workplace, which must include objective and measurable criteria**, as provided for in the legislation governing certificates of professionalism. In view of the current use of the file prepared by the State Sectoral Joint Commission (CPSE) for the evaluation of the internship module by tutors, it is recommended to:
 - o Promote the standardization of the training programs of the internship modules necessary to obtain the stevedoring professionalism

- certificate, in order to promote uniformity and neutrality in the evaluation,
- Clearly specify objective and measurable criteria, which may be specified if necessary in a form to be completed by the company's tutors, and
 - Prepare the training program and the possible file only by the tutors of the training center, eliminating the currently planned preparation of the evaluation sheet by the CPSE.
- **Provide detailed justification for the reasons behind a 'fail' grade in the practical training module by the company tutor.** This justification must be based on the objective and measurable criteria previously defined which seeks to promote neutrality and impartiality.
 - **Establish review mechanisms and remedial evaluations** not dependable on the tutors themselves, to give more options to candidates and, in addition, reinforce the objectivity of the evaluation.

V.E Promote objectivity in the exams made by CPEs

The context of the cargo handling service is particular, as a single entity (the CPE) practically monopolizes the hiring of labor in each Port Authority and serves *de facto* as a gateway to the profession in each port. Therefore, from the point of view of competition and the promotion of efficiency, as well as respecting the freedom of contract, in the specific context of this sector it would be preferable not to have additional mandatory layers of discretion and to limit the additional tests to purely objective aspects that are essential for the performance of the profession.

For this reason, and in order to prevent risks of possible conflicts of interest, **it is recommended to reinforce objectivity in the design and execution of worker selection tests.**

V.F Limit the participation of stevedores in the recruitment process to prevent conflicts of interest

The participation of the workers themselves and of the union representation in the selection process, including the preparation of the tests, does not seem justified nor is it common in other sectors. In general, the company itself should evaluate the number and profile of workers it needs, according to its organization and business plan. In addition, this participation can create risks of conflicts of interest that may harm potential incoming workers, efficient worker selection and job creation.

Therefore, it is recommended not to involve workers in hiring decisions. In any case, it is recommended that they do not have the right of veto over the incorporation of other workers.

VII. Strengthen efficiency and competitive neutrality in port workers delivery models

The CPE centered model of making workers available has a long historical tradition and remains clearly predominant in Spain, even after the 2017 reform. Despite its long tradition, the maintenance of the system should not respond to historical inertia but to criteria of efficiency.

This underlines the importance of analyzing the efficiency of the existence of CPEs (or *specific pools* for stevedoring workers) with a view to assessing the desirability of maintaining the model, reforming it or considering its possible elimination, addressing the barriers identified in this study that could be hindering the development of the other alternatives.

Therefore, it is recommended to strengthen the efficiency and competitive neutrality in the models of making stevedoring workers available. Specifically, it is proposed to :

- **Assess the efficiency of the existence of CPEs and consider replacing them with a system in which the recruitment of stevedoring labor is carried out solely by the companies themselves and through temporary employment agencies.** In the presence of all these factors of complexity and rigidity, the barriers of the model of *specific or specialized pools* for stowage and historical inertia, tend as a whole to perpetuate CPEs as the predominant model, therefore it is considered appropriate to deepen the opening to competition of this area, modifying the regulation of the systems for making stevedoring workers available. Specifically, it is recommended to eliminate the specific regulation of CPEs so that companies can directly hire stevedoring workers and use temporary employment agencies. This would reduce complexity, rigidity and create greater competition in the sector. This system could also be strengthened by introducing greater flexibility or functional mobility in the performance of tasks by stevedoring workers, thus increasing the possibility of direct contracting by companies and reducing dependence on the *pool system*. In the case of Spain, there is a precedent in the port of Cartagena in which a SAGEP or CPE was not constituted, and that since the dissolution of its SEED in 2018 lacks a specific *pool* of port workers. This reflects that it is not necessary to have a mechanism of specific *pools* in the stowage sector.
- **Eliminate unnecessary and unjustified obstacles that may prevent companies from freely opting for the model of making workers available to them that they consider most efficient.** Specifically:

- To promote the agility of the partial separation process and provide greater certainty, it could be useful for Puertos del Estado to prepare a document that serves as a guide to agree on the terms of the separation of the CPEs. It is also recommended that an independent third party be appointed to oversee the separation process and to mediate in discrepancies.
- With regard to mandatory conventional relocation, in addition to the observations made by the CNMC in the latest draft of the Fifth Framework Agreement in its [report of 10 November 2020](#), in order to prevent it from acting as a disincentive for companies to leave a CPE, it is recommended to promote the freedom of outgoing companies and CPE to set the terms of separation without the relocation of workers being legally mandatory as such.

VIII. Increase flexibility in the organization of stevedoring work and eliminate the preference of workers from CPEs

The existence of rigidities in the management of the organization of work prevents companies from organizing themselves efficiently and affects their ability to compete. These types of restrictions can be particularly detrimental to the efficient functioning of the sector, as they make it difficult for companies to adapt their business model and adjust and improve their offers to their customers, and even limit their ability to innovate by proposing new forms of organization. In a sector where its efficiency has an impact on many other economic activities, where labor costs are highly important and where flexibility is particularly important due to the variability of demand, it is considered advisable to undertake different initiatives to increase flexibility in the organization of work. In that way, facilitating companies to propose different offers and services and innovate for the benefit of consumers.

In particular, it is important that operators are free to establish their business model and organize work autonomously, and that restrictions on this principle be always applied in a manner justified by reasons of general interest and in a proportionate manner.

In this sector there are various limitations that generally set the duration of shifts, the size of work teams or even the proportion of stevedores who must be permanent staff. These restrictions are not based on reasons of general interest and can lead to significant damage in terms of efficiency and capacity for innovation.

