Asociación Española del Transporte

Comparative study of port traffic in Galicia and Northern Portugal

1 INTRODUCTION

1.1 GENERAL CONTEXT OF THE STUDY.

Geographical focus.

This study focuses on the evolution of port traffic in the seven main commercial ports of Galicia and Northern Portugal: Ferrol, A Coruña, Marín, Vilagarcía, Vigo, Viana do Castelo and Leixoes.

The study is completed with the evolution of port traffic in the main commercial ports of the rest of the maritime regions that make up the North Atlantic maritime facade: Asturias (ports of Avilés and Gijón), Cantabria (port of Santander) and the Basque Country (ports of Bilbao and Pasaia).

Temporal focus.

The study takes the period 2003-2023 as a base time horizon.

In any case, this time horizon is conditional on the existence of published and freely accessible statistical data.

Port traffic under study.

Total traffic by maritime regions. Total traffic by commercial ports. Traffic broken down by types of cargo: liquid bulk, solid bulk, general cargo, containers (TEUs), cruise ships (passengers) and fishing (fresh fish).

1.2 OBJECTIVES.

- To analyse the evolution of port traffic.
- Identify trends and determining factors.
- To establish conclusions and make recommendations.

2 EVOLUTION OF PORT TRAFFIC.

2.1 EVOLUTION OF TOTAL PORT TRAFFIC.

2.1.1. EVOLUTION OF TOTAL PORT TRAFFIC IN THE PORTS OF GALICIA AND NORTHERN PORTUGAL.

Port traffic in the main commercial ports of Galicia and Northern Portugal, in the period 2003-2023, has the following characteristics in its evolution:

1. Low little growth in total port traffic.

   In Galicia, total port traffic grew by 5.7%, from 29.2 million tonnes in 2003 to 30.9 million tonnes in 2023, which contrasts with the 42.3% growth of the Spanish port system in the same period.

   In Northern Portugal, there is a growth of 5.2% in total port traffic, from 14.2 million tonnes in 2003 to 14.9 million tonnes in 2023, which contrasts with the 45% growth of the Portuguese port system in the same period.

CHART 1. TOTAL PORT TRAFFIC VOLUMES IN GALICIA AND NORTHERN PORTUGAL (TONNES)

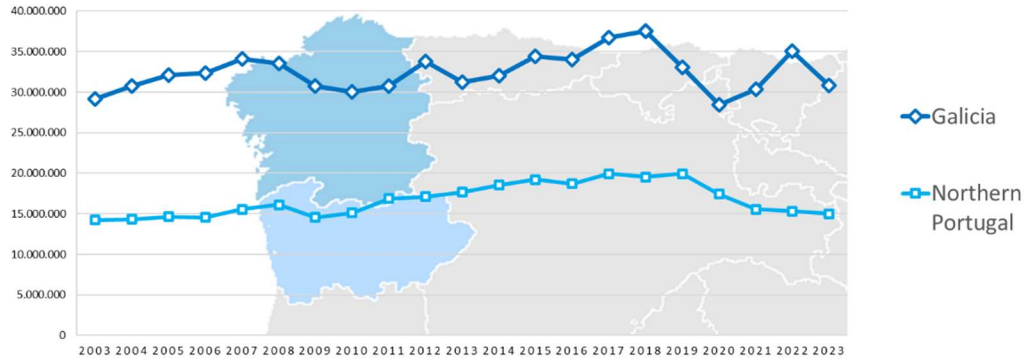


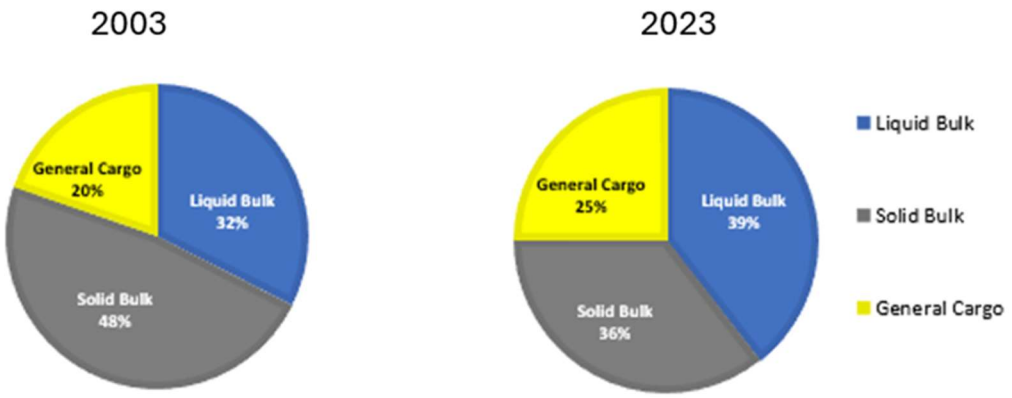
Table 1. Port traffic in Galicia and Northern Portugal. Total traffic (tonnes).

	Ports	2003	2013	2023	% 2003/2013	% 2003/2023
Galicia	A Coruña	12.704.235	11.700.463	13.986.503	-7,9%	10,1%
	Ferrol-San Cibrao	9.065.283	12.539.644	8.451.308	38,3%	-6,8%
	Marín y Ría de Pontevedra	1.764.511	1.871.553	2.120.234	6,1%	20,2%
	Vigo	4.485.046	4.185.933	4.747.115	-6,7%	5,8%
	Vilagarcia	1.168.561	966.491	1.552.184	-17,3%	32,8%
	Galicia Total	**29.187.636**	**31.264.084**	**30.857.344**	**7,1%**	**5,7%**
Northern Portugal	Porto-Leixoes	13.450.382	17.186.221	14.673.739	27,8%	9,1%
	Viana do Castelo	794.070	496.355	306.813	-37,5%	-61,4%
	Northern Portugal Total	**14.244.452**	**17.682.576**	**14.980.552**	**24,1%**	**5,2%**

2. Restructuring of port traffic aimed at general cargo.

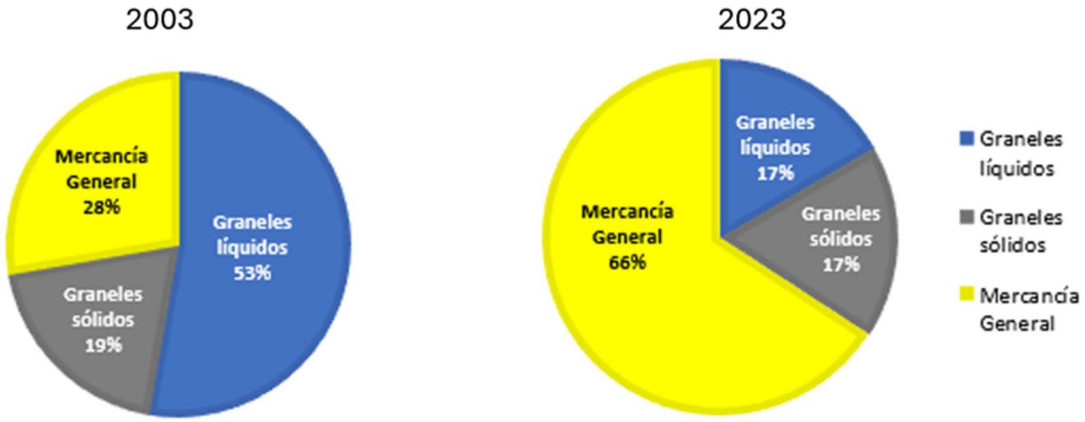
In Galicia, there is a growth in port traffic of general cargo that goes from 20% in 2003 to 25% in 2023 over the total port traffic of cargo and a consequent reduction in bulk cargo traffic (solid bulk and liquid bulk) that goes from 80% in 2003 to 75% in 2023.

CHART 2. CARGO PORT TRAFFIC IN GALICIA



In Northern Portugal, there is a growth in port traffic of general cargo, which goes from 28% in 2003 to 66% in 2023 over the total port traffic of cargo and a consequent reduction in bulk traffic (solid bulk and liquid bulk), which goes from 72% in 2003 to 34% in 2023.

CHART 3. CARGO PORT TRAFFIC IN NORTHERN PORTUGAL



Port traffic of general cargo in Galicia has increased by 40% between 2003 and 2023, from 5.5 million tonnes to 7.7 million tonnes.

Port traffic of general cargo in Northern Portugal has increased by 150% between 2023 and 2023, from 3.9 million tonnes to 9.9 million tonnes.

CHART 4. PORT TRAFFIC OF GENERAL CARGO IN GALICIA AND NORTHERN PORTUGAL (TONNES)

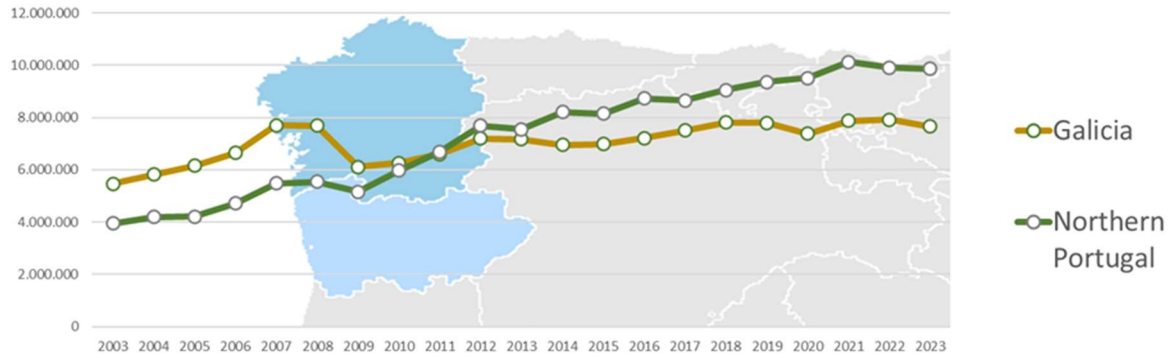


Tabla 2. Port traffic in Galicia and Northern Portugal. General cargo (tonnes).

	Ports	2003	2013	2023	% 2003/2013	% 2003/2023
Galicia	A Coruña	769.182	1.158.779	622.167	50,7%	-19,1%
	Ferrol-San Cibrao	375.545	981.696	994.466	161,4%	164,8%
	Marín y Ría de Pontevedra	879.812	1.016.395	1.060.904	15,5%	20,6%
	Vigo	3.172.131	3.517.256	4.301.963	10,9%	35,6%
	Vilagarcia	275.373	497.662	674.707	80,7%	145,0%
	Galicia Total	**5.472.043**	**7.171.788**	**7.654.207**	**31,1%**	**39,9%**
Northern Portugal	Porto-Leixoes	3.741.000	7.266.000	9.709.000	94,2%	159,5%
	Viana do Castelo	208.078	286.485	155.536	37,7%	-25,3%
	Northern Portugal Total	**3.949.078**	**7.552.485**	**9.864.536**	**91,2%**	**149,8%**

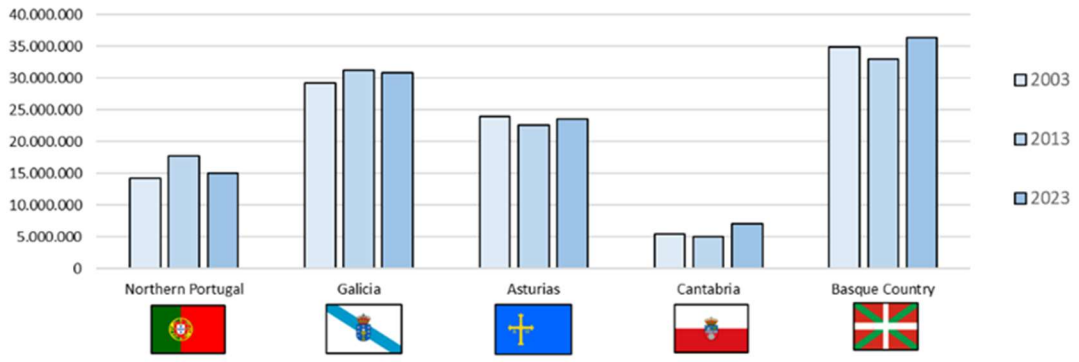
In 2003, port traffic for general cargo in Galicia was 1.5 million tonnes higher than in Northern Portugal. Twenty years later, port traffic of general cargo in Northern Portugal exceeds that of Galicia by 2.2 million tonnes.