It is therefore recommended to increase flexibility in the organization of stevedoring work and to eliminate the preference of workers in the CPEs. In general, these recommendations match those already made by the CNMC in

previous reports (see [INF/CNMC/035/20](#), [INF/CNMC/059/20](#), [INF/CNMC/094/20](#)). In particular, the following is proposed:

- **To allow greater flexibility in the organization of shifts**, making it easier for them to better adjust to the times required by each operation.
- **To increase flexibility in versatility and functional mobility**, which allows (i) to dedicate the remaining time of a fixed shift (which cannot be adjusted in any way to the time of unloading the vessel) to the performance of other tasks and (ii) to assign tasks from other professional groups to company personnel with accreditation for the required specialty, without the need to first resort to CPE personnel.
- **Introduce greater flexibility in the determination of work teams** or 'hands', so that companies have greater freedom to determine their composition and to assign workers to the tasks they consider.
- **Eliminate or reduce the requirement for permanent staff in the staff of the Fifth Framework Agreement.** In line with what has already been pointed out by the CNMC in the advisory reports on the drafts of the Fifth Framework Agreement, the elimination or reduction of the current percentage of two-thirds of permanent staff would strengthen the self-organization capacity of stevedoring companies and provide them with greater flexibility.
- **Eliminate the priority of CPE workers in the distribution of work set out in the Fifth Framework Agreement.** In line with what has already been pointed out by the CNMC in the advisory reports on the drafts of the Fifth Framework Agreement, it is advisable to eliminate the advantage of CPE staff over temporary employment agency staff or other models of making labor available that distort competition. The elimination of this clause, by putting workers outside the pool on an equal footing, could encourage the provision through other models and promote competition in the stevedoring workforce. This is therefore a key aspect for the success of the liberalization of stevedoring.
- **Eliminate the prohibition on hiring new staff until the possibilities of professional promotion of all workers have been exhausted.** This prohibition excessively and unjustifiably protects incumbent workers from new staff. Their elimination will provide greater freedom for companies to choose the most suitable personnel to perform a job (either through internal promotion or an external worker) and could result in greater productivity and greater ability of companies to compete.

IX. Promote innovation and investment in automation through an efficient and pro-competitive regulatory framework

The automation of tasks can substantially increase the efficiency and productivity of Spanish ports. Likewise, delaying the incorporation of technological innovations in ports can significantly damage the competitiveness of the Spanish port system, with significant repercussions on the rest of the economy. This implies that the regulatory framework, and in particular collective agreements, must not introduce unjustified and disproportionate barriers to the automation process in cargo handling terminals or to the incorporation of other technological improvements.

It is therefore recommended to promote innovation and investment in automation through an efficient and pro-competitive regulatory framework. To achieve this objective, it is proposed to eliminate restrictions that involve complex consultation processes, in which workers have in practice the possibility of blocking business decisions of automation or innovation. Addressing rigidities in the organization of the workforce and in the freedom of companies to separate from CPEs will also promote automation.

X. Strengthen efficiency in the operation of Border Inspection Points (PIFs)

Inspections are a necessary and relevant element, which must be carried out rigorously and efficiently to meet the dual objective of ensuring compliance with regulations without unnecessarily delaying the transit of goods.

To this end, **it is recommended to strengthen the efficiency in the operation of the PIFs** by ensuring an adequate provision of human and material resources, and to adopt the necessary measures to ensure the agility of the procedures, taking into account aspects such as the ease of procedures through digital means and the importance of coordination in inspection actions.

XI. Revise the system of concessions to increase competition and promote investment

The regulation of public concessions is a very important area for competition. Regulation or administrative decisions must prevent the closure of a market or unjustified restriction of the ability of different operators to compete. In this sense, the current system of concessionaires included in the TRLPEMM presents different aspects with room for improvement in terms of availability of information, analysis of its efficiency and its pro-competitive orientation.

Therefore, **it is recommended to review the system of concessions to increase competition and promote a higher level of investment.** In particular, the following actions are proposed:

IX.A. Create a register of public concessions

Having a register of the concessions can be of great help in providing transparency on the status of the concessions of the cargo handling terminals in each Port Authority. In this way, interested parties may have an easier time opting to obtain a concession once the term ends.

Thus, **it is recommended to create a register of concessions in force**, including details of the concessions in force: the company, term and extensions.

IX.B. Carry out a justified analysis on the suitability of the terms of the concessions and adjust it to the minimum necessary

Based on the analysis carried out by the CNMC based on the scarce and dispersed information available, it seems that in Spain there is a significant weight of long terms (more than 30 years) in cargo handling terminals. On the other hand, different studies point to the reduced impact of longer terms on the return on investment, representing a very significant limitation of competition.

By virtue of the above, **it is recommended to carry out an analysis on the optimal duration of the concession terms**. Based on the results of this analysis, it is recommended to adjust the terms of the concessions to the minimum necessary, to avoid market closures that not only harm competition, but also do not contribute to achieving other objectives.

IX.C. Reinforce the exceptional nature of extensions to public concessions

The extensions represent an extension of the already long terms of the concessions, prolonging the closure of the markets beyond what was expected, to the detriment of potential interested parties and those consumers who could benefit from improvements in conditions after a competitive process to re-grant the concession.

It is therefore recommended to strengthen the exceptionality of the extensions of public concessions. The non-extendable nature of concessions must be maintained by default, as they involve the closure of a market, generally for a long period of time. The extension should be understood as an exceptional mechanism for justified cases and limited to one or two years at most. The call for tenders must be the predominant means of action.

To this end, it is recommended to modify the current regime of extensions contained in article 82 of the TRLPEMM so that:

- (i) The extension of concessions with a total duration of more than 30 years (including the new extension) is limited to exceptional situations, is accompanied by a justification for the impossibility of calling a tender

and is proposed for a maximum of one year renewable only once for a second additional year. It would be advisable for the extension to be subject to a binding report from Puertos del Estado (or an independent regulator). The extension of concessions that reach a total duration of such a long duration means that the market is closed to competition for a long period of time, during which there may be significant changes in market dynamics. Therefore, it is considered appropriate that in these cases the extensions are exceptional and limited, and are based on a qualified justification of their protection under reasons of general interest to achieve ends that cannot be achieved in any way by holding a competition.

- (ii) The exceptional extensions of Article 82.2.c) are eliminated, as they imply a closure of the market to competition for a very long period of time. It is understood that additional investments in certain concessions or the contributions of the concessionaire to finance different cases can be achieved with the call for tenders in which they are included in the tender specifications.

IX.D. Introduce mechanisms for the expression of interest in the procedure for authorizing the extensions of titles of occupation of the public port domain

Currently, the legislation allows for a decision on the extension based solely on the request of the incumbent. It would be positive if, prior to authorizing an extension, the Port Authority assessed the advisability of the extension in the face of the call for tenders and that in order to do so, it should not be limited to the context and the reasons of the incumbent operator.

It is therefore **recommended that mechanisms be introduced into legislation to allow for the expression of interest in the grant by third parties, before granting an extension**. This would imply that the Port Authorities must take into account through public hearing, project competition or other procedures, other possible candidates in order to compare more efficient projects and thus make the decision to extend the concession or instead, call a tender.