2.1.2. EVOLUTION OF TOTAL PORT TRAFFIC IN THE PORTS OF THE NORTH ATLANTIC-MARITIME FACADE.

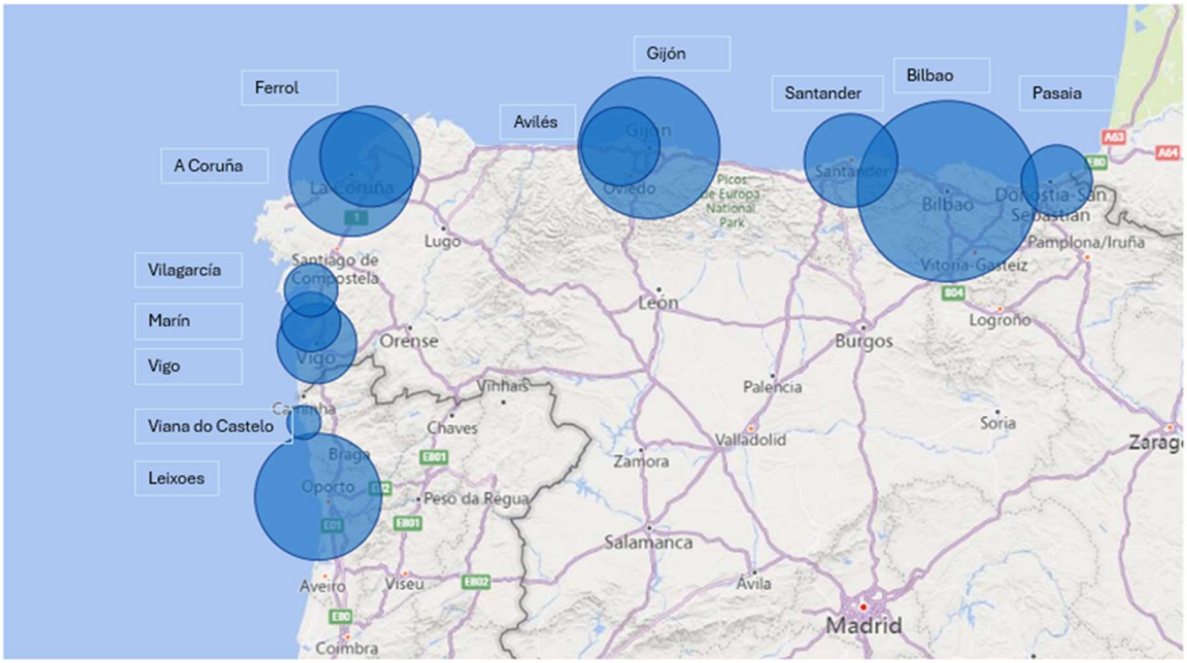
The study of the evolution of port traffic in Galicia and Northern Portugal is completed with the comparative evolution of the rest of the maritime regions that make up the Atlantic-North maritime facade: Asturias, Cantabria and the Basque Country.

The evolution of **total port traffic** in the period 2023-2023 of the five maritime regions that make up the North Atlantic maritime facade presents disparities. Galicia, Northern Portugal and the Basque Country have maintained meager but positive growth rates in these twenty years (5.7%; 5.2% and 4.2% respectively), while Cantabria increased by 29.5% and Asturias decreased by 1.6%.

CHART 5. NORTH ATLANTIC MARITIME FACADE. TOTAL PORT TRAFFIC (TONNES).

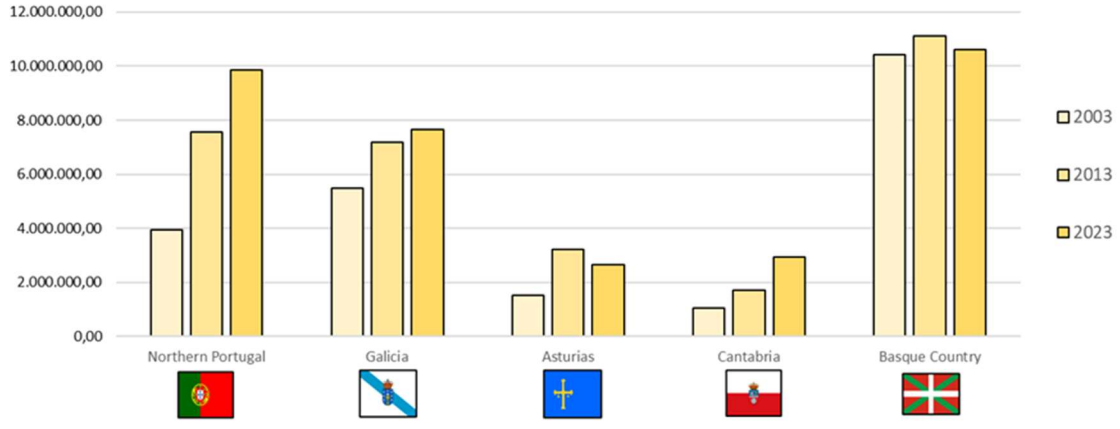


Map 1. Total port traffic in 2023 of the main commercial ports of the North Atlantic Maritime Facade (tonnes)

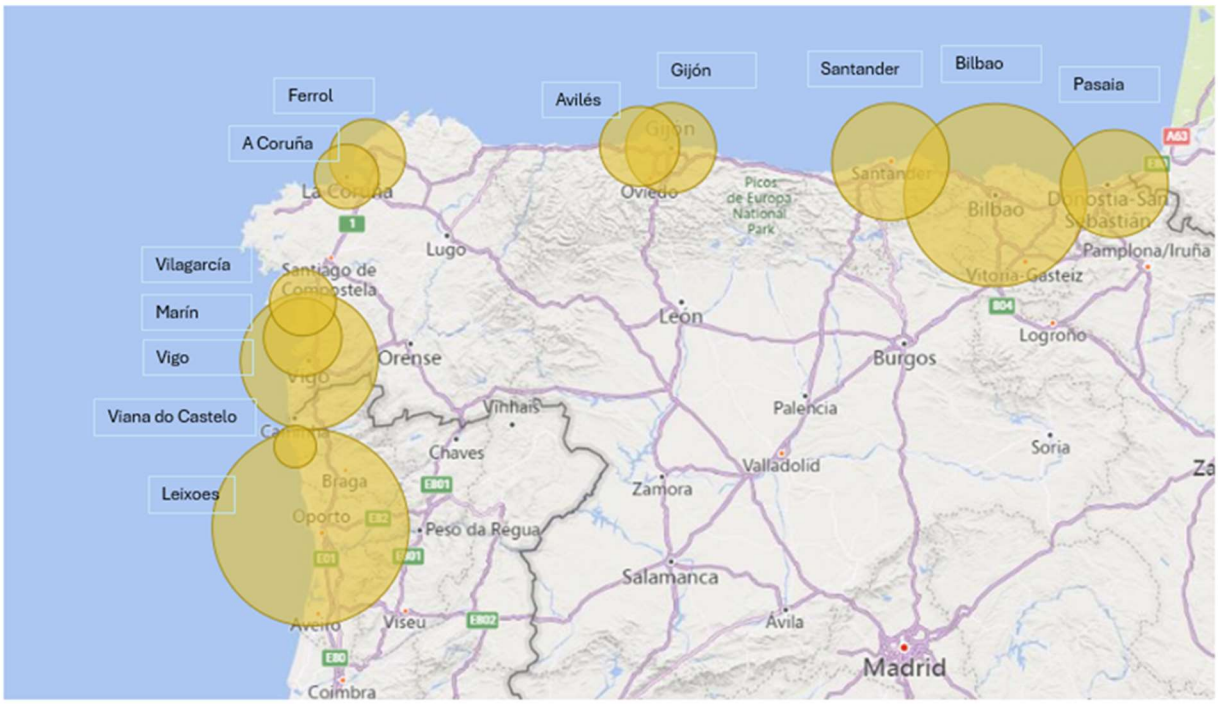


The evolution **of port traffic of general cargo** in the period 2003-2023 also shows different behaviours. Thus, the significant growth of Cantabria (179%) and Northern Portugal (150%) stands out, followed by the growth of Asturias (75%) and Galicia (40%). The Basque Country ended the period 2003-2023 with a growth in general cargo of 2%.

CHART 6. NORTH ATLANTIC MARITIME FACADE. GENERAL CARGO TRAFFIC (TONNES).



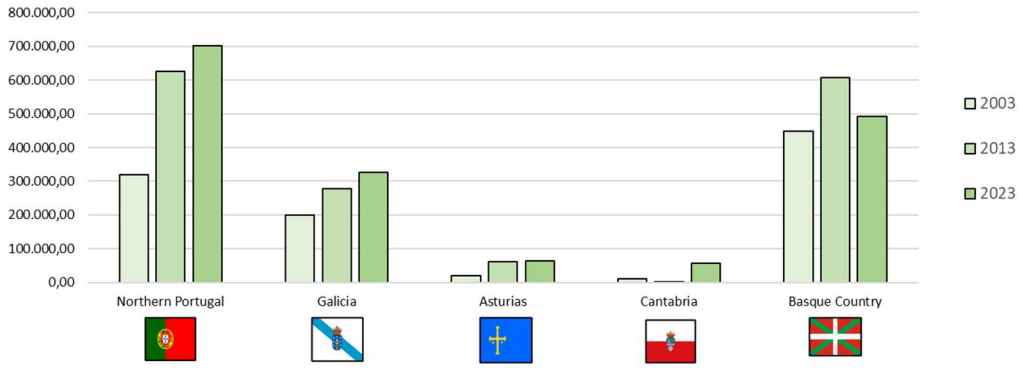
Map 2. Port traffic of general cargo in 2023 of the main commercial ports of the North Atlantic Maritime Facade (tonnes)



The evolution of **port traffic of containerised general cargo (measured in TEUs)** in the period 2003-2023 also shows disparities between the maritime regions that make up the North Atlantic maritime facade.

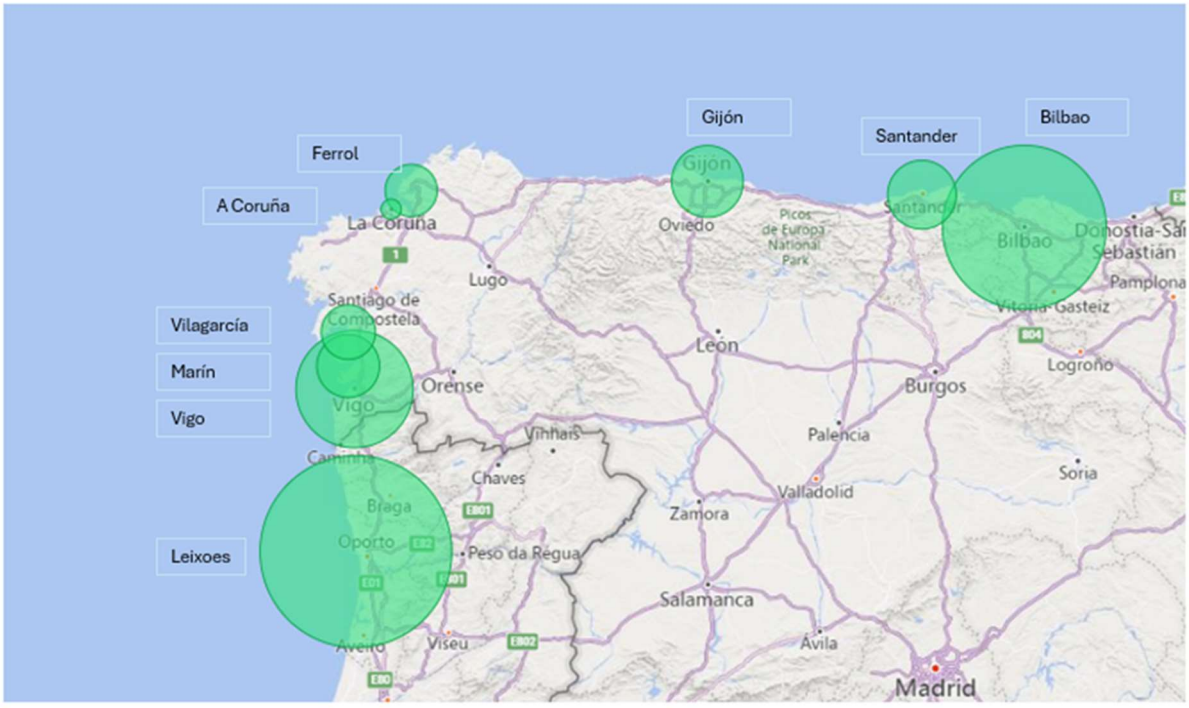
Significant growth was recorded in Cantabria (473%), Asturias (232%) and Northern Portugal (119%). Galicia increased by 64% and the Basque Country by 10%.

CHART 7. NORTH ATLANTIC MARITIME FACADE. CONTAINERS (TEUS)



The North maritime region of Portugal becomes the leader in container traffic on the North Atlantic Maritime Facade with a volume of more than 700,000 TEU containers in 2023.

Map 3. Container port traffic in 2023 of the main commercial ports of the North Atlantic Maritime Facade (TEUS)



The change in port traffic in northern Portugal can be attributed to a combination of economic, infrastructural, political and technological factors:

- Changes in international trade and major logistics routes.
- Redefining global trade routes: The Port of Leixões, for example, has benefited from greater integration with European markets, especially after the COVID-19 pandemic, which has changed logistics dynamics and the way cargo are distributed.
- Increased trade with more specific markets, generating a greater demand for port services in the north of the country.
- Growth and modernisation of port infrastructures.
- Growth of the logistics sector and industry in Portugal derived from the growth of new industries and new consumer cargo, increasing exports and port traffic
- Change in transport modes with an increase in intermodal transport and transshipment operations.
- New sustainability and environmental policies.