IX.E. Redesign the evaluation criteria to promote price competition

In contexts where intra-port competition is potentially reduced, even if maximum charges are established, the incentives to lower charges to the end user once the concession has been obtained may be limited.

Therefore, **it is recommended to design the evaluation criteria to promote price competition**. To this end, it is proposed to:

- (i) include the fees applicable to the user (or the reduction from the maximum charges) as a criterion for assessment, and

- (ii) assign to this criterion a significant weight in the total score and higher than that assigned to other criteria, such as the income received by the Port Authorities.

IX.F. Include necessary, proportionate, and non-discriminatory admission requirements

Economic-financial and technical solvency criteria are necessary to ensure that companies that opt for a concession are able to meet their commitments. However, the design of the requirements must be appropriate and, in particular, requirements should not be disproportionate or discriminatory, as this would mean the unjustified exclusion of potential competitors, which could lead to worse results in the allocation.

Therefore, **it is recommended that admission requirements be necessary, proportionate and non-discriminatory**. Although the technical discretion of the Port Authorities must be preserved in the definition of the criteria of economic-financial solvency and technical and professional solvency, the necessity and proportionality of the same must be duly justified.

Third. Examine the efficiency of the different models of operation of passenger service terminals

XII. Propose guidelines on the different models of operation of passenger service terminals

Although the disparity in management models may be due to the specific characteristics of the port that provides the service, different models bring with them different advantages and disadvantages. Among other aspects, the very existence of different models can accentuate the fragmentation of the market and make it difficult for companies to compete. Similarly, the absence of guidance on operating models can make it difficult for ports to decide whether to choose one or the other and, above all, for the coherence and coordination of decisions between ports.

In order to facilitate the choice of a model, to promote consistency between ports and not to unnecessarily fragment the market, **it is recommended that the competent authority develop guidance on the different models of terminal operation to serve as a reference at a national level**. These guidelines should be public and based on a preliminary study that analyzes in depth the efficiency, advantages and disadvantages of the different operating models in the passenger terminals of the Spanish port system. It could contain conclusions and recommendations to guide the decisions of the Port Authorities on the most appropriate operating model. Thus, and among other issues, it could propose indications to promote competition and efficient decision-making in cases where

there are several licensees, in matters such as the management of material resources or mechanisms to encourage an adequate level of investment.

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ANNEX 1 – Evolution of the stevedoring labor regime

Date	Event	Description
1944	Creation of the Port Works Organization	The Port Work Organization (OTP): (i) controls the stevedores' census, (ii) sets wages and working conditions, and (iii) provides vocational training.
1975	Adoption by Spain of Convention No. 137 of the International labor Organization	- It ensures stevedoring workers a minimum period of employment or income. - It requires registers to be kept for all its categories. Those registered will have priority for port work.
1986	Royal Decree-Law 2/1986 on the public service of stowage and unloading	- Suppress OTP. - Creates the State Stevedoring and Unloading Companies (SEED). Participation: 51% from the public sector (from 1992 by the Port Authorities). 49% from the private sector (mandatory participation for stevedoring companies) - It defines stevedoring as: <i>"essential public service owned by the State"</i> - It qualifies as a special employment relationship the one between SEED and the stevedores.
2003	Law 48/2003 on the economic regime and provision of services in ports of general interest	- It transforms the SEED into Port Groupings of Economic Interest (APIE). The objective of this reform was to privatize the port stevedores' pools and for the Port Authorities to withdraw from their capital, although in practice not all the SEEDS were transformed into APIEs. - It established a positive definition of the activities that make up the service of "loading, stowage, unloading and transshipment of goods", which it establishes as a basic port service. - Likewise, it excluded certain activities related to stevedoring (such as certain fishing work, the landing of vehicles or horizontal transport within the port) from being a basic port service, and could therefore be provided without resorting to the hiring of personnel from the SEED or the APIE. Finally, Law 48/2003 referred to the provisions of Royal Decree-Law 2/1986 in relation to the "labor regime applicable to personnel who carry out the activities that constitute the service of loading, stowage, unloading and transshipment of goods".
2007	IV Agreement for the regulation of labor relations in the port stevedoring sector	It was declared in part contrary to both national and European competition regulations by the CNC (2009) in a resolution confirmed by the Supreme Court (2016). The provisions extending the application of the Agreement to non-stevedoring third-party companies were sanctioned, preventing or hindering their access to the market for complementary services in ports, and establishing a

		commission among the signatories of the agreement with the power to set working conditions and authorize, or not, the hiring of personnel to companies that provide complementary services, whether they are stevedores or not.
2010	Law 33/2010 amending Law 48/2003	It introduced a more detailed regulation of the labor regime applicable to workers in the cargo handling service. Transforms SEED and APIE into Port Stevedores Management Companies (SAGEP) : • Exclusively private participation. • The port stevedoring companies are obliged to: ○ Participate in them, with an aliquot shareholder distribution according to their number and proportional to the turnover of each of them. ○ Hire as a priority from SAGEP (external employees are only admitted if you cannot provide them). • Corporate purpose: hiring, training and assignment of workers for stevedoring tasks to member companies.
2011	Consolidated Text of the Law on State Ports and the Merchant Navy (TRLPEMM).	It specifies the definition of cargo handling service: it is provided by private initiative, under the principle of free competition, after obtaining a license. It incorporated the SAGEP labor regime.
2013	Reform of the Fourth Framework Agreement Royal Decree 988/2013	It eliminates the provisions sanctioned by the CNC. It establishes nine certificates of professionalism of the Maritime-Fishing family, including that of port operations of loading, stowage, unloading and transshipment. However, it is not a mandatory requirement to be a stevedore, since what was legally necessary was to have one of the Vocational Training qualifications determined in the Order of the Ministry of Public Works.
2014	Judgment of the CJEU of 11 December 2014	It establishes that Spain is in breach of Article 49 of the TFEU (freedom of establishment) due to the obligations to: • Participate in the capital of the SAGEP and hire a minimum of its workers. • To hire SAGEP workers as a priority.
2015	Letter of formal notice from the European Commission to Spain (17 July 2015)	The Commission indicates that it is clear from the information received that Spain has not adopted the necessary measures to comply with the CJEU judgment. He requests that the observations in this regard be sent to him within two months of receipt of the letter of formal notice. On September 20, the deadline given by the Commission in its letter to adopt the measures that imply the execution of the CJEU Judgment expires.
2016	European Commission claim against Spain for non-compliance with the CJEU Judgment	It requests that the CJEU declare that the Kingdom of Spain has failed to fulfil its obligations by failing to take all the measures necessary to comply with the judgment of the Court of Justice of 11 December 2014, and for Spain to pay a periodic penalty payment and a lump sum.