2.2 EVOLUTION OF PORT TRAFFIC BY TYPOLOGY.

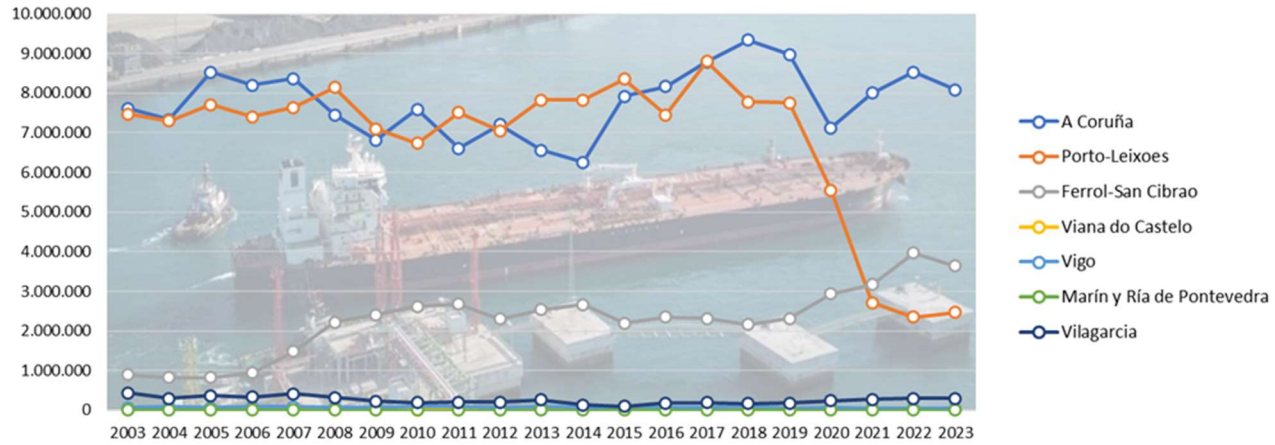
2.2.1. BULK AND GENERAL CARGO.

LIQUID BULK

In Galicia, in the period 2003-2023, port traffic of liquid bulk increased from 8.9 million tonnes to 12.1 million tonnes, representing a growth of 33.9%.

In Northern Portugal, in the period 2003-2023, liquid bulk port traffic shows a very sharp drop, falling from 7.5 million tonnes to 2.5 million tonnes, which represents a reduction of 66.9%. This drop is directly attributable to the closure in 2021 of the Matosinhos refinery, operated by Galp and located in the vicinity of the Port of Leixoes.

CHART 8. LIQUID BULK PORT TRAFFIC (TONNES)

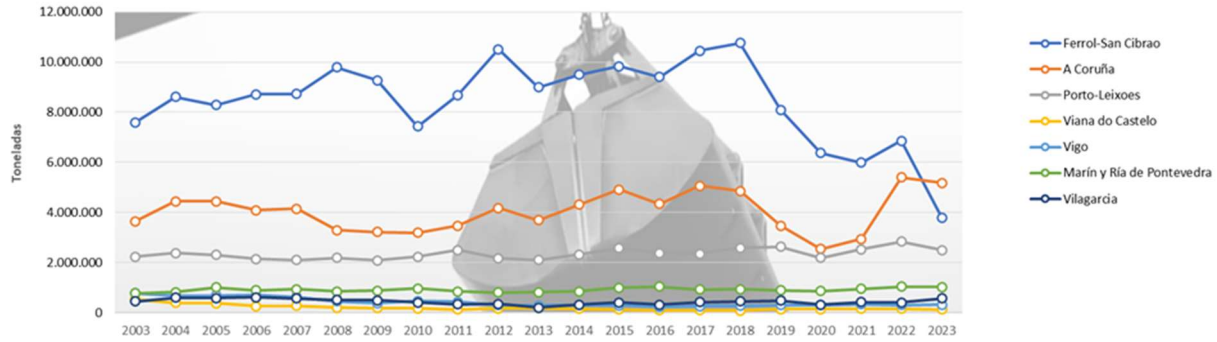


SOLID BULK

In Galicia, in the period 2003-2023, solid bulk port traffic decreased from 13.2 million tonnes to 10.9 million tonnes, representing a reduction of 17.7%. This drop is directly attributable to the closure in 2023 of the As Pontes thermal power plant, operated by Endesa and located near the Ports of A Coruña and Ferrol.

In Northern Portugal, in the period 2003-2023, solid bulk port traffic decreased from 2.8 million tonnes to 2.6 million tonnes, representing a reduction of 5.4%.

CHART 9. SOLID BULK PORT TRAFFIC (TONNES)



GENERAL CARGO.

In the period 2003-2023, general cargo increased within the port freight traffic mix[1], to the detriment of bulk (solid and liquid), in five of the seven main commercial ports of Galicia and Northern Portugal (Leixoes, Viana do Castelo, Vigo and Vilagarcía), remained the same in Marín and decreased in Ferrol[2].

The evolution by port is as follows:

Port of Leixoes. General cargo increased from 3.7 million tonnes in 2003 to 9.7 million tonnes in 2023, with the percentage of general cargo in total freight traffic rising from 27.8% to 66.2%.

Port of Viana do Castelo. General cargo decreased from 208 thousand tonnes in 2003 to 156 thousand tonnes in 2023, with the percentage of general cargo in total freight traffic going from 26.2% to 50.7%.

Port of Vigo. General cargo increased from 3.2 million tonnes in 2003 to 4.3 million tonnes in 2023, with the percentage of general cargo in total freight traffic rising from 79.3% to 92.4%.

Port of Marín. General cargo increased from 880 thousand tonnes in 2003 to 1.1 million tonnes in 2023, with the percentage of general cargo in total freight traffic rising from 53% to 50.7%.

Port of Vilagarcía. General cargo increased from 275 thousand tonnes in 2003 to 675 thousand tonnes in 2023, with the percentage of general cargo in total freight traffic rising from 23.8% to 43.7%.

Port of A Coruña. General cargo decreased from 769 thousand tonnes in 2003 to 622 thousand tonnes in 2023, with the percentage of general cargo in total freight traffic going

[1] Excludes provisioning and fresh fish.
[2] Port of Ferrol (includes traffic from San Cibrao).

from 6.4% to 4.5%.

Port of Ferrol. General cargo increased from 376 thousand tonnes in 2003 to 994 thousand tonnes in 2023, with the percentage of general cargo in total freight traffic rising from 4.2% to 11.8%.

CHART 10. BULK AND GENERAL CARGO BY PORT (TONNES)

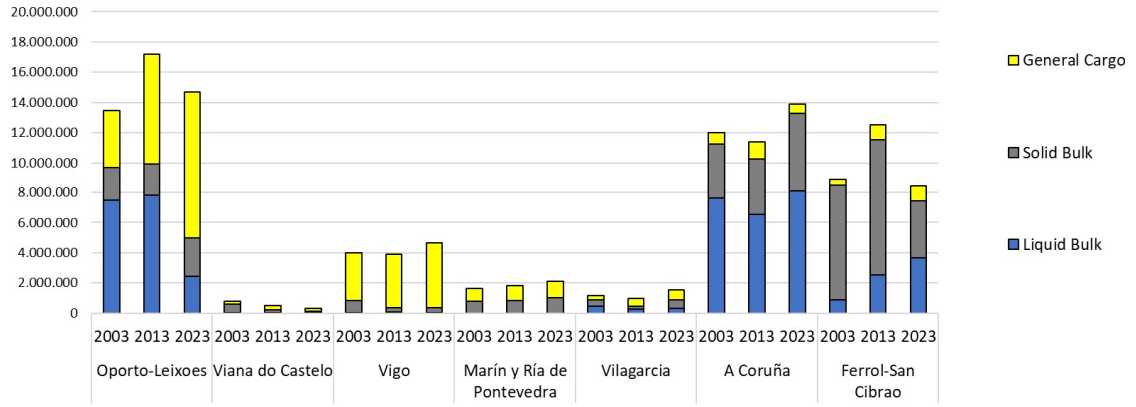


CHART 11. BULK AND GENERAL CARGO BY PORT (TONNES IN PERCENTAGES)

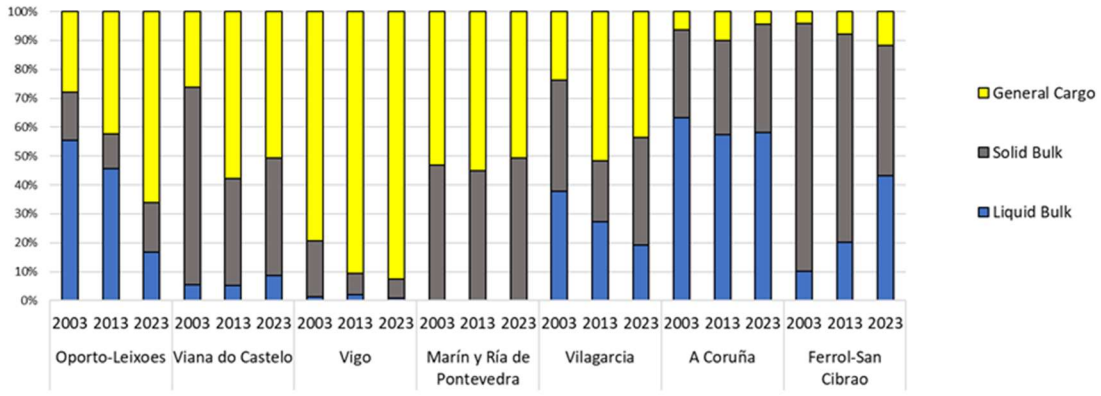
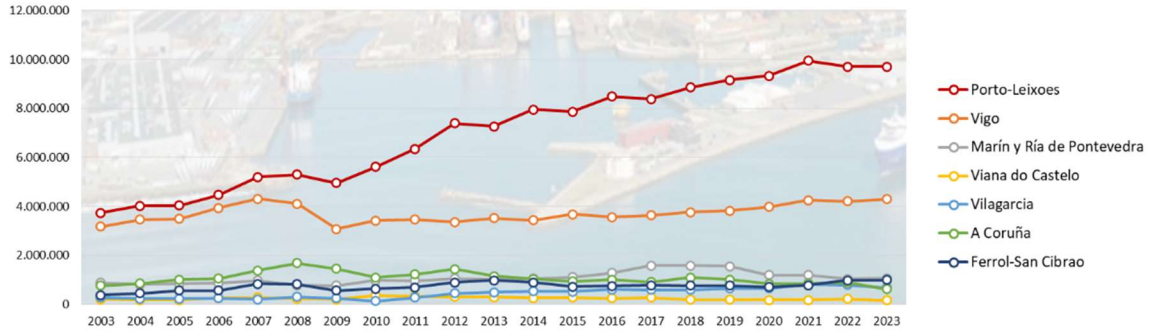


CHART 12. GENERAL CARGO PORT TRAFFIC (TONNES)



2.2.2. CONTAINERS

In the period 2003-2023, port traffic of containerized general cargo (measured in TEU containers) increased in both maritime regions. In Galicia it increases by 64% and in Northern Portugal by 119%.

The evolution by port is as follows:

Port of Leixoes. Container traffic increases by 119%, from 320 thousand TEUs in 2003 to 702 thousand TEUs in 2023.

Port of Vigo. Container traffic increases by 36.5%, from 166 thousand TEUs in 2003 to 227 thousand TEUs in 2023.

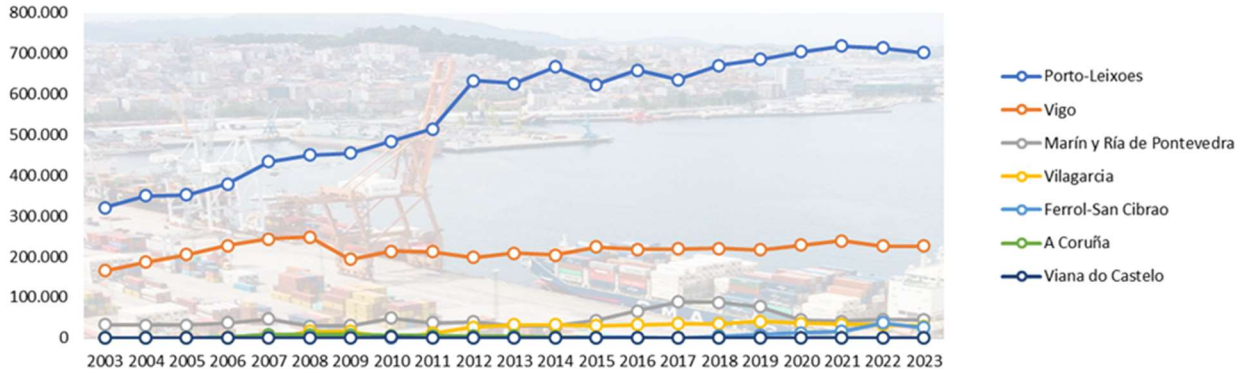
Port of Marín. Container traffic increases by 36.4%, from 33 thousand TEUs in 2003 to 45 thousand TEUs in 2023.

Port of Vilagarcía. This port has gone from zero TEUs in 2003 to 29 thousand containers in 2023.

Port of Ferrol. This port has gone from 58 containers in 2003 to 25 thousand TEUs in 2023.

The ports of A Coruña and Viana do Castelo without container traffic in 2023 and 2023.

CHART 13. CONTAINERS PORT TRAFFIC TEUS)



2.2.3. CRUISES

In the period 2004-2023, cruise port traffic, measured in number of cruise passengers, has increased in Galicia by 293%, from 142 thousand passengers in 2004 to 556 thousand passengers in 2023.

The evolution by ports in Galicia is as follows:

Port of A Coruña. Passenger traffic increased by 646% in the period 2004-2023, from 43 thousand passengers in 2004 to 324 thousand passengers in 2023, the latter figure being the highest record reached in a year.

Port of Vigo. Passenger traffic increased by 139% in the period 2004-2023, from 93.5 thousand passengers in 2004 to 224 thousand passengers in 2023. The annual peak of cruise passengers was reached in 2011 with 254 thousand passengers.