2017	Negotiation table between the government, ANESCO and the unions	It culminates in a mediation proposal with three axes to comply with the CJEU ruling: (i) employment stability, (ii) improved productivity and (iii) early retirement aid.
	Royal Decree-Law 4/2017 of 24 February 2017	It seeks to eliminate restrictions on freedom of contract: (i) it proposes to create Port Employment Centers (CPE), (ii) it gives a transitional period of 3 years for the extinction or modification of the SAGEP. It was rejected by Congress. The main point of conflict is the maintenance of the employment of stevedores and the lack of guarantees of subrogation of workers in their jobs (union red line), as well as the precariousness of working conditions derived from an indiscriminate expansion of workers with temporary employment agencies.
	Royal Decree-Law 8/2017 of 12 May 2017, which modifies the workers' regime for the provision of the port service of handling cargo.	It adapts the regulation to the CJEU ruling, abolishing the labor regime for stevedoring in the TRLPEMM: • It establishes freedom to hire (subject to compliance with the requirements of professionalism) and eliminates the obligation to participate in the SAGEP. • It contemplates the creation of the CPEs, whose corporate purpose is the regular employment of port workers, their training and temporary transfer to companies (partners or not). They require the authorization of temporary employment agencies. They can operate throughout the national territory. • It gives a transitional period for the adaptation of the SAGEP to the new legal framework of three years and for collective agreements of one year. ○ Its alternatives are to become a CPE, continue as a SAGEP (with the authorization of an ETT) or become extinct. In the first six months, its shareholders must decide whether they want to separate from them. ○ In order to equalize the competitive position between established and new providers, the Port Authorities assume the compensation to the workers of the SAGEP for the termination of their employment contracts that were in force before the CJEU ruling of 2014. ○ During this period, stevedores, whether or not they remain in the SAGEP, must hire a minimum of their staff from the SAGEP. It requires obtaining a certificate of professionalism to carry out the activity of handling goods, except: • Those who have completed more than 100 days of service in the EU, to be approved by Puertos del Estado. • The ship's personnel carrying out such activities on board under the conditions permitted by the Ports Act. It repeals several sections of the ports law: those relating to the SAGEP and the one that excludes the loading and disembarking of unregistered motor vehicles from the cargo handling service.
	Stevedores' strike.	In June, after several notices were not called off.

	Modification of the IV Framework Agreement.	It includes the obligation for a company that separates from a SAGEP to be forcibly subrogated to workers from the SAGEP workforce in a certain way (among other requirements, the percentage of the SAGEP workforce proportional to its shareholding had to be subrogated, with a procedure that included a prior report from the State Joint Commission, in which competing companies of the one that aspired to leave the SAGEP were represented). The introduction of subrogation mechanisms was not provided for by Royal Decree-Law 8/2017.
	CJEU judgment and fine for non-compliance with the 2014 judgment	It results from the infringement proceedings initiated against Spain, after the deadline for adapting national legislation to the 2014 Judgment expired. It amounted to 3 million euros.
	Sanctioning proceedings of the CNMC regarding the modification of the IV Framework Agreement	Initiated against the signatories of the Fourth Framework Agreement in relation to the forced subrogation contemplated in the amendment of the Fourth Framework Agreement.
2018	Project for the regulatory development of the stevedoring reform	Submitted to public information by the Ministry of Public Works, it will never see the light of day.
	Amendment to the 2018 Budget Bill	The deadline for negotiating a new framework agreement is extended by six months.
2019	Royal Decree-Law 9/2019 , of 29 March	• It modifies the regulations of temporary employment agencies to regulate CPEs (minimum of indefinite contracts, financial guarantee, labor relations) and equate temporary employment agencies that provide the service of handling cargo (the regulations of CPEs will apply to them). • It specifies that the holder of the service license has the power to direct, organize and control the work activity of port workers hired by the CPEs. • It makes it possible to establish subrogation measures necessary for the maintenance of employment, by means of a collective agreement, for companies that leave the SAGEP or when their dissolution occurs. This authorization will be valid for a period of time limited to the transitional period of Royal Decree-Law 8/2017. • In the event of conversion of the SAGEP into CPE, it will become the new employer of the SAGEP workers. • It gives a period of nine months for the adaptation of collective agreements to this Royal Decree and Royal Decree 8/2017. • It enables students who are studying the certificate of professionalism to carry out certain activities included in the goods handling service under a training and apprenticeship contract, in order to accredit the hours of internship required to obtain the certificate.

	Royal Decree-Law 257/2019	It regulates the granting of early retirement aid for stevedores, with the aim of facilitating the voluntary departures of older workers in the best conditions. The aid consists of the granting of a subsidy, equivalent to seventy percent of the average salary receipts for all the concepts corresponding to the twelve months prior to the date of submission of the application, until the worker reaches the ordinary retirement age, as well as the payment of the contributions due to Social Security during that period, calculated on a contribution basis equivalent to the average of the worker's contribution bases for the twelve months immediately prior to the application for the aid.
	The CNMC refers a preliminary question to the CJEU	It asks whether the subrogation mechanism of the Fourth Framework Agreement should be brought into line with Article 101 TFEU and whether, if it were not complied with, the provisions of Royal Decree-Law 9/2019 covering collective agreements imposing a form of subrogation should also be considered to be contrary to that article.
	Pre-agreement of the Fifth Framework Agreement	Between 2019 and 2020, three versions were sent to the CNMC, which carried out several advisory reports on the articles.
2020	Judgment of the CJEU on the question referred for a preliminary ruling	The CNMC's request for a preliminary ruling was inadmissible.
	Resolution of the CNMC file	The CNMC considered that the content of the Agreement exceeded the issues inherent in collective bargaining and that the conduct had had the effect of preventing effective competition in the affected market. This was due to the fact that it imposed an unjustified limitation on the freedom of organization of the stevedoring company that chose to separate from SAGEP, through conditions of compulsory subrogation of SAGEP workers who do not meet the requirements of transparency, objectivity and fairness, ultimately generating a disincentive for all other companies that are shareholders of SAGEP.
2021	Judgment of the labor Chamber of the National High Court	It declares null and void various provisions of the Fourth Framework Agreement, including the system of forced surrogacy.
2022	Law 4/2022 on the Protection of Consumers and Users in Situations of Economic and Social Vulnerability	It completes the regulation of CPEs. - It defines them as <i>"mutual-based jointly-owned enterprises"</i>, to meet the needs of their members of port workers. - The possibility of hiring external workers by partners and of workers registered in the CPE working for third parties are expressly mentioned. - With regard to subrogation, it is established that the CPEs <i>'will contribute to the maintenance of employment and guarantee the effective employment of the staff of the port employment</i>