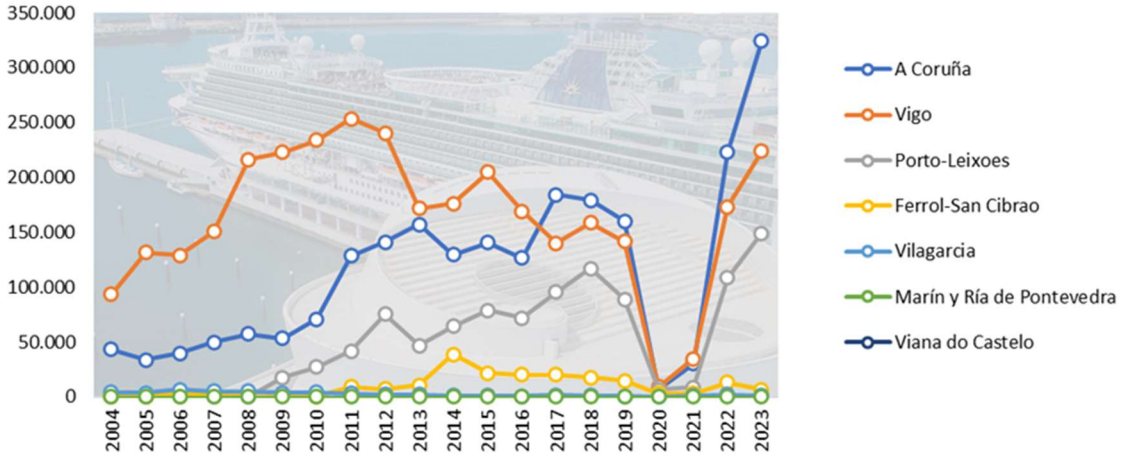
Port of Ferrol. Passenger traffic increases from 397 passengers in 2004 to 6.6 thousand passengers in 2023. The annual peak of cruise passengers was reached in 2014 with 39 thousand passengers.

Port of Vilagarcía. Passenger traffic decreased by 67.5% in the period 2004-2023, from 4.2 thousand passengers in 2004 to 1.4 thousand passengers in 2023. The annual peak of cruise passengers was reached in 2008 with 5.3 thousand passengers.

In Northern Portugal, the only port with cruise traffic is the **Port of Leixoes**, which has gone from 18 thousand passengers in 2019 to 149 thousand passengers in 2023, representing a growth of 745%. The figure reached in 2023 coincides with the maximum record reached in a year.

The ports of Marín and Viana do Castelo do not register cruise ship traffic.

CHART 14. CRUISE SHIP PORT TRAFFIC (PASSENGERS)



2.2.4. FISHING

In the period 2018-2023, fishing port traffic (tonnes) in the main commercial ports of the maritime regions of Galicia and Northern Portugal decreased by 46%. Thus, in Galicia fishing traffic went from 122.5 thousand tonnes in 2018 to 62 thousand tonnes in 2023 with a reduction of 49%, while in Northern Portugal it went from 20.9 thousand tonnes to 15.1 thousand tonnes with a reduction of 28%.

The evolution by port is as follows:

Port of Vigo. Fishing traffic decreased by 59% in the period 2018-2023, from 78.1 thousand tonnes in 2018 to 32.1 thousand tonnes in 2023.

Port of A Coruña. Fishing traffic decreased by 36% in the period 2018-2023, from 42.4 thousand tonnes in 2018 to 27.2 thousand tonnes in 2023.

Port of Leixoes. Fishing traffic decreased by 29% in the period 2018-2023, from 19.5 thousand tonnes in 2018 to 13.7 thousand tonnes in 2023.

Port of Marín. Fish trafficking increased by 50% in the period 2018-2023, from 1.7 thousand tonnes in 2018 to 2.6 thousand tonnes in 2023.

Port of Viana do Castelo. Fishing traffic decreased by 6% in the period 2018-2023, from 1.4 thousand tonnes in 2018 to 1.36 thousand tonnes in 2023.

Port of Ferrol-San Cibrao. Fishing traffic decreased by 38% in the period 2018-2023, from 256 tonnes in 2018 to 160 tonnes in 2023.

The Port of Vilagarcía does not register fishing traffic in the period observed.

CHART 15. FISHING PORT TRAFFIC (TONNES).

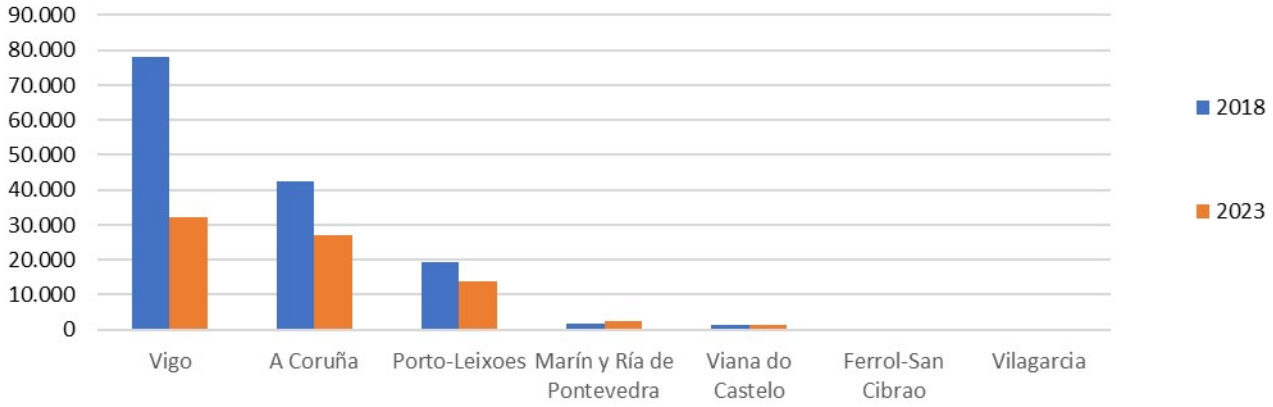


TABLE 3. FISHING PORT TRAFFIC IN GALICIA AND NORTHERN PORTUGAL (TONNES)

	Puertos	2018	2023	% 2018/2023
Galicia	A Coruña	42.358	27.230	-36%
	Ferrol-San Cibrao	256	160	-38%
	Marín y Ría de Pontevedra	1.744	2.608	50%
	Vigo	78.169	32.102	-59%
	Vilagarcia	0	0	
	Galicia Total	**122.527**	**62.099**	**-49%**
Northern Portugal	Porto-Leixoes	19.447	13.745	-29%
	Viana do Castelo	1.442	1.359	-6%
	Northern Portugal Total	**20.889**	**15.104**	**-28%**

3 FUTURE PROSPECTS

The future prospects for port traffic in the maritime regions of Galicia and Northern Portugal will be determined by the following key aspects:

Reorientation to general cargo and container.