		<i>centre'. Collective bargaining 'may establish the necessary specifications for the development of this obligation, particularly through guidelines in the field of the organization and distribution of work (...) and others that contribute to stability and quality in employment and to greater efficiency in the provision of the service'.</i> • A maximum period of two months (ending on 2 May 2022) is given for the CPEs to adapt their statutes to the amendments to this Law. A member who does not vote in favor of the agreement to amend the bylaws or does not enter into the framework contract for the provision of services will have the right to separate from the CPE.
	Dismissal of Asoport's claim against the Fifth Framework Agreement , by the National High Court.	The National Court ruled that: <i>"the Fifth Framework Agreement is in accordance with current legislation on collective bargaining, competition law and freedom of enterprise, also rejecting the violation of fundamental rights"</i> . The president of Asoport pointed out that the Supreme Court will be appealed.
2025	Judgment of the labor Chamber of the Supreme Court	It upholds in part the claim made by ASOPORT and declares the nullity of certain provisions of the Fifth Framework Agreement. Among them: (i) the seventh paragraph of article 37.1 which obliged companies that left the CPE due to economic crisis to make a contribution to the CPE equivalent to the compensation that would be due in the event of collective dismissal for each person not subrogated or relocated, and (ii) the second paragraph, second part, of article 11, which established that <i>"Without prejudice to the foregoing, the parties agree that the modification of the "hands" or work equipment will be processed in accordance with the provisions of the Agreement and Article 41 of the Workers' Statute Law."</i>

ANNEX 2 – Port efficiency measurement

The analysis of port performance, especially in terms of efficiency, is essential to obtain a vision of the competitive environment in which they operate and to be able to detect possible areas for improvement. In order to assess the efficiency of ports, four main approaches can be followed: (i) the development of qualitative measures, (ii) the comparison of quantitative indicators, (iii) the development of comparative indices of international organizations, (iv) the estimation of production possibilities frontiers.

In the following lines, these approaches are described, as well as the main conclusions on the performance of Spanish ports (with special emphasis on the cargo handling), where a special reference is made to the efficiency in passenger services, and lastly the performance system of the Spanish port system is described.

However, it is important to emphasize the limitations existent in port efficiency analysis since, as the World Bank itself has explained, *"the quality, consistency and availability of data, the definitions used, and the capacity and willingness of international organizations to collect and transmit data have prevented the development of robust and comparable measures to see performance between ports and over time"* (World Bank, 2023).

1. Approaches to Port Efficiency Measurement

a) Qualitative measures: based on surveys of users and other relevant agents, who are asked, for example, to identify the problems they detect in each port service.

b) Quantitative indicators.

The use of performance indicators allows the comparison of different parameters related to different port activities and to detect possible areas of improvement. The construction of indicators must be disaggregated according to the relevant activities in a port (maritime, terminal and land operations). In turn, for each of them, performance covers multiple dimensions, so there are countless indicators in the most diverse areas (economic, environmental, governance, connectivity⁹⁰, security, competition...).

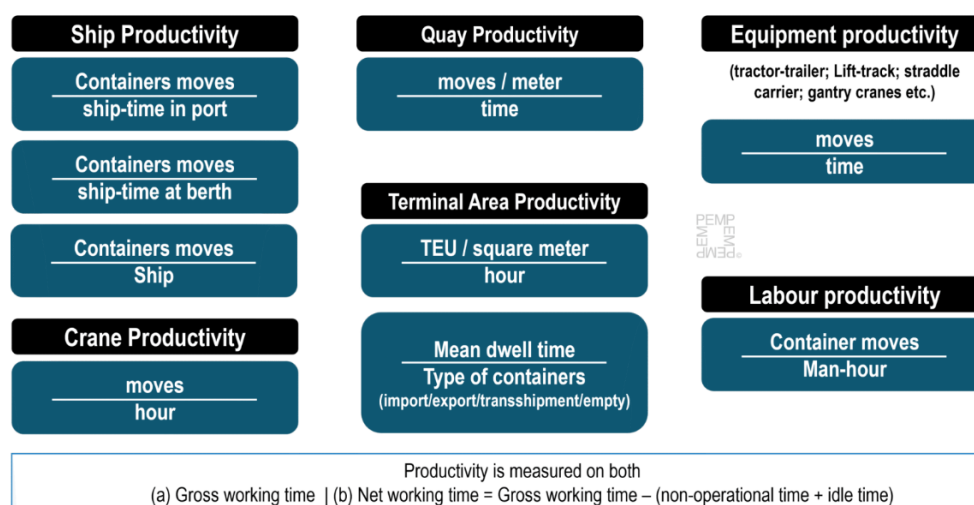
- **Productivity indicators:** Although it is traditionally understood as the ratio of production per unit of production factor, the main indicators in port matters are far from it, with times in the different port phases and other ratios that capture some particularity of the industry being of special

⁹⁰ Maritime Networks, port efficiency and hinterland connectivity in the Mediterranean (World Bank, 2022).

relevance. In fact, in its study, measurement and evaluation of performance and productivity in ports, the UNCTAD groups the most relevant ratios on port performance into three areas: the length of stay, the quality of the cargo handling service, and those relating to land transport in the port. This requires a broader approach to take into account the quality of the services, that cannot be valued in the typical measures of productivity (UNCTAD, 1987). The study "Comprehensive Analysis of the Port Industry" establishes an approximation of six different classifications relating to productivity in port terminals (Box 8): ship productivity, crane productivity, terminal productivity, equipment productivity, labor productivity and quay productivity. The importance of time can be seen in the definition of the different indicators (productivity of equipment, docks, the terminal...) (Notteboom, Pallis, & Rodrigue, Port Economics, Management and Policy, 2022).

By way of summary, Annex 3 includes a table with different productivity, temporary, port, financial, and labor indicators, with their corresponding formula and explanation.

Box 8: Key productivity indicators of a port terminal



Source: "Port Economics, Management and Policy: Chapter 6.2 – Port Efficiency (Notteboom, Pallis, & Rodrigue, Port Economics, Management and Policy, 2022)".

- **Time indicators:** they focus on the time spent in port. The main difficulty of this analysis derives from the aggregation of heterogeneous goods and the difference in the ships' size, which significantly conditions the time recorded in the port. In this regard, the UNCTAD publishes annually statistics of times spent in port, differentiating between different types of merchant ships.

- **Cost indicators:** Allow you to break down the costs associated with different items and make comparisons. The Australian Ministry of Transport prepares, for example, the "*Port Interface Cost Index*" (PICI) to measure the cost of maritime transport of containers in each of the main ports of the country (in \$/TEU), and differentiates between the type of ship and whether the costs are export or import. It includes all fees related to the ship's entry into the port, cargo handling and land access to the terminal (Bureau of Infrastructure and Transport Research Economics, 2022).

c) Indexes of international organizations

- **Logistics performance indices (not exclusively focused on ports):** "*Liner Shipping Connectivity Index*" (LSCI) carried out by UNCTAD, or the "*Logistics Performance Indicators*" (LPI), by the World Bank, among others.
- **Container Port Performance Index (CPPI):** Developed by the World Bank in collaboration with S&P Global's Market Intelligence Unit. It includes two indices that aim to measure the time spent in the different container ports by each vessel, taking into account its size and inferring null values. The first version dates from 2020 and the most recent is from 2023⁹¹, which takes into consideration a total of 405 ports for analysis. The methodology has limitations, however⁹², as it does not take into account the particularities of certain ships, nor differentiate the type of port (transit versus those of origin or destination) or the labor standards of each terminal. It has also been pointed out that the CPPI is not so much a metric of efficiency as of speed, and that the classification can be improved, for example, with a greater number of cranes, even when this factorial endowment is inefficient.

d) Estimation of production possibilities frontiers

It is the most widely used method in academic literature to measure the technical efficiency of different ports. It involves estimating a production possibilities frontier, defined as the representation of the technically efficient combinations of factors that show the maximum use of them.

These borders have been estimated by a multitude of studies, where some of the most recent studies that include Spanish ports are listed in the following table.

⁹¹ Published in July 2024.

⁹² Some of which are mentioned in Australia's maritime logistics system Inquiry report (2023).

Table 5: selection of studies that estimate the frontiers of production possibilities, with the *inputs* and *outputs* used

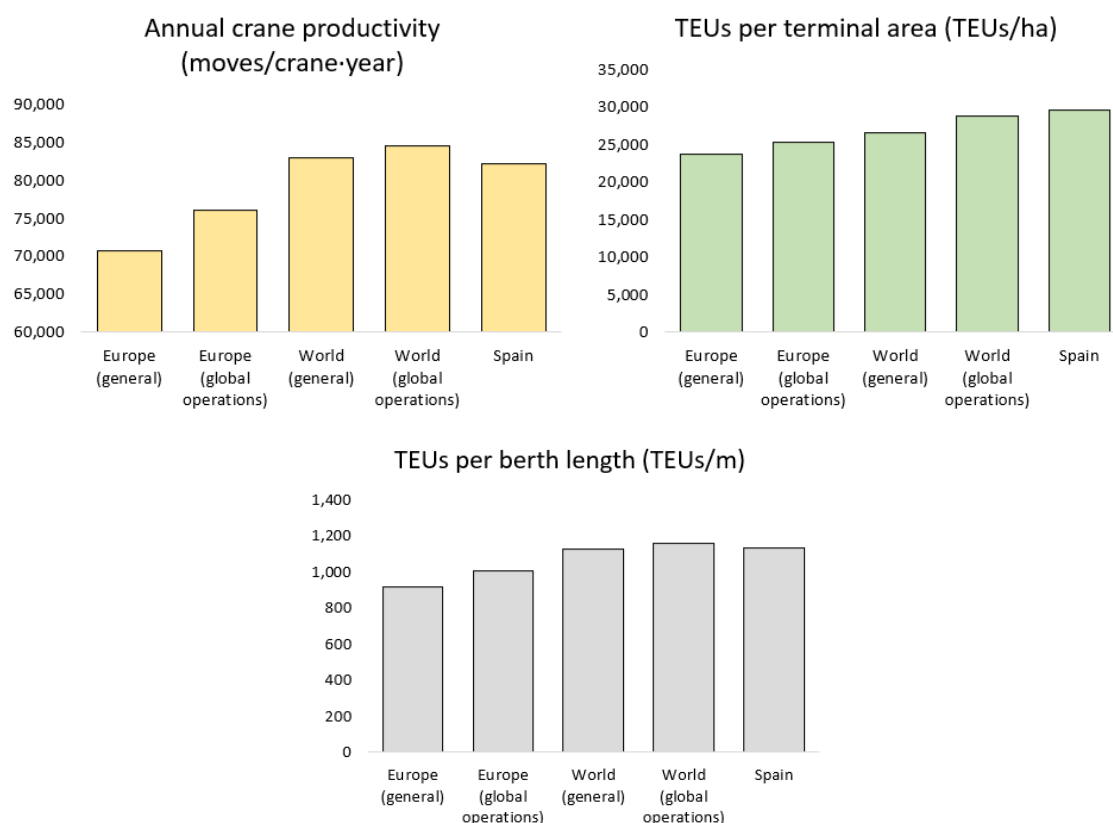
Article	Harbours	Period	Inputs	Outputs
<u>Seaport efficiency and competitiveness in European seaports</u> (Kammoun & Abdennadher, 2022).	30 Europeans	2005-2018	Dock length, number of cranes, port area, personnel	Tons of cargo
<u>Evaluating the efficiency of Mediterranean container ports using data envelopment analysis</u> (Fancello, Serra, & et al, 2021).	35 Mediterranean	2019	Depot area, number of cranes and distance to Gibraltar or Suez	Containers
<u>Lessons to be Learned from Top 50 Global Container Port Terminals Efficiencies: A Multi-Period DEA-Tobit Approach</u> (Nikolaou & Dimitriou, 2021).	50 Global	2013-2017	Dock length, tank area, number of cranes, depth	Containers
<u>DEA-Bootstrapping Analysis for Different Models of Spanish Port Governance</u> (Parra, Camarero, & González, 2020).	28 Spaniards	2020	Sales, investment, warehouse area, port length	Containers, EBITDA, ships
<u>Competitive intensity and inefficiency in European container ports: An empirical investigation using SFA</u> (Merkel, 2018).	77 Europeans	2002-2012	Terminal area, quay length, number of cranes, depth	Containers

2. Spanish port system

From the analysis of different international comparisons, the following conclusions can be drawn about Spanish ports, with special reference to the cargo handling:

- **In terms of productivity**, the World Bank study "**Maritime networks, port efficiency, and connectivity in the Mediterranean**" (Banco Mundial, 2018) details, among others, the productivity of cranes in several ports in the Mediterranean. Algeciras appears as the second most productive after Marseille while the other Spanish port included, Valencia, has an intermediate position.