Both maritime regions have initiated a strategy of restructuring their traffic aimed at increasing general cargo traffic and, specifically, container traffic. This strategy involves (1) expanding and improving port capacities (2) developing the hinterland near the port through logistical and industrial developments (3) extending the hinterland through improvements in connectivity and integration into the European freight corridors (Atlantic corridor).

The future perspective is that, as a result of the strategies put in place, port traffic of general cargo, with a preponderant and growing role of the container, will continue to increase its proportion in the mix of port freight traffic.

Challenges and opportunities of decarbonization.

Decarbonisation is an adaptation challenge for these maritime regions that have historically been supporting a large part of their activity in industrial developments linked to energy (thermal power plants and refineries) and whose closure has meant the loss of significant traffic and recurring revenues.

On the other hand, decarbonisation offers important opportunities for the development of new port traffic and lines of business linked to new sustainable energies (LNG, hydrogen and other fuels) as well as serving as platforms for the offshore wind generation industry.

The future perspective is that new port traffic linked to decarbonisation and sustainable energies will be developed that can supply, if not in terms of volume (tonnes), then in terms of added value, activity and income the loss of port traffic linked to unsustainable energies.

Blue Growth.

The excellent location of the ports of both maritime regions, as well as the specialisation and vocation of their companies, facilitates the deployment of the sustainable growth strategy of the maritime and marine sectors (blue growth).

The evolution of traditional fishing port traffic has been impacted by exogenous conditioning factors to their activity (covid crisis, Brexit, increase in operating costs, loss of fishing grounds and establishment of quotas).

The future perspective is that the incorporation of new technologies into the exploitation of finite marine resources will allow a stabilization of catches and, therefore, of port traffic. On the other hand, these same technological improvements accompanied by necessary

improvements in aspects of control and administrative management will increase the competitive position of this activity.

It is worth highlighting the role of increasing preponderance in this regional area of aquaculture activity, from which new and important lines of port business will derive.

Competitive position of Galicia and Northern Portugal in the Iberian context and with respect to other maritime-port hub regions.

The maritime regions of Galicia and Northern Portugal are located in a privileged geographical enclave of connection with the main north-south and east-west Atlantic maritime routes, but they are peripheral to the dynamics of population concentration and economic activity that takes place in the Iberian Peninsula (metropolitan areas of Madrid and Lisbon; Mediterranean coast). A balanced and sustained port growth over time requires a foreland and a hinterland.

In this context, the competitive position of both maritime regions is compromised and leads to their necessary competitive repositioning.

The maritime regions of Galicia and Northern Portugal must seek collaborative synergies as the most effective way to position themselves competitively with respect to other consolidated maritime hubs (Bilbao) or with strong integration potential (Lisbon-Setúbal-Sines) in their Atlantic geographical area.

4 CONCLUSIONS AND RECOMMENDATIONS

The maritime regions of Galicia and Northern Portugal have advanced, with outstanding successes, in the development of their port strategies adapted to factors such as decarbonisation, the loss of traditional traffic, the preponderant role of the container, improvements in connectivity and new lines of port business.

However, the dynamic of population concentration and economic activity that is taking place in the Iberian Peninsula in main axes far from these maritime regions leads to a necessary competitive repositioning in order to maintain and increase its port activity.

The main recommendations for carrying out a competitive repositioning of the maritime regions of Galicia and Northern Portugal are:

- **Concentration and clustering**: efficiency, competitiveness and collaborative synergies
- **Expansion of the next hinterland**: leadership and advocacy.
- **Decarbonization**: an opportunity for diversification.
- **Connectivity**: necessary and undelayable.
- **Digitalization and automation**: competitive advantages.

1. Concentration and cluster: efficiency, competitiveness and collaborative synergies.

The merger of the ports of Leixoes and Viana do Castelo into a single Port Authority, effective since January 2015, meant incorporating the advantages derived from a comprehensive and integrated management of ports located in a nearby and small geographical area.

Among the advantages of port merger are the following: efficiency and optimization of resources, better coordination, operational simplification, cost reduction, expansion of the commercial offer and negotiation capacity.

We consider it appropriate to study and assess the competitive advantages derived from collaborative strategies and concentration in the maritime region of Galicia.

Likewise, it is recommended to assess the creation of a port cluster of the Northwest Atlantic that brings together the Port Authorities of the maritime regions of Galicia and Northern Portugal. This port cluster would allow the implementation of collaborative synergies and a more far-reaching commercial strategy capable of attracting national and international investments that contribute to the growth of the regional economy and port activity itself.

2. Expansion of the next hinterland: leadership and advocacy.

The commercial ports of both maritime regions participate directly or indirectly in important developments for the generation of industrial and logistics land that allow, through the location of investments and companies, to generate port activity and traffic.

It is recommended that the Port Authorities of the maritime regions of Galicia and Northern Portugal coordinate in the strategies for the development of logistics and industrial land in their nearby hinterland and that they participate jointly as promoters of their initiatives and projects.

3. Decarbonization: an opportunity for diversification.

The maritime regions of Galicia and Northern Portugal have suffered very significant impacts derived from the energy reconversion derived from the implementation of the commitments to decarbonise the economies.

Both regions are in a privileged geographical position that offers important competitive advantages to lead port traffic linked to industries and activities related to new sustainable energies, incorporating diversification into their commercial offer that makes them more resilient in the face of possible adverse contexts.

It is recommended that both maritime regions reach agreements and work together on strategies to become and be recognised as a *green-energy hub* with the capacity to compete with other maritime-port hubs linked to energy in the Atlantic and European spheres.

4. Connectivity: necessary and undelayable.

The development of the proximate hinterland is necessary for the maintenance and growth of port activity but is not sufficient to guarantee a projection of both maritime regions on a scale equivalent to other maritime regions with a larger nearby or connected hinterland.

Consequently, it must be a first-level priority to improve the connectivity of both maritime regions as an irreplaceable tool to achieve a competitive position comparable to or close to

that of other competing peninsular maritime regions.

It is important to highlight the opportunity offered for both maritime regions by the development of the *European-Atlantic corridor* in its rail freight transport aspect. The integration of its commercial ports into the European network will increase its position as international logistics nodes, not dependent solely on maritime or road transport, and strategic points in the international transit of cargo.

It is recommended that both maritime regions work in a coordinated manner to support and promote the implementation of the European-Atlantic corridor, including the cross-border connection Galicia-North of Portugal, for passengers and cargo, which allows the effective integration of both maritime regions and their ports at the level of railway infrastructures.

5. Digitalization and automation: competitive advantages.

Advances in digitalization and automation mean achieving significant competitive advantages over competitors.

Considering the degree of economic and logistical integration of the maritime regions of Galicia and Northern Portugal and the fact that a large number of companies develop business and facilities in both maritime regions, it is recommended to provide them with a single digital and automated PCS (Port Community System) system that encompasses their seven main commercial ports.

It is recommended to advance in the progressive automation of port operations.

5 CREDITS

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