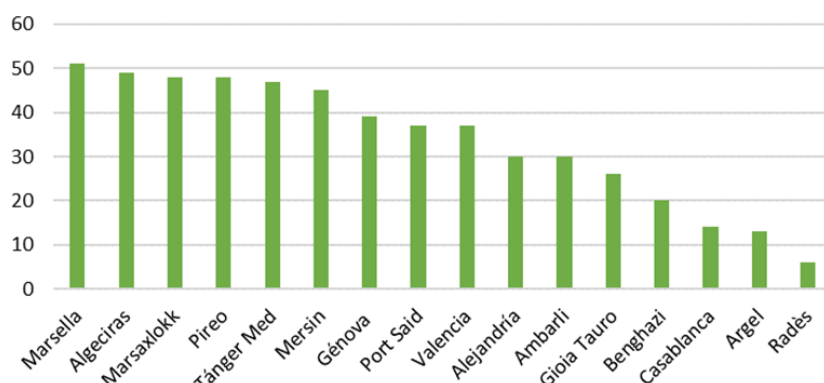
Figure 36: International Benchmark of Performance Metrics



	Europe (general)	Europe (global)	World (general)	World (global)	Spain
Moves/crane-year	85%	92%	100%	102%	99%
TEUs/ha	89%	95%	100%	109%	111%
TEUs/m	81%	89%	100%	103%	100%

Source: Prepared by the author based on the study of the costs of passage of the container through international terminals in the vicinity of Spanish ports (Dewry, 2015).

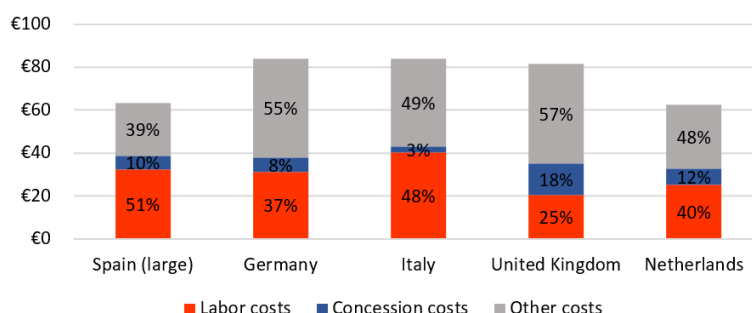
Figure 37: Terminal productivity in selected Mediterranean ports



Source: Authors' elaboration based on "Maritime Networks, port efficiency and hinterland connectivity in the Mediterranean" (World Bank, 2018).

Regarding costs, the study commissioned by the Port Services Observatory analyzes ten terminals in different countries in our vicinity to disaggregate the cost of passing a container in each one. The analysis shows that operating costs of the large Spanish terminals would be, together with the Netherlands, among the lowest among the countries analyzed. However, the weight of labor costs over the total would be the highest in Spain. As the study indicates, labor costs in Spain's large terminals represent 51% of total costs, while in the neighboring countries analyzed (traffic-weighted average), labor costs account for 38.33% of total costs. The study considers only operating costs and does not include other types of costs such as bureaucratic processing or waiting, which could alter the relative position of Spanish terminals in the comparison if total costs were taken into account (Dewry, 2015).

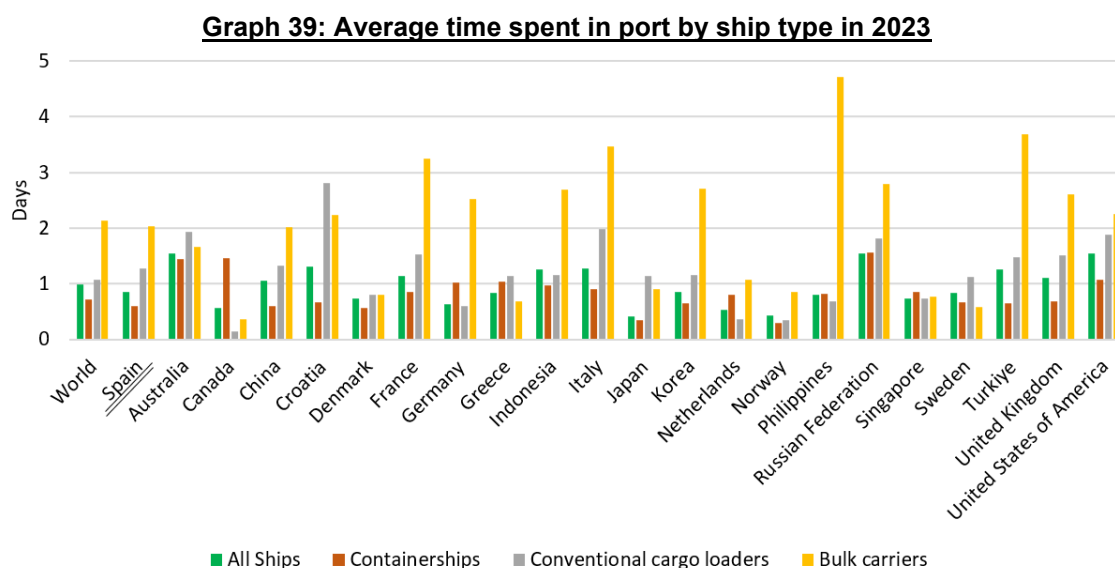
Figure 38: Operating cost of container terminals by country



Source: Authors' elaboration based on the study of the costs of passage of the container through international terminals in the vicinity of Spanish ports (Dewry, 2015).

- **In terms of time spent in port**, in UNCTAD statistics (consulted in 2024), our country registers slightly better values than the average time spent in worldwide ports⁹³. By type of goods, the speed of Spanish terminals in container traffic stands out, in which Spain is only behind Norway, Japan and Denmark. However, in conventional and bulk goods, there would be room for improvement (the average time in a port is much longer than in other countries such as Norway, Sweden or Japan).

⁹³ Excepting conventional general cargo. However, for a more complete analysis, it would be necessary to take into account the size of the ship or the scale, factors of weight in the recorded time of the stopover.



Source: Authors' elaboration based on UNCTAD data.⁹⁴ (UNCTAD, accessed on september 2024).

- **Regarding the position in the indices of international organizations**, in the case of the CPPI (*Container Port Performance Index*) Spanish ports in general occupy a good position in relation to European and North African ports⁹⁵, although their positions are not as positive compared to the largest ports of Asian economies⁹⁶. Nevertheless, there are disparities between ports, with the good results of Algeciras (tenth port worldwide) and Barcelona being noteworthy compared to the worse position of the port of Valencia or Bilbao (World Bank, 2024).

3. The Spanish port performance monitoring system

Since 2018, Puertos del Estado has had a tool for managing port service indicators, the Indicator Management System (SIGEIN).⁹⁷ Access is restricted to authorized users. As described by the Permanent Observatory of the Port Services Market, the capture of the indicators by the Port Authorities is carried out in campaigns (usually a full year). The data are in turn received by the Observatory's Technical Office, which carries out the analysis and quality control of the results, to be definitively introduced into SIGEIN. The SIGEIN is used by

⁹⁴ Port call and performance statistics: time spent in ports, vessel age and size, annual

⁹⁵ In 2023, the three best positioned in Europe and North Africa were: Tangier Med, Algeciras and Port Said.

⁹⁶ Of the ten fastest ports, three are in the Arabian Peninsula and another three in China. Positions that remain unchanged compared to 2021.

⁹⁷ More details on SIGEIN in the Observatory's Annual Report 2022 (Observatorio de los Servicios Portuarios, 2023b).

the Observatory to compile data for the development of port service indicators, which are used in the development of studies and reports.

- In the case of cargo handling, SIGEIN collects measures such as crane performance and other activity and turnover ratios.
- In the case of passenger services, SIGEIN collects check-in or activity measures (passengers served) and some quality metrics such as the number of lost luggage or registered complaints.

In addition, Puertos del Estado also has an AIS (Automatic Identification System) network to collect the information transmitted by the AIS devices included in the ships. Thus, this application allows to know in real time the identity of the ships, their position, course, speed, port of destination, expected arrival time or type of cargo. From this network, the Shiplocus system has been developed, a multi-application platform for port management and maritime traffic operation. This platform has been an important advance in the analysis of port information as it allows, among other functions, the improvement in port planning, the monitoring and tracking of ships in real time, as well as their integration into intermodal transport or the monitoring and control of aids to navigation.

However, it should be noted that the public information available on the performance of the Spanish port system is much smaller. Both Puertos del Estado and the Observatory of Transport and Logistics in Spain (OTLE) publish extensive statistics that, however, do not include performance metrics and the calculation possibilities with many of them are limited. For example, no data has been found on the different times spent in the port, among other aspects. In this regard, the 2022 Strategic Framework of Puertos del Estado contemplates the introduction of performance indicators as a target for 2025 and the increase in the average efficiency of the system for each type of terminal and subsystem compared to 2019.

ANEXO 3 – Detail of the main port indicators by concept

Port Indicators	Name	Clarifications
Productivity	Crane rate	$\frac{\text{Stowed containers (Uds/TEU)}}{\text{Net crane time}}$ The container movements per net crane hour, i.e. the productivity of the average crane. Its calculation comes from the ratio of the movements made by crane over the total effective working hours. Another important metric is its theoretical capacity (TEU/hour), which allows its efficiency (crane rate/power) to be calculated.
	Containers transported by the meter of dock (or its area).	$\frac{\text{Stowed containers (Uds/TEU)}}{\text{Length (m) or Surface (m2) of the berth}}$ In Units or TEUs, it is equivalent to the productivity of the land factor or the yield of the surface. It can also be calculated for the available square meters of warehouse.
	Containers transported per hour worked.	$\frac{\text{Stowed containers (Uds/TEU)}}{\text{Net man-hour}}$ It represents the productivity of work, for more detail it can be presented in the form of a histogram. Apart from man hours, it can be obtained with crew hours.
	Containers transported by each truck ⁹⁸ .	It measures how many containers each vehicle carries, also applicable to rail transport.
	Containers transported by hour in port.	$\frac{\text{Stowed containers (Uds/TEU)}}{\text{Time spent in port}}$ It calculates the port's container movements every hour, it can be obtained in tons to include different goods (as bulk). It is calculated from the time the ship enters until it leaves.

⁹⁸ It will be determined primarily by the percentage of them who make the backloaded round trips.

	Containers transported by work shift ("Elapsed labor ratio").	$\frac{\text{Stowed containers (Uds/TEU)}}{\text{Work time}}$ It measures the containers transported from the time the first dock worker enters the ship until the last one leaves (it is different from the productivity of labor).
	Containers transported by time spent at the dock ("Ship rate").	It gives container movements (in units or TEUs) per hour of dock operations. ⁹⁹
	Containers transported every 24 hours.	Of the product of the containers transported every hour by 24.
Temporal	Average and medium time spent by ships in port.	It can be completed with its 95th percentile. ¹⁰⁰ with the probability of waiting. In addition, it is possible to distinguish according to the tonnage of the order and type of cargo.
	Average waiting time at anchorage.	That is, from the moment you arrive at the port until you are allowed to enter.
	Punctuality.	Percentage of services initiated without delay over the total. And average delay in the start of 10% of the services with the longest delay.
Of the port	Arrival fee.	Measured as the number of ships arriving per day.
	Average size of the vessel.	To be calculated as a weighted average of its capacity (in TEU).
	Average order size.	In other words, TEU transported by ship.
	Percentage of trucks "backloaded".	"Backloaded": trucks that carry containers when entering and leaving.
	Dock, warehouse, door and equipment utilization fees.	Calculated as the ratio between their use one year over their potential capacity. At the dock it would come from the effective versus potential movement of containers. ¹⁰¹ or the time occupied versus potential; in the warehouse it refers to the use of existing space and in equipment to the time it has been used over the available time.

⁹⁹ It is equal to multiplying the "Crane rate" by the "Crane intensity".

¹⁰⁰ As in the study by the Australian Ministry of Transport, (Bureau of Infrastructure and Transport Research Economics, 2022).

¹⁰¹ Within the employed person, it can be interesting to differentiate according whether it was working at that time or not.

	Ratio "Full-empty".	Or the percentage of containers that are transported empty over the totals.
	Accidents.	Percentage of services with accidents.
	Dammage.	Number of services with damage to the cargo out of the total tons
Financial ¹⁰²	Revenue per ship and revenue per ton.	
	Revenue from the cargo handling and for each service per ton.	
	Labor and capital costs per ton.	Also of interest is the measurement of the cost of each movement of the machinery.
	"Profit" per ton.	
Labor	Percentage of time worked on the past at the dock by the ship.	
	Percentage of idle time of the crew.	

¹⁰² Instead of per ton, they can be obtained per square meter of the quay